



# **Initiation of a Proceeding to Investigate Approaches to Mitigate Solar Development Volatility pursuant to N.J.S.A. 48:3-87(d)(3)(a)**

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Renewable Energy Meeting  
Trenton, NJ**



## Solar Installed Capacity Data

- The installed solar capacity as of 5/31/13 is approximately 1,078 MW.
  - Approximately 29 MW installed in current month.
- The preliminary solar capacity project pipeline as of 5/31/13 is approximately 677 MW.
  - The project pipeline decreased approximately 10 MW in the current month.



# NJCEP Solar Installed Projects Plus Pipeline Projects

NJCEP Solar Installed Projects Plus Pipeline Projects				
Preliminary Values As of 5/31/13				
<b>Installed Solar Projects</b>				
Interconnection Type	Project Qty	Total Capacity (KW DC)	Percent of Capacity	Avg System Size (kW DC)
Behind the meter	21,918	876,371.7	81.3%	40.0
Direct Grid Supply	96	202,039.2	18.7%	2,104.6
<b>Installed Totals</b>	<b>22,014</b>	<b>1,078,410.9</b>	<b>100.0%</b>	<b>49.0</b>
<b>Solar Project Pipeline</b>				
Interconnection Type	Project Qty	Total Capacity (KW DC)	Percent of Capacity	Avg System Size (kW DC)
Behind the meter	4,560	182,054.9	26.9%	39.9
Direct Grid Supply	49	495,003.8	73.1%	10,102.1
<b>Pipeline Totals</b>	<b>4,609</b>	<b>677,058.7</b>	<b>100.0%</b>	<b>146.9</b>
<b>Totals For All Projects</b>	<b>26,623</b>	<b>1,755,469.7</b>		<b>65.9</b>



# NJCEP Solar Pipeline Plus Installed Projects History

<b>NJCEP Solar Pipeline Plus Installed Projects History as of 5/31/13</b>			
<b>As Of</b>	<b>MW Installed</b>	<b>MW Pipeline</b>	<b>Combined MW</b>
1/31/2012	649.8	548.0	1,197.1
2/29/2012	688.3	542.3	1,231.4
3/31/2012	730.0	526.1	1,256.5
4/30/2012	769.9	510.0	1,279.9
5/31/2012	802.8	560.7	1,363.5
6/30/2012	831.8	590.3	1,422.1
7/31/2012	852.7	756.2	1,608.9
8/31/2012	876.0	806.9	1,682.9
9/30/2012	900.8	740.0	1,640.8
10/31/2012	918.0	738.9	1,656.9
11/30/2012	943.1	750.3	1,693.4
12/31/2012	955.5	744.4	1,699.9
1/31/2013	973.1	731.6	1,704.7
2/28/2013	1,007.8	702.1	1,709.9
3/31/2013	1,026.1	702.2	1,728.3
4/30/2013	1,049.1	687.0	1,736.1
5/31/2013	1,078.4	677.0	1,755.4

