



Los Angeles
Department of
Water & Power

FEED-IN TARIFF 2020 ANNUAL REPORT

DISTRIBUTED ENERGY RESOURCE PROGRAMS

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Executive Summary

2020 Major Milestones and Highlights

Since the Feed-in Tariff (FiT) Program launched in 2013, a total of 677 applications have been submitted and 108 projects totaling 77.9 megawatts (MW) have been constructed. In 2020 alone, 10 new projects totaling about 13.03 MW were commissioned.

The 13.03 MW worth of FiT projects that were commissioned in 2020 generated about 130,000 MWh. Based on the actual generation for 2020, 44 million pounds of CO₂ emissions are avoided annually, and approximately 21,740 homes are served carbon-free per year. The FiT program executed 32 power purchase agreements totaling a capacity of 18.9 MW expected to reach commercial operation in 2021.

In 2020, Los Angeles once again achieved the most installed solar power of any city in America, as it has 6 out of the last 7 years, according to the *Shining Cities 2020* report by the Environment California Research and Policy Center. The rapid progress brings the city closer to meeting several goals outlined in L.A.'s Green New Deal Sustainability pLAN, including a clean and resilient energy supply through the expansion of solar resources.

Energy Production for 2020

Based on a contract term of 20 years for a majority of the 108 projects, the lifetime production is projected to be about 2.6 terawatt-hours (2.6 million megawatt-hours). In 2020, the projects generated about 130,000 MWh compared to an expected 157,000 MWh.

Historical Program Background

On April 17, 2012, the Board of Water and Power Commissioners (the Board) adopted the FiT Demonstration Program Guidelines, Standard Offer Power Purchase Agreement (SOPPA), and the Standard Offer for Customer Generation Interconnection Agreement (IA), to be effective upon the adoption of an ordinance authorizing the Board to enter into long-term FiT contracts and to delegate that authority to the General Manager.

On May 17, 2012, Ordinance No. 182108 amended the Los Angeles Administrative Code (LAAC) to authorize the Board to enter into 150 MW of long-term FiT contracts and to delegate that authority to the General Manager.

On January 11, 2013, the Board adopted the 100 MW FiT Set Pricing Program (FiT 100), FiT Set Pricing Program Guidelines, SOPPA, and IA.

On April 16, 2013, the Board adopted the FiT50 program via Resolution 013-249, consisting of an additional 50 MW of local solar, as the remaining part of the full 150 MW FiT Program and in conjunction with the Beacon Bundled Solar Program, and also called for a plan to capture any potential FiT50 capacity that may fail to develop, as either an addition to FiT100 or some other FiT offering, so that the total FiT development goal remains at 150 MW.

On February 18, 2014, the Board adopted the revised FiT Set Pricing Program Guidelines, SOPPA, and IA for use in the 100 MW Set Pricing Program.

On May 16, 2017, the Board adopted Resolution 017-234 for the 65 MW FiT Capacity Re-offer, as the unclaimed part of the FiT 100 program.

On September 24, 2019, the Board adopted Resolution 20-059, authorizing 50 MW to be added to the FiT program immediately upon City Council approval, with another 250 MW reserved for future FiT programs.

On December 4, 2019, Ordinance No. 186467 amended Section 10.5.2 of the LAAC authorizing the Board to enter into an additional 300 MW of long-term FiT contracts, a cumulative total of 450 MW, and raising the maximum project capacity from 3 to 10 MW.

Other Notable 2020 Events

On July 15, 2020, Oxen Solar I, with a size of 80 kilowatts (kW), was decommissioned and removed from the program.

On June 16, 2020, LADWP was notified of the removal of 9,134 carport-mounted and 365 roof-mounted photovoltaic modules along with 77 inverters for a total of 3.25 MW from the existing systems at 7001 S. Central Avenue to make room for a future United States Postal Service building. The nameplate capacity of each facility was revised accordingly (see Appendix – Table 1 for details)

On December 8, 2020, the Board adopted Resolution 21-101, extending the final commercial operation milestone deadline for 5 projects at the Port of Los Angeles with a combined capacity of 4.48 MW. All 5 projects reached commercial operation in 2020, however at a reduced capacity of 4.09 MW.

Next Steps

Technological advancements and public policies are encouraging greater adoption of Distributed Energy Resources (DERs) to meet electric system needs within the City of Los Angeles. DERs address local needs for in-basin generation to assist with power quality, carbon footprint reduction, and resiliency aspects of the distribution system. LADWP's integration of local DERs will better align resource investments as higher levels of renewable generation are achieved. The Feed-in Tariff Plus (FiT+) Program Pilot, an extension of the existing FiT Program, will allow photovoltaic (PV) solar and energy storage systems to be competitively bid and integrated into LADWP's grid. Initial deployment of FiT+ will focus on Preferred Zones of Development within the distribution system.

