

Forward Net E&AS Revenue Offset Implementation & Preliminary Default MOPR Floor Offer Prices

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2022/2023 BRA Materials Posted on Dec 18, 2020

- Preliminary default MOPR Floor Offer Prices for Certain New Generation that is not State-Subsidized
- Preliminary default MOPR Floor Offer Prices for New Entry Capacity Resources with State Subsidy
- Default Gross ACR for Cleared Capacity Resources with State Subsidy
- Preliminary default MSOC Prices
- Supporting Information for New Forward Net E&AS Revenue Offset Implementation:
 - 2022-23 BRA Indicative to Preliminary Net E&AS Offset Values Change Summary
 - 2022-23 BRA Preliminary Projected E&AS Dispatch Zonal Average Details
 - 2022-23 BRA fwd gas supporting preliminary posting
 - 2022-23 BRA fwd energy supporting preliminary posting
 - 2022-23 BRA long-term-ftr-forward-prices supporting preliminary posting

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Key Changes in Forward Net E&AS Revenue Offset Calculation from Aug 19, 2020 Indicative Values

Forward LMPs

- Electricity price forwards from trade dates 10/12/2020 11/20/2020.
- Long-term FTR pricing of congestion for Forward LMPs used results from Round 3 of the 2021/24 Long-Term FTR Auction (October 2020).

Forward Fuel Prices

- Gas price forwards from trade dates 10/12/2020 11/20/2020.
- Coal prices as of December 2020 price outlook.
- Oil price futures as of 11/20/2020.
- Slides 4 & 5 highlight key drivers of change in run hours, gross revenue,
 Net E&AS Revenue Offset, and Default Net CONE for each resource.

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Summary of Changes in Zonal Averages Between Indicative Values (8/19/2020) and Preliminary Values (12/18/2020)

			RT Run Hours	Gross Energy Revenue (\$)	Gross SR Revenue (\$)		Net E&AS* Revenue Offset (\$/MW-Day)	Default Net CONE (\$/ICAP MW-Day)	Key Drivers of Changes	
Projected E&AS Dispatch		Indicative	2,408	\$28,872,853	\$841,953	\$3,707,142	\$62	\$227	 On average, 4% increase in LMP and 7% increase in gas prices. Error fixed in model impacting the passing of the Day-Ahead committed hours to Real-Time for the DOM & RTO CTs. 	
	СТ	Preliminary	2,337	\$29,247,643	\$815,893	\$3,618,631	\$60	\$234		
		%DIFF	-3.0%	1.3%	-3.1%	-2.4%	-3.2%	3.1%		
	₹	Aug-20	8,013	\$214,968,898	\$1,743,196	\$22,514,257	\$195	\$116	On average, 4% increase in LMP and 7% increase in gas prices.	
	CC	Dec-20	7,930	\$220,306,400	\$1,646,241	\$22,915,809	\$196	\$115		
	2	%DIFF	-1.0%	2.5%	-5.6%	1.8%	0.5%	-0.9%		
	ב	Indicative	1,374	\$34,277,531	\$36,919	\$582,255	\$36	\$1,023	 On average, 4% increase in LMP, 15% decrease in coal prices, 2% decrease in oil prices. 	
	Coal	Preliminary	2,618	\$58,004,425	\$58,743	\$898,021	\$60	\$999		
	ර් 	%DIFF	90.5%	69.2%	59.1%	54.2%	66.7%	-2.3%	on prices.	
		Indicative	5,063	\$30,086	\$4,387	\$122,286	\$429	\$233	• Between the Indicative Value and Preliminary Value simulations, PJM identified aspects of the Regulation modeling for the Battery Storage Resource that did not reflect conditions that would result from PJM Market Rules. In the Indicative Value simulation, Energy set points were not honoring the equivalent up and down operating range required for the battery's Regulation provision. This resulted in an overestimation of Energy-Regulation arbitrage. Updated modeling used for the Preliminary Value simulations includes a constraint that ensures the Energy set point allows for equal up and down operating range to support the Regulation provision. This change resulted in less Energy-Regulation arbitrage in the Preliminary Value simulations.	
	Battery **	Preliminary	101	\$16,197	\$1,195	\$128,133	\$399	\$310		
		%DIFF	-98.0%	-46.2%	-72.8%	4.8%	-7.0%	33.3%		

^{*} Net E&AS Revenue Offset values in table do not include reactive services. Reactive services constant is added to Net E&AS to determine Net CONE.

^{**} RT run hours for Battery are hours injecting.



Summary of Changes in Zonal Averages Between Indicative Values (8/19/2020) and Preliminary Values (12/18/2020)

			Net E&AS* Revenue Offset (\$/MW-Day)	Default Net CONE (\$/ICAP MW-Day)	Key Drivers of Changes
		Indicative	\$420	\$1,570	
	Nuclear	Preliminary	\$442	\$1,548	• On average, 4% increase in LMP
		%DIFF	5.2%	-1.4%	
de	0 1 5)/	Indicative	\$153	\$213	
JO/	Solar PV	Preliminary	\$157	\$207	
Assumed Output Model	(Tracking)	%DIFF	2.6%	-2.8%	
tpt	0 1 5)/	Indicative	\$94	\$400	
Out	Solar PV	Preliminary	\$97	\$393	
) p	(Fixed)	%DIFF	3.2%	-1.8%	
me		Indicative	\$203	\$1,182	
ins	Onshore Wind	Preliminary	\$210	\$1,142	
AS		%DIFF	3.4%	-3.4%	
		Indicative	\$284	\$3,315	
	Offshore Wind	Preliminary	\$295	\$3,273	
		%DIFF	3.9%	-1.3%	

^{*} Net E&AS Revenue Offset values in table do not include reactive services. Reactive services constant is added to Net E&AS to determine Net CONE.

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- Final Values expected to be posted by close of business Jan 13, 2021
- Key changes to be incorporated in Final Net E&AS Revenue Offset Values
 - Forward price shaping using 2018/2019/2020. Preliminary values used 2017/2018/2019.
 - LMPs will reflect Round 4 of the 2021/24 Long-Term FTR Auction conducted in December 2020.
 - Addition of OVEC, which integrated end of 2018. OVEC values will only use average of runs based on 2019 and 2020 price shapes.



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