

# 2019–20 ANNUAL FEED-IN TARIFF REPORT

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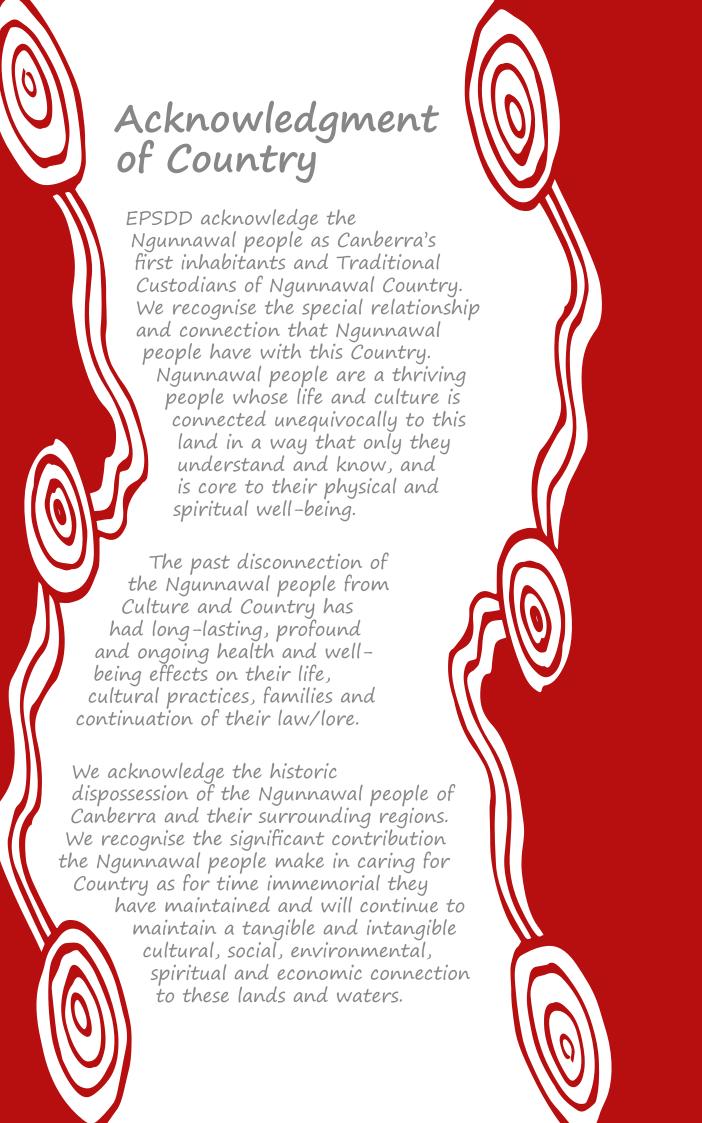
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### EXECUTIVE SUMMARY

Under section 11A of the <u>Electricity Feed-in</u> (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 ('the FiT scheme') generated 47,296 megawatt hours (MWh) of electricity in 2019–20, from a total installed capacity of around 34.96 megawatts (MW), consisting of 10,153 solar photovoltaic systems.

2019–20 solar generation totalled 119,191MWh. This is a noteworthy annual increase of 18.8%. This result was achieved through the 47,296MWh of FiT scheme-supported generation combined with non-FiT (retailer supported) scheme solar generation totalling 71,895MWh. Figure 1 below shows the ACT's recent trend of an increasing number of generators.

The estimated cost of the small and medium FiT scheme to consumers is \$6.07/MWh, or around 83c per week for a two-person house consuming 7.151MWh annually. This represents a 1.46% reduction of FiT scheme costs compared with 2018–19.