Preliminary values for 5/31/13

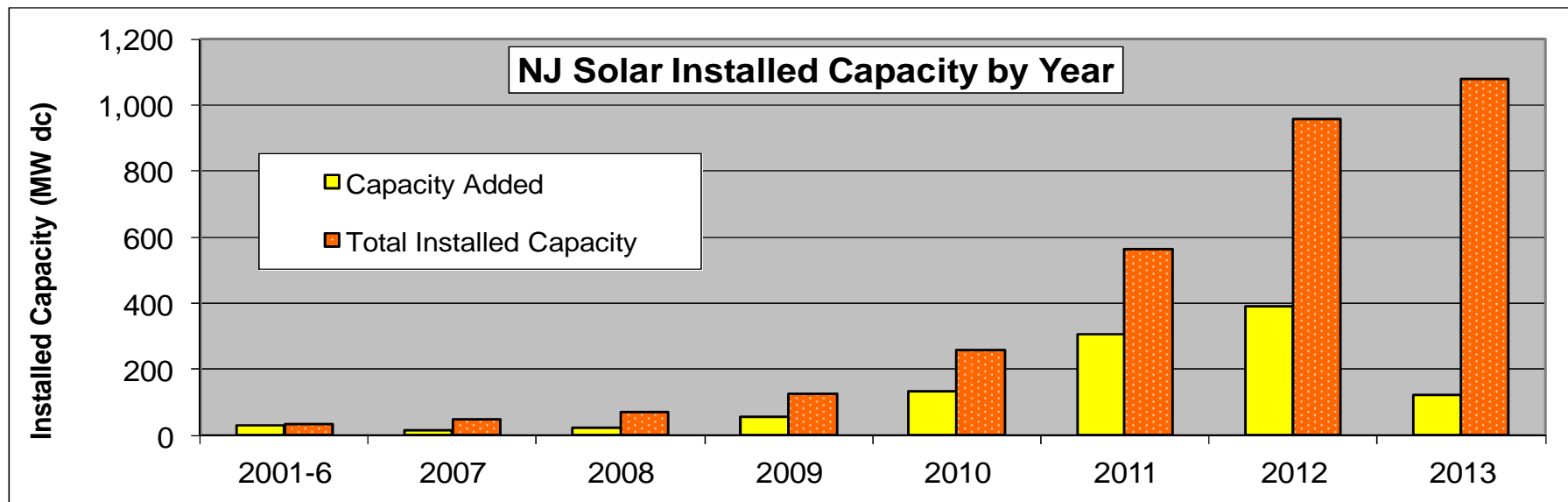


# New Jersey Solar Installations by Year As of 05/31/13

Year	# Projects	Total kW	Total Rebate \$
2001	3	7.5	\$ 37,145
2002	37	623.5	\$ 2,424,694
2003	95	1,176.6	\$ 5,323,411
2004	289	2,037.1	\$ 10,581,975
2005	729	9,908.1	\$ 46,235,897
2006	867	18,320.4	\$ 78,086,786
2007	693	15,258.3	\$ 58,122,386
2008	833	22,711.3	\$ 44,923,416
2009	1,349	57,254.3	\$ 56,026,262
2010	3,131	132,383.4	\$ 45,961,190
2011	5,397	305,207.2	\$ 13,388,707
2012	5,901	390,628.9	\$ 2,389,958
2013	2,690	122,894.4	\$ 8,594
<b>Total</b>	<b>22,014</b>	<b>1,078,410.9</b>	<b>\$ 363,510,421</b>



