



**ACT**  
Government

# 2020–21 Annual Feed-in Tariff Report



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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.

## **Acknowledgment to Country**

Yuma

Dhawura nguna ngurumbangu gunanggu Ngunnawal.Nginggada dindi dhawura Ngunnawalbun yindjumaralidjinyin.

Mura bidji mulanggaridjindjula.

Naraganawaliyiri yarabindjula.

Hello

This country is Ngunnawal (ancestral/spiritual) homeland.

We all always respect elders, male and female, as well as Ngunnawal country itself.

They always keep the pathways of their ancestors alive.

They walk together as one.

The Environment, Planning and Sustainable Development Directorate acknowledges the Ngunnawal people as Canberra's first inhabitants and Traditional Custodians. We recognise the special relationship and connection that Ngunnawal peoples have with this Country. Prior to the dislocation of Ngunnawal people from their land, they were a thriving people whose life and culture was connected unequivocally to this land in a way that only they understand and know, and is core to their physical and spiritual being. The disconnection of the Ngunnawal people from Culture and Country has had long-lasting, profound and ongoing health and well-being effects on their life, cultural practices, families and continuation of their law/lore. The Environment, Planning and Sustainable Development Directorate acknowledges the historic dispossession of the Ngunnawal people of Canberra and their surrounding regions. We recognise the significant contribution the Ngunnawal people have played in caring for Country as for time immemorial they have maintained a tangible and intangible cultural, social, environmental, spiritual and economic connection to these lands and waters.

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Environment, Planning and Sustainable Development Directorate

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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 FiT 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 FiT scheme generated 44,480 megawatt hours (MWh) of electricity in 2020–21, from a total installed capacity of around 34.99 megawatts (MW), consisting of 9,979 solar photovoltaic systems.

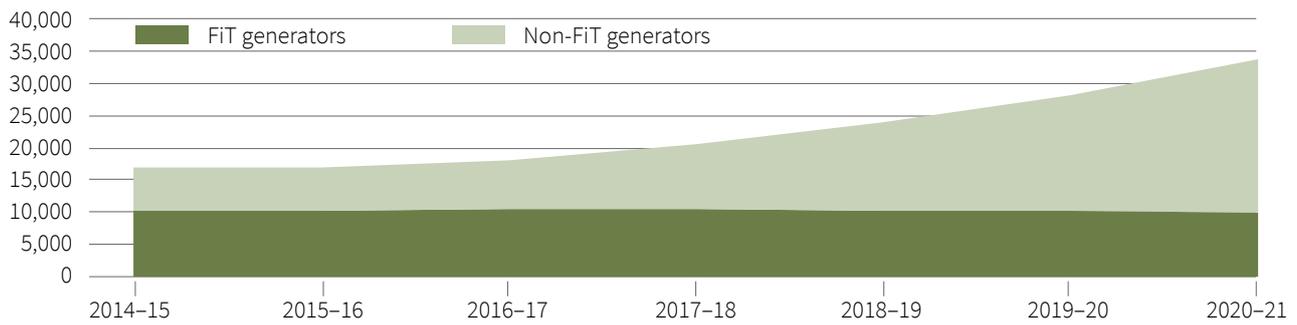
2020–21 solar generation totalled 141,411 MWh, a noteworthy annual increase of 34.8%. This result was achieved through the 44,480 MWh of FiT scheme-supported generation combined with non-FiT (retailer supported) scheme solar generation which produced 96,931 MWh. Figure 1 shows the ACT's recent trend of an increasing number of generators.

The estimated cost of the FiT scheme to consumers is \$5.34/MWh, or around 65c per week for a two-person house consuming 6.371 MWh annually. This represents a 12% reduction of the FiT scheme costs compared with 2019–20.

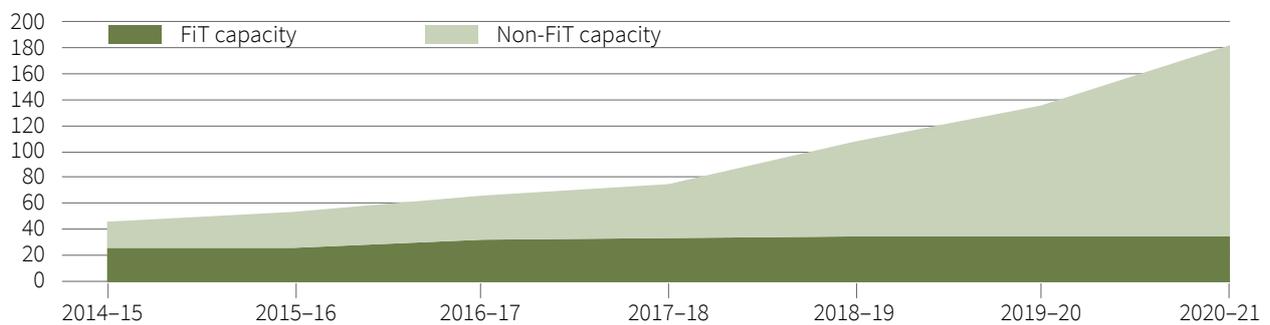
These figures do not represent the ACT's total solar capacity or generation. However, they likely represent the majority. Additional 'behind the meter' generation that is not exported to the grid is not measured by electricity distributors or reported here.