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

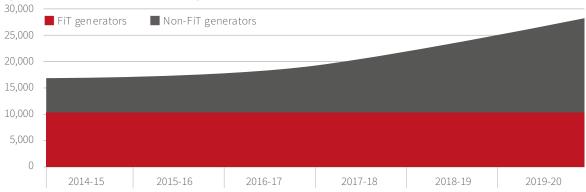


Figure 2: Total small and medium generation capacity (MW)

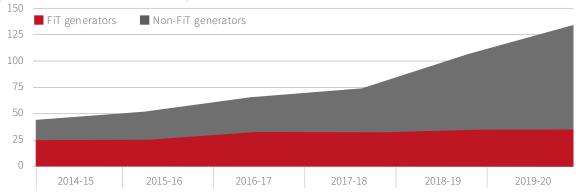


Figure 3: Total small and medium generation (MWh)

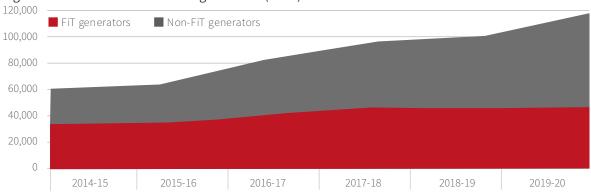
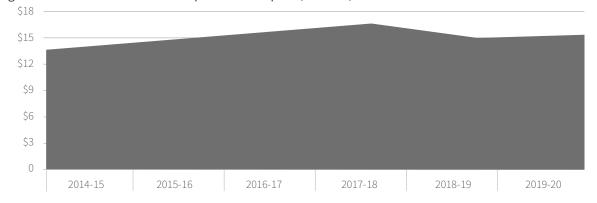


Figure 4: Total small and medium premium FiT paid (\$Million)





### INTRODUCTION

This report is the sixth 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. 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. 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.



# 2018–19 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 were corrected for the 2018–19 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 is 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 summarises the performance of the FiT scheme in 2019–20, 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 audit and review of the FiT scheme may also lead to some adjustments.

The estimated per household cost of the scheme has declined in 2019–20 compared with previous years. Ongoing cost reductions are expected over time as the population grows and the solar PV systems covered under the FiT scheme 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 onwards, this changed to a 2-person household consuming 7.151MWh annually<sup>1</sup>. This adjustment 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 | 2019-20 | Change |
|--|---------|---------|---------|---------|---------|---------|--------|
| Number of generators   | 10270   | 10304   | 10394   | 10428   | 10170   | 10153   | -0.17% |
| Installed capacity (MW)  | 26.2    | 26.35   | 32.53   | 32.94   | 35.00   | 34.96   | -0.13% |
| Electricity production (MWh)   | 33,373  | 34,910  | 40,355  | 47,560  | 46,550  | 47,296  | 1.60%  |
| Total FiT paid (\$M)   | \$13.70 | \$14.56 | \$15.50 | \$16.72 | \$15.16 | \$15.41 | 1.66%  |
| Cost (\$/MWh) <sup>2</sup>   | \$5.52  | \$6.21  | \$6.30  | \$7.01  | \$6.16  | \$6.07  | -1.46% |
| Average annual cost to a representative ACT household (\$/year) <sup>3</sup> | \$40.36 | \$45.41 | \$45.05 | \$50.13 | \$44.05 | \$43.41 | -1.46% |
| Average weekly cost to a representative ACT household (c/week) <sup>4</sup>  | \$0.78  | \$0.87  | \$0.87  | \$0.96  | \$0.85  | \$0.83  | -1.46% |

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

<sup>2</sup> From Evoenergy reporting

From ICRC standing offer price determinations 2014-15, 2015-16, 2017-18, 2018-19, 2019-20

<sup>4</sup> Calculated based on average household electricity usage published by Australian Energy Market Commission Residential Price Trends Reports 2015, 2016, 2017, 2018 & 2019

#### NUMBER OF GENERATORS

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 and the retiring of systems. In 2019–20, there were 10,153 generators under the scheme. This is 17 (0.2%) generators less than 2018–19. 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 | % Change |
|---------------------|---------|---------|---------|---------|---------|---------|----------|
| FiT generators      | 10,270  | 10,304  | 10,394  | 10,428  | 10,170  | 10,153  | -0.2%    |
| Non-FiT generators  | 6,614   | 6,636   | 7,774   | 10,050  | 13,736  | 17,985  | 30.9%    |
| Total generators    | 16,884  | 16,940  | 18,168  | 20,478  | 23,906  | 28,138  | 17.7%    |

#### INSTALLED CAPACITY

Evoenergy has reported a total installed capacity of 34.96 MW in the FiT scheme during 2019–20, which is a 0.1% reduction compared with 2018–19. The reduction in capacity is a result of Evoenergy's data cleansing activities identifying systems where capacity was over reported.