Appendix

Table 1 – Original and Revised Capacities at 7001 S. Central Ave.

Project Name	Original Capacity (kW CEC-AC)	Revised Capacity (kW CEC-AC)
USPS 1A	1,670	1,138
USPS 1B	3,211	3,211
USPS 2A	2,893	1,127
USPS 2B	2,835	1,880
Total Capacity (kW):	10,609	7,356

Table 2 – Projects Energized in 2020

Program	Project Name	Commercial Operation Date	Nameplate Capacity (kW CEC-AC)
Fit100	Zelzah	3/6/2020	552.00
SetFit	1 Gen	5/29/2020	429.89
SetFit	Western Jet	7/29/2020	1,178.00
SetFit	Chill Solar	12/23/2020	6,052.00
SetFit	VS RXI Pacoima	12/31/2020	729.06
Fit50	PMA/ILUW Local 13 Dispatch Hall Surplus Lot	12/14/2020	784.39
Fit50	Berth 161 CAMD Employee Parking	12/15/2020	815.77
Fit50	Parking Lot at Cabrillo Way Marina - South	12/17/2020	1,053.05
Fit50	Berths 93 D & E Parking Lot (Catalina Express) Carports	12/30/2020	1,098.15
Fit50	Liberty Plaza Parking	12/31/2020	338.86
		Total Capacity (kW):	13,031.17

FiT Energy Production (Cummulative)

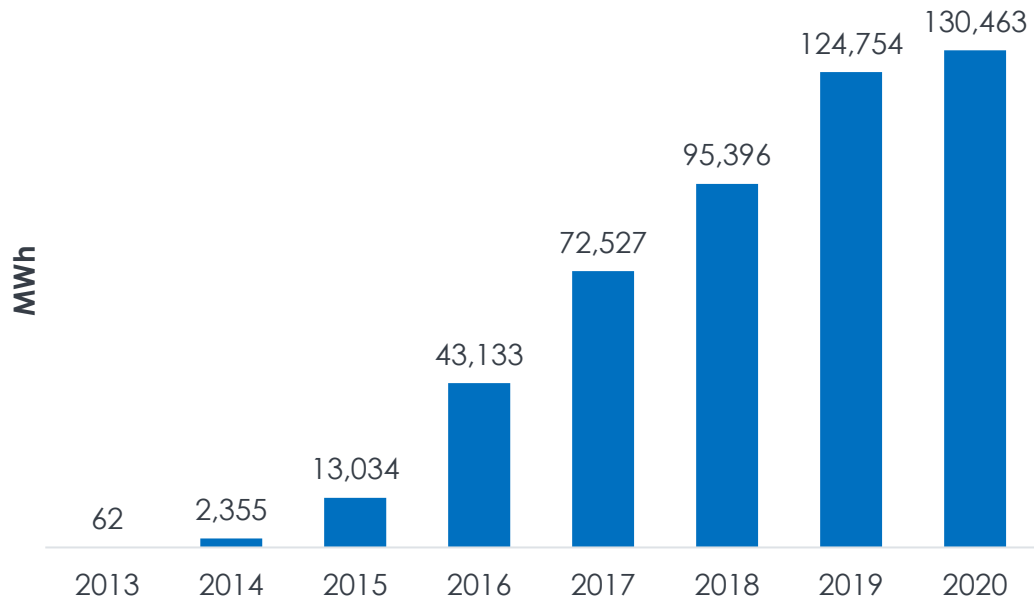


Figure 1 – Annual Energy Production Since Program Inception (MWh)

FiT Projects In-Service (Cummulative)

