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# NJ Solar Market Update

## As of 9/30/15

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October 13, 2015

# SOLAR INSTALLED CAPACITY DATA



- The preliminary installed solar capacity as of 9/30/15 is approximately 1,546.2 MW.
  - Approximately 11.8 MW reported as installed in September
  - 39,500 solar installations
- The preliminary solar project pipeline capacity as of 9/30/15 is approximately 430.3 MW.
  - 9,796 projects in solar pipeline

For program reporting purposes, projects have achieved the "Installed" designation when the Final as-built documents are received and accepted by the Market Manager (noted as QC or QA Selected status in the project list).

# SOLAR INSTALLED CAPACITY DATA



- The 2015 Year to date installed capacity is 67.5% of the 2014 YTD value at the same point (114.4 MW vs. 169.5 MW in 2014).
- A comparison of the solar capacity added in the two most recently completed quarters is as follows:
  - Q2 2015 = 31.0 MW      Q3 2015 = 45.5 MW
  - Percent change: Increase of approximately 46.6%

# NJCEP SOLAR INSTALLED PROJECTS PLUS PIPELINE HISTORY AS OF 9/30/15



<b>NJCEP Solar Installed Projects Plus Pipeline History as of 9/30/15</b>			
<b>As Of</b>	<b>MW Installed</b>	<b>MW Pipeline</b>	<b>Combined MW</b>
6/30/2014	1,319.2	345.7	1,664.9
7/31/2014	1,336.8	358.3	1,695.1
8/31/2014	1,344.6	361.5	1,706.1
9/30/2014	1,354.0	359.2	1,713.3
10/31/2014	1,365.7	377.1	1,742.8
11/30/2014	1,373.4	391.9	1,765.3
12/31/2014	1,431.9	351.9	1,783.9
1/31/2015	1,438.9	355.8	1,794.6
2/28/2015	1,456.6	349.8	1,806.4
3/31/2015	1,469.7	395.8	1,865.5
4/30/2015	1,478.8	389.1	1,867.9
5/31/2015	1,486.3	406.3	1,892.6
6/30/2015	1,500.7	402.9	1,903.6
7/31/2015	1,513.7	409.1	1,922.8
8/31/2015	1,534.4	412.7	1,947.1
9/30/2015	1,546.2	430.3	1,976.5

Preliminary values for 9/30/15

# NJCEP SOLAR INSTALLED PROJECTS PLUS PIPELINE PROJECTS SUMMARY



## Preliminary Values As of 9/30/15

### Installed Solar Projects

Interconnection Type	Project Qty	Total Capacity (KW DC)	Percent of Capacity	Avg System Size (kW DC)
Behind the meter	39,371	1,208,674.7	78.2%	30.7
Direct Grid Supply	129	337,516.9	21.8%	2,616.4
<b>Installed Totals</b>	<b>39,500</b>	<b>1,546,191.6</b>	<b>100.0%</b>	<b>39.1</b>

### Solar Project Pipeline

Interconnection Type	Project Qty	Total Capacity (KW DC)	Percent of Capacity	Avg System Size (kW DC)
Behind the meter	9,758	144,158.7	33.5%	14.8
Direct Grid Supply	38	286,116.1	66.5%	7,529.4
<b>Pipeline Totals</b>	<b>9,796</b>	<b>430,274.7</b>	<b>100.0%</b>	<b>43.9</b>

<b>Totals For All Projects</b>	<b>49,296</b>	<b>1,976,466.3</b>		<b>40.1</b>
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# NJCEP Solar Generation Scenarios – EY 2015-2017



Assumptions used in forecast of capacity added for each EY

EY	Estimated Monthly BTM Capacity Added (kW/Month)			Estimated Monthly Grid Supply Capacity Added (kW/Month)			Estimated Total Capacity Added (kW/Month)		
	Low	Med	High	Low	Med	High	Low	Med	High
EY2015	9,800	9,800	9,800	5,900	5,900	5,900	15,700	15,700	15,700
EY2016	10,000	13,300	19,700	9,500	13,000	15,000	19,500	26,300	34,700
EY2017	10,200	14,100	21,100	8,000	10,000	11,500	18,200	24,100	32,600

EY	Estimated Annual BTM Capacity Added (kW/Year)			Estimated Annual Grid Supply Capacity Added (kW/Year)			Estimated Total Capacity Added (kW/Year)		
	Low	Med	High	Low	Med	High	Low	Med	High
EY2015	117,497	117,497	117,497	70,803	70,803	70,803	188,300	188,300	188,300
EY2016	120,000	159,600	236,400	114,000	156,000	180,000	234,000	315,600	416,400
EY2017	122,400	169,200	253,200	96,000	120,000	138,000	218,400	289,200	391,200