The final scheme capacity is less than 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: Installed solar generation capacity, FiT scheme plus non-FiT generators

| Capacity (MW)           | 2014–15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | % Change |
|-------------------------|---------|---------|---------|---------|---------|---------|----------|
| FiT capacity            | 26.2    | 26.35   | 32.53   | 32.94   | 35.00   | 34.96   | -0.1%    |
| Non-FiT capacity        | 19.30   | 26.95   | 34.12   | 42.08   | 72.05   | 100.59  | 39.6%    |
| Total reported capacity | 45.50   | 53.30   | 66.65   | 75.02   | 107.05  | 135.54  | 26.6%    |

#### **GENERATION**

Total solar generation from FiT scheme generators was 47,269MWh in 2019–20. This was 1.6% higher than in 2018–19, as shown in Table 4.

Table 4: Total FiT and non-FiT electricity generation

| Generation - FiT and<br>non-Fit (MWh) | 2014-15 | 2015-16 | 2016–17 | 2017–18 | 2018-19 | 2019-20 | % Change |
|---------------------------------------|---------|---------|---------|---------|---------|---------|----------|
| Evoenergy - Total FiT generation      | 33,373  | 34,910  | 40,355  | 47,560  | 46,550  | 47,296  | 1.6%     |
| Evoenergy - Total non-Fit generation  | 27,488  | 28,815  | 42,298  | 48,574  | 53,746  | 71,895  | 33.8%    |
| Total generation                      | 60,861  | 63,725  | 82,653  | 96,134  | 100,295 | 119,191 | 18.8%    |

### 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 a typical two-person household in 2019–20 was \$43.41 compared to \$44.05 in 2018–19. This represents a 1.46% reduction in the average cost of the FiT scheme across all Canberra households. This is following a noteworthy 12% reduction in the previous reporting period.

As noted previously, further cost reductions are expected over time as the population grows and solar PV 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 | Change |
|----------------------------|---------|---------|---------|---------|---------|---------|--------|
| Cost (\$/MWh)              | \$5.52  | \$6.21  | \$6.30  | \$7.01  | \$6.16  | \$6.07  | -1.46% |
| Calculated costs (\$/year) | \$40.36 | \$45.41 | \$45.05 | \$50.13 | \$44.05 | \$43.41 | -1.46% |
| Cents per week             | \$0.78  | \$0.87  | \$0.87  | \$0.96  | \$0.85  | \$0.83  | -1.46% |





# 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. 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 as data must be derived from a range of sources, and data reported here should be regarded as best estimates only.

As at 30 June 2020, Evoenergy reported a total of 17,985 generators installed under retailer supported schemes with a combined capacity of 100.59MW, and an output of 71,875MWh during 2019–20.

Table 2 shows a 17.7% increase in the number of non-FiT generators compared with the 2018–19 result. Table 3 shows an increase of 26.9% 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 | % Change |
|------------------------------|---------|---------|---------|---------|---------|---------|----------|
| Installed capacity (MW)      | 19.30   | 26.95   | 34.12   | 42.08   | 72.05   | 100.59  | 39.6%    |
| Electricity production (MWh) | 27,488  | 28,815  | 35,791  | 48,574  | 53,746  | 71,875  | 33.8%    |
| Number of generators         | 6,614   | 6,636   | 7,774   | 10,050  | 13,736  | 17,985  | 30.9%    |

## 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

| Eligible generation capacity and date of application                                       |
|--|
| Generator capacity up to 10kw for applications approved 1 March 2009 to 30 June 2010       |
| Generator capacity up to 30kw for applications approved 1 July 2010 to 31 May 2011         |
| Generator capacity between 10-30kw for applications approved 1 March 2009 to 30 June 2010  |
| Generator capacity between 30-200kw for applications approved 7 March 2011 to 11 July 2011 |
| 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 2019–20

| Gross FiT Rate | No of generators | Installed Capacity (kW) |
|----------------|------------------|-------------------------|
| 50.05c/kWh     | 2,381            | 5,722                   |
| 45.7c/kWh      | 7,711            | 22,319                  |
| 40.04c/kWh     | 8                | 99                      |
| 34.27c/kWh     | 12               | 1,178                   |
| 30.16c/kWh     | 41               | 5,638                   |
| Total          | 10,153           | 34,956                  |