These results are summarised in figures 1–4, and in tables 1–8 throughout this report.

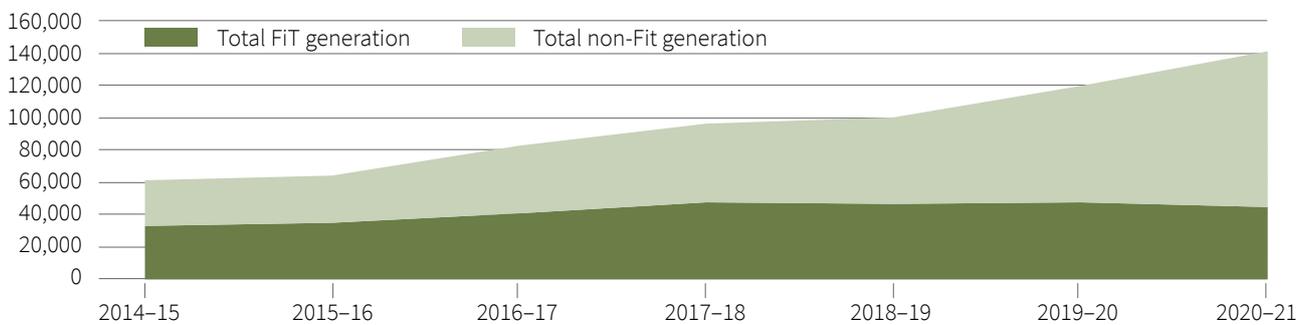
**Figure 1:** Total small and medium generators



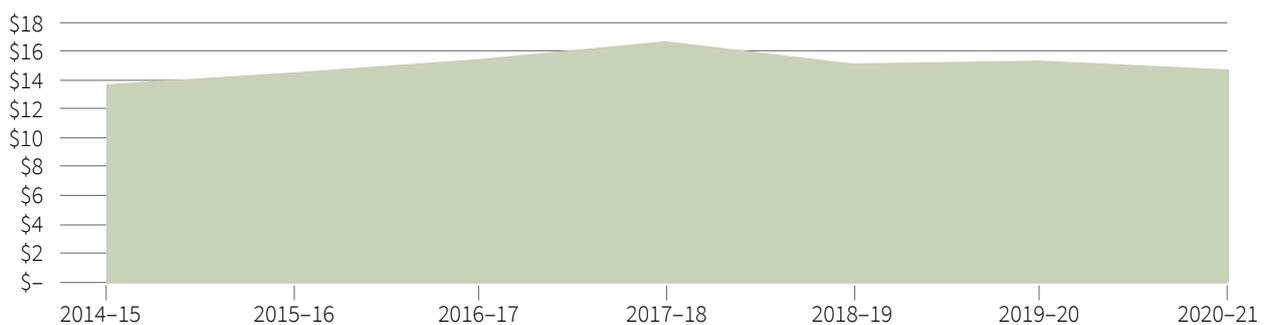
**Figure 2:** Total small and medium generation capacity (MW)



**Figure 3:** Total small and medium generation (MWh)



**Figure 4:** Total small and medium FIT paid (\$million)



# Introduction

In March 2009, the ACT Government established a scheme for feed-in tariff (FiT) payments to ACT households and businesses generating renewable electricity under the [Electricity Feed-in \(Renewable Energy Premium\) Act 2008](#) (the Act). The ACT's FiT scheme involves 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. 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 FiT scheme also became known as 'the rooftop solar scheme'. The FiT scheme was closed to new entrants on 13 July 2011. The cut-off date for generator installation under the FiT scheme was 31 December 2016. The FiT rate depends on the system's capacity and date of application to the scheme. A summary of the application dates and rates offered is included in Table 7.



Successful applicants receive FiT payments for 20 years from the date their system was connected to the electricity network. This payment is made 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. Electricity retailers pass on the cost of premium FiT payments to the ACT electricity distributor, Evoenergy, which incorporates this cost into network charges. Evoenergy is responsible for collecting data and reporting on solar generation including the payments made under the FiT scheme.

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 their rooftop solar photovoltaic systems. Unlike the ACT Government FiT scheme, which offers a FiT for all generation ('gross'), market offers by retailers only make payments for generation exported to the grid for the energy left after any consumption at the premises ('net'). These market offers are referred to in this report as non-FiT schemes.