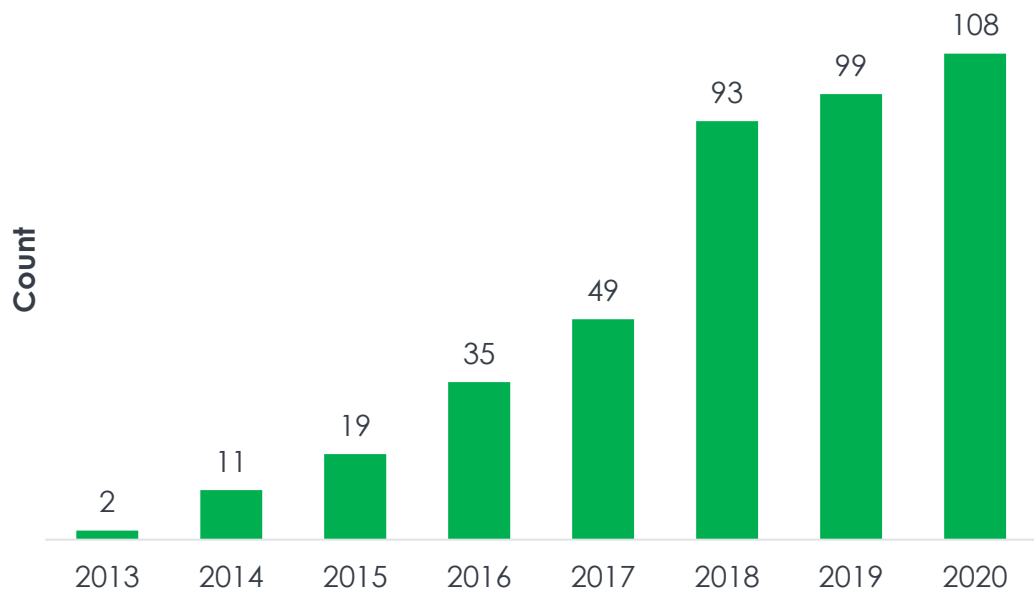


Figure 2 - Projects In-Service

FiT Capacity (Cummulative)

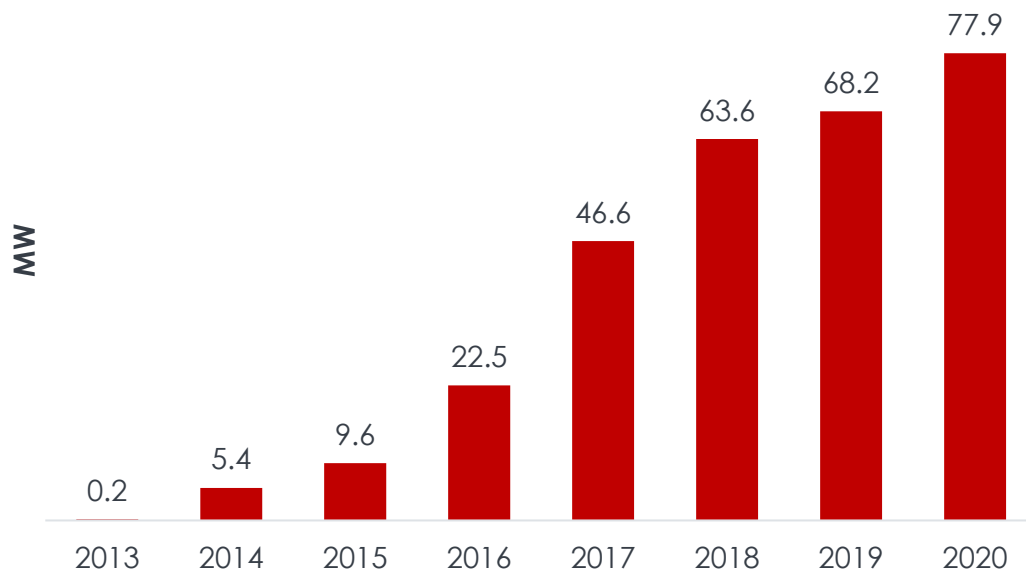


Figure 3 - Capacity In-Service (MW)

Energy Production per Allocation (MWh)