# Solar Installed Capacity



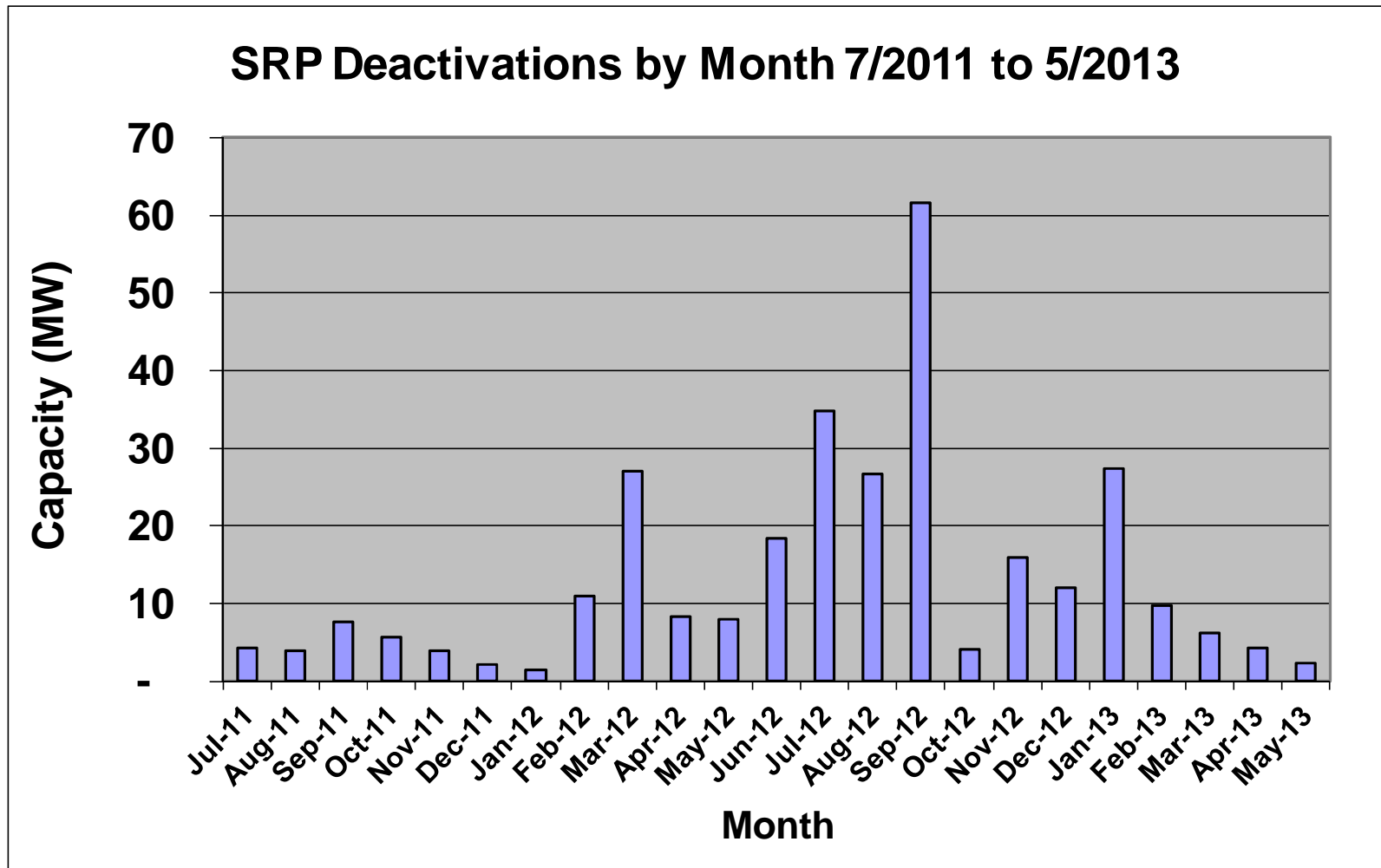


# SRP Deactivations by Month

SRP Deactivations by Month as of 5/31/13			
Year	Month End	Project Qty	Capacity (kW)
2012	Feb-12	75	11,034
2012	Mar-12	148	26,946
2012	Apr-12	112	8,291
2012	May-12	129	7,898
2012	Jun-12	107	18,306
2012	Jul-12	217	34,830
2012	Aug-12	142	26,592
2012	Sep-12	339	61,590
2012	Oct-12	30	4,083
2012	Nov-12	345	15,910
2012	Dec-12	135	12,024
2013	Jan-13	133	27,292
2013	Feb-13	143	9,765
2013	Mar-13	173	6,266
2013	Apr-13	72	4,200
2013	May-13	121	2,295



# SRP Deactivations by Month







# NJCEP Solar Generation Forecast

*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 Installed Capacity Forecast - As of 5/31/13