# NJCEP Solar Generation Scenarios – EY 2015-2017



Estimated Total Capacity Added = Behind The Meter (BTM) Capacity Added + Grid Supply Capacity Added

Low, Med, High Assumptions used in forecast of annual capacity added for EY 2016 & EY 2017:

Low	Based upon 102% of the EY2015 BTM install rate with 2% growth from EY16 to EY17 plus annual additions from the grid supply table above.	Avg BTM monthly kW capacity added during EY2015 =	9,800
Med	Based upon 109% of the 2 year historical run rate for BTM installs with 6% growth from EY16 to EY17 plus annual additions from grid supply table above.	Avg BTM monthly kW capacity added for previous 2 Years =	12,220
High	Based upon 115% of the 4 year historical run rate for BTM installs with 7% growth from EY16 to EY17 plus annual additions from grid supply table above.	Avg BTM monthly kW capacity added for previous 4 Years =	17,130

Annual output calculation is based upon 1,200 kWh/kW with heavier weighting of summer months and lower weighting of winter months.

# NJCEP Solar Generation Scenarios – EY 2015-2017



NJ Solar RPS Requirement By Energy Year				
Energy Yr	Retail Sales Est (MWh)	RPS %	Est RPS Req (MWh)	Retail Sales estimates used to estimate RPS MWh requirement for EY 2015-2017
2015	76,600,000	2.45%	1,876,700	
2016	76,700,000	2.75%	2,109,250	
2017	76,800,000	3.00%	2,304,000	

Estimated SRECs Available By Energy Year - 3 Scenarios As of 09/30/15				
Energy Yr	RPS Req	Low	Med	High
2013	596,000	1,416,668	1,416,668	1,416,668
2014	1,568,508	2,252,168	2,252,168	2,252,168
2015	1,876,700	2,368,160	2,368,160	2,368,160
2016	2,109,250	2,412,360	2,438,660	2,471,160
2017	2,304,000	2,507,410	2,651,710	2,840,010



# NJCEP Solar Generation Scenarios – EY 2014-2017



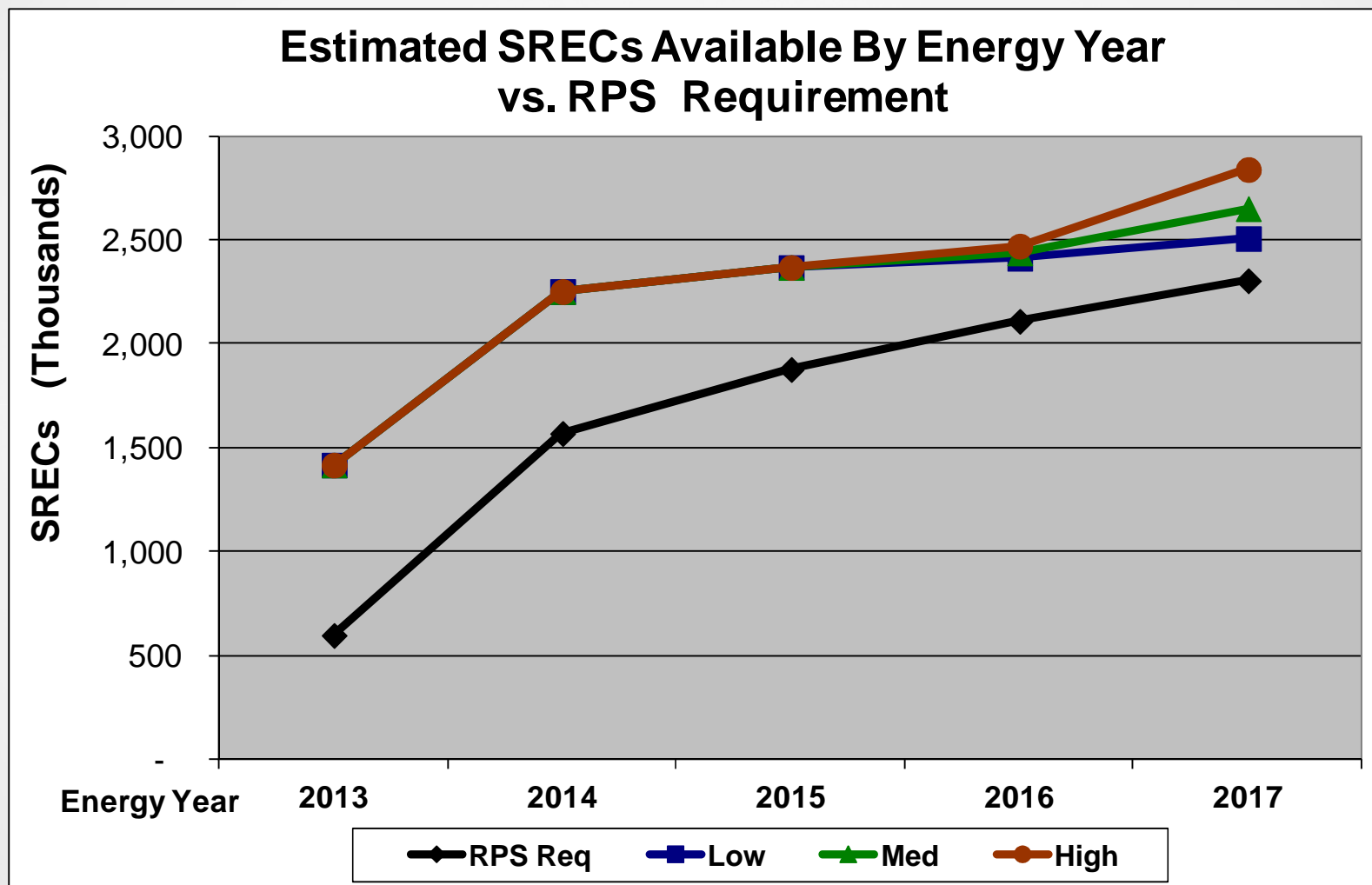
## NJCEP Solar Generation Scenarios Summary By Energy Year - As of 09/30/15