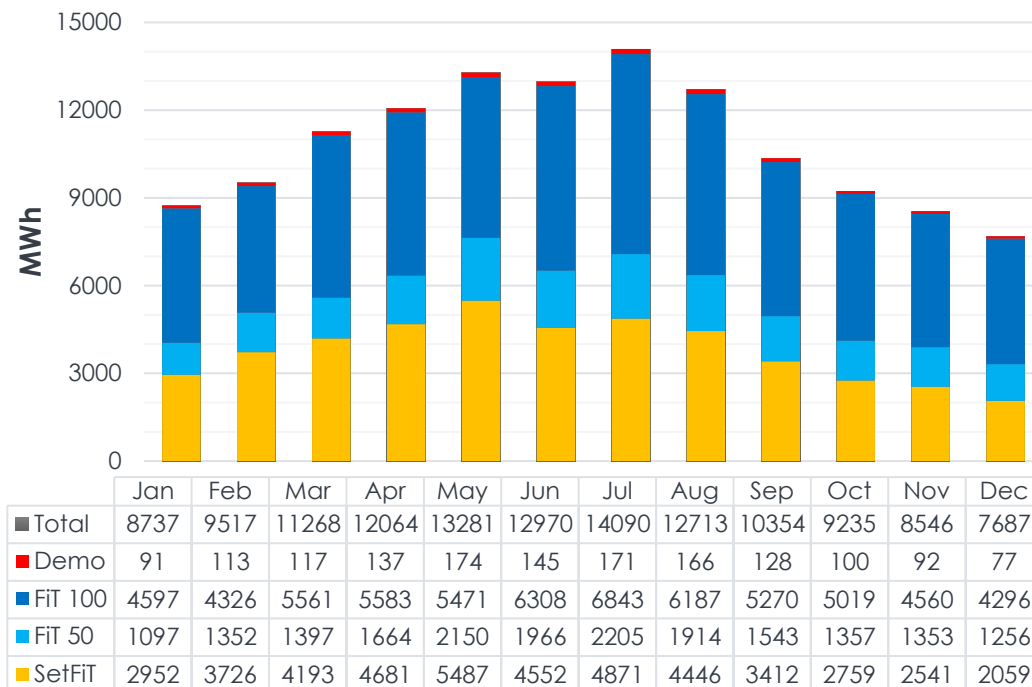


Figure 4 - Energy Production per Program in 2020

Energy Production per Type of Generation (MWh)

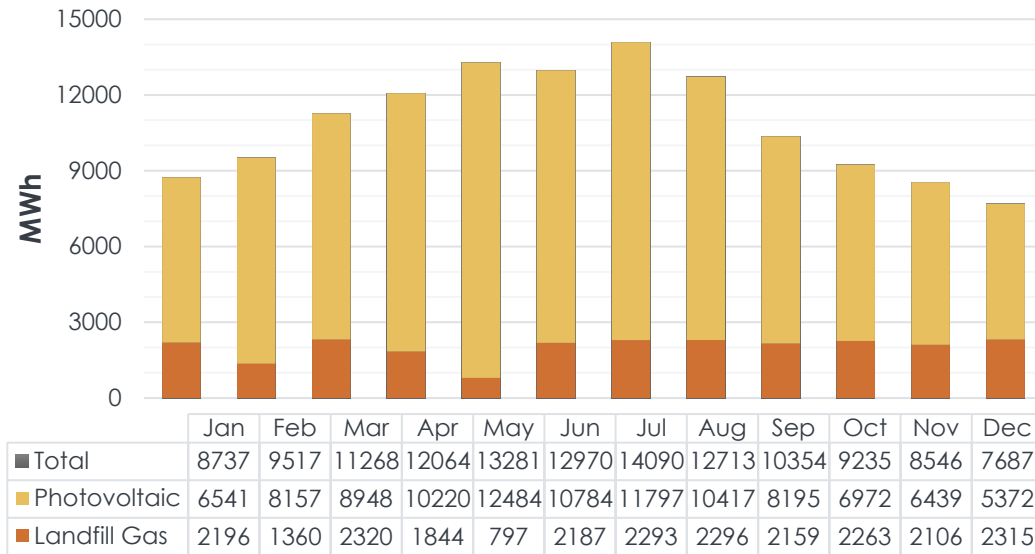


Figure 5 - Energy Production per Generation Type in 2020

Actual vs Expected Generation (MWh)

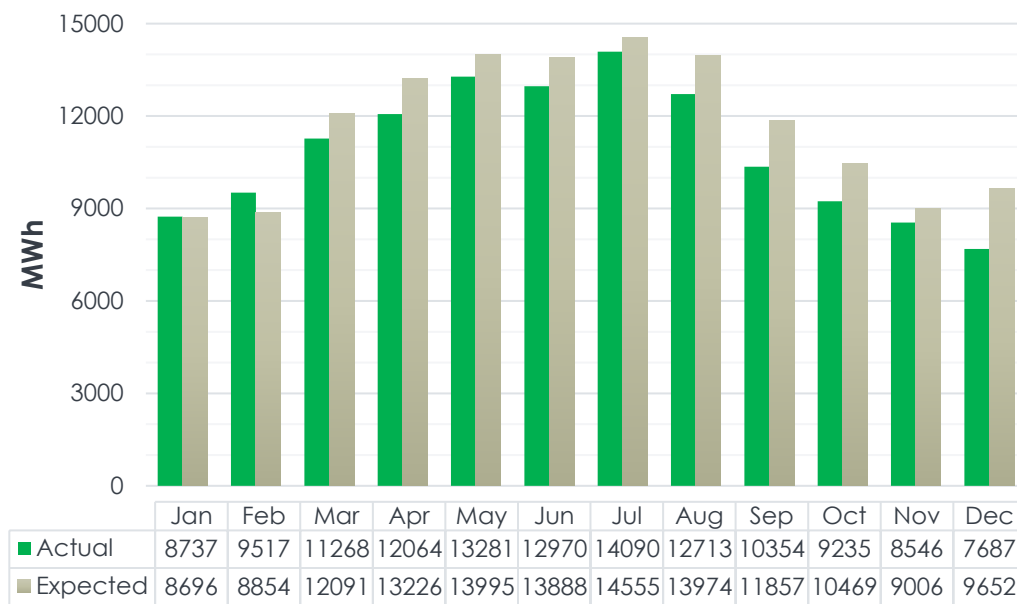
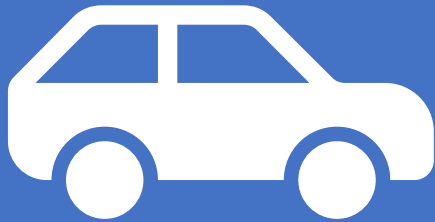