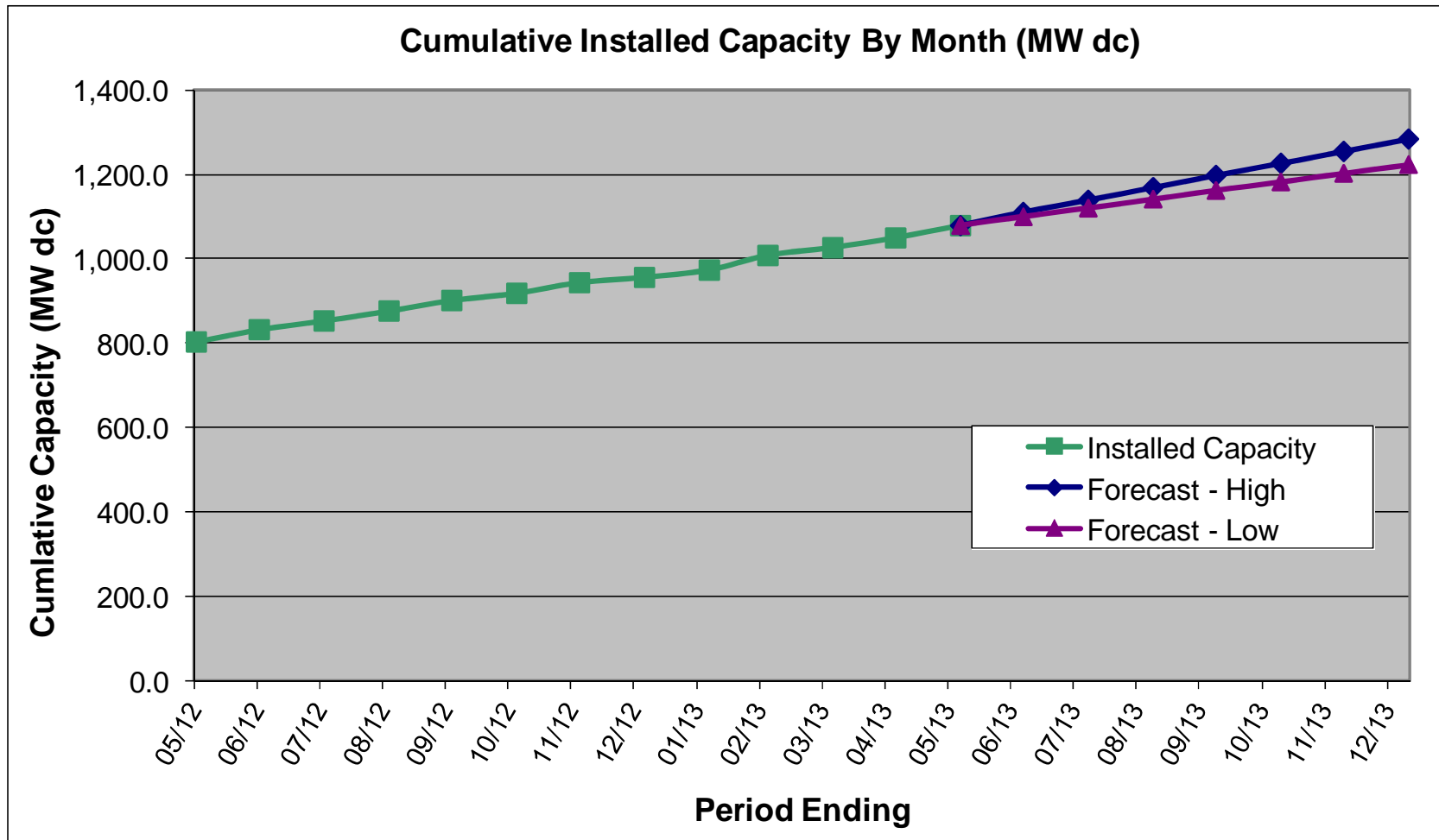
**Cumulative Installed Capacity (MW dc)**

End Date	12/31/12	01/31/13	02/28/13	03/31/13	04/30/13	05/31/13	06/30/13	07/31/13	08/31/13	09/30/13	10/31/13	11/30/13	12/31/13
Forecast - Low	955.5	973.1	1,007.8	1,026.1	1,049.2	1,078.4	1,099.4	1,119.9	1,141.0	1,161.9	1,182.2	1,202.4	1,223.1
Forecast - High	955.5	973.1	1,007.8	1,026.1	1,049.2	1,078.4	1,109.8	1,138.6	1,168.2	1,197.6	1,226.0	1,254.5	1,283.5

The 1,078.4 MW of solar capacity installed as of 05/31/13 and the additionally forecast installed solar capacity for the remainder of Energy Year 2013 is estimated to be capable of producing approximately 1,112,700 to 1,112,700 SRECs during Energy Year 2013.



# NJCEP Solar Installed Capacity Forecast - As of 5/31/13





# NJCEP Solar Generation Forecast

## RPS Requirement By Energy Year

Energy Yr	RPS Req	Status
2012	442,000	Actual
2013	596,000	Actual
2014	1,660,500	Estimated
2015	1,984,500	Estimated
2016	2,227,500	Estimated

Energy Yr	Retail Sales Est (MWh)	RPS %	Est RPS Req (MWh)
2014	81,000,000	2.05%	1,660,500
2015	81,000,000	2.45%	1,984,500
2016	81,000,000	2.75%	2,227,500

Note: The Retail Sales estimates shown above were used to estimate RPS MWh requirement for EY 2014-2016



# NJCEP Solar Generation Forecast

## NJCEP Solar Generation Forecast

Assumptions used in forecast of annual capacity added for each EY

EY	Est Capacity Added (kW/Yr)			BTM Monthly Run Rate (kW/Month)			Estimated Annual Grid Supply Capacity Added (kW/Yr)		
	Low	Med	High	Low	Med	High	Low	Med	High
EY2014	253,292	325,268	355,704	16,441	21,439	22,725	56,000	68,000	83,000
EY2015	269,292	341,268	386,068	16,441	21,439	24,089	72,000	84,000	97,000
EY2016	279,292	352,268	408,408	16,441	21,439	25,534	82,000	95,000	102,000

