



Quadrennial Review

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At least every four years, PJM must review:

Shape of Variable Resource Requirement (VRR) Curve

- Establishes level of capacity needed to meet reliability needs
- Establishes maximum price PJM is willing to pay for a given quantity of capacity

Calculation of the Cost of New Entry (CONE)

Determines the price signal needed to incentivize a new capacity resource

Methodology for determining Energy & Ancillary Services (E&AS) revenue offset

Estimates revenues that reference resource will collect through Energy & Ancillary Service Markets

PJM has hired an independent consultant, Brattle, to perform this analysis

	Reference Resource	E&AS Offset Methodology	VRR Curve
Status Quo	<ul style="list-style-type: none"> Combustion Turbine Dual Fuel 	Estimated based on historical electricity & natural gas prices	Point a) quantity = IRM - 1.2%, price = greater (CONE or 1.5*Net CONE) Point b) quantity = IRM + 1.9%, price = 0.75*Net CONE Point c) quantity = IRM + 7.8%, price = 0
Package A (PJM)	<ul style="list-style-type: none"> 1x1 Combined Cycle (Double train, single shaft) Air-cooled condensers Firm gas transportation Major maintenance in VOM 	Calculate E&AS based on a forward basis	Point a) quantity = Reliability Requirement (RR) - 1%, price = greater (Gross CONE or 1.75*Net CONE) Point b) quantity = RR + 1.5%, price = 0.75*Net CONE Point c) quantity = RR + 4.5%, price = 0
Package B (IMM)	Same as Package A, but with: <ul style="list-style-type: none"> Potential for firm gas transportation Operating costs, no major maintenance, in VOM 	Same as Package A but details differ	Point a) quantity = IRM - 1.2%, price = greater (Gross CONE or 1.5*Net CONE) Point b) quantity = IRM + 0.95%, price = 0.75*Net CONE Point c) quantity = IRM + 3.9%, price = 0
Package C	Same as Package A	Status Quo	Same as Package A
Package D	Status Quo, but with firm gas transportation	Status Quo	Same as Package A, but with CT as reference resource



Stakeholder Process Work Plan

2021/2022 Quadrennial Review Work Plan	MIC SPECIAL SESSIONS: QUADRENNIAL REVIEW															
	MTG 1 8/6/21 Special MIC	MTG 2 8/17/21 Special MIC	MTG 3 8/27/21 Special MIC	MTG 4 10/8/21 Special MIC	MTG 5 12/8/21 Special MIC	MTG 6 2/11/22 Special MIC	MTG 7 3/25/22 Special MIC	MTG 8 4/22/22 Special MIC	MTG 9 5/11/22 MIC	MTG 10 5/20/22 Special MIC	MTG 11 6/8/22 MIC	MTG 12 6/21/22 Special MIC	MTG 14 7/13/22 MIC	MTG 15 7/27/22 MRC	MTG 17 8/24/22 MRC*	MTG 18 8/24/22 MC Call*
Education & Stakeholder Feedback	X	X	X	X	X	X										
Review of IMM Recommendations						X	X	X		X						
Review of Stakeholder Recommendations						X										
Review of draft Brattle Recommendations							X									
Stakeholder Feedback on Final Quadrennial Report								X								
PJM to review preliminary recommendations									X							
CBIR Process – identify interests & develop options										X	X					
CBIR Process – develop packages											X	X				
First Read														X		
Vote													X		X	X

