



**ACT**  
Government

# 2015-16 ANNUAL FEED-IN TARIFF REPORT

DECEMBER 2016

© Australian Capital Territory, Canberra 2016

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without written permission from:

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

Telephone: 02 6207 1923

Website: [www.environment.act.gov.au](http://www.environment.act.gov.au)

Printed on recycled paper

### **Accessibility**

The ACT Government is committed to making its information, services, events and venues as accessible as possible.

If you have difficulty reading a standard printed document and would like to receive this publication in an alternative format, such as large print, please phone Access Canberra on 13 22 81 or email the Environment and Planning Directorate at [epd\\_communications@act.gov.au](mailto:epd_communications@act.gov.au)

If English is not your first language and you require a translating and interpreting service, please phone 13 14 50.

If you are deaf, or have a speech or hearing impairment, and need the teletypewriter service, please phone 13 36 77 and ask for Access Canberra on 13 22 81.

For speak and listen users, please phone 1300 555 727 and ask for Access Canberra on 13 22 81.

For more information on these services visit <http://www.relayservice.com.au>

# CONTENTS

Executive Summary	3
1. Introduction	4
2. ACT Government FiT Schemes	5
3. Small and Medium Scale FiT Scheme Performance	6
4. Large Scale FiT Scheme Performance	8
5. Progress towards 100% by 2020 Target	9
6. Appendices	12

## LIST OF ABBREVIATIONS AND ACRONYMS

ACT	Australian Capital Territory	LRET	Large Scale Renewable Energy Target (Commonwealth)
FiT	Feed-in Tariff	MW	Megawatt
ICRC	Independent Competition and Regulatory Commission	MWh	Megawatt hours
kW	Kilowatt	NEM	National Electricity Market
kWh	Kilowatt hours		



# EXECUTIVE SUMMARY

## SMALL AND MEDIUM SCALE FEED-IN TARIFF (FIT) SCHEME

- » Renewable generators supported by the small and medium FiT scheme generated 34,910 megawatt hours (MWh) of electricity in 2015–16 from a total installed capacity of around 26.3 megawatts (MW), consisting of 10,304 solar photovoltaic systems.

## LARGE SCALE FIT SCHEME

- » Renewable generators supported by the large scale FiT scheme generated 57,423 MWh of electricity in 2015–16. This is a significant increase of 72% from the 33,397 MWh of electricity generated by renewable generators supported by the large scale FiT scheme in 2014–15.
- » This increase is due to new wind generation capacity coming online during 2015–16. Generation from large scale FiT supported generators will continue to increase significantly each year until 2020.

## PROGRESS TOWARDS 100% BY 2020 RENEWABLE ELECTRICITY TARGET

- » In 2015–16, the contribution of renewables to electricity supply in the ACT was 20.2%. This is an increase from 18.8% in 2014–15. As new, large scale generation capacity comes online, the proportion of renewable electricity will significantly increase between 2017 and 2020 to achieve the ACT Government's 100% by 2020 renewable electricity target.

## COST OF RENEWABLE ENERGY SCHEMES

- » The small and medium scale FiT scheme and the large scale FiT scheme combined contributed \$71.58 to an average annual electricity bill for a four-person ACT household in 2015–16.
- » The small and medium scale FiT scheme accounted for approximately 65% of this cost (\$46.21), while the large scale FiT scheme contributed 35% (\$25.37).

The ACT is predominantly supplied by the National Electricity Market (NEM), the longest geographically connected power system in the world, supplying Queensland, New South Wales, Victoria, South Australia and Tasmania in addition to the ACT.

The NEM was designed when the traditional forms of generation like coal, gas and hydro provided all of our electricity needs. It is now undergoing its most profound transition since its inception as we transition to a low emissions power system, with increasing amounts of generation coming from renewable wind and solar generators and the arrival of home battery storage systems.

The ACT is leading the NEM in these changes through its innovative policies to support renewable energy generation in support of its ambitious 100% by 2020 target and one of the largest battery storage rollout programs in the world.

# 1. INTRODUCTION

This report is the second annual report on the ACT small and medium FiT scheme under section 11A of the *Electricity Feed-in (Renewable Energy Premium) Act 2008*, the legislation governing the scheme. The ACT Legislative Assembly passed amendments to this legislation in June 2015 requiring that an annual report be published on the costs, capacity and number of FiT supported systems under this scheme.