Capacity added each year = (12 months x BTM monthly run rate) + annual grid supply added

Low, Med, High Assumptions used in forecast of annual capacity added for each EY:

Low Based upon 4 year historical run rate for BTM installs plus annual additions from grid supply table above

Med Based upon 1 year historical run rate for BTM installs plus annual additions from grid supply table above

High Based upon 1 year historical run rate for BTM installs with 6% growth per year plus annual additions from grid supply table above



# NJCEP Solar Generation Forecast Summary By Energy Year - As of 5/31/13

Energy Yr	Item	Low	Med	High
<b>EY2012 (Actual)</b>	GATS Cert by Resource Eligibility	713,879	713,879	713,879
	SRECs Retried (MWh)	438,904	438,904	438,904
	% of RPS Requirement	<b>161.5%</b>	<b>161.5%</b>	<b>161.5%</b>
	SREC Carryover (MWh)	274,975	274,975	274,975
	Equivalent Capacity (MW)	229.1	229.1	229.1
<b>EY2013</b>	Est Capacity Added (MW/EY)	279.3	279.3	279.3
	Est Generation (MWh/EY)	1,112,700	1,112,700	1,112,700
	Carryover From Prior Years (MWh)	274,975	274,975	274,975
	Est Avail (MWh)	1,387,675	1,387,675	1,387,675
	RPS Req (MWh)	596,000	596,000	596,000
	% of RPS Requirement	<b>232.8%</b>	<b>232.8%</b>	<b>232.8%</b>
	SREC Carryover (MWh)	791,675	791,675	791,675
	Equivalent Capacity (MW)	659.7	659.7	659.7
<b>EY2014</b>	Est Capacity Added (MW/EY)	253.3	325.3	355.7
	Est Generation (MWh/EY)	1,430,700	1,471,500	1,488,100
	Carryover From Prior Years (MWh)	791,675	791,675	791,675
	Est Avail (MWh)	2,222,375	2,263,175	2,279,775
	RPS Req (MWh)	1,660,500	1,660,500	1,660,500
	% of RPS Requirement	<b>133.8%</b>	<b>136.3%</b>	<b>137.3%</b>
	SREC Carryover (MWh)	561,875	602,675	619,275
	Equivalent Capacity (MW)	468.2	502.2	516.1

