

# **CONE and ACR Values - Preliminary**

MIC Special Session –  
Capacity Market MOPR  
Order

01.28.2020

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# MOPR Issues

- IMM posted a report on cost of new entry (CONE) and avoidable cost rate (ACR) values on 01.21.2020.
  - [https://www.monitoringanalytics.com/reports/Reports/2020/IMM\\_CONE\\_ACR\\_Preliminary\\_Report\\_20200121.pdf](https://www.monitoringanalytics.com/reports/Reports/2020/IMM_CONE_ACR_Preliminary_Report_20200121.pdf)
- The IMM calculated preliminary gross CONE, gross ACR, net CONE, and net ACR values for the basic technologies at issue in the Commission's December 19, 2019, MOPR Order.
- The IMM used the same approach to the calculations of gross CONE that the IMM has used in the State of the Market Report and in the Triennial and Quadrennial Review processes.

# Table 1 New entrant gross CONE, gross ACR, net CONE and net ACR for selected technologies

	\$/MW-Day														
	CT	CC	Coal	Nuclear	Diesel	Onshore Wind				Offshore			Solar		
						AEP	APS	ComEd	PENELEC	Wind	AECO	Dominion	DPL	JCPL	PSEG
Levelized Gross CONE w/ major maintenance	\$338.18	\$319.53	\$1,553.07	\$3,338.27	\$465.37	\$619.32	\$602.56	\$636.02	\$587.50	\$1,998.04	\$712.94	\$580.79	\$582.82	\$712.94	\$712.94
Gross ACR (new entrant) w/ major maintenance	\$75.94	\$33.80	\$78.37	\$1,008.00 single \$697.68 multi	\$55.96	\$94.63	\$94.67	\$94.82	\$94.74	\$233.98	\$14.20	\$14.20	\$14.20	\$14.20	\$14.20
Gross ACR (new entrant) w/o major maintenance	\$11.16	\$15.28	\$66.89	\$807.80 single \$562.80 multi	\$45.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New entrant E&AS	\$77.79	\$171.08	\$68.07	\$628.01	\$20.88	\$192.97	\$160.62	\$163.93	\$152.34	\$256.21	\$89.41	\$162.94	\$122.43	\$82.71	\$93.28
2019 Preliminary E&AS	AECO	AECO	DOM	PJM Average	PJM Average	AEP	APS	ComEd	PENELEC	AECO	AECO	DOM	DPL	JCPL	PSEG
<b>Net CONE</b>	<b>\$260.39</b>	<b>\$148.45</b>	<b>\$1,485.00</b>	<b>\$2,710.25</b>	<b>\$444.49</b>	<b>\$426.35</b>	<b>\$441.94</b>	<b>\$472.09</b>	<b>\$435.17</b>	<b>\$1,741.83</b>	<b>\$623.53</b>	<b>\$417.85</b>	<b>\$460.39</b>	<b>\$630.23</b>	<b>\$619.66</b>
Net ACR w/ major maintenance	\$0.00	\$0.00	\$10.30	\$379.99 single \$69.67 multi	\$35.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net ACR w/o major maintenance	\$0.00	\$0.00	\$0.00	\$179.79 single \$0.00 multi	\$24.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

# Table 2 Existing unit gross ACR and net ACR for selected technologies

	\$/MW-Day														
	CT	CC	Coal	Nuclear	Diesel	Onshore Wind				Offshore Wind	Solar				
						AEP	APS	ComEd	PENELEC		AECO	Dominion	DPL	JCPL	PSEG
Gross ACR (existing unit) w/ major maintenance	\$114.02	\$48.74	\$118.93	\$1,008.00 single \$697.68 multi	\$55.96	\$94.63	\$94.67	\$94.82	\$94.74	\$233.98	\$14.20	\$14.20	\$14.20	\$14.20	\$14.20
Gross ACR (existing unit) w/o major maintenance	\$22.07	\$24.82	\$104.69	\$807.80 single \$562.80 multi	\$45.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New entrant E&AS	\$77.79	\$171.08	\$68.07	\$628.01	\$20.88	\$192.97	\$160.62	\$163.93	\$152.34	\$256.21	\$89.41	\$162.94	\$122.43	\$82.71	\$93.28
2019 Preliminary E&AS	AECO	AECO	DOM	PJM Average	PJM Average	AEP	APS	ComEd	PENELEC	AECO	AECO	DOM	DPL	JCPL	PSEG
<b>Net ACR w/ major maintenance</b>	<b>\$36.23</b>	<b>\$0.00</b>	<b>\$50.86</b>	<b>\$379.99 single</b> <b>\$69.67 multi</b>	<b>\$35.08</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Net ACR w/o major maintenance</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$36.62</b>	<b>\$179.79 single</b> <b>\$0.00 multi</b>	<b>\$24.56</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

# Table 3 Financial criteria

Target IRR	12.0%
Debt to equity ratio	50/50
Debt term	20 years
Debt interest rate	7.0%
Tax depreciation	First year 100% bonus depreciation
Escalation rate	2.5%
Federal income tax rate	21.0%
State tax rate	
IL	7.0%
IN	6.0%
MD	8.25%
NJ	9.0%
PA	9.9%
VA	6.0%
WV	6.5%

# Basic Findings

- Table 1: net ACR values, excluding major maintenance, for new entry from all technologies are zero, with the exception of diesel and single unit nuclear.
- Table 1: net CONE values are relatively low for combined cycle (CC) plants and high for coal and nuclear plants. Net CONE values for onshore and offshore wind, and for solar, are high enough that offers based on these values would be unlikely to clear in a capacity auction, based on the clearing prices in recent capacity auctions.
- Unit specific values may vary significantly from these values.

# Basic Findings

- Table 2: net ACR values, excluding major maintenance, for all existing technologies are zero, with the exception of coal and diesel and single unit nuclear.
- Table 2: Based on the net ACR values and the clearing prices in recent capacity auctions, all existing technologies except single unit nuclear plants would be expected to clear if subject to a net ACR MOPR price floor.
- Unit specific values may vary significantly from these values.

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