



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.

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.

We acknowledge the Ngunnawal people as traditional custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region

Produced by the Environment, Planning and Sustainable Development Directorate

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Director-General, Environment, Planning and Sustainable Development Directorate, ACT Government, GPO Box 158, Canberra ACT 2601.

Telephone: 13 22 81

Website: www.environment.act.gov.au

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Executive Summary

In 2009, the ACT Government established a scheme for payments to incentivise ACT households and businesses to generate renewable electricity. This was established under the *Electricity Feed-in (Renewable Energy Premium)* Act 2008 (the Act). This is referred to as the Small and Medium Feed-in Tariff Scheme (the FiT scheme).

The purpose of the scheme, as defined by the Act is to:

- a) promote the generation of electricity from renewable energy sources;
- b) reduce the ACT's contribution to human-induced climate change;
- c) diversify the ACT energy supply; and
- d) reduce the ACT's vulnerability to long-term price volatility in relation to fossil fuels.

Under section 11A of the Act the Minister must publish an annual report that provides the following information on the FiT scheme:

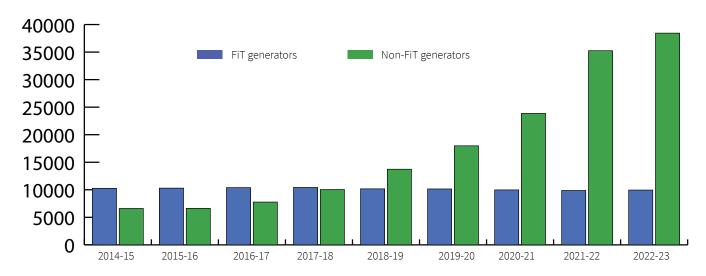
- → The number of compliant renewable energy generators installed on premises in the ACT;
- → The total capacity of compliant renewable energy generators installed on premises in the ACT; and
- → The costs under the Act on electricity users.

Renewable generators supported by the FiT scheme generated 41,065 megawatt hours (MWh) of electricity in 2022–23, from a total installed capacity of around 34.6 megawatts (MW), consisting of 9,954 solar photovoltaic systems. However, retailer supported solar PV's surpassed the scheme's capacity between 2017-18 and 2018-19 and now exceeds FiT supported capacity by about ten to one.

For the whole of the ACT, 2022–23 solar generation totalled 252,024MWh. This is a noteworthy annual increase of 41.3% over the previous period (2021-22). This includes the 41,065MWh of FiT scheme-supported generation combined with non-FiT (retailer supported) scheme solar generation, which produced 210,959MWh.

Figure 1 shows the ACT's recent trend of an increasing number of generators.

Figure 1: Total small and medium generators



These figures do not represent the ACT's total solar capacity or generation and there are likely to be a small number of rooftop instillations that are not part of either this FiT scheme or those offered by electricity retailers. However, these figures 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.

This data shows the accelerated uptake of rooftop solar outside of the FiT scheme, particularly from around 2018-19 where non-FiT scheme installations started to exceed FiT scheme installations for the first time. At July 2023 nearly 30% of ACT households now have a rooftop solar system.

The estimated cost of the FiT scheme to consumers in 2022-23 was \$5.76/MWh, or around 72c per week for a representative household consuming 6.499MWh annually. This represents a small decrease of 0.3% in FiT scheme costs compared with 2021 22.

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

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

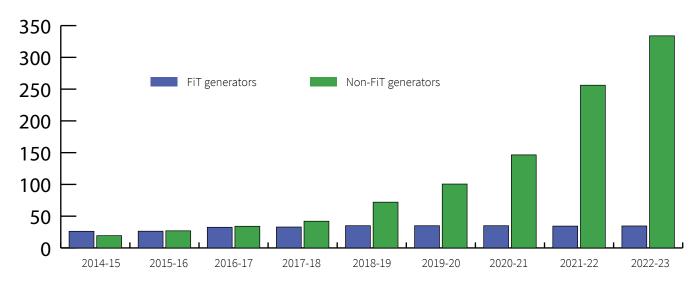


Figure 3: Total small and medium generation (MWh)