While this report provides information on the small and medium FiT scheme as required by legislation, it also provides information on the large scale FiT scheme and progress towards the Territory's 100% by 2020 renewable electricity target. The additional information has been included to provide the policy context for the FiT schemes, which are driven by broader emissions reduction and renewable energy targets set by the ACT Government through legislation.

## 100% BY 2020 RENEWABLE ELECTRICITY TARGET ('THE 100% BY 2020 TARGET')

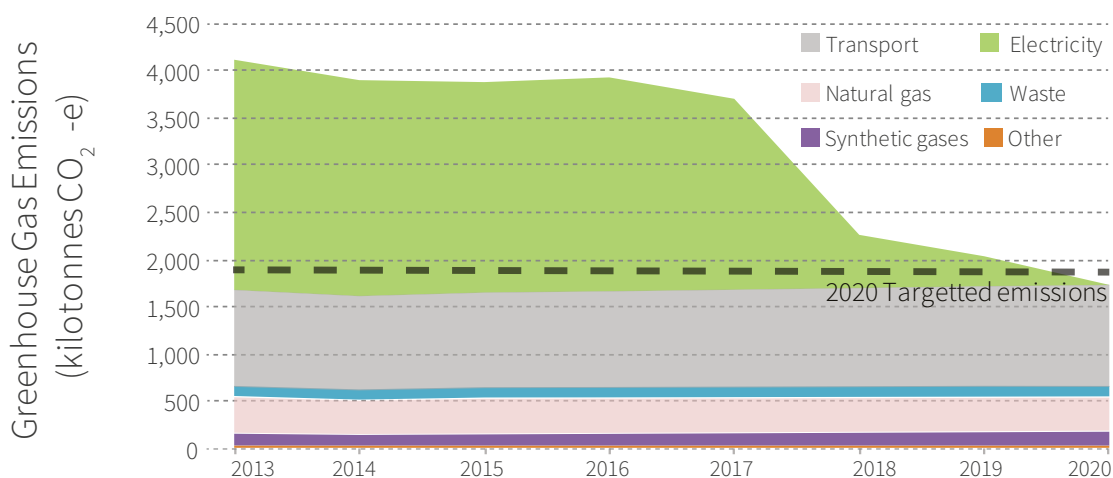
Action Plan 2—A New Climate Change Strategy and Action Plan for the ACT (AP2) the ACT Government climate change strategy commits the ACT to reducing greenhouse gas emissions to 40% below 1990 levels by 2020.

To achieve these reductions, the ACT Government set a target of 100% renewable electricity supply by 2020 in April 2016. This is an increase from the 90% by 2020 target previously legislated in November 2013. These targets are the most ambitious targets for any jurisdiction in Australia and among the most progressive in the world.<sup>1</sup>

Electricity continues to contribute the majority of ACT greenhouse gas emissions, approximately 55% in 2015–16<sup>2</sup>. However, the switch to renewable electricity will account for over 90% of greenhouse gas emission reductions by 2020. This reduction in greenhouse gas emissions is driven primarily by the support provided by the large scale FiT scheme. Figure 1 shows the projected emission reduction contributions from different sectors, with the largest share coming from the electricity sector.

In addition to reducing greenhouse gas emissions, the 100% by 2020 renewable electricity target will also drive the transition to a highly skilled, clean energy local economy, creating new jobs, local investment and research opportunities and contributing to economic growth. More information on the ACT Government Renewable Energy Industry Development Strategy is available at [www.environment.act.gov.au](http://www.environment.act.gov.au).

Figure 1: Projected contribution of sectors to meet 2020 emission target



1 *Implementation Status Report*, Office of the Commissioner for Sustainability and the Environment, 2014

2 *ACT Greenhouse Gas Inventory for 2015-16* (pitt&sherry) - Based on tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e)

## 2. ACT GOVERNMENT FIT SCHEMES

### WHAT IS A FEED IN TARIFF?

A premium feed in tariff, or FiT, is a premium payment (higher than the market value) for electricity generated by a renewable electricity generation system. The payments encourage the uptake and development of renewable electricity.

