



ACT
Government

2018–19 ANNUAL FEED-IN TARIFF REPORT

Disclaimer

As established in Section 11B of the Electricity Feed-in (Renewable Energy Premium) Act 2008, Evoenergy and National Energy Retail Law (NERL) retailers are obligated to provide information required to prepare this report. Much of the data in this report is from these sources. The ACT Government relies on Evoenergy and NERL retailers providing accurate data, as it has no means to obtain this data directly. The ACT Government is currently implementing measures to improve the accuracy of data reporting under the Act.

Produced by the Environment, Planning and Sustainable Development Directorate

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Acknowledgment to Country

We wish to acknowledge the traditional custodians of the land we are meeting on, the Ngunnawal people. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

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EXECUTIVE SUMMARY

Under section 11A of the [Electricity Feed-in \(Renewable Energy Premium\) Act 2008](#) ('the Act'), the Minister must publish an annual report that provides the following information on the ACT's Small and Medium Feed-in Tariff Scheme:

- The number of compliant renewable energy generators installed on premises in the ACT
- The total capacity of compliant renewable energy generators installed on premises in the ACT
- The costs under this Act on electricity users.

Renewable generators supported by the small and medium feed-in tariff scheme (FiT scheme) generated 46,550 megawatt hours (MWh) of electricity in 2018–19, from a total installed capacity of around 35 megawatts (MW), consisting of 10,170 solar photovoltaic systems.

In 2018–19 solar generation in the ACT exceeded 100,000MWh for the first time. This result was achieved through the 46,550MWh of FiT scheme-supported generation combined with non-FiT (retailer supported) scheme solar generation totalling 53,746MWh. The non-FiT scheme result was driven by a 71% increase in non-FiT solar generation capacity and a 10.6% increase in non-FiT generation.

The estimated cost of the small and medium FiT scheme to consumers is \$6.16/MWh, or around 85c per week for a two-person house consuming 7.151MWh annually. This represents a 12% reduction of FiT scheme costs compared with 2017–18.

These figures do not represent the ACT's total solar capacity or generation, however, they likely represent the vast majority. Additional 'behind the meter' generation which is not exported to the grid is not measured by electricity distributors or reported here.

These results are summarised in Figures 1–4 on this page, and in tables throughout this report.

Figure 1: Total small and medium generators

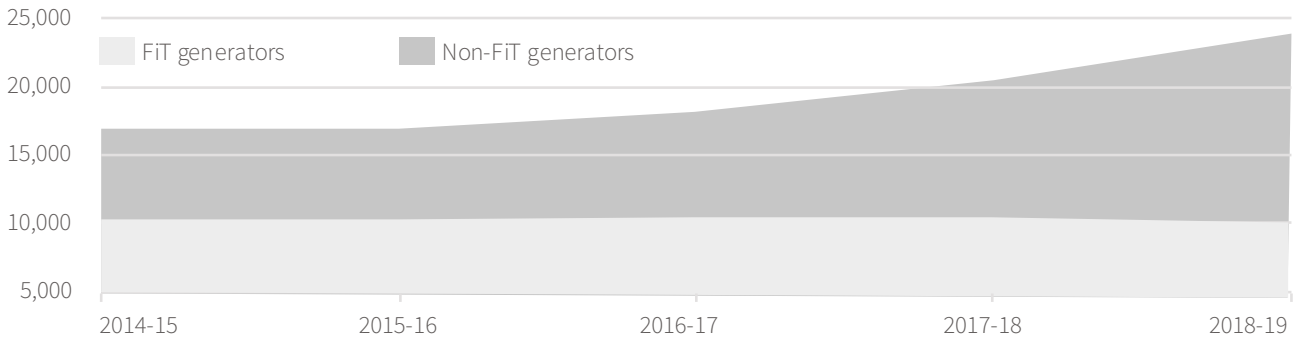


Figure 2: Total small and medium generation capacity (MW)