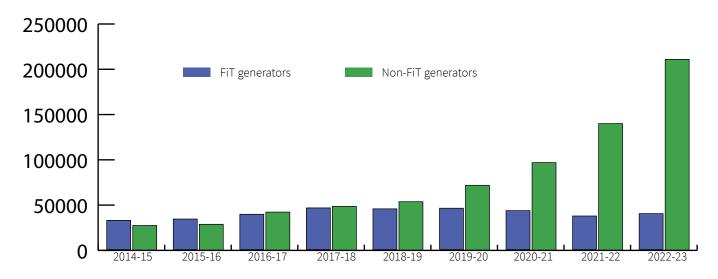
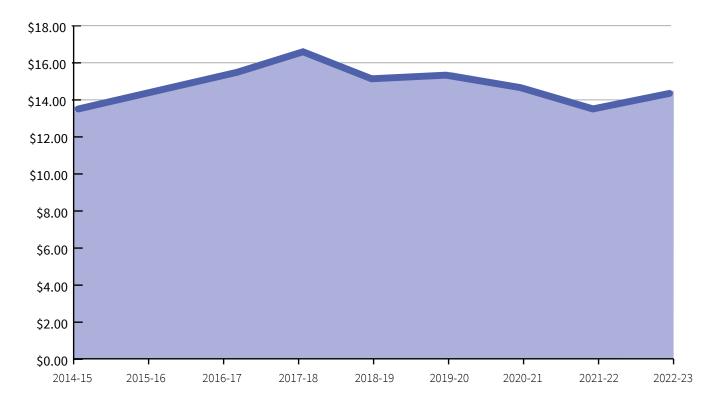


Figure 4: Total small and medium premium FiT paid (\$million)





Introduction

In March 2009, the ACT Government established a scheme for payments to ACT households and businesses generating renewable electricity under the *Electricity Feed-in (Renewable Energy Premium) Act 2008* (the Act), referred to as the Small and Medium Feed-in Tariff Scheme. 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'. Of the current 9,954 generators included in the FiT scheme only 59 of these fall into the medium size category defined above.

The scheme closed to new entrants on 13 July 2011. The cut-off date for generator installation under the scheme was 31 December 2016. A summary of the application dates and rates offered is included in Table 7.

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.

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 FiT scheme is a premium FiT scheme.

Successful applicants receive premium 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. The FiT rate depends on the system's capacity and date of application to the scheme. Electricity retailers pass on the cost of premium FiT payments to the ACT electricity distributor, which incorporates this cost into network charges.

While the ACT Government's Small and Medium 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 Premium 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.

The ACT Government continues to support the uptake of rooftop solar generation through programs for households.

As at November 2023 the ACT Government has provided just over \$1 million of solar rebates to about 400 households since the start of the Home Energy Support Program in March 2022. Under this program homeowners can bundle a rebate up to \$2,500 with an interest-free loan up to \$10,000 through the Sustainable Household Scheme to remove the upfront cost of installing solar.

The ACT Government is also developing a program that supports solar installation in multi-unit apartments.

ACT Government Small and Medium Scale FiT Scheme Performance

The FiT scheme's performance is measured by four factors:

- → 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 2022–23, together with comparative data from previous years.

Change in electricity produced from year-to-year is predominantly driven by insolation (the amount of solar radiation) 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 recent years, improvements to FiT scheme administration resulting from the audit and review of the scheme may also have led to some adjustments.

The estimated cost per household of the FiT scheme has decreased slightly in 2022–23 compared with the previous year.

For the purpose of this report, an average ACT household is taken to be a household consuming 6.499MWh of electricity annually, as per the Australian Energy Regulator's (AER) Jurisdictional Snapshot 2021-22.¹ Since this report was first produced in 2014-15 the average consumption of an ACT household has fluctuated. In 2014-15 the average consumption of an ACT Household was 7,300kWh a year, in 2021-22 this was 6,370kWh a year. This report updates previous years' calculations using 6,499kWh per year for ease of comparison.