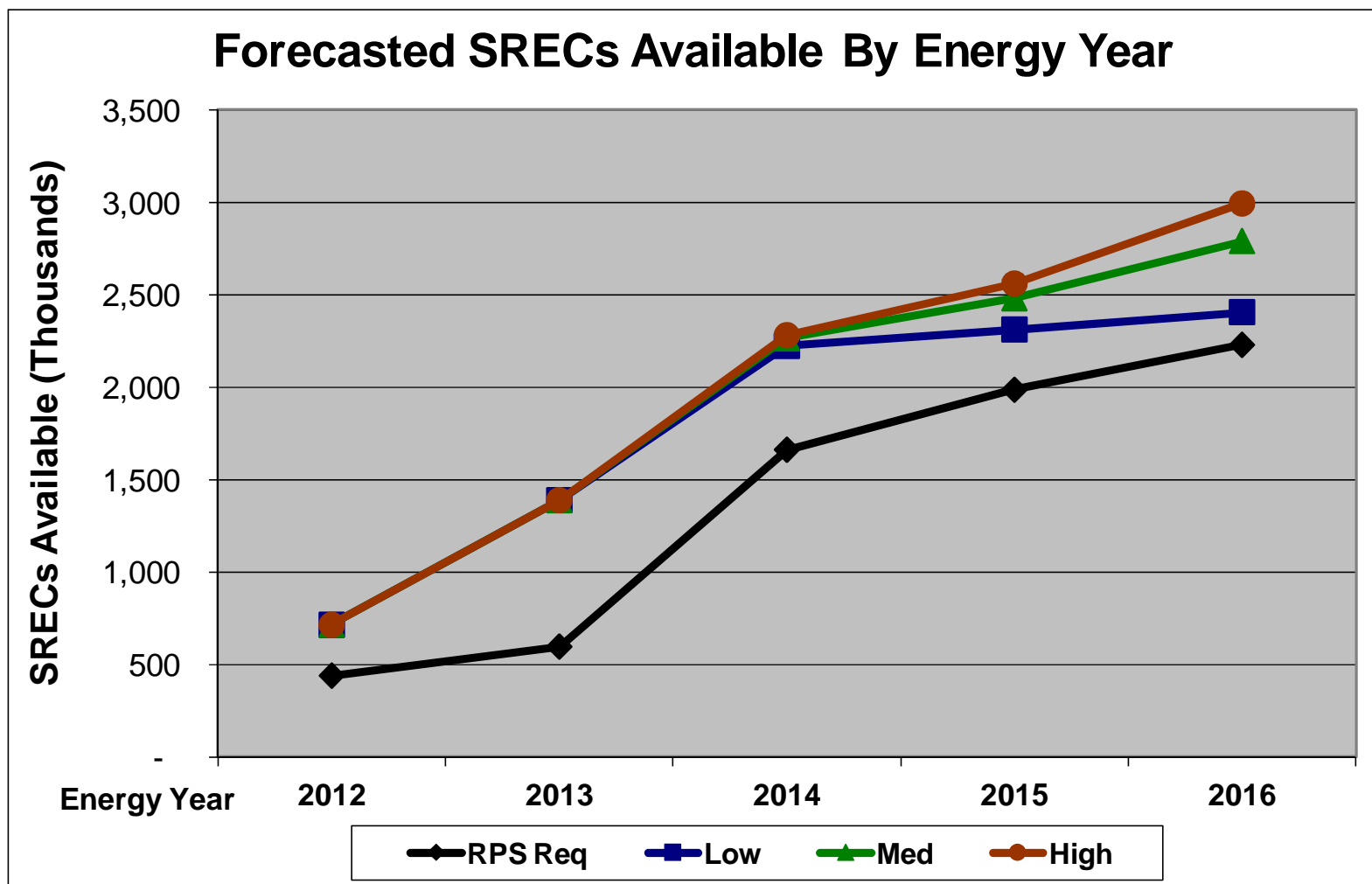


# NJCEP Solar Generation Forecast Summary By Energy Year - As of 5/31/13

<b>EY2015</b>	Est Capacity Added (MW/EY)	269.3	341.3	386.1
	Est Generation (MWh/EY)	1,748,600	1,876,900	1,939,800
	Carryover From Prior Years (MWh)	561,875	602,675	619,275
	Est Avail (MWh)	2,310,475	2,479,575	2,559,075
	RPS Req (MWh)	1,984,500	1,984,500	1,984,500
	% of RPS Requirement	<b>116.4%</b>	<b>124.9%</b>	<b>129.0%</b>
	SREC Carryover (MWh)	325,975	495,075	574,575
	Equivalent Capacity (MW)	271.6	412.6	478.8
<b>EY2016</b>	Est Capacity Added (MW/EY)	279.3	352.3	408.4
	Est Generation (MWh/EY)	2,078,300	2,293,600	2,417,700
	Carryover From Prior Years (MWh)	325,975	495,075	574,575
	Est Avail (MWh)	2,404,275	2,788,675	2,992,275
	RPS Req (MWh)	2,227,500	2,227,500	2,227,500
	% of RPS Requirement	<b>107.9%</b>	<b>125.2%</b>	<b>134.3%</b>
	SREC Carryover (MWh)	176,775	561,175	764,775
	Equivalent Capacity (MW)	147.3	467.6	637.3