This report is the seventh annual report on the ACT's 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 passed on to electricity users.

## 2018–19 Audit and review of the small and medium 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. In addition, 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, the audit review identified data errors and inconsistencies that were corrected for the 2018–19 report, provided by the ACT electricity distributor, Evoenergy.

The review and audit recommended several improvements to address data quality and management issues. Evoenergy and the ACT Government have considered the recommendations and have implemented them where appropriate. The implemented recommendations include legislative amendments to improve data quality and administration, a full cleanse of the scheme data, improved monitoring and data quality assurance, and improved process documentation. Evoenergy has also published Frequently Asked Questions on the FiT scheme on its website, providing information on scenarios where houses are sold or occupied by new owners. Work is continuing to develop further information to help customers understand the scheme and the options available to them.

Each year, the data provided by Evoenergy is compared to the data provided by electricity retailers to check for discrepancies. This year, the difference between the two data sets was negligible, indicating that the efforts to improve data accuracy have been successful.

Although a full cleanse of the data has been completed, 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 FiT scheme performance

The FiT scheme's performance is measured by four factors. These factors are the number of generators, the scheme's installed capacity, the amount of electricity produced and the scheme's impact on electricity bills. Table 1 summarises the performance of the FiT scheme in 2020-21, together with comparative data from previous years.

Change in figures from year-to-year is predominantly driven by insolation and the degradation of solar panels. There is also some variation year-to-year in the installed capacity and number of systems participating in the FiT scheme. This is due to homes and businesses disconnecting and/or reconnecting during renovations and re-builds. In addition, for the past two financial years data, improvements to the FiT scheme administration resulting from the audit and review of the scheme may also have led to some adjustments.

The estimated per household cost of the FiT scheme for a representative consumer has decreased in 2020-21 compared with previous years. However, it must be noted that this is partially driven by the reduction in the average megawatt hours of assumed electricity consumption. In 2016-17 to 2019-20, the representative consumer was a two-person household consuming 7.151 MWh annually.<sup>1</sup> In 2020-21, based on the Australian Energy Regulator's Jurisdictional Snapshot, a representative consumer has changed to a two-person household with 6.371 MWh consumption annually.<sup>2</sup>

**Table 1:** Small and medium FiT scheme performance

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Change
Number of FiT generators	10,270	10,304	10,394	10,428	10,170	10,153	9,979	-1.71%
Installed capacity (MW)	26.2	26.35	32.53	32.94	35.00	34.96	34.99	0.08%
Electricity production (MWh)	33,373	34,910	40,355	47,560	46,550	47,296	44,480	-5.95%
Total FiT paid (\$M)	\$13.70	\$14.56	\$15.50	\$16.72	\$15.16	\$15.41	\$14.78	-4.08%
Cost (\$/MWh) <sup>3</sup>	\$5.52	\$6.21	\$6.30	\$7.01	\$6.16	\$6.07	\$5.34	-12.03%
Average annual cost to a representative ACT household (\$/year) <sup>4</sup>	\$40.36	\$45.41	\$45.05	\$50.13	\$44.05	\$43.41	\$34.03	-21.61% <sup>5</sup>
Average weekly cost to a representative ACT household (c/week) <sup>6</sup>	\$0.78	\$0.87	\$0.87	\$0.96	\$0.85	\$0.83	\$0.65	-21.61% <sup>5</sup>

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

2 See <https://www.aer.gov.au/system/files/AER%20Jurisdictional%20Snapshots%202019-20.pdf>

3 From Evoenergy reporting.

4 From the Independent Competition and Regulatory Commission's (ICRC) standing offer price determinations 2014-15, 2015-16, 2017-18, 2018-19, 2019-20 and 2021-22.

5 The adjustment to a representative household's the amount of energy used, from 7.151 MWh to 6.371 MWh has partly contributed to the reduction in the estimated cost in electricity bills for a representative consumer.

6 Calculated based on average household electricity usage published by Australian Energy Market Commission Residential Price Trends Reports 2015, 2016, 2017, 2018, 2019 and the Australian Energy Regulator Snapshot Report 2020.

## Number of generators

Since the FiT scheme cut-off date 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 and the retiring of systems. There is also some variation year-to-year due to homes and businesses disconnecting and/or reconnecting during renovations and re-builds. In 2020–21, there were 9,979 generators under the FiT scheme. This is 174 (1.71%) generators fewer than 2019–20. These results are shown in Table 2.

