New Generation in the PJM Capacity Market: MW and Funding Sources for Delivery Years 2007/2008 through 2018/2019

MIC

July 13, 2016

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Table 1 PJM internal generation capacity additions: 2007/2008 through 2014/2015

	ICAP (MW)			
	New	Reactivations	Uprates	Total Additions
2007/2008	372.8	156.8	1,238.1	1,767.7
2008/2009	812.9	6.3	1,108.9	1,928.1
2009/2010	188.1	13.0	370.4	571.5
2010/2011	1,751.2	16.0	587.3	2,354.5
2011/2012	3,095.0	138.0	553.8	3,786.8
2012/2013	266.4	79.0	364.5	709.9
2013/2014	264.7	20.9	397.9	683.5
2014/2015	3,036.0	0.0	480.4	3,516.4
Total	9,787.1	430.0	5,101.3	15,318.4

Table 2 PJM internal generation capacity decreases: 2007/2008 through 2014/2015

	ICAP (MW)		
	Deactivations	Derates	Total Losses
2007/2008	389.5	617.8	1,007.3
2008/2009	615.0	612.4	1,227.4
2009/2010	472.4	171.2	643.6
2010/2011	1,439.2	286.9	1,726.1
2011/2012	2,758.5	313.0	3,071.5
2012/2013	4,152.1	267.6	4,419.7
2013/2014	4,027.7	420.0	4,447.7
2014/2015	11,442.9	221.0	11,663.9
Total	25,297.3	2,909.9	28,207.2

Table 3 Net changes in PJM internal generation capacity: 2007/2008 through 2014/2015

	ICAP (MW)		
	Net Additions	Net Losses	Net Change
2007/2008	1,767.7	1,007.3	760.4
2008/2009	1,928.1	1,227.4	700.7
2009/2010	571.5	643.6	(72.1)
2010/2011	2,354.5	1,726.1	628.4
2011/2012	3,786.8	3,071.5	715.3
2012/2013	709.9	4,419.7	(3,709.8)
2013/2014	683.5	4,447.7	(3,764.2)
2014/2015	3,516.4	11,663.9	(8,147.5)
Total	15,318.4	28,207.2	(12,888.8)

Table 4 PJM generation capacity changes: 2007/2008 through 2014/2015

	ICAP (MW)					
	Net Additions	Net Losses	Net Change in Capacity Imports	Net Change in Capacity Exports	Integration	Net Total Change
2007/2008	1,767.7	1,007.3	(96.7)	143.9	0.0	519.8
2008/2009	1,928.1	1,227.4	871.1	(1,702.9)	0.0	3,274.7
2009/2010	571.5	643.6	68.6	735.9	0.0	(739.4)
2010/2011	2,354.5	1,726.1	187.2	(427.0)	11,821.6	13,064.2
2011/2012	3,786.8	3,071.5	262.7	(1,374.5)	3,607.4	5,959.9
2012/2013	709.9	4,419.7	841.8	(17.3)	2,680.0	(170.7)
2013/2014	683.5	4,447.7	2,229.2	21.6	0.0	(1,556.6)
2014/2015	3,516.4	11,663.9	946.9	73.3	0.0	(7,273.9)
Total	15,318.4	28,207.2	5,310.8	(2,547.0)	18,109.0	13,078.0

Table 5 Comparison between IMM and PJM reported new capacity: June 1, 2007, through June 1, 2015

	ICAP (MW)											
	IMM				PJM				Difference			
	New	Reactivations	Uprates	Total	New	Reactivations	Uprates	Total	New	Reactivations	Uprates	Total
2006/2007					19.0	47.0	536.0	602.0	(19.0)	(47.0)	(536.0)	(602.0)
2007/2008	372.8	156.8	1,238.1	1,767.7	93.1	131.0	500.1	724.2	279.7	25.8	738.0	1,043.5
2008/2009	812.9	6.3	1,108.9	1,928.1	476.3	0.0	796.0	1,272.3	336.6	6.3	312.9	655.8
2009/2010	188.1	13.0	370.4	571.5	1,027.7	170.7	577.8	1,776.2	(839.6)	(157.7)	(207.4)	(1,204.7)
2010/2011	1,751.2	16.0	587.3	2,354.5	2,332.5	181.0	1,062.8	3,576.3	(581.3)	(165.0)	(475.5)	(1,221.8)
2011/2012	3,095.0	138.0	553.8	3,786.8	1,108.0	0.0	785.5	1,893.5	1,987.0	138.0	(231.7)	1,893.3
2012/2013	266.4	79.0	364.5	709.9	1,320.2	0.0	417.3	1,737.5	(1,053.8)	79.0	(52.8)	(1,027.6)
2013/2014	264.7	20.9	397.9	683.5	1,100.6	9.0	473.2	1,582.8	(835.9)	11.9	(75.3)	(899.3)
2014/2015	3,036.0	0.0	480.4	3,516.4	7,658.9	0.0	548.1	8,207.0	(4,622.9)	0.0	(67.7)	(4,690.6)
Total	9,787.1	430.0	5,101.3	15,318.4	15,136.3	538.7	5,696.8	21,371.8	(5,349.2)	(108.7)	(595.5)	(6,053.4)

Table 6 Project status of added generation capacity that cleared MW in RPM: 2015/2016 through 2018/2019, as of September 30, 2015