In the ACT, renewable electricity generators can receive premium FiT payments from an electricity retailer (under the small and medium scale FiT scheme) or the ACT electricity distributor (under the large scale FiT scheme). These costs are then recovered from all electricity consumers that use the ACT electricity network, through network charges included in electricity bills. A description of these premium FiT schemes is provided below.

### SMALL AND MEDIUM SCALE FIT SCHEME

The *Electricity Feed-in (Renewable Energy Premium) Act 2008* established a scheme for payments to ACT households and businesses generating renewable electricity. While this scheme was open to any form of small and medium sized renewable electricity generator with capacity below 200 kilowatts (kW), only rooftop solar photovoltaic system applications were successful, so the scheme also became known as 'the rooftop solar scheme'.

The small and medium scale FiT scheme opened for applications on 1 March 2009 and closed to new entrants on 13 July 2011. Successful applications receive FiT payments for 20 years from the date their system is 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 for self consumption at the premises. The FiT rate depends on the system's capacity and date of application to the scheme (See Appendix A – Additional data on the small and medium FiT scheme). Retailers pass on the cost of FiT payments to the electricity distributor, which incorporates this cost into network charges.

### Retailer solar support schemes

While the ACT Government small and medium scale FiT scheme is now closed, households can still access solar support schemes offered voluntarily by electricity retailers that offer payments for any excess generation from rooftop systems installed by households. Unlike the ACT Government small and medium FiT scheme, which offers a FiT for all generation ('gross'), solar support schemes offered by retailers only make payments for 'net' generation exported to the grid; that is, electricity left over after any self consumption. The tariffs offered under these retailer schemes are generally aligned with the value of this electricity in the market, which is significantly lower than the FiT offered under the small and medium scale FiT scheme.

### LARGE SCALE FIT SCHEME

The *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011* ('the large scale FiT Act') allows the ACT Government to grant FiT entitlements to large scale renewable energy generating systems, like large scale wind farms and large solar farms with a generating capacity above 200kW. Under the scheme, 639.9 MW of entitlements have been awarded to date. These large renewable energy generators can be located anywhere in the National Electricity Market (NEM). This allows the ACT to source competitively priced sources of renewable electricity across the NEM.

To date, the ACT Government has held four auctions to award large scale FiT entitlements: one solar auction over 2012 and 2013; two wind auctions in 2014 and 2015; and the Next Generation Renewables program in 2016, which combined a wind and solar auction with the provision of funding for a rollout of distributed battery storage across the ACT. Auction outcomes are provided in Appendix B – Outcomes of the Large Scale FiT Auctions. Successful proponents receive a 20 year FiT entitlement to receive FiT support payments from the ACT electricity distributor. Under the scheme, the FiT payments represent the difference between the wholesale price of electricity generated and the FiT price bid by the proponent (See Appendix C – How does the Large Scale FiT – Contract for Difference work?).

At 30 June 2016, one solar farm and one wind farm had commenced generating renewable electricity (the Royalla Solar Farm and the Coonooer Bridge Wind Farm). Two other solar farms commenced construction in 2016 (the Mugga Lane Solar Park and Williamsdale Solar Farm) and are expecting to be generating by early 2017.

Two of the three successful projects in the 2014 wind auction are currently under construction and are expected to be operational in 2017 (the Ararat and Hornsdale (Stage 1) wind farms). All successful auction projects will be generating by 2020.

### 3. SMALL AND MEDIUM SCALE FIT SCHEME PERFORMANCE

The table below provides the performance of the ACT Government small and medium scale FiT scheme in 2015–16. The table also includes data from the previous year for purposes of comparison.

**Table 1: Small and Medium FiT Scheme Performance**

	2014–15	2015–16
Number of generators	10,270	10,304
Installed capacity (Megawatts)	26.2MW	26.3MW
Electricity production (megawatt Hours)	33,373 MWh	34,910 MWh
Total FiT paid	\$13,704,878	\$14,562,165
Cost (\$/megawatt hours)	\$5.52/MWh	\$6.21/MWh
Cost in electricity bills (\$/ per week)	78.9 cents	88.9 cents

#### CAPACITY (26.3 MW)

In 2015–16, there were 10,304 generators under the small and medium FiT scheme with a total installed capacity of around 26.3MW. The total installed capacity includes 15 medium scale generators, with a capacity greater than 30kW but not more than 200kW.

