

Market Monitor Report

MC Webinar

November 16, 2020

IMM



Monitoring Analytics

Fuel Cost Policy Review

- **Effective September 1, 2020, the FCP annual review was replaced by a periodic review set by PJM (currently three years).**
- **The FCP review results as of Nov 4, 2020:**

IMM	Units	Percent
Passed	728	85%
Failed	126	15%
Under Review	0	0%
Total	854	100%

PJM	Units	Percent
Approved	854	100%
Rejected	0	0%
Under Review	0	0%
Total	854	100%

- **In 2019, 110 units had fuel cost policies failed by the Market Monitor.**

Reasons Fuel Cost Policies Fail

- **Use of available market information that results in inaccurate expected costs. Some market sellers include offers to sell natural gas on ICE as the sole basis for the cost of natural gas. An offer to sell is not an accurate measure of the expected fuel cost. The price of uncleared offers on ICE generally exceeds the price of cleared transactions, often by a wide margin. The difference is generally large on high demand days when such an approach is most likely to be used.**
- **This fact about offers is well understood in the market.**
- **No reason has been provided for accepting such offers.**

Reasons Fuel Cost Policies Fail

- **Unverifiable cost estimates.** Some market sellers include options under which the natural gas commodity cost is calculated by the market seller without specifying a verifiable, quantitative or systematic method, as required by FERC.
- **For example, some FCPs state that the source of the natural gas cost is communications with traders within the market seller's organization.**
- **FCPs were created to avoid use of such approaches.**
- **No reason has been provided for accepting such offers.**

2020 PJM Generation Capacity and Funding Sources: 2007/2008 through 2021/2022 Delivery Years

<http://www.monitoringanalytics.com/reports/Reports/2020.shtml>



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Table 1 Internal PJM generation capacity additions: 2007/2008 through 2019/2020

	ICAP (MW)			Total Additions
	New	Reactivations	Upgrades	
2007/2008	45.0	0.0	691.5	736.5
2008/2009	815.4	238.3	987.0	2,040.7
2009/2010	406.5	0.0	789.0	1,195.5
2010/2011	153.4	13.0	339.6	506.0
2011/2012	3,096.4	354.5	507.9	3,958.8
2012/2013	1,784.6	34.0	528.1	2,346.7
2013/2014	198.4	58.0	372.8	629.2
2014/2015	2,276.8	20.7	530.2	2,827.7
2015/2016	4,291.8	90.0	449.0	4,830.8
2016/2017	3,679.3	532.0	419.2	4,630.5
2017/2018	4,127.3	5.0	562.1	4,694.4
2018/2019	8,127.5	4.0	330.9	8,462.4
2019/2020	4,612.0	13.3	494.9	5,120.2
Total	33,614.4	1,362.8	7,002.2	41,979.4

Table 6 Net changes in internal PJM generation capacity: 2007/2008 through 2019/2020

	ICAP (MW)		Net Change
	Additions	Losses	
2007/2008	736.5	797.0	(60.5)
2008/2009	2,040.7	1,030.5	1,010.2
2009/2010	1,195.5	572.7	622.8
2010/2011	506.0	1,064.1	(558.1)
2011/2012	3,958.8	2,718.2	1,240.6
2012/2013	2,346.7	5,853.8	(3,507.1)
2013/2014	629.2	3,075.2	(2,446.0)
2014/2015	2,827.7	5,275.9	(2,448.2)
2015/2016	4,830.8	8,554.0	(3,723.2)
2016/2017	4,630.5	866.1	3,764.4
2017/2018	4,694.4	2,805.9	1,888.5
2018/2019	8,462.4	6,819.2	1,643.2
2019/2020	5,120.2	3,412.8	1,707.4
Total	41,979.4	42,845.4	(866.0)

Table 7 Net changes in internal PJM generation capacity by unit type: 2007/2008 through 2019/2020

	ICAP (MW)		Net Change
	Additions	Losses	
Battery	0.0	0.0	0.0
CC	29,222.8	1,809.3	27,413.5
CT - Natural Gas	3,997.4	2,506.1	1,491.3
CT - Oil	206.1	2,227.5	(2,021.4)
CT - Other	24.9	19.8	5.1
Fuel Cell	30.0	3.6	26.4
Hydro - Pumped Storage	272.0	31.3	240.7
Hydro - Run of River	412.8	57.5	355.3
Nuclear	1,394.2	1,768.9	(374.7)
RICE - Natural Gas	124.2	0.0	124.2
RICE - Oil	30.8	83.7	(52.9)
RICE - Other	242.4	75.3	167.1
Solar	815.7	24.7	791.0
Steam - Coal	2,124.9	29,188.3	(27,063.4)
Steam - Natural Gas	960.7	2,549.6	(1,588.9)
Steam - Oil	265.0	1,835.6	(1,570.6)
Steam - Other	278.9	323.4	(44.5)
Wind	1,576.6	340.8	1,235.8
Total	41,979.4	42,845.4	(866.0)