Status		2015/2016 Cleared MW (ICAP)	2015/2016 Percent	2016/2017 Cleared MW (ICAP)	2016/2017 Percent	2017/2018 Cleared MW (ICAP)	2017/2018 Percent	2018/2019 Cleared MW (ICAP)	2018/2019 Percent	Total Cleared MW (ICAP)	Total Percent
Not yet in service											
Completed SIS	New/Reactivations	0.0	0.0%	0.0	0.0%	1,000.0	16.9%	2,588.1	58.8%	3,588.1	17.1%
	Uprates	470.1	8.7%	3.0	0.1%	50.0	0.8%	10.0	0.2%	533.1	2.5%
Executed CSA	New/Reactivations	1,627.3	30.3%	4,984.8	94.0%	4,602.3	77.7%	1,431.5	32.5%	12,645.9	60.2%
	Uprates	30.9	0.6%	40.0	0.8%	61.9	1.0%	106.1	2.4%	238.9	1.1%
Total not in service		2,128.3	39.6%	5,027.8	94.8%	5,714.2	96.5%	4,135.7	94.0%	17,006.0	81.0%
In service	New/Reactivations	2,760.4	51.4%	50.6	1.0%	0.0	0.0%	0.0	0.0%	2,811.0	13.4%
	Uprates	486.8	9.1%	225.1	4.2%	209.8	3.5%	262.4	6.0%	1,184.1	5.6%
Total in service		3,247.2	60.4%	275.7	5.2%	209.8	3.5%	262.4	6.0%	3,995.1	19.0%
Total Cleared		5,375.5	100.0%	5,303.5	100.0%	5,924.0	100.0%	4,398.1	100.0%	21,001.1	100.0%

Table 7 Proposed net change in generation capacity: 2015/2016 through 2018/2019

	ICAP (MW)				
	2015/2016	2016/2017	2017/2018	2018/2019	Total
New generation & uprates (not yet in service)	2,128.3	5,027.8	5,714.2	4,135.7	17,006.0
Deactivations	(1,447.5)	(34.0)	(452.6)	(2,142.2)	(4,076.3)
Total	680.8	4,993.8	5,261.6	1,993.5	12,929.7

Table 8 Expected net change in generation capacity: 2015/2016 through 2018/2019

	ICAP (MW)				
	2015/2016	2016/2017	2017/2018	2018/2019	Total
Expected new generation (not yet in service)	1,460.1	4,050.8	4,035.5	1,922.6	11,469.0
Deactivations	(1,447.5)	(34.0)	(452.6)	(2,142.2)	(4,076.3)
Total	12.6	4,016.8	3,582.9	(219.6)	7,392.7

Table 9 Incremental capacity by funding and supplier type: 2007/2008 through 2014/2015

	ICAP (MW)							
Funding and Supplier Type	New	Percent	Reactivations	Percent	Uprates	Percent	Total Additions	Total Percent
Market								
Merchant								
Solar and Wind	670.1	6.8%	0.0	0.0%	65.7	1.3%	735.8	4.8%
Other	3,745.6	38.3%	171.2	39.8%	1,192.8	23.4%	5,109.6	33.4%
Total	4,415.7	45.1%	171.2	39.8%	1,258.5	24.7%	5,845.4	38.2%
Utility								
Solar and Wind	347.0	3.5%	0.0	0.0%	65.5	1.3%	412.5	2.7%
Other	1,059.9	10.8%	200.8	46.7%	2,503.2	49.1%	3,763.9	24.6%
Total	1,406.9	14.4%	200.8	46.7%	2,568.7	50.4%	4,176.4	27.3%
Market Total	5,822.6	59.5%	372.0	86.5%	3,827.2	75.0%	10,021.8	65.4%
Non Market								
Municipal/Coop								
Solar and Wind	69.7	0.7%	0.0	0.0%	0.0	0.0%	69.7	0.5%
Other	896.8	9.2%	0.0	0.0%	98.2	1.9%	995.0	6.5%
Total	966.5	9.9%	0.0	0.0%	98.2	1.9%	1,064.7	7.0%
Utility								
Solar and Wind	0.0	0.0%	0.0	0.0%	33.7	0.7%	33.7	0.2%
Other	2,998.0	30.6%	58.0	13.5%	1,142.2	22.4%	4,198.2	27.4%
Total	2,998.0	30.6%	58.0	13.5%	1,175.9	23.1%	4,231.9	27.6%
Non Market Total	3,964.5	40.5%	58.0	13.5%	1,274.1	25.0%	5,296.6	34.6%
Grand Total	9,787.1	100.0%	430.0	100.0%	5,101.3	100.0%	15,318.4	100.0%

Table 10 Projected new generation capacity resources by funding type and funding source: 2015/2016 through 2018/2019

Funding Type	Funding Source	Cleared MW (ICAP)	Percent
Market	Private funding	14,450.8	85.0%
	Total	14,450.8	85.0%
Non Market	Cost of service	2,555.2	15.0%
	Total	2,555.2	15.0%
Grand Total		17,006.0	100.0%

Table 11 PJM new generation capacity resources: calendar year 2013

	Number of Resources	ICAP (MW)
Generation resources in APPA Appendix B specified as PJM Generation Capacity Resources	40	606.7
Generation resources in APPA Appendix B that are not PJM Generation Capacity Resources	(29)	(282.7)
Additional PJM Generation Capacity Resources not included in APPA Appendix B	8	75.7
Total new Generation Capacity Resources	19	399.7

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