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

Generators (number)	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	% Change
FiT generators	10,270	10,304	10,394	10,428	10,170	10,153	9,979	-1.71%
Non-FiT generators	6,614	6,636	7,774	10,050	13,736	17,985	23,870	32.7%
<b>Total generators</b>	<b>16,884</b>	<b>16,940</b>	<b>18,168</b>	<b>20,478</b>	<b>23,906</b>	<b>28,138</b>	<b>33,849</b>	<b>20.2%</b>

## Installed capacity

Evoenergy has reported a total installed capacity of 34.998 MW in the FiT scheme during 2020–21, which is a 0.08% increase compared with 2019–20. The increase in capacity is a result of Evoenergy’s data cleansing activities identifying systems where capacity was over reported. There is also some variation year-to-year in the installed capacity due to homes and businesses disconnecting and/or reconnecting during renovations and re-builds.

The final scheme capacity is less than the maximum of 35 MW set by the Minister by way of the Electricity Feed-in (Renewable Energy Premium) Total Capacity Determination 2012 (No 1).

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

Capacity (MW)	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	% Change
FiT capacity	26.2	26.35	32.53	32.94	35.00	34.96	34.99	0.08%
Non-FiT capacity	19.30	26.95	34.12	42.08	72.05	100.59	146.46	45.6%
<b>Total reported capacity</b>	<b>45.50</b>	<b>53.30</b>	<b>66.65</b>	<b>75.02</b>	<b>107.05</b>	<b>135.54</b>	<b>181.45</b>	<b>33.8%</b>

## Generation

Total solar generation from the FiT scheme generators was 44,480MWh in 2020–21. This was 5.95% lower than in 2019–20, as shown in Table 4.

**Table 4:** Total FiT and non-FiT electricity generation

Generation—FiT and non-FiT (MWh)	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	% Change
Evoenergy—Total FiT generation	33,373	34,910	40,355	47,560	46,550	47,296	44,480	-5.95%
Evoenergy—Total non-FiT generation	27,488	28,815	42,298	48,574	53,746	71,895	96,931	34.82%
<b>Total generation</b>	<b>60,861</b>	<b>63,725</b>	<b>82,653</b>	<b>96,134</b>	<b>100,295</b>	<b>119,191</b>	<b>141,411</b>	<b>34.8%</b>

## 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 data.

The cost of the FiT scheme in \$/MWh for 2020–21 was \$5.34, compared with \$6.07 for 2019–20. This represents a 12% reduction in costs. When expressed as the FiT scheme pass-through costs for a typical two-person household in 2020–21, it was \$34.02 compared to \$43.41 in 2019–20. This represents a 21.6% reduction in the average cost of the FiT scheme across all Canberra households. This figure has been impacted by the adjustments made to the amount of electricity a representative household is assumed to use, which reduced from 7.151 MWh (in 2019–2020) to 6.371 MWh (in 2020–21).

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

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

	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	Change
Cost (\$/MWh)	\$5.52	\$6.21	\$6.30	\$7.01	\$6.16	\$6.07	\$5.34	-12%
Calculated costs (\$/year)	\$40.36	\$45.41	\$45.05	\$50.13	\$44.05	\$43.41	\$34.03	-21.6%
Cents per week	\$0.78	\$0.87	\$0.87	\$0.96	\$0.85	\$0.83	\$0.65	-21.6%



# Retailer market offers (non-premium FiTs)

While the ACT Government is only required to report on its 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 to examine how successful the FiT scheme has been in its policy objectives to encourage a greater uptake of solar by households and business across the Territory. Comparisons with the FiT scheme results have been included in Tables 2–5 above. This section brings the non-FiT data together 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 as data must be derived from a range of sources; data reported here should be regarded as best estimates only.

As of 30 August 2021, Evoenergy reported a total of 23,870 generators installed under retailer supported schemes with a combined capacity of 146.46 MW, and an output of 96,931 MWh during 2020–21 financial year.

Table 6 shows a 32.7% increase in the number of non-FiT generators compared with the 2019–20 result, and an increase of 45.6% in the total reported capacity over the same period, which indicates a growth in the system size of new installs. Technological improvements in solar panels enabling greater output and increased installations on sub-optimal roofs that require additional panels are potential reasons for the increased capacity of new systems.

**Table 6:** Summary of Non-FiT results

Non-FiT Supported	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	% Change
Installed capacity (MW)	19.30	26.95	34.12	42.08	72.05	100.59	146.46	45.6%
Electricity production (MWh)	27,488	28,815	35,791	48,574	53,746	71,875	96,931	33.8%
Number of generators	6,614	6,636	7,774	10,050	13,736	17,985	23,870	32.7%

# 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 for applications approved 1 July 2010 to 31 May 2011
40.04c/kWh	Generator capacity between 10–30kW for 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 to 13 July 2011

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

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 2020–21

Gross FiT Rate	No of generators	Installed Capacity (kW)
50.05c/kWh	2,346	5,753
45.7c/kWh	7,574	22,340
40.04c/kWh	6	95
34.27c/kWh	11	1,173
30.16c/kWh	42	5,637
<b>Total</b>	<b>9,979</b>	<b>34,998</b>