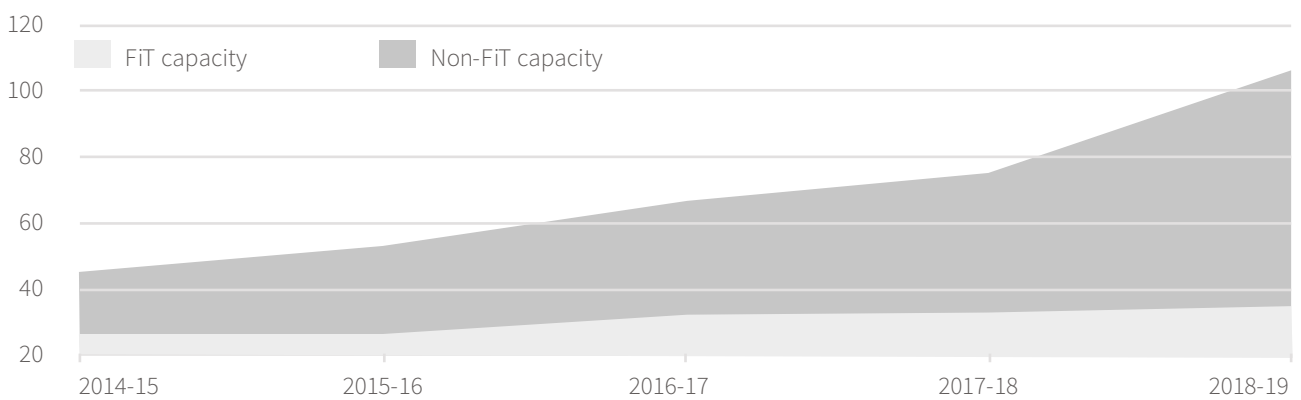


Figure 3: Total small and medium generation (MWh)

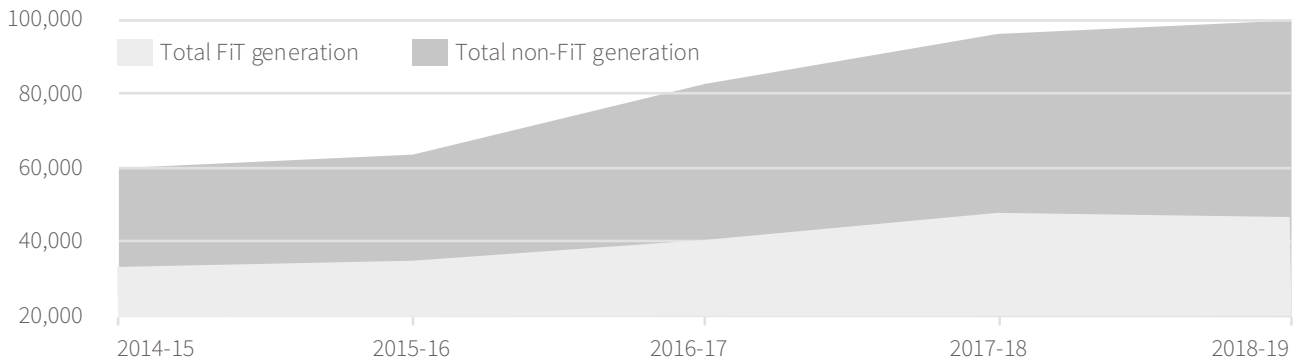
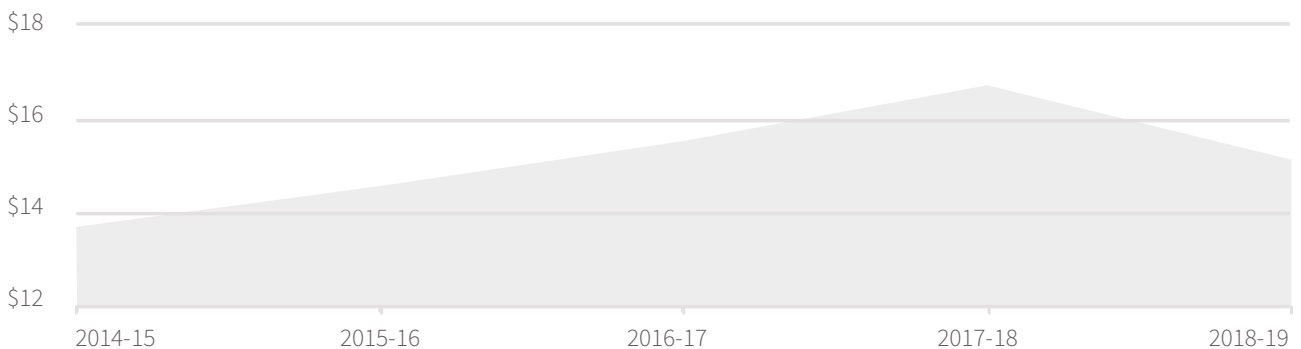


Figure 4: Total small and medium premium FIT paid (\$Million)





INTRODUCTION

This report is the fifth annual report on the Small and Medium Feed-in Tariff (FiT) scheme. Section 11A of the Act requires an annual report containing the number of compliant renewable energy generators installed under the scheme, the total capacity of the generators installed under the scheme, and the costs under the Act on electricity users.