The data indicates that the installed capacity and number of generators supported by the scheme in 2015–16 was not significantly different from 2014–15. The small difference is mainly explained by a small number of new connections from entitlements that were granted before the scheme closed in 2011 but were yet to be connected.

FiT entitlement holders have until 31 December 2016 to connect their generators to the network.

For context, it should be noted that not all generators will be active at the same time. This may be due to maintenance and other issues.<sup>3</sup> The number of active generators in 2015–16 was 9,908, once generators that did not record any generation in the last quarter of the year are excluded. Additional data on generators under the ACT Government small and medium FiT scheme, categorised by capacity and tariffs, is included in Appendix A (Table A2 – Capacity and number of generators by tariff in 2015–16).

#### GENERATION (34,910 MWh)

A total of 34,910 MWh was generated under the small and medium scale FiT scheme during 2015–16, representing an increase of approximately 4.6% from 2014–15. This increase is noteworthy as there was not an equivalent increase in the installed capacity. However, some of this increase may be driven by variability in the amount of solar insolation between different years. For example there was higher generation in 2013–14 than both 2015–16 and 2014–15. A small degradation in the output could be expected as solar photovoltaic systems age and decline in performance. Historical generation data since the commencement of the small and medium scheme is provided in Appendix A (Table A3 – Long term generation data).

<sup>3</sup> For example under the scheme, rooftop solar generators can be transferred to different premises if they are located on a building that is identified to contain loose-fill asbestos insulation



## IMPACT ON ELECTRICITY BILLS (89 CENTS PER WEEK)

According to the Independent Competition and Regulatory Commission's (ICRC) regulated retail electricity price decision for 2015–16<sup>4</sup>, the small and medium FiT scheme contributed \$6.21 per MWh to regulated retail electricity tariffs.

Based on a typical annual consumption of 7,441 MWh<sup>5</sup> for a four-person household in the ACT, the pass through cost of the small and medium scale FiT scheme to an average annual electricity bill in 2015–16 was \$46.21 (excluding GST). This equates to approximately 88.9 cents per week. For smaller households, these costs would be lower.

While the pass-through cost represents an increase of approximately 10 cents per week compared to 2014–15, the pass through cost to electricity bills is also dependent on non-FiT factors, making a year to year comparison difficult. Electricity consumers pay the cost of the small and medium FiT scheme through the network component of their electricity bill. As the amount of total network revenue that a distributor can recover in a year is fixed by the Australian Energy Regulator, network charges can vary according to the electricity supplied during the year. This means if less electricity is used by households during a year, for example due to climatic variability, the distributor will need to recover its revenue via a higher network charge applied per unit of electricity supplied.

## NON-ACT GOVERNMENT ROOFTOP SOLAR (RETAILER SOLAR SUPPORT SCHEMES)

While the Government is only required to report on its 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 on rooftop solar generation in the ACT. This information has been provided voluntarily to the ACT Government by the ACT distributor.

In 2015–16, retailer supported systems generated 28,815 MWh of electricity. There were a total of 7,406 generators installed under these schemes with a combined capacity of 25.2 MW. It should be noted that these schemes only record the excess 'net' generation exported to the grid, left over after self consumption. This means that the amount of generation from these schemes is understated in the data in this report. In contrast, the ACT Government small and medium FiT scheme records and pays a FiT premium for 'gross' generation, including for electricity consumed at the premises.

Combined, the ACT Government small and medium FiT scheme and retailer solar support schemes represent around 52 MW of installed solar capacity in the ACT. Table 2 provides the combined capacity and generation for these schemes.

