

Energy Market Uplift Sr. Task Force Update



David Anders, PE Director, Stakeholder Affairs Members Committee June 22, 2017

www.pjm.com PJM©2017



- Phase 1: Reduce Uplift and its Volatility
 - Members Committee endorsed Phase 1 Package A at its February 2017 meeting
- Phase 2: Uplift Cost Allocation
 - Members Committee endorsed Phase 2 Package Q at its February 2017 meeting
- Phase 3: Eligible nodes for virtual transactions
 - Competed CBIR Process
 - EMUSTF voted in February 2017
 - Package A (PJM) 59.7% (only proposal to receive simple majority)
 - 70% prefer to make a change over retaining the status quo



Phase 3 Package A – Main Motion

Package A is intended to strike a balance between retaining the theoretical benefits of virtual trading while eliminating opportunities for virtual transactions to profit from the market without providing those benefits. A background description of this topic is provided in PJM's October 2015 paper, "Virtual Transactions in the PJM Energy Market".

Increment Offer (INC) and Decrement Bid (DEC) Points: Package A proposes allowing INC and DEC bids to be able to be submitted at locations where the settlement of physical energy occurs plus trading hubs. This proposal focuses INC and DEC bids to locations where they either compete directly with physical assets or trading hubs where forward positions can be taken. PJM believes focusing INCs and DECs at these locations provides the maximum opportunity for virtual transactions to provide the theoretical benefits described in the PJM paper.

<u>Up-to-Congestion Transaction (UTC) Points:</u> Package A proposes the eligible set of bidding nodes for UTCs to be hubs, zones and interfaces. This proposal focuses UTCs on bidding locations that are large aggregates in nature in order to address some of the observed practices illustrated in the PJM paper that do not benefit the market at a level commensurate with the profitability of the transactions.



Appendix

www.pjm.com 4 PJM©2017



Initial Scope and FERC Order – Docket EL14-37

Problem Statement / Issue Charge Approved – May 2013

- Phase 1 Lower total uplift and reduce volatility
- Phase 2 Address perceived issues related to uplift cost allocation
 - Consensus Based Issue Resolution process (CBIR) used to perform education and develop proposed solutions
 - Phase 1 limited solution Tariff revisions EMUSTF/MRC/MC/FERC approved
 - PJM actions taken to significantly reduce uplift no OA/OATT/Manual revisions required

www.pjm.com 5 PJM©2017



Initial Scope and FERC Order – Docket EL14-37 (cont'd.)

FERC opened EL14-37 on August 29, 2014

- FPA 206 proceeding
 - Treatment of FTR Forfeiture Rule and uplift allocation to virtual transactions
 - Subject to refund
 - Expected FERC order by October 20, 2015
- EMUSTF went into hibernation June 2015
- No FERC action
- Restarted EMUSTF March 2016



PJM Virtual Transactions Whitepaper and Phases 3 & 4

PJM released "Virtual Transactions in the PJM Energy Markets" whitepaper on October 12, 2015

- Recommended changes to nodes at which certain virtual transactions could be made
- January 28, 2016 MRC approved problem statement to address issues
- EMUSTF charter update approved by MRC May 26, 2016
- Added Phases 3 & 4:
 - Phase 3 Determine nodes at which virtual transactions may be made
 - Continuing to work
 - Phase 4 any other energy market rule changes related to virtual transaction
 - Scope items suggested, but insufficient support to request MRC approval to pursue
 - Phase 4 closed



Package Sponsors and December 2016 Voting Results

Phase 1:

- A PJM 87.50%
- E IMM 15.94%
- G-PSEG-52.74%

Phase 2:

- C IMM 16.28%
- D* Apollo 37.55%
- I Red Wolf Energy/XO Energy 27.95%
- J Financial Markets Coalition 28.23%
- L AEP 16.94%
- P Red Wolf Energy 28.02%
- Q PJM/IMM 45.22%
- R Citigroup 29.36%
- S − PJM/IMM − 35.02%
- T − Apollo et al − 31.62%
- U* XO Energy 36.36%



Package Sponsors and December 2016 Voting Results (cont'd.)