A premium FiT is a premium payment (higher than the market value) for electricity generated by a renewable electricity generation system. The purpose of these payments is to encourage the uptake and development of renewable electricity. The ACT's small and medium FiT scheme is a premium FiT scheme.

The Act established a scheme for payments to ACT households and businesses generating renewable electricity. While this scheme was open to any form of small (under 30kW) and medium (30–200kW) sized renewable electricity generator, initially only rooftop solar photovoltaic system applications were successful, so the scheme also became known as 'the rooftop solar scheme'. The scheme opened for applications on 1 March 2009 and was closed to new entrants on 13 July 2011. The cut-off date for generator installation under the scheme was 31 December 2016.

Successful applicants receive FiT payments for 20 years from the date their system was connected to the electricity network. Successful applicants are paid by their electricity retailer for the total kilowatt hours (kWh) their system generates, including any generation used at the same premises where it was generated. The FiT rate depends on the system's capacity and date of application to the scheme. Retailers then pass on the cost of FiT payments to the electricity distributor, who incorporates this cost into network charges.

While the ACT Government FiT scheme is now closed, households can still access solar support schemes offered voluntarily by electricity retailers that extend payments for excess generation from rooftop systems installed by households. Unlike the ACT Government scheme, which offers a FiT for all generation ('gross'), market offers by retailers only make payments for 'net' generation exported to the grid, left over after any consumption at the premises. The tariffs offered under these retailer schemes are generally more closely aligned with the value of this electricity in the market, which is significantly lower than the FiTs offered under the ACT Government FiT scheme. These market offers are referred to in this report as non-FiT schemes.



AUDIT AND REVIEW OF THE SMALL AND MEDIUM- SCALE FIT SCHEME, AND REVISIONS TO REPORTS

During the 2018–19 reporting period, a review of the operation of the Act was conducted under section 13 of the Act, and an audit of the information provided for the purposes of the scheme’s annual report was conducted under section 11C of the Act. Through this process, and through other data validation processes, Evoenergy identified data errors and inconsistencies that have been corrected for this year’s report.

The review and audit recommended several improvements to address data quality and management issues. Evoenergy and the ACT Government are working to implement the recommendations. The implementation of the recommendations and other efforts to review and correct data are ongoing, and from time-to-time errors in the data may be identified and corrected. Should such corrections lead to a significant change to the information in this and previous reports, the reports may be republished.

ACT GOVERNMENT SMALL AND MEDIUM SCALE FIT SCHEME PERFORMANCE

Table 1 below summarises the performance of the FiT scheme in 2018–19, together with comparative data from previous years.

As the cut-off date for generator installation under the scheme was 31 December 2016, the number of generators, installed capacity, electricity production and total FiT paid are unlikely to significantly change in future years. Any change is likely to be due to variations in insolation and the degradation of solar panels. Improvements to scheme administration resulting from the recent audit and review of the FiT scheme have also led to some adjustments.

The estimated cost added to electricity bills has declined in 2018–19 compared with previous years. Ongoing cost reductions are expected over time as the population grows and solar PV systems age. It is important to note that from 2014–15 to 2015–16, the representative consumer was a 4 person household consuming 7.441MWh annually. From 2016–17 this changed to a 2-person household consuming 7.151MWh annually¹. This slightly reduced the estimated cost in electricity bills for a representative consumer in addition to the cost reductions being achieved as a result of other issues mentioned above.

Table 1: Small and medium-scale FiT scheme performance

	2014–15	2015–16	2016–17	2017–18	2018–19	% change from 2017–18
Number of generators	10,270	10,304	10,394	10,428	10,170	-2.5%
Installed capacity (MW)	26.2	26.35	32.53	32.94	35.00	6%
Electricity production (MWh)	33,373	34,910	40,355	47,560	46,550	-2%
Total FiT paid (\$M) ¹	\$13.70	\$14.56	\$15.50	\$16.72	\$15.16	-9%
Cost (\$/MWh) ²	\$5.52	\$6.21	\$6.30	\$7.01	\$6.16	-12%
Average annual cost to a representative ACT household (\$/year) ³	\$40.36	\$45.41	\$45.05	\$50.13	\$44.05	-12%
Average weekly cost to a representative ACT household (c/week)	\$0.78	\$0.87	\$0.87	\$0.96	\$0.85	-12%

1. From Evoenergy reporting.

2. From ICRC standing offer price determinations for 2014-15, 2015-16, 2016-17, 2017-18, 2018-19

3. Calculated based on average household electricity usage published by Australian Energy Market Commission Residential Price Trends Reports for 2015, 2016, 2017, 2018.