Figure 6 - Actual vs Expected Generation in 2020



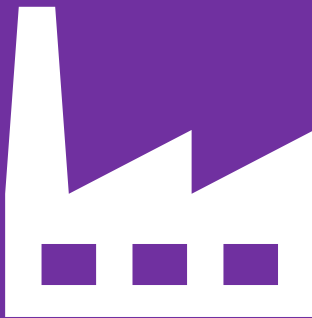
Energy Savings Equivalent
to Number of Homes Served

21,744



CO₂ Emissions Avoided to Number
of Automobiles Not Driven

9,749



Energy Savings to CO₂ Emissions
Avoided
(Metric Tons)

44,620

Figure 7 - Energy Savings Equivalents in 2020

Energy Savings Equivalent to Number of Homes Served for 1 Year

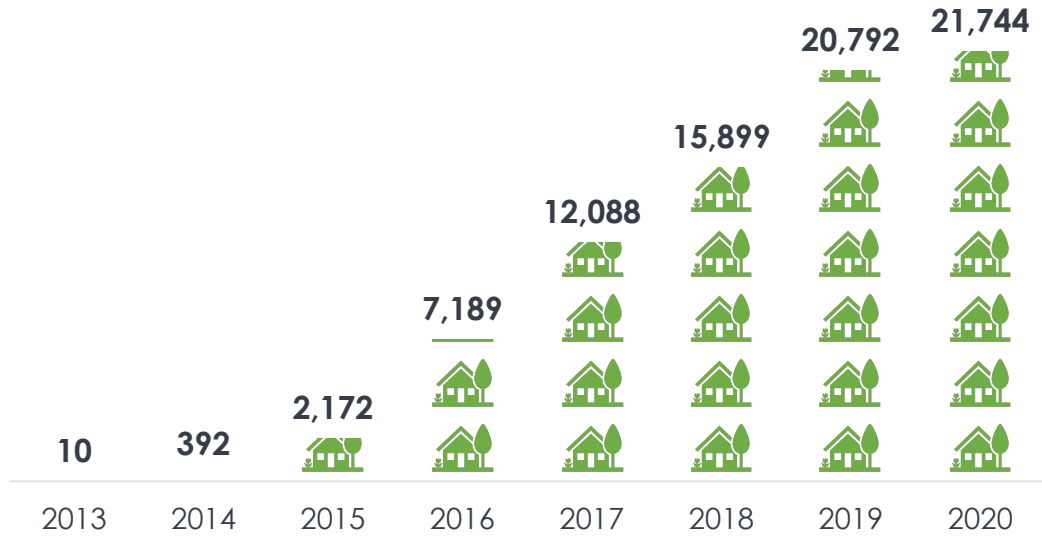


Figure 8 - Energy Savings Equivalent to Number of Homes Served for 1 Year

CO₂ Emissions Avoided to Number of Automobiles Not Driven for 1 Year

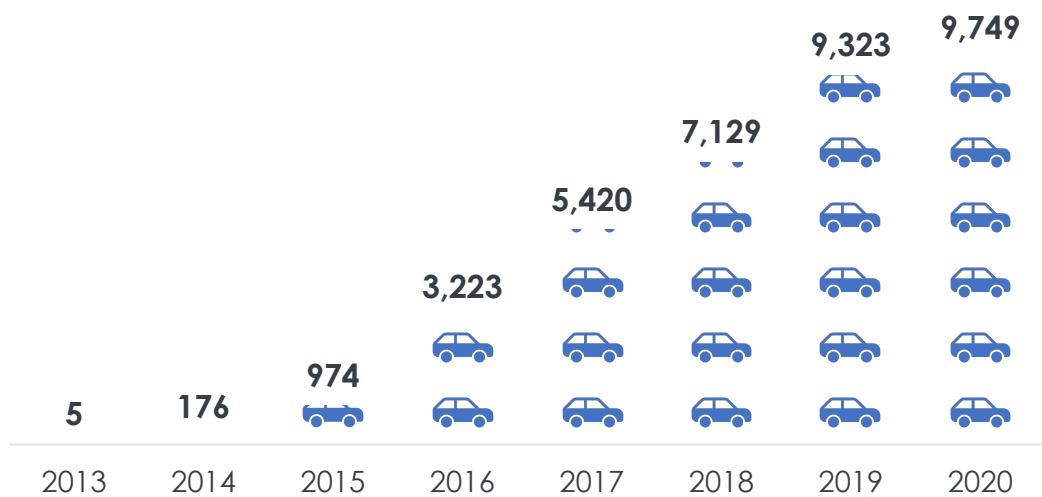


Figure 9 - Carbon Emissions Avoided Equivalent to Number of Automobiles Not Driven for 1 Year

