

Market Efficiency Process Enhancement Task Force Final Proposal Report – Phase 1

July 16, 2018

Issue Summary

PJM has conducted multiple ME cycles (2014/15 and 2016/17) since implementing Order 1000 processes. The mission of the Market Efficiency Process Enhancement Task Force is to discuss challenges and opportunities for improvements that have become evident as a result of these ME cycles.

<u>Problem Statement & Issue Charge</u> Charter

Problem Statement/Issue Charge approved at Planning Committee on January 11, 2018 Number of Meetings covering this topic: 9

1. Task Force Non-binding Results

In total, 6 packages were polled from June 25 2018 through July 2, 2018. Only proposal A' was close to a simple majority vote, with 50.0% in favor. However, 16 out of the 18 respondents polled to make a change – supporting at least one of the below solution packages. Although a formal "retain status quo" poll question was not asked, the group was notified via email to note "status quo" in the comments section of the poll of anyone wished to retain the status quo. Proposals were offered by PJM, American Municipal Power, American Electric Power, LS Power, First Energy, and Exelon.

June Polling Results:

Total Unique Responders	18				
Total Companies	132				
Question	Yes	No	Maybe	#	%
1. Do you support Package A'?	66	41	25	132	50.0%
2. Do you support Package B?	30	86	16	132	22.7%
3. Do you support Package C?	40	92	0	132	30.3%
4. Do you support Package D?	13	100	19	132	9.8%
5. Do you support Package E?	38	65	29	132	28.8%
6. Do you support Package F?	36	95	1	132	27.3%

During the July 5, 2018 meeting, the task force reviewed the June polling results. As a result of no solution package reaching Tier 1 consensus, the group agreed to develop three new solution packages for Planning Committee consideration based on a subset of design components that garnered the most support. An additional poll was sent out to the group on July 6, 2018 to gauge support for these new packages, G, H, I. The poll results are provided in the below table.



July Polling Results:

Total Unique Responders 21					
Total Companies 148					
Question	Yes	No	Maybe	#	%
1. Do you support Package G?	95	44	9	148	64.2%
2. Do you support Package H?	43	103	2	148	29.1%
3. Do you support Package I?	34	90	24	148	23.0%
4. Do you wish to make a change or retain status quo?	99	49	0	148	66.9%

Proposals G, H, I represent compromise solution packages based on the June polling results. Fundamental disagreements remain in regards to modeling FSA generators in the base case. These three packages offer three separate methodologies for FSA modeling, while all sharing common recommendation for fixing generator and transmission topology at the RTEP year level for all simulation years. Proposal G recommends to exclude FSA and Suspended ISA generators by default and only including them if needed (below reserve requirement) based on commercial probability. Proposal H recommends scaling FSAs based on 40% of MW capability. Project reevaluation criteria and energy benefit trend and simulation year design components have been removed from these packages and pushed to Phase 2 for further consideration.

Appendix I: Proposals Not Meeting the Threshold

There exist three areas of the Market Efficiency (ME) process enhancement that has prevented the group from reaching a simple majority recommendation: The method for modeling FSA generators in the ME base case, the project reevaluation criteria, and the energy benefits calculation methodology.

Proposal A' by default, excludes FSA generators from the ME base case, however includes a mandatory sensitivity for all FSA generators. Proposal A' also adds criteria to the current project reevaluation process. Namely, projects must be above \$20M in capital cost to be reevaluated annually. Reevaluations for these projects would continue annually up until a CPCN was filed or 20% of the Engineering and Procurement phase was completed, whichever happens first. Proposal A' also modified the benefit simulation years to RTEP -2, RTEP, RTEP +2, and RTEP +4 and capped the benefits calculation at RTEP+15, including a benefits adjustment calculation for projects coming into service after the RTEP year.

Proposal B is very similar to Proposal A' except for the reevaluation and benefits calculation design components. This proposal suggests to only reevaluate projects with a capital cost of \$10M or more annually, up until a CPCN was filed or 20% of the Engineering and Procurement phase was completed, whichever happens first. This Proposal also suggests utilizing a third-order polynomial trend and benefit simulation years RTEP -2, RTEP, RTEP +2, and RTEP +4 and RTEP +6.

Proposal C mainly differs from Proposals A' and B in the areas of FSA modeling and project reevaluation. This proposal suggests to only reevaluate projects with a capital cost of \$20M or more once after the project has been



approved. This proposal also recommends scaling FSA generators MW capability to 40% in the base case, while also including suspended ISAs at full capability.

Proposal D is mostly made up of parts from Proposals B and C. Proposal D recommends including FSAs in the base case based on commercial probability while also only reevaluating projects with a capital cost of \$10M or more up until the project has completed 20% of its construction. This proposal also does not offer a modification for adjusting benefits based on in-service date.

Proposal E is identical to Proposal A' except for the energy benefits calculation details. Proposal E recommends using 10 years from the in-service date, as opposed to 15 years, for the benefits calculation period. Proposal E also suggests the benefits trend to be interpolated between simulation years. Including a maximum annual benefit applied beyond the last simulation year, with annual escalation based on load projection.

Proposal F is identical to Proposal A', except that it suggests to only reevaluate projects with a capital cost of \$50M or more annually, up until a CPCN was filed or 20% of the Engineering and Procurement phase was completed, whichever happens first.