1 See Australian Energy Market Commission Residential Price Trends Reports for 2015, 2016, 2017, 2018

NUMBER OF GENERATORS

In 2018–19, there were 10,170 generators under the scheme. This is a slight decrease since 2017–18 when there were 10,428. The change likely results from administrative improvements made as a result of the FiT scheme audit and review, and other data validation processes, and from systems being removed. These results are shown in Table 2.

Since the scheme cut-off date occurred in 2016–17, there should be no more growth in capacity or number of systems. However, minor adjustments may continue to be made due to improvements in data completeness.

Table 2 also shows the number of non-FiT scheme generators which have increased significantly (37%) during 2018–19. The reduction in FiT generators and increase in non-FiT generators combined to deliver an overall 16.7% increase in the total number of small and medium solar generators operating in the ACT.

Table 2: Number of small and medium solar generators under the FiT scheme, plus non-FiT generators

Number of Generators	2014–15	2015–16	2016–17	2017–18	2018–19	% change from 2017–18
FiT generators	10,270	10,304	10,394	10,428	10,170	-2.5%
Non-FiT generators	6,614	6,636	7,774	10,050	13,736	37%
Total generators	16,884	16,940	18,168	20,478	23,906	16.7%

INSTALLED CAPACITY

Evoenergy has reported a total installed capacity of 35 MW in the FiT scheme during 2018–19. This is a 6.3% increase on previously reported total, as shown in Table 3. The change is understood to be a result of administrative corrections made by Evoenergy, following the audit and review of the FiT scheme.

It is worth noting that the final scheme capacity is equal to the maximum of 35MW set by the Minister by way of the [Electricity Feed-in \(Renewable Energy Premium\) Total Capacity Determination 2012 \(No 1\)](#).

Table 3 also shows a 71% increase in non-FiT generation capacity was reported during 2018–19, compared with 2017–18. This higher percentage increase in capacity compared with the number of generators suggests that new systems tend to be larger than those that were being installed in earlier years. The combined impact of increases to both FiT and non-FiT installed capacity was an overall increase of 42.7% in solar generation in the ACT.

Table 3: Installed solar generation capacity, FiT scheme plus non-FiT generators

Installed capacity (MW)	2014–15	2015–16	2016–17	2017–18	2018–19	% change from 2017–18
FiT capacity	26.2	26.35	32.53	32.94	35.00	6.3%
Non-FiT capacity	19.30	26.95	34.12	42.08	72.05	71%
Total reported capacity	45.50	53.30	66.65	75.02	107.05	42.7%

GENERATION

Total solar generation from FiT scheme generators was 46,550MWh in 2018–19. This was 2.1% lower than in 2017–18, as shown in Table 4.

Table 4 shows a 10.6% increase in non-FiT generation. This increase is related to the significant expansion of rooftop solar generation capacity described above.

This result marks a significant milestone, as it is the first year that the total ACT solar generation has exceeded 100,000MWh.

Table 4 shows a 4.3% increase in total generation across both FiT and non-FiT generators compared with the 2017–18 result. This was lower than may have been expected, given that generation capacity increased by 42.7%. It is not clear why this lower-than expected result occurred. It does not appear to be the result of a less sunny year, as mean daily solar exposure was about 1% higher in Canberra during 2018–19 than in 2017–18². At least part of the lower than expected generation would be due to the degradation of solar panels. Another factor could be that many new systems may be going onto roof spaces that are less optimal than in the past – potentially facing directions other than north, or with greater over-shadowing – and not being connected for the full year. This trend would be related to increasing cost effectiveness of panels, and historical installation on many of the ideal roof spaces.

The uptake of new technology, such as battery storage systems, that allow customers to consume more of the electricity they produce, may also have contributed to the lower than expected increase in total generation.