Energy Savings to CO₂ Emissions Avoided (CO₂ Metric Tons)

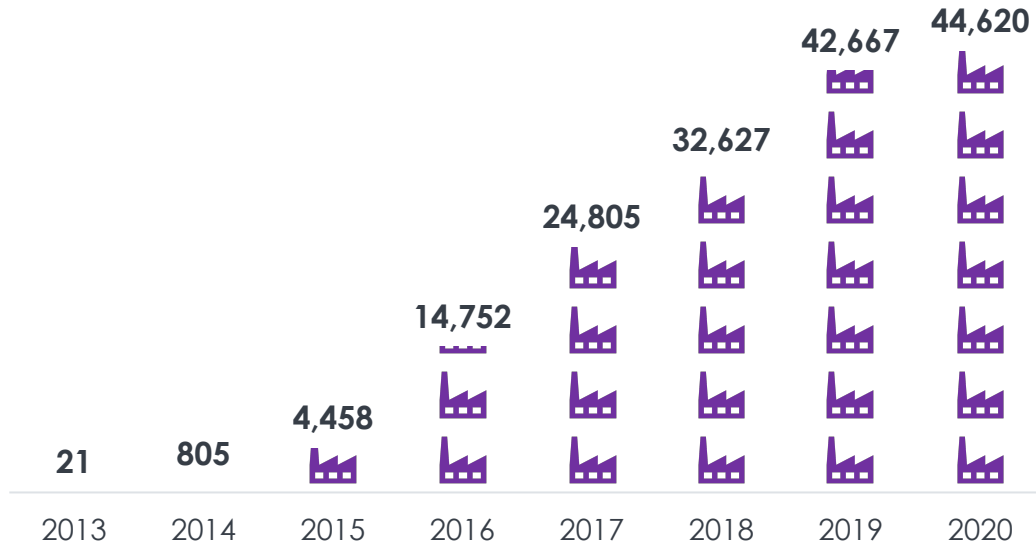


Figure 10 - Energy Savings Equivalent to Carbon Emissions Avoided (Metric Tons)

Table 3 – Energy Production Summary in 2020

Project Name	COD	Capacity in kW (CEC-AC)	BPE (\$/kWh)	2020 Actual Production (MWh)	Total Payment in 2020 (\$)
1 Gen	5/29/2020	429.89	\$ 0.145	302.54	43,868.51
13207 Bradley Avenue	10/22/2018	785.00	\$ 0.145	1,303.80	188,928.94
1425-12360 Foothill Blvd	3/4/2016	134.56	\$ 0.170	218.66	38,257.63
14539 Blythe Solar PV	11/7/2014	80.00	\$ 0.170	111.54	19,425.69
21717 Nordhoff	6/9/2014	82.70	\$ 0.170	117.78	20,273.21
3650 E Olympic	7/28/2015	300.00	\$ 0.160	300.45	48,934.91
3880 N Mission Road Solar FIT	2/13/2015	1,559.00	\$ 0.160	2,170.33	352,293.63
7061 Foothill	5/9/2018	51.04	\$ 0.160	30.10	5,267.78
8011-658 Venice Blvd	12/13/2017	148.58	\$ 0.170	241.94	41,733.24
Aeroplex	8/14/2018	381.30	\$ 0.145	547.87	79,440.85
Aeroplex 2	8/13/2018	952.93	\$ 0.145	1,788.57	216,541.39
Alegria Clean Energy	6/26/2018	39.00	\$ 0.150	46.29	7,105.94
Ardagh Cannery Building #8	9/20/2018	999.00	\$ 0.117	2,152.98	240,084.86
Berth 161 CAMD Employee Parking	12/15/2020	815.77	\$ 0.117	30.32	2,965.05
BERTH 54-55 FRUIT TERMINAL	12/21/2018	990.00	\$ 0.117	2,096.07	247,576.05
Berths 153, 154-155	12/7/2018	999.00	\$ 0.117	1,825.09	217,458.75
Berths 93 D & E Parking Lot (Catalina Express)	12/30/2020	1,098.15	\$ 0.117	5.95	713.11
BJE Solar FIT Project	11/16/2018	669.79	\$ 0.140	986.54	140,881.89
BJE Solar FIT Project II	11/16/2018	196.93	\$ 0.140	250.64	35,565.40
Canoga Chatsworth	5/14/2019	611.47	\$ 0.145	1,052.62	152,629.59
Capelin Distribution Center	10/24/2014	999.30	\$ 0.160	1,559.82	253,423.09
Cathay LA - Solar Project	6/6/2015	387.41	\$ 0.150	599.15	93,510.53
Century House Apartments Solar	4/4/2019	146.86	\$ 0.145	157.06	22,773.72
Chatsmouth LLC Solar Project 1	1/15/2014	500.00	\$ 0.170	917.12	155,995.65
Chatsworth 1	11/8/2019	453.19	\$ 0.145	666.24	96,605.34
Chill Solar	12/23/2020	6,052.00	\$ 0.145	78.04	11,315.31
Colon PV	12/14/2015	1,295.00	\$ 0.170	2,004.89	341,866.96
De Soto	6/26/2019	1,156.07	\$ 0.145	1,960.74	284,307.53
Dedeaux	12/27/2019	1,217.80	\$ 0.145	1,933.98	280,426.39
DS2 Solar FiT Project	12/28/2017	233.30	\$ 0.145	347.67	50,412.69
DS3 Solar FiT Project	12/28/2017	495.70	\$ 0.145	681.57	98,827.07
Figueroa & Ave.61 Center	4/16/2015	32.14	\$ 0.160	49.05	7,910.55
Flight Building 10	8/7/2018	54.50	\$ 0.150	74.26	11,385.13
Flight Building 11	7/25/2018	59.90	\$ 0.150	85.63	13,082.74
Flight Building 12	7/25/2018	39.70	\$ 0.150	64.02	9,788.55
Flight Building 13	7/25/2018	122.40	\$ 0.150	190.37	29,006.95
Flight Building 14	4/16/2019	44.30	\$ 0.150	64.70	10,394.47
Flight Building 8	9/7/2018	49.50	\$ 0.150	66.53	10,166.93
Flight Building 9	10/30/2018	92.20	\$ 0.150	81.83	11,771.81