Appendix II: Supplemental Documents

Solution Package Matrix

Appendix III: Stakeholder Participation

Last Name	st Name First Name Company Name		Sector	
Abing	Benjamin	ITC Transco	Not Applicable	
Achaab	Edward	AEP Energy Partners, Inc.	Other Supplier	
Adams	Darrin	East Kentucky Power Cooperative, Inc.	Transmission Owner	
Allen	Bill	Commonwealth Edison Company	Transmission Owner	
Arsalan	Qamar	Public Service Electric & Gas Company	Transmission Owner	
Bolan	Martin	FirstEnergy Solutions Corp.	Transmission Owner	
Brodbeck	John	EDP Renewables North America, LLC	Other Supplier	
Cundiff	Robert	AEP Energy Partners, Inc.	Other Supplier	
Dadourian	John	Monitoring Analytics, LLC	Not Applicable	
DeLosa	Joseph	DE Public Service Commission	Not Applicable	
Dolan	Ryan	American Municipal Power, Inc.	Electric Distributor	
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner	
Filomena	Guy	Customized Energy Solutions, Ltd.	Not Applicable	
Foladare	Kenneth	Tangibl	Not Applicable	
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor	
Gahimer	Mike	IN Office of Utility Consumer Counselor	End User Customer	
Gibelli	Stephen	NextEra Energy Power Marketing, LLC	Generation Owner	
Helms	Joseph	Rainbow Energy Marketing Corporation	Other Supplier	
Hoatson	Tom	Riverside Generating, LLC	Other Supplier	



Hollis	Gabriel	NextEra Energy Transmission, LLC	Other Supplier	
Huntoon	Stephen	NextEra Energy Power Marketing, LLC	Generation Owner	
Hutt	Daniel	Public Service Electric & Gas Company	Transmission Owner	
Hyzinski	Tom	GT Power Group	Not Applicable	
Johnson	Carl	Customized Energy Solutions, Ltd.*	Not Applicable	
Kinser	Cynthia	Tennessee Department of Agriculture	Not Applicable	
Koehler	Nicolas	AEP Indiana-Michigan Transmission Company, Inc.	Transmission Owner	
Kogut	George	New York Power Authority	Other Supplier	
Laios	Takis	Appalachian Power Company	Transmission Owner	
Laverty	Eric	Aces	Not Applicable	
LaVista	Bill	PSEG Energy Resources and Trade, LLC	Transmission Owner	
Lawson	Ryen	Dominion Virginia Power	Not Applicable	
Lejcar	Jamie	Allegheny Electric Cooperative, Inc.	Electric Distributor	
Lieberman	Steve	American Municipal Power, Inc.	Electric Distributor	
Lockwood	Craig	Appalachian Power Company	Transmission Owner	
Loresch	Jonathan	FirstEnergy Solutions Corp.	Transmission Owner	
Mabry	David	McNees Wallace & Nurick LLC	Not Applicable	
Mack	Amanda	NextEra Energy Power Marketing, LLC	Generation Owner	
Manning	James	North Carolina Electric Membership Corporation	Electric Distributor	
Mariam	Yohannes	Office of the Peoples Counsel for the District of Columbia	End User Customer	
Marton	David	FirstEnergy Solutions Corp.	Transmission Owner	
Nekolny	Christopher	Exelon Generation Co., LLC	Generation Owner	
Norton	Chris	American Municipal Power, Inc.	Electric Distributor	
Ondayko	Brock	Appalachain Power Company	Transmission Owner	
Poulos	Greg	CAPS	Not Applicable	
Pratzon	David	GT Power Group	Not Applicable	
Price	Ruth Ann	Division of the Public Advocate of the State of Delaware	End User Customer	
Rawley	Josh	Burns McDonnell	Not Applicable	
Sanders	Melanie	Exelon Business Services Company, LLC Transmission Owner		
Sasser	Jonathan	Customized Energy Solutions, Ltd.* Not Applicable		
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner	
Schreim	Morris	Maryland Public Service Commission	Not Applicable	



Segner	Sharon	LS Power Transmission	Not Applicable
Shah	Pulin	PECO Energy Company	Transmission Owner
Shegarfi	Roozbeh	Exelon Energy Company	Transmission Owner
Slagel	Ronald	Other	Not Applicable
Steinkuhl	Steve	Duke Energy Business Services LLC	Transmission Owner
Stern	Alexander	Public Service Electric & Gas Company	Transmission Owner
Taylor	Miles	Northern Indiana Public Service Company	Other Supplier
Taylor	Robert	Exelon Business Services Company, LLC	Transmission Owner
Tekle	Zelalem	Baltimore Gas and Electric Company	Transmission Owner
Thundiyil	Kevin	Exelon Energy Company	Transmission Owner
Vayda	Brian	Borough of Park Ridge, NJ	Electric Distributor
Von Pinho	Frederico	NextEra Energy Transmission, LLC	Other Supplier
Vu	JohnBinh	NextEra Energy Marketing, LLC	Generation Owner
Weber	Adam	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Whitehead	Jeffrey	GT Power Group	Not Applicable
Wisersky	Megan	Madison Gas & Electric Company	Other Supplier
York	Amy	McNees Wallace & Nurick	Not Applicable
Zhang	Frank	Dominion Virginia Power	Not Applicable
Zweig	James	American Transmission Company, LLC	Transmission Owner

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