Table 4: Total FiT and non-FiT electricity generation

Generation - FiT and non-FiT	2014–15	2015–16	2016–17	2017–18	2018–19	% change from 2017–18
Total FiT generation	33,373	34,910	40,355	47,560	46,550	-2.1%
Total non-FiT generation	27,488	28,815	42,298	48,574	53,746	10.6%
Total generation	60,861	63,725	82,653	96,134	100,295	4.3%

IMPACT ON ELECTRICITY BILLS

The impact on electricity bills is calculated based on the Independent Competition and Regulatory Commission (ICRC) annual publication of detailed FiT cost data³.

The average small-scale FiT scheme pass-through costs for a typical two-person household in 2018–19 was \$44.05 compared to \$50.12 in 2017–18. This represents a 12% reduction in the average cost of the FiT scheme across all Canberra households.

As noted previously, further cost reductions are expected over time as the population grows and solar PV systems age.

Table 5: Impact of FiT scheme on ACT residential electricity bills

Impact on electricity bills	2014–15	2015–16	2016–17	2017–18	2018–19	% change from 2017–18
Cost (\$/MWh)	\$5.52	\$6.21	\$6.30	\$7.01	\$6.16	-12%
Calculated costs (\$ per year)	\$40.36	\$45.41	\$45.05	\$50.13	\$44.05	-12%
Cents per week	\$0.78	\$0.87	\$0.87	\$0.96	\$0.85	-12%

² Calculated from Bureau of Meteorology monthly mean daily global solar exposure. Canberra Parliament House station number 70246. See http://www.bom.gov.au/climate/cdo/about/about-IDC_JAC0003.shtml.

³ https://www.icrc.act.gov.au/_data/assets/pdf_file/0006/1249899/Report-3-of-2018-Retail-electricity-price-recalibration-201819.pdf



RETAILER MARKET OFFERS (NON-PREMIUM FITS)

While the ACT Government is only required to report on its small and medium-scale FiT scheme, this report also includes information on solar support schemes offered by retailers. This is intended to provide a more complete picture of rooftop solar generation in the ACT. Comparisons with the FiT scheme results have been included in Tables 2-5 above. This section brings together the non-FiT data in the one place. Trends over time and current totals are shown in Table 6.

As retailers' market offers for solar are not regulated, there is no mandatory reporting of installation and generation rates. This creates problems for data completeness and accuracy and data has to be derived from a range of sources, and data reported here should be regarded as best estimates only.

As at 30 June 2019, Evoenergy reported a total of 13,736 generators installed under retailer supported schemes with a combined capacity of 72MW, and an output of 53,746 MWh during 2018–19.

Table 6: Summary of Non-FiT results

	2014–15	2015–16	2016–17	2017–18	2018–19	% change from 2017–18
Number of generators	6,614	6,636	7,774	10,050	13,736	37%
Installed capacity (MW)	19.30	26.95	34.12	42.08	72.05	71%
Electricity production (MWh)	27,488	28,815	42,298	48,574	53,746	10.6%

APPENDIX A – ADDITIONAL DATA ON THE SMALL AND MEDIUM FIT SCHEME

The following FiTs were available to eligible renewable energy generators from the date of scheme opening on 1 March 2009 to its close on 13 July 2011.

Table 7: Small and medium FiT scheme rates

Gross FiT Rate	Eligible generation capacity and date of application
50.05c/kWh	Generator capacity up to 10kW for applications approved 1 March 2009 to 30 June 2010
45.7c/kWh	Generator capacity up to 30kW, applications approved 1 July 2010 to 31 May 2011
40.04c/kWh	Generator capacity between 10–30kW, applications approved 1 March 2009 to 30 June 2010
34.27c/kWh	Generator capacity between 30–200kW for applications approved 7 March 2011 to 11 July 2011
30.16c/kWh	Generator capacity up to 200kW for applications approved 12 July 2011 to 13 July 2011

Source - Review of the [Electricity Feed-in \(Renewable Energy Premium\) Act 2008](#) (August 2015)

It is important to note that the ACT Government small and medium FiT scheme was a ‘gross’ scheme. This means that the FiT was paid for all the electricity generated by a renewable energy generator, rather than only the net generation left after consumption – as is the case for retailer solar support schemes.

Table 8: Capacity and number of generators by tariff in 2018–19

Gross FiT Rate	No of generators	Installed Capacity (MW)
50.05c/kWh	2,382	5,731
45.7c/kWh	7,734	22,372
40.04c/kWh	3	90
34.27c/kWh	10	1,171
30.16c/kWh	41	5,638
Total	10,170	35,001

Source – Evoenergy (September 2019)