Table 8 PJM generation capacity changes: 2007/2008 through 2019/2020

	ICAP (MW)					
	Additions	Losses	Integration	Net Change in Capacity Imports	Net Change in Capacity Exports	Net Change
2007/2008	736.5	797.0	0.0	70.0	15.3	(5.8)
2008/2009	2,040.7	1,030.5	0.0	473.0	(9.9)	1,493.1
2009/2010	1,195.5	572.7	0.0	229.0	(1,402.2)	2,254.0
2010/2011	506.0	1,064.1	0.0	137.0	367.7	(788.8)
2011/2012	3,958.8	2,718.2	16,889.5	(1,183.3)	(1,690.3)	18,637.1
2012/2013	2,346.7	5,853.8	47.0	342.4	84.0	(3,201.7)
2013/2014	629.2	3,075.2	2,746.0	934.3	28.9	1,205.4
2014/2015	2,827.7	5,275.9	0.0	2,335.7	177.3	(289.8)
2015/2016	4,830.8	8,554.0	0.0	511.4	(117.8)	(3,094.0)
2016/2017	4,630.5	866.1	0.0	575.6	722.9	3,617.1
2017/2018	4,694.4	2,805.9	0.0	(1,025.1)	(695.1)	1,558.5
2018/2019	8,462.4	6,819.2	2,120.0	(3,217.0)	212.7	333.5
2019/2020	5,120.2	3,412.8	165.0	(1,196.6)	401.3	274.5
Total	41,979.4	42,845.4	21,967.5	(1,013.6)	(1,905.2)	21,993.1

Table 12 Proposed PJM generation capacity additions by unit type: 2020/2021 through 2021/2022

	ICAP (MW)
CC	2,136.7
CT	58.1
Solar	388.1
Wind	91.8
Other	29.0
Total	2,703.7

Table 17 PJM generation capacity additions by funding and supplier type: 2007/2008 through 2019/2020

Funding and Supplier Type	ICAP (MW)					
	New and Reactivations	Percent	Uprates	Percent	Total Additions	Total Percent
Market						
Merchant						
Solar and Wind	1,224.6	3.5%	158.9	2.3%	1,383.4	3.3%
Other	21,168.2	60.5%	2,656.8	37.9%	23,824.9	56.8%
Total	22,392.7	64.0%	2,815.6	40.2%	25,208.4	60.0%
Utility						
Solar and Wind	409.3	1.2%	66.3	0.9%	475.6	1.1%
Other	3,994.1	11.4%	2,655.8	37.9%	6,649.9	15.8%
Total	4,403.4	12.6%	2,722.2	38.9%	7,125.5	17.0%
Market Total	26,796.1	76.6%	5,537.8	79.1%	32,333.9	77.0%
Nonmarket						
Municipal/Coop						
Solar and Wind	106.5	0.3%	5.2	0.1%	111.7	0.3%
Other	2,144.0	6.1%	240.8	3.4%	2,384.8	5.7%
Total	2,250.5	6.4%	246.1	3.5%	2,496.5	5.9%
Utility						
Solar and Wind	346.9	1.0%	74.6	1.1%	421.5	1.0%
Other	5,583.6	16.0%	1,143.8	16.3%	6,727.4	16.0%
Total	5,930.6	17.0%	1,218.4	17.4%	7,148.9	17.0%
Nonmarket Total	8,181.1	23.4%	1,464.4	20.9%	9,645.5	23.0%
Grand Total	34,977.2	100.0%	7,002.2	100.0%	41,979.4	100.0%

Table 19 Proposed PJM generation capacity additions by interconnection queue status and funding type (Adjusted for historical rate of completion)

Status	Funding Type	Cleared MW (ICAP)	Percent
Not yet in service			
Completed SIS	Market	0.0	0.0%
	Nonmarket	0.0	0.0%
Completed FSA or Executed CSA	Market	1,628.1	77.9%
	Nonmarket	41.6	2.0%
Total Market		1,628.1	77.9%
Total Nonmarket		41.6	2.0%
Total not in service		1,669.7	79.9%
In service			
Market		351.5	16.8%
Nonmarket		67.8	3.2%
Total in service		419.3	20.1%
Total Market		1,979.6	94.8%
Total Nonmarket		109.4	5.2%
Total Cleared		2,089.0	100.0%

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