¹ See www.aer.gov.au/system/files/AER%20Jurisdictional%20Snapshots%202021-22.pdf

Table 1: Small and medium scale FiT scheme performance

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	% Change
Number of FiT scheme generators	10,270	10,304	10,394	10,428	10,170	10,153	9,979	9,876	9,954	0.8%
Installed capacity (MW)*	26.2	26.35	32.53	32.94	35	34.96	34.99	34.39	34.6	0.6%
Electricity production (MWh)	33,373	34,910	40,355	47,560	46,550	47,296	44,480	38,370	41,065	7.0%
Total FiT paid (\$M)	\$13.70	\$14.56	\$15.50	\$16.72	\$15.61	\$15.41	\$14.78	\$13.70	\$14.45	5.5%
Cost (\$/MWh) ¹	\$5.52	\$6.21	\$6.30	\$7.01	\$6.16	\$6.07	\$5.34	\$5.78	\$5.76	-0.3%
Average annual cost to household ²	\$35.87	\$40.36	\$40.94	\$45.56	\$40.03	\$39.45	\$34.70	\$37.56	\$37.43	-0.3%
Average weekly cost to household	\$0.69	\$0.78	\$0.79	\$0.88	\$0.77	\$0.76	\$0.67	\$0.72	\$0.72	-0.3%

^{* -} variation year-to-year in the installed capacity is due to homes and businesses disconnecting and/or reconnecting during renovations and re-builds

^{1 –} ICRC Retail Electricity Price Recalibration 2022-23 at www.icrc.act.gov.au/__data/assets/pdf_file/0004/2013781/Report-retail-electricity-price-recalibration-2022-23.pdf

^{2 –} Average ACT household consumption has declined from 7,311kWh per year in 2014-15 to 6,370 kWh in 2020-21. This table has re-calculated average annual costs to households using the average ACT household consumption of 6,499kWh per year according to the AER Jurisdictional Snapshot at www.aer.gov.au/system/files/AER%20Jurisdictional%20Snapshots%202021-22.pdf.

Number of Generators

Since the 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 2022–23, there were 9,954 generators under the scheme. This is 78 generators more than 2021 22. 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	2021-22	2022-23	% Change
FiT generators	10,270	10,304	10,394	10,428	10,170	10,153	9,979	9,876	9,954	0.8%
Non-FiT generators	6,614	6,636	7,774	10,050	13,736	17,985	23,870	35,249	38,443	9.1%
Total generators	16,884	16,940	18,168	20,478	23,906	28,138	33,849	45,125	48,397	7.3%

Installed Capacity

Evoenergy has reported a total installed capacity of 34.6MW in the FiT scheme during 2022–23, which is a slight 0.6% increase compared with 2021–22. The variation year-to-year in the installed capacity is due to homes and businesses disconnecting and/or reconnecting during renovations and re-builds.

The final scheme capacity is less than the maximum of 35MW set by the Minister by way of the <u>Electricity Feed-in</u> (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	2021-22	2022-23	% Change
FiT capacity	26.2	26.35	32.53	32.94	35.00	34.96	34.99	34.39	34.6	0.6%
Non-FiT capacity	19.30	26.95	34.12	42.08	72.05	100.59	146.46	256.16	333.9	30.3%
Total reported capacity	45.50	53.30	66.65	75.02	107.05	135.54	181.45	290.55	368.5	26.8%

Generation

Total solar generation from FiT scheme generators was 41,065MWh in 2022–23. This was 7% higher than in 2021–22, as shown in Table 4. It is likely that solar generation in 2022 23 has been less affected by increased cloudy weather and rain experienced over the previous reporting period.

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	2021-22	2022-23	% Change
Evoenergy— Total FiT generation	33,373	34,910	40,355	47,560	46,550	47,296	44,480	38,370	41,065	7.0%
Evoenergy— Total non-Fit generation	27,488	28,815	42,298	48,574	53,746	71,895	96,931	140,000	210,959	50.7%
Total generation	60,861	63,725	82,653	96,134	100,295	119,191	141,411	178,370	252,024	41.3%

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 data.

The average small-scale FiT scheme pass-through costs for an average ACT household in 2022–23 was \$37.43 per year compared to \$37.56 in 2021–22. This represents a small decrease of 0.3% in the average cost of the FiT scheme across all Canberra households.