**Table 2: 2015–16 Aggregated Rooftop Solar Capacity in the ACT**

	ACT Govt small and medium FiT scheme	Retailer solar support schemes	Total
Number of generators	10,304	7,406	17,710
Installed capacity	26.3MW	25.2MW	51.5 MW
Electricity production	34,910MWh	28,815MWh	63,725 MWh

### Revisions to 2014–15 data

The 2014-15 Report indicated that data for that year may need to be revised and would be updated in the subsequent report. Table 1 on Page 7 shows there were 10,270 generators in 2014-15 under the small and medium FiT scheme. This is based on updated data provided by ActewAGL Distribution. Prior to this update, the 2014-15 Annual FiT report indicated there were 9,950 generators under the small and medium FiT scheme. The total generation for 2014-15 has also been revised from 34,613 MWh to 33,373 MWh in the same table. According to the distributor, these revisions are driven by an internal data migration change and not a change in the performance of the scheme.

<sup>4</sup> Final Decision – Retail Electricity price calibration 2015–16 (June 2015), Page 25

<sup>5</sup> Table 13, Electricity Bill Benchmarks for Residential Customers – A report to the Australian Energy Regulator by ACIL Allen Consulting (March 2015). This figure represents the annual typical electricity consumption of a four person household with a gas connection but no swimming pool. Note this is higher than the most common household type consisting of two people.

## 4. LARGE SCALE FIT SCHEME PERFORMANCE

The table below provides the performance of the large scale FiT scheme in 2015–16. The table also includes data from the previous year for comparison.

**Table 3: Large Scale FiT Scheme Performance**

	2014–15	2015–16
Number of generators	1	2
Installed capacity (Megawatts)	20MW	39.4MW
Electricity production (megawatt Hours)	33,397 MWh	57,423 MWh
Total FiT paid	\$5,015,580	\$5,807,432
Cost (\$/megawatt hours)	\$3.11/MWh	\$3.41/MWh
Cost in electricity bills (\$ per week)	44.5 cents	48.8 cents

### CAPACITY (39.4 MW)

The Royalla Solar Farm, located in southern Canberra, commenced operation in 2014–15. At the time of commissioning, it was the largest solar farm built in Australia. In April 2016, the second large scale renewable energy generator eligible under the large scale FiT scheme, the 19.4 MW, 6 turbine Coonooer Bridge Wind Farm located near Bendigo, Victoria, started generating.

This resulted in the total installed capacity under the large scale FiT scheme almost doubling from 20 MW to 39.4 MW.

### GENERATION (57,423 MWh)

The combined generation of these two generators (Royalla Solar Farm and Coonooer Bridge Wind Farm) was 57,423 MWh in 2015–16. This represents a significant increase from the 33,397 MWh generated by the Royalla Solar Farm alone in 2014–15.<sup>6</sup>

### IMPACT ON ELECTRICITY BILLS (49 CENTS PER WEEK)

According to the Independent Competition and Regulatory Commission's (ICRC) regulated retail electricity price decision for 2015–16<sup>7</sup>, the large scale FiT scheme contribution to regulated retail electricity tariffs was \$3.41 per MWh.

Based on a typical annual consumption of 7.441MWh<sup>8</sup> for a four-person household in the ACT, the pass through cost of the large scale FiT scheme to an average annual electricity bill in 2015–16 (excluding GST) was \$25.37. This equates to approximately 48.8 cents a week for each household. These costs will be lower for smaller households.

### Over-recovery of costs

It should be noted these costs represent an over-recovery for the large scale FiT scheme in 2015–16 by the electricity distributor. In 2015–16, the large scale FiT costs recovered by the electricity distributor from customers (\$8.4 million) exceeded the actual FiT payments to generators (\$5.8 million) by \$2.6 million. An over-recovery also occurred in 2014–15, when the large scale FiT costs recovered by the electricity distributor (\$7.86 million) exceeded the actual FiT payments to generators (\$5.01 million) by \$2.85 million.

The costs recovered by the distributor are determined in advance based on estimated generation. While the distributor overestimated the generation for 2014–15 and 2015–16, over recovered amounts will be adjusted in following years, resulting in lower pass through costs. The ACT Government is working with the distributor to ensure any future over recovery is minimised.

