



Energy Market Uplift Senior Task Force Report
PJM Interconnection
Members Committee Webinar
November 14, 2016

The [Energy Market Uplift Senior Task Force](#) (EMUSTF) met most recently on October 31, 2016. The Charter and Timeline were presented to the September 26, 2013 MRC, and the Charter was approved.

The EMUSTF began its work in July 2013 and has conducted 31 meetings. Work of the group has been parsed into two phases:

- Phase 1 – Efforts to reduce uplift costs and reflect as much of these costs in LMP as possible:
 - Identify scenarios under which PJM may commit a resource in the Day-Ahead market that results in out-of-market uplift costs and consider alternative approaches to clearing such resources consistent with reliable operations, and explore possible improvements to the PJM Day-Ahead pricing that have potential to minimize uplift costs while maintaining prices that are consistent with operational reliability needs.
 - Identify scenarios under which PJM may dispatch a resource in the Real-Time market that results in out-of-market uplift costs, consider alternative approaches to pricing, and explore changes to the PJM market mechanisms that have the potential to minimize uplift costs.
- Phase 2 – Cost allocation:
 - Explore new methodologies for the allocation of make-whole payments that may include, but are not limited to, methodologies where Operating Reserve make-whole costs are netted with other out-of-market costs and payments (e.g. balancing congestion, Marginal Loss Surplus), that are consistent with cost causation/benefit principles
 - Explore and determine appropriate methodologies for the allocation of make-whole payments that may include, but are not limited to, methodologies that create variable and fixed charge rates, with the objective of minimizing the variability of such charges, that are consistent with cost causation/benefit principles.

The initial EMUSTF effort was focused on Phase 1. A significant amount of stakeholder education regarding price formation, unit commitment, and operator action has been required to allow stakeholders to be in a position to develop potential solutions.

Concurrent with and separate from the EMUSTF exploration, beginning in December 2013 PJM staff took actions to reduce some drivers of uplift payments. These actions were aimed resolving specific situations that are the largest contributors to uplift.

Within the EMUSTF Phase 1 solution packages have been developed by PJM staff, the Independent Market Monitor, DC Energy, PSEG, Dominion and Citigroup. A subset of the issues has been endorsed by the EMUSTF related to incorporating uplift as an input to the RTEP process operational efficiency driver projects and CT Lost Opportunity. The Markets and



Reliability Committee (MRC) discussed and deferred action on these proposals at its March 26, 2015 meeting. The MRC directed that there be additional discussion at the EMUSTF regarding potential friendly amendments that could be made to address some members concerns. That discussion has continued at EMUSTF meetings on April 1 and 17, 2015 and at the Operating Committee on April 7, 2015. The MRC is expected to take action on the proposal at its meeting on April 23, 2015.

The EMUSTF developed Phase 2 solutions. Ten separate solution packages were initially proposed. These packages were split between variations on the current cost allocation methodologies, and new, "whole cloth", solutions which envision a quasi-fixed rate applied to all transactions. A poll of the Members was conducted to determine where on the spectrum of cost allocation methods (represented by the breadth of the proposed solution packages) they would prefer to concentrate, and subsequently the quasi-fixed rate proposals were dropped. The remaining packages were refined at the next few meetings.

The FERC issued an order on August 29, 2014 in Docket EL14-37 related to the application of the FTR Forfeiture Rule to Up-To Congestion (UTC) Transactions. In this order, the FERC initiated a separate Section 206 proceeding to deal with this issue, and added consideration of the allocation of uplift to UTCs. The EMUSTF discussed this, and conducted a poll as to what the appropriate course of action should be – whether related EMUSTF activities should be put on hiatus pending FERC action, should be fast-tracked or should some other path be taken. Results of the poll indicated the Members desire to maintain the current workplan.

A second poll was conducted in an effort to further refine Phase 1 and Phase 2 proposals. The results of this poll along with a review of the FERC Technical Conference were discussed at the January 14, 2015 meeting to focus the group on feasible solutions. Package proposers were asked to develop adjustments to their proposals.

PJM staff evaluated what, if any, cost analyses may be performed to allow participants to understand cost correlation and cost impacts of the Phase 2 proposals and the EMUSTF discussed the related MISO analysis and PJM's recommendations at its meeting on April 1, 2015. A non-binding poll was conducted to determine which three proposed solution packages would be evaluated to back-cast rates. Upon completion of rate back-casting and subsequent stakeholder discussion it is expected that the EMUSTF will conduct a vote on the Phase 2 packages.

Remaining solution packages from Phase 1 may be coupled with solutions developed in Phase 2 for final proposal to the Markets and Reliability Committee. The EMUSTF is expected to complete its work in 1Q16.

PJM Staff published a whitepaper entitled "Virtual Transactions in the PJM Energy Markets" on October 12, 2015.

It is hoped that soon the FERC will issue an order in Docket EL14-37 related to allocation of uplift to virtual transactions. The EMUSTF has been on hiatus until an order is received.

On January 28, 2016, the MRC approved a Problem Statement / Issue Charge entitled "Review of Virtual Transaction Rules." On March 24, 2016, the EMUSTF met to discuss incorporation of this scope into the EMUSTF's charter and to develop an updated workplan. A vote was taken and the EMUSTF endorsed including this scope into the EMUSTF charter. The proposed update to the charter will be presented to the MRC on April 28, 2016 for a first read and a vote of the MRC is



expected on May 26, 2016. Additionally, the EMUSTF was asked a non-binding poll question regarding whether it was the preference of the task force to re-start efforts on allocation of uplift; a majority of the EMUSTF was in favor of doing so.

The MRC approved the updated charter at its May 26, 2016 meeting, and the EMUSTF began work on the new Phase 3 (determination of biddable nodes) and Phase 4 (any other desired virtual transaction market rule changes in accordance with the issue charge and charter update).

At the EMUSTF meeting on July 7, 2016, Dr. William Hogan, Raymond Plank Professor of Global Energy, Policy John F. Kennedy School of Government at Harvard University presented a paper entitled Virtual Bidding and Electricity Market Design.

At the September 22, 2016 meeting the EMUSTF reviewed the results of the vote regarding whether to recommend to the MRC that any additional scope be added as Phase 4. None of the proposed additional scope items received a simple majority, and therefore will be recommended to the MRC. It should be noted that the proposed additional scope item regarding expanding the +/- \$50 bid limit was the scope of a previously MRC-approved problem statement. Additional research on the history of that item will be provided to the EMUSTF at its next meeting. Stakeholders reviewed the Phase 1 and Phase 2 packages in preparation for an anticipated vote after the EMUSTF's next meeting. Additionally, Dr. David Patton, President of Potomac Economics and the Independent Market Monitor for other ISO's shared his thoughts on allocation of uplift and on the value of virtual transactions.

At the October 3, 2016 meeting PJM and stakeholders reviewed Phase 1 and Phase 2 proposal packages, including updates thereto. It was determined that a poll would be conducted on the levels of support for each of these proposals. The poll was open from November 7-11, 2016, with results to be discussed at a newly announced EMUSTF meeting November 21, 2016. Any updates to proposals in response to the poll results will be made at that time. Votes on the Phase 1 and Phase 2 proposals will be conducted thereafter. Phase 3 matrix development will continue following votes on Phase 1 and Phase 2.

Next meeting: November 21, 2016

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