The cost to households of the scheme is calculated by the ICRC and included in its annual standing offer price determination. It is calculated with the best available data at the time of publishing and includes estimated scheme costs provided by the Australian Energy Regulator (AER). The ICRC's methodology for calculating the scheme's cost also takes into consideration total network costs, therefore changes in total network costs can also effect changes to the scheme's costs to households.

Costs to households are expected to reduce over time as the population grows and solar photovoltaic systems age or are removed. However, costs are also affected by favourable weather conditions where clear skies prevail over cloudy skies.

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	2021-22	2022-23	% Change
Cost (\$/MWh) ¹	\$5.52	\$6.21	\$6.30	\$7.01	\$6.16	\$6.07	\$5.34	\$5.78	\$5.76	-0.3%
Annual cost (\$/yr) ²	\$35.87	\$40.36	\$40.94	\$45.56	\$40.03	\$39.45	\$34.70	\$37.56	\$37.43	-0.3%
Cents per week	\$0.69	\$0.78	\$0.79	\$0.88	\$0.77	\$0.76	\$0.67	\$0.72	\$0.72	-0.3%

^{1 –} ICRC Retail Electricity Price Recalibration 2022-23 at www.icrc.act.gov.au/__data/assets/pdf_file/0004/2013781/Report-retail-electricity-price-recalibration-2022-23.pdf

^{2 -} Based on an annual ACT household consumption of 6,499kWh per year from the AER Jurisdictional Snapshot at www.aer.gov.au/system/files/AER%20 Jurisdictional%20Snapshots%202021-22.pdf.





Normal Cost Of Electricity

Section 6A of the *Electricity Feed-in (Renewable Energy Premium) Act 2008* allows the responsible Minister to determine an amount to be the Normal Cost of Electricity (NCE) for a reporting period.

The NCE is based on the estimated value to electricity retailers of the solar electricity exported from FiT scheme generators and represents the savings electricity retailers make by selling the renewable electricity that they would otherwise have to buy from the wholesale market.

The NCE is deducted from the amount retailers pay customers under the Small and Medium-scale Feed-in Tariff scheme and determines the amount they can claim from the ACT's electricity distributor (i.e. the subsidy component). This ensures that retailers are only recouping the real costs of the scheme.

Ongoing changes in wholesale electricity costs means that the NCE is reviewed and reset annually and is published as a Disallowable Instrument². The responsible Minister makes a determination of the NCE in June each year to be applied in the following financial year.

In 2022-23 the NCE was determined to be 6.6c/kWh. This was a slight decrease of about 5.7% from the 2021-22 NCE of 7.0c/kWh. A lower NCE means that electricity retailers can claim more from the electricity distributor to make up payments to FiT scheme customers. This in-turn increases the scheme costs that the electricity distributor can then reclaim from ACT electricity consumers. This is reflected in the total FiT payments made to scheme participants in 2022-23 reporting period.

² See https://www.legislation.act.gov.au/ni/2022-334/.

Retailer Market Offers (Non-Premium FiT)

While the ACT Government is only required to report on the Small and Medium 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 businesses 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. Data reported here is therefore derived from a range of sources and should be regarded as best estimates only.

As at 30 June 2023, Evoenergy reported a total of 38,443 generators installed under retailer supported schemes with a combined capacity of 333.9MW, and an output of 210,959MWh during 2022–23 financial year.

Table 6 shows a 9% increase in the number of non-FiT generators compared with the 2021–22 result and an increase of 30% in the total reported capacity over the same period, which indicates a growth in the system size of new installations. 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

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	% Change
Installed capacity (MW)	19.30	26.95	34.12	42.08	72.05	100.59	146.46	256.16	333.9	30.3%
Electricity production (MWh)	27,488	28,815	35,791	48,574	53,746	71,875	96,931	140,000	210,959	50.7%
Number of generators	6,614	6,636	7,774	10,050	13,736	17,985	23,870	35,249	38,443	9.1%

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 2022–23

Gross FiT Rate	No of generators	Installed Capacity (kW)
50.05c/kWh	2,344	5,663
45.7c/kWh	7,555	22,211
40.04c/kWh	4	92.5
34.27c/kWh	11	1172.7
30.16c/kWh	40	5,463
Total	9,954	34,602