Some variability between estimated generation and actual generation may be unavoidable in the early years of the large scale FiT scheme as construction completion of new large scale generators is achieved and new generation capacity comes online. This could occur because of construction delays and/or climatic factors. The large scale FiT scheme will see three large scale solar farms and seven wind farms

<sup>6</sup> 2015–16 quarterly reports from electricity distributors are published on the Environment and Planning Directorate website ([www.environment.act.gov.au/energy/cleaner-energy/renewable-energy-target,-legislation-and-reporting](http://www.environment.act.gov.au/energy/cleaner-energy/renewable-energy-target,-legislation-and-reporting))

<sup>7</sup> Final Decision – Retail Electricity price calibration 2015–16 (June 2015), Page 25

<sup>8</sup> See footnote 7

constructed. Once the majority of new capacity has started generating, the difference between estimated and actual generation figures is expected to reduce dramatically.

### Online reporting

In addition to this report, detailed quarterly reports on the large scale FiT scheme are published on the Environment, Planning and Sustainable Development Directorate website.<sup>9</sup>

As well as the total electricity generated and the FiT payments made to generators, these quarterly reports include detailed daily market interval settlement data for generators on a 30 minute basis. This settlement data consists of the generation during the 30 minute interval, the wholesale market price and the FiT support payment. These reports are intended to enable greater transparency of the large scale FiT scheme.

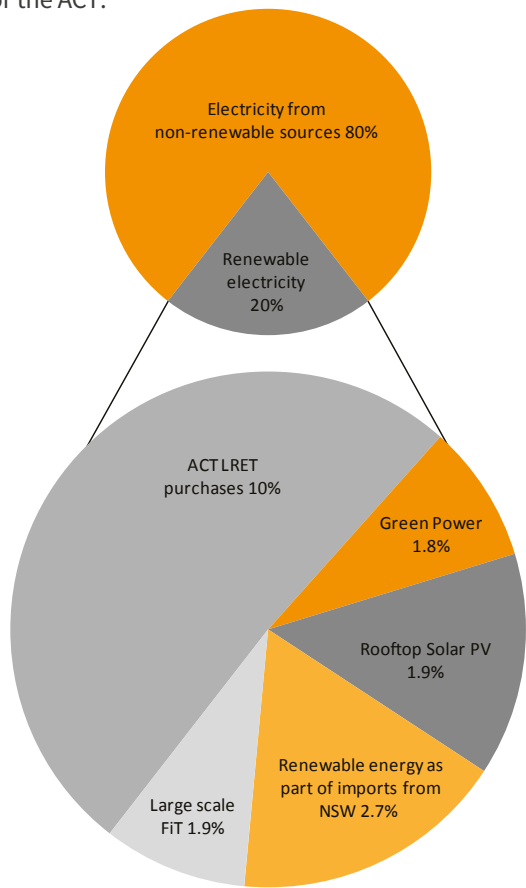
## 5. PROGRESS TOWARDS 100% BY 2020 TARGET

The ACT Government’s climate change strategy sets out the approach to be taken to reach the Territory’s legislated greenhouse gas emission reduction target of 40% below 1990 levels by 2020. The most significant part of this strategy is a commitment to achieve 100% renewable electricity supply by 2020 (‘the 100% by 2020 target’).

The majority of the contribution to the 100% by 2020 target is expected to be made by the large scale wind and solar generators under the large scale FiT scheme. Considerable progress has been made toward this target with the allocation to date of 639.9MW of FiT-supported generation capacity through the successful large scale wind and solar auctions (Appendix B – Outcomes of the Large scale FiT Auctions).

The decline in 2014–15 was outside of the control of the ACT and, caused by a significant reduction in Snowy Hydro scheme output. If a rolling five year average had been applied to smooth out one-off fluctuations in the output of Snowy Hydro, the share of renewable electricity would have been 19.8% in 2014–15.

Figure 2: The breakdown of renewable energy sources in the electricity supply in 2015–16 for the ACT.



### 2015-16 – CONTRIBUTION OF RENEWABLE ENERGY TO ACT ELECTRICITY SUPPLY – 20%

The 2015–16 ACT Greenhouse Gas Inventory report, published in December 2016<sup>10</sup>, showed that renewable sources made up 20.2% of ACT electricity supply in 2015–16. This increase from 18.8% in 2014–15 and 19.8% in 2013–14 was driven, in part, by increases in the generation from the large scale FiT scheme during 2015–16.