Energy Yr (RPS Req)	Item	Low	Med	High
<b>EY2014 (1569 GWh) Actual</b>	Estimated SRECs Available	2,252,168	2,252,168	2,252,168
	% of RPS Requirement	<b>143.6%</b>	<b>143.6%</b>	<b>143.6%</b>
<b>EY2015 (1877 GWh)</b>	Estimated SRECs Available	2,368,160	2,368,160	2,368,160
	% of RPS Requirement	<b>126.2%</b>	<b>126.2%</b>	<b>126.2%</b>
<b>EY2016 (2109 GWh)</b>	Estimated SRECs Available	2,412,360	2,438,660	2,471,160
	% of RPS Requirement	<b>114.4%</b>	<b>115.6%</b>	<b>117.2%</b>
<b>EY2017 (2304 GWh)</b>	Estimated SRECs Available	2,507,410	2,651,710	2,840,010
	% of RPS Requirement	<b>108.8%</b>	<b>115.1%</b>	<b>123.3%</b>

*The Estimated SRECs Available for each Energy Year in the table above consists of the estimated unretired SRECs generated in previous Energy Years that have remaining eligibility (carry over) plus SRECS that are estimated to be issued based upon electricity generated during each Energy Year listed in the table.*

*This data is provided for informational purposes only. Past levels of installed capacity rates are not predictive of future values, and any persons considering investment in the solar market should perform their independent due diligence.*