Project Name	COD	Capacity in kW (CEC-AC)	BPE (\$/kWh)	2020 Actual Production (MWh)	Total Payment in 2020 (\$)
Flight Building 1	9/7/2018	124.00	\$ 0.150	199.88	30,442.45
Flight Building 2	9/11/2018	55.90	\$ 0.150	76.68	11,888.15
Flight Building 3	9/11/2018	55.90	\$ 0.150	84.67	12,969.79
Flight Building 4	9/11/2018	35.40	\$ 0.150	56.81	8,690.45
Flight Building 5	9/11/2018	70.90	\$ 0.150	109.40	16,695.93
Flight Building 6	8/21/2018	52.20	\$ 0.150	79.90	12,210.47
Flight Building 7	9/19/2018	95.40	\$ 0.150	147.99	22,638.95
Francisco	12/7/2018	1,262.00	\$ 0.145	2,321.02	323,659.94
Harbor Regional Park / 100 kW DC Ground Mount	4/19/2017	89.90	\$ 0.170	118.51	20,026.80
Irondale properties LLC SET FIT LADWP	10/29/2019	308.30	\$ 0.145	498.70	72,310.98
KSI Solar Whiteman, LLC	12/17/2015	333.00	\$ 0.170	496.76	84,744.31
Laurel	8/22/2016	446.35	\$ 0.170	703.19	116,299.38
LAX Logistic industrial Center A, B - Hannah Solar	12/4/2014	833.00	\$ 0.217	1,510.25	333,312.59
Layline Distribution Center - MRB Solar LLC	11/6/2014	833.00	\$ 0.170	1,618.31	279,346.10
Liberty Plaza Parking	12/31/2020	338.86	\$ 0.117	0.32	47.34
M&D 13-18 LLC	10/29/2018	104.60	\$ 0.150	166.72	24,860.19
M&D 1-4 LLC	10/29/2018	104.60	\$ 0.150	173.96	26,006.32
M&D 19-24 LLC	10/29/2018	104.60	\$ 0.150	168.21	25,040.38
M&D 25-30 LLC	10/29/2018	104.60	\$ 0.150	170.78	25,405.05
M&D 5-8 LLC	10/29/2018	104.60	\$ 0.150	173.93	25,928.11
M&D 9-12 LLC	10/29/2018	104.60	\$ 0.150	170.34	25,373.99
Mastercraft 96.64kW Solar PV	9/3/2015	96.64	\$ 0.160	57.69	7,954.44
M-C Investments 4558 Brazil	7/19/2016	148.00	\$ 0.150	180.67	27,535.21
MM Lopez Energy LLC	1/29/2016	2,950.00	\$ 0.170	24,137.61	2,949,801.77
Napa FiT	12/13/2018	387.00	\$ 0.130	470.75	60,480.69
New Hope	10/3/2018	300.00	\$ 0.160	377.68	62,099.27
Nordhoff Place	9/23/2014	1,184.30	\$ 0.160	1,297.30	208,678.70
North Figueroa & Ave. 58-59 Center	11/2/2016	136.61	\$ 0.160	127.88	20,672.56
Owens Valley Solar Project 11	12/10/2016	1,000.00	\$ 0.140	3,043.37	406,558.95
Owens Valley Solar Project 5	12/10/2016	3,000.00	\$ 0.140	7,392.37	1,004,228.52
Parking Lot at Cabrillo Way Marina - South	12/17/2020	1,053.05	\$ 0.117	43.05	4,237.06
PMA/ILUW Local 13 Dispatch Hall Surplus Lot	12/14/2020	784.39	\$ 0.117	30.16	3,072.82
Port LA Solar FIT Project	2/19/2016	1,076.50	\$ 0.140	1,815.67	254,470.20
Prairie Solar I	3/1/2016	213.60	\$ 0.160	176.71	27,716.18
Prairie Solar II	4/27/2016	146.93	\$ 0.160	184.57	29,162.78
Saf Keep Melrose	5/19/2016	144.08	\$ 0.160	221.60	36,274.85
Saf Keep San Fernando	3/2/2015	144.08	\$ 0.160	218.75	35,775.32
Shri Ji Ram Solar FIT Project	7/26/2017	349.00	\$ 0.130	523.30	69,320.11
So. California Trophy CO	12/6/2013	120.00	\$ 0.170	118.74	21,408.22
SOL #1122 North Hollywood	4/1/2016	236.70	\$ 0.170	339.85	58,143.69