<sup>9</sup> <http://www.environment.act.gov.au/energy/cleaner-energy/renewable-energy-target-legislation-and-reporting>

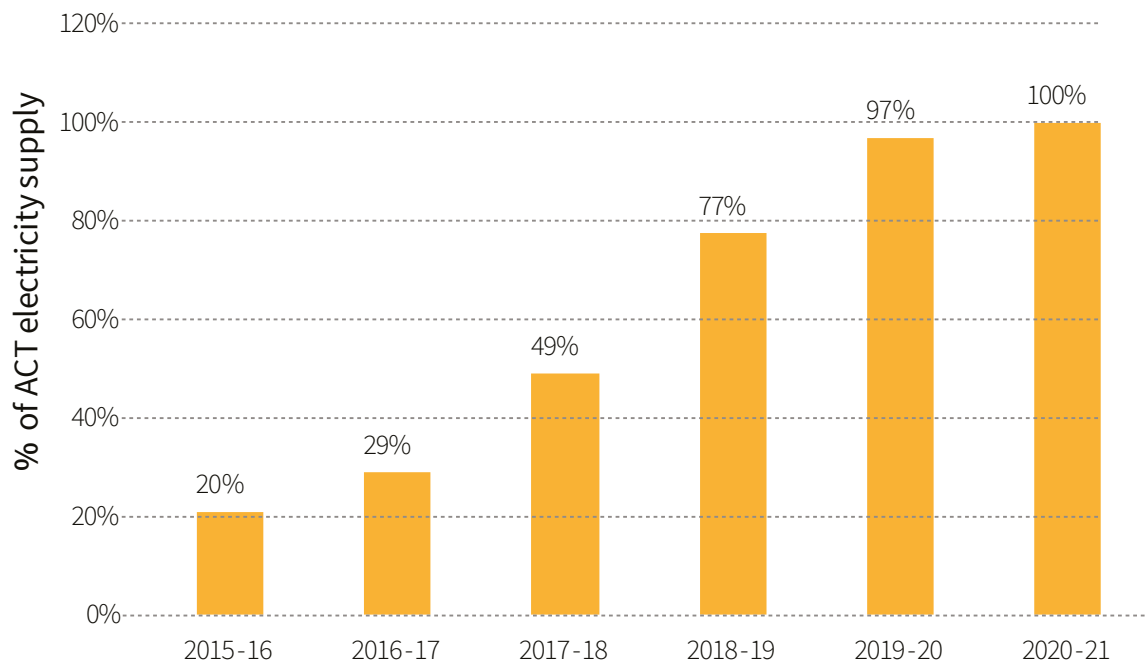
<sup>10</sup> Pitt & Sherry Report: ACT Greenhouse Gas Inventory for 2015-16 (<http://www.environment.act.gov.au/cc/acts-greenhouse-gas-emissions>)

As can be seen in Figure 2, the contribution of the small and medium FiT scheme and the large scale FiT scheme to the ACT electricity supply is under 4%, noting that the rooftop solar component includes generation outside of the FiT schemes. While this contribution, and the overall renewable electricity share of 20%, is well below the 100% by 2020 target, new generation capacity from successful projects in the ACT large scale wind and solar auctions will be completed in coming years and significantly increase this share. Figure 3 shows the expected progress towards the target from 2016-17 onwards.

While this escalation is based on the latest data available, actual progress between different years may vary from the figure above.

Until this new capacity comes online, the Australian Government’s Renewable Energy Target, combined with GreenPower purchases and ‘legacy renewables’, mainly consisting of the Snowy Hydro scheme, will continue to provide the majority of renewable electricity supply in the ACT. GreenPower purchases refer to the voluntary purchase of renewable electricity that households and businesses can purchase directly through their electricity retailers.<sup>11</sup>

Figure 3: Future Progress towards 100% Renewable Electricity Target



<sup>11</sup> According to the latest report available, 11,541 residential customers and 471 commercial customers purchased Green Power in the ACT (National GreenPower Quarterly Update: 1 October to 31 December 2015)



## 6. APPENDICES

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

#### Table A1 – FIT rates

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:

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 to 30kW, applications approved 1 March 2009 to 30 June 2010.
34.27c/kWh	Generator capacity between 30 to 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 <i>Electricity Feed-in (Renewable Energy Premium) Act 2008</i> (August 2015)	