# NJCEP Solar Generation Scenarios – EY 2013-2017

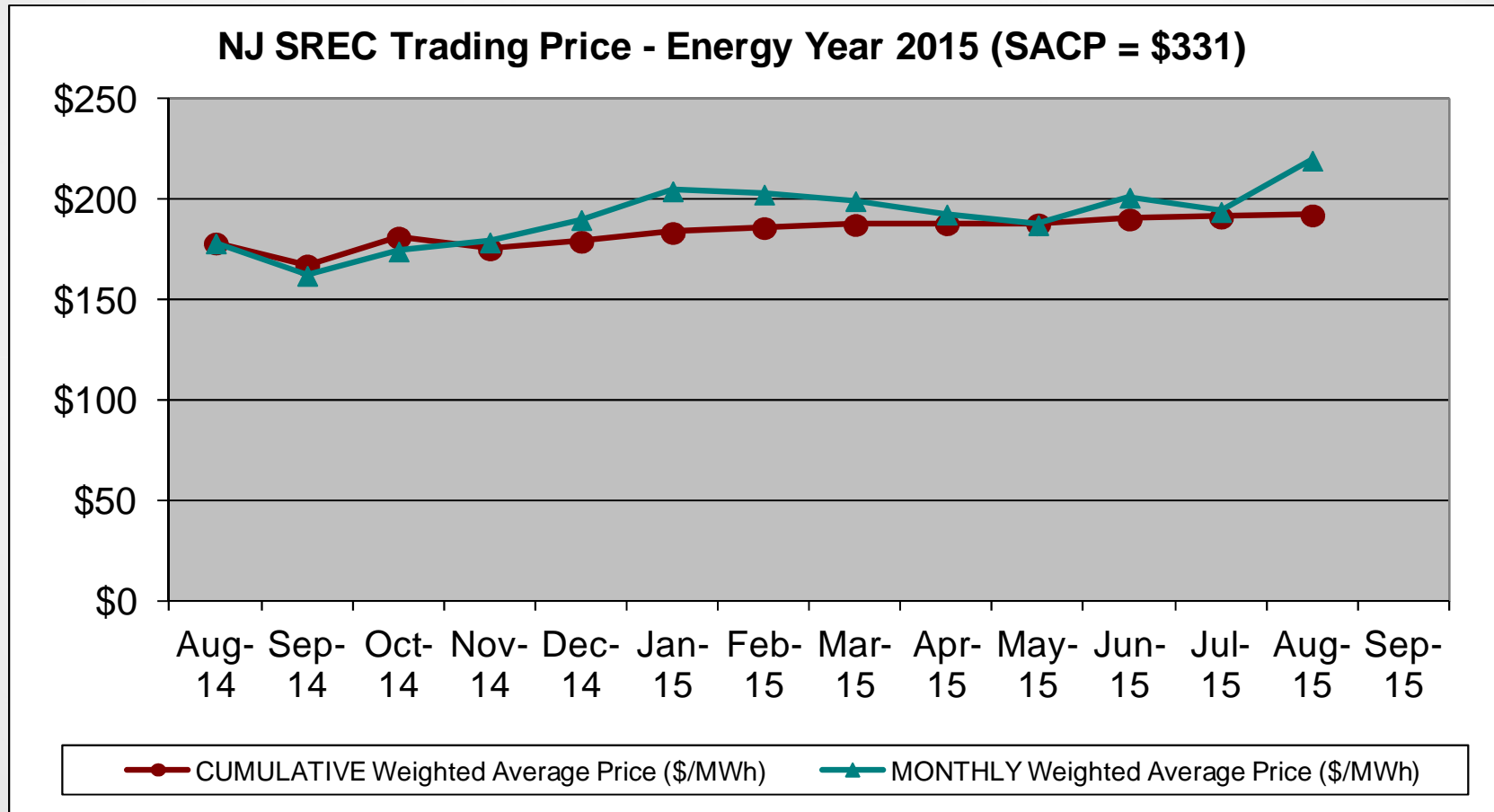


# SREC TRADING STATISTICS ENERGY YEAR 2015



EY 2015 SACP= \$331		SREC Quantity		Monthly		Cumulative		
Month	Year	Active kW DC	Issued in Month	Traded in Month	High (\$/MWh)	Low (\$/MWh)	# of SRECs Traded	Weighted Avg Price (\$/MWh)
Sept	2015							
Aug	2015	1,469,029	12,528	104,982	\$ 480	\$ 83	2,651,990	\$192.25
July	2015	1,462,617	19,948	650,499	\$ 500	\$ 40	2,547,008	\$191.13
June	2015	1,452,078	213,825	345,133	\$ 485	\$ 70	1,896,509	\$190.17
May	2015	1,438,113	180,995	202,367	\$ 485	\$ 95	1,551,376	\$187.76
Apr	2015	1,430,252	115,679	95,912	\$ 490	\$ 70	1,349,009	\$187.82
Mar	2015	1,421,106	85,161	141,976	\$ 495	\$ 48	1,253,097	\$187.45
Feb	2015	1,414,180	74,497	142,317	\$ 488	\$ 67	1,111,121	\$185.93
Jan	2015	1,369,627	62,856	169,175	\$ 590	\$ 46	968,804	\$183.49
Dec	2014	1,353,277	98,501	208,575	\$ 486	\$ 70	799,629	\$179.11
Nov	2014	1,346,126	103,381	139,726	\$ 518	\$ 41	591,054	\$175.31
Oct	2014	1,337,364	152,339	226,727	\$ 518	\$ 70	451,328	\$181.15
Sept	2014	1,320,309	164,188	153,637	\$ 518	\$ 70	224,601	\$167.25
Aug	2014	1,314,744	163,745	66,311	\$ 518	\$ 70	70,964	\$178.25
July	2014	1,309,862	150,158	4,653	Due to low trade volume, the July trades are reported with the pricing data for August.			
	<b>Total</b>		<b>1,597,801</b>	<b>2,651,990</b>				

# SREC TRADING STATISTICS ENERGY YEAR 2015





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