# NJCEP Solar Generation Forecast





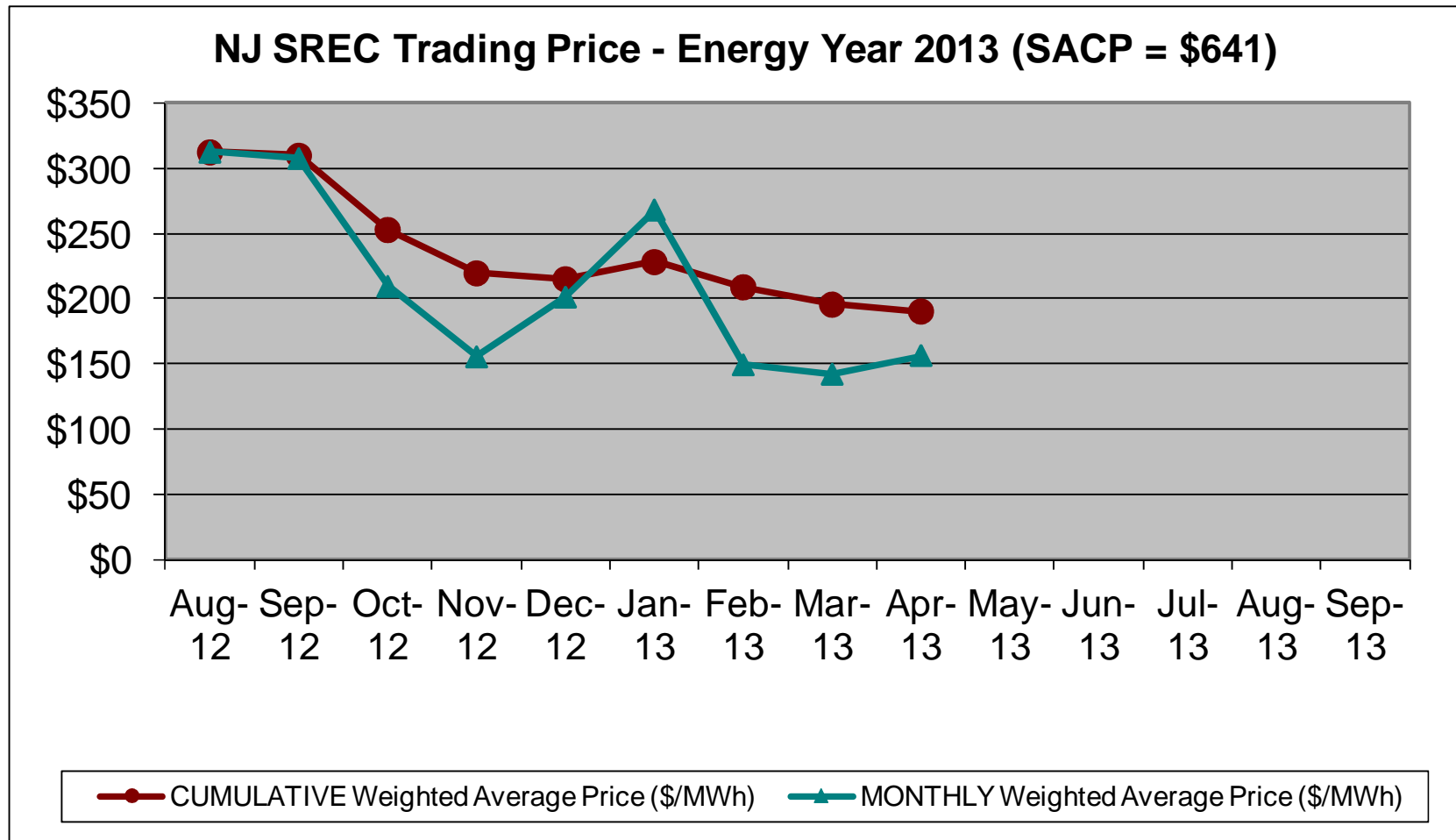


# Current SREC Trading Statistics Energy Year 2013

EY 2013 SACP= \$641			SREC Quantity		Monthly		Cumulative	
Apr	2013	987,371	96,129	100,390	\$ 640	\$ 40	745,963	\$190.31
Mar	2013	967,858	61,194	128,898	\$ 641	\$ 68	645,573	\$195.57
Feb	2013	932,375	55,567	126,630	\$ 620	\$ 40	516,675	\$208.88
Jan	2013	921,321	47,643	96,603	\$ 641	\$ 40	390,045	\$228.20
Dec	2012	898,227	65,933	72,070	\$ 620	\$ 40	293,442	\$215.06
Nov	2012	886,686	60,244	75,602	\$ 658	\$ 60	221,372	\$219.56
Oct	2012	867,033	90,783	82,813	\$ 658	\$ 40	145,770	\$252.81
Sept	2012	850,926	106,498	34,124	\$ 650	\$ 50	62,957	\$309.77
Aug	2012	836,120	101,993	21,510	\$ 620	\$ 50	28,833	\$312.37
Jul	2012	814,710	95,855	7,323	Due to low trade volume, the July trades are reported with the pricing data for August.			
	<b>Total</b>		<b>781,839</b>	<b>745,963</b>				



# Current SREC Trading Statistics Energy Year 2013





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