The ACT Government small and medium FiT scheme was a ‘gross’ scheme, which means 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 A2 – Capacity and number of generators by tariff in 2015-16

Gross FiT Rate	No of generators	Installed Capacity (MW)
50.05c/kWh	2,461	5.01
45.7c/kWh	7,827	20.74
40.04c/kWh	3	0.09
34.27c/kWh	3	0.20
30.16c/kWh	10	0.31
Total	10,304	26.35 MW
Source – ActewAGL Distribution (November 2016)		

#### Table A3 – Long term generation data

MWh	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Output	202	2,409	7,670	20,947	33,717	35,342	33,397	34,910
Source – 2014-15 Annual Feed in Tariff Report and ActewAGL Distribution (November 2016)								

## APPENDIX B – OUTCOMES OF THE LARGE SCALE FIT AUCTIONS

### Large Scale Solar Auction (Proposals closed on 20 June 2012 and 16 April 2013)

Successful Proponents	FiT Rate	Capacity	FiT grant start date	Location
FRV Royalla Solar Farm Pty Limited	\$186/MWh	20 MW	31-Mar-2014	Royalla, ACT
Zhenfa Canberra Solar Farm One	\$178/MWh	13 MW	1-Oct-2014	Mugga Lane, ACT
OneSun Capital Solar Farm	\$186/MWh	7 MW	28-Apr-2015	Williamsdale, ACT

### Large Scale Wind Auction (Proposals closed on 3 September 2014)

Successful Proponents	FiT Rate	Capacity	FiT grant start date	Location
Ararat Wind Farm Pty Ltd	\$87/MWh	80.5 MW	14-April-2017	Ballarat, Victoria
Coonooer Bridge Wind Farm Pty Ltd	\$81.50/MWh	19.4 MW	29-Feb-2016	Bendigo, Victoria
Hornsedale Wind Farm Pty Ltd Stage 1	\$92/MWh	100 MW	16-Feb-2017	Port Augusta, South Australia

### Second Large Scale Wind Auction (Proposals closed on 14 October 2015)

Successful Proponents	FiT Rate	Capacity	FiT grant start date	Location
Hornsedale Wind Farm Stage 2	\$77/MWh	100 MW	1-Dec-2018	Port Augusta, South Australia
Sapphire Wind Farm	\$89.1/MWh	100 MW	1-May-2018	Glenn Innes, New South Wales

### Next Generation Renewables Auction (Proposals closed on 25 May 2016)

Successful Proponents	FiT Rate	Capacity	FiT grant start date	Location
Crookwell 2 Wind Farm	\$86.6/MWh*	91 MW	17-Sep-2018	Crookwell, New South Wales
Hornsedale Wind Farm Stage 3	\$73/MWh*	109 MW	1-Oct-2019	Port Augusta, South Australia

\* The wind farms successful under the Next Generation Renewables Auction will also be financing the rollout of 36 MW of distributed battery storage in over 5,000 ACT homes and businesses under the Government's Next Generation Storage program. [www.environment.act.gov.au/energy](http://www.environment.act.gov.au/energy). The effective FiT rate for Crookwell 2 Wind Farm and Hornsedale Wind Farm Stage 3 increases to \$90.4/MWh and \$78/MWh respectively when this is included.

## APPENDIX C – HOW DOES THE LARGE SCALE FIT – CONTRACT FOR DIFFERENCE WORK?

Under the large scale FiT scheme, renewable electricity generators receive the difference between the wholesale market price of electricity at the time of supply into the National Electricity Market (NEM) and the fixed FiT rate bid by winning generators during the auction.

This provides revenue stability to generators by reducing their exposure to volatile wholesale prices, which contributes to attracting lower FiT rates to ACT auctions. This has resulted in winning FiT prices in the ACT wind and solar auctions being far lower than those expected by industry experts, resulting in some of the cheapest sources of renewable electricity in the NEM being secured by the ACT.

Additionally, this strategy also benefits ACT electricity users over the long term by protecting them from potentially higher wholesale prices in the future. This is because as wholesale market prices rise, due to future government policies or other effects, the difference between these prices and the FiT rate applicable to the generator will become smaller, reducing overall FiT payments. This will result in reduced FiT pass-through costs to ACT electricity consumers.