Project Name	COD	Capacity in kW (CEC- AC)	BPE (\$/kWh)	2020 Actual Production (MWh)	Total Payment in 2020 (\$)
SOL #1160 Los Angeles	5/19/2016	87.13	\$ 0.170	137.70	23,676.39
SOL #1235 LOS ANGELES	8/17/2016	139.80	\$ 0.170	193.02	33,412.31
SOL #1254 PACOIMA	4/1/2016	90.80	\$ 0.170	134.91	23,281.16
Sun Valley 1	12/20/2018	1,924.10	\$ 0.145	3,098.82	448,830.05
Sun Valley 2	11/28/2018	662.00	\$ 0.145	1,070.36	155,202.33
SW2, LLC	12/31/2018	149.89	\$ 0.150	213.85	31,493.19
Tangen Building	11/5/2014	31.50	\$ 0.170	35.06	6,051.60
US Customs House	9/11/2018	573.00	\$ 0.117	979.82	110,930.38
USPS FiT 1A	2/3/2017	1,138.00	\$ 0.117	1,866.05	222,193.87
USPS FiT 1B	2/3/2017	3,211.00	\$ 0.117	5,354.19	641,741.46
USPS FiT 2A	4/10/2017	1,127.00	\$ 0.117	1,564.59	166,804.05
USPS FiT 2B	4/10/2017	1,880.00	\$ 0.117	2,072.50	226,786.66
Valley Solar #1	8/29/2018	387.30	\$ 0.145	634.32	91,627.08
Valley Solar #5	7/10/2018	205.10	\$ 0.145	216.21	31,350.52
Valley Solar #6	6/29/2018	208.60	\$ 0.145	106.56	15,451.68
Van Nuys Air- 16620 Stagg St	8/21/2018	402.00	\$ 0.170	688.98	116,968.46
Van Nuys Air 7855 Hayvenhurst- Hannah Solar	10/7/2014	666.00	\$ 0.214	1,156.51	248,991.51
Vaughn Solar	12/19/2018	2,000.00	\$ 0.170	3,363.14	585,064.50
VS RXI Pacoima	12/31/2020	729.06	\$ 0.145	1.04	151.31
WE Solar FIT Project	12/21/2018	985.85	\$ 0.140	1,299.02	186,327.31
Western Jet	7/29/2020	1,178.00	\$ 0.145	486.18	70,496.41
Westmont 300A	3/30/2017	2,998.40	\$ 0.135	5,743.29	768,071.24
Westmont 300B	12/31/2016	2,998.00	\$ 0.135	5,790.51	769,423.98
Westmont 301	12/15/2017	1,795.50	\$ 0.135	3,146.94	412,921.73
Westmont 400A	7/31/2017	2,287.00	\$ 0.135	3,803.44	516,851.48
Westmont 400B	7/31/2017	2,187.50	\$ 0.135	4,002.18	523,506.82
Westmont 401	11/20/2017	2,854.30	\$ 0.135	5,170.04	679,835.07
Woodman & Nordhoff Center	7/24/2019	642.85	\$ 0.160	312.44	50,585.09
Zelzah	3/6/2020	552.00	\$ 0.130	854.77	112,420.20