Phase 2 – Adding Package D:

- C+D IMM 1.61%
- I+D Red Wolf Energy/XO Energy 29.25%
- J+D Financial Markets Coalition 26.10%
- L+D AEP 9.31%
- P+D Red Wolf Energy 28.74%
- Q+D PJM/IMM 11.20%
- R+D Citigroup 24.60%
- S+D PJM/IMM 4.15%
- T+D Apollo et al 16.47%

Phase 2 – Adding Package U:

- J+U Financial Markets Coalition 30.54%
- L+U AEP 13.81%
- Q+U PJM/IMM 9.09%
- S+U PJM/IMM -10.30%
- T+U Apollo et al 25.10%

www.pjm.com 9 PJM©2017



Package Sponsors and January 2017 Voting Results

Phase 2

- − D − Apollo − 41.38%
- Q PJM/IMM 58.90%
- S PJM/IMM 47.72%
- T Apollo et al 36.75%
- U XO Energy 39.04%

* Note that for this vote, packages D and Q were considered "stand-alone" proposals – they were not combined with any other packages

www.pjm.com 10 PJM©2017



Phase 3 EMUSTF Voting Results

Total Unique Responders	83
Total Companies	263
Voting Members	129
Affiliates	134

Question	Yes	No	Abstain	#	%
1. Do you support Package A, proposed by PJM? Response	157	106	0	263	59.70%
2. Do you support Package B, proposed by the IMM? Response	69	194	0	263	26.24%
3. Do you support Package C, proposed by the IMM? Response	72	188	3	263	27.69%
4. Do you support Package D, proposed by DC Energy? Response	113	147	3	263	43.46%
5. Do you support Package E, proposed by VECO Power Trading? Response	99	159	5	263	38.37%
6. Do you support Package F, proposed by XO Energy? Response	97	<mark>1</mark> 61	5	263	37.60%
7. Do you support Package G, proposed by XO Energy? Response	97	161	5	263	37.60%
8. Do you support Package H, proposed by LM Power? Response	51	205	7	263	19.92%

	Make a Change	Retain the Status Quo	Abstain	#	%
9. Do you prefer to make a change to Phase 3, or retain the status	13.4%		11111		Market
quo? Response	171	73	19	263	70.08%

www.pjm.com 11 PJM©2017



Historical Uplift Data

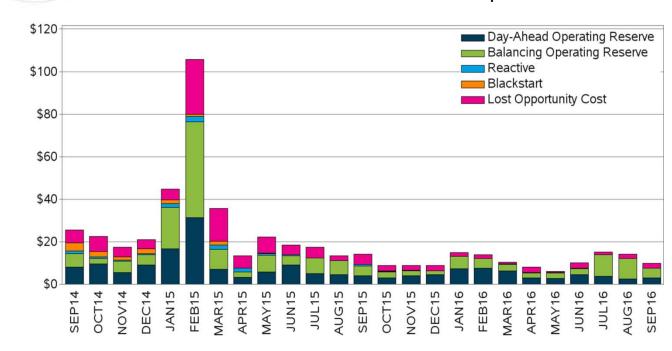
IMM 2015 State of the Market Report

Table 4-3 Total energy uplift charges: 2001 through

2015

				Percent of Total PJM Billing
2001	\$284.0	\$67.1	30.9%	8.5%
2002	\$273.7	(\$10.3)	(3.6%)	5.8%
2003	\$376.5	\$102.8	37.5%	5.4%
2004	\$537.6	\$161.1	42.8%	6.1%
2005	\$712.6	\$175.0	32.6%	3.1%
2006	\$365.6	(\$347.0)	(48.7%)	1.7%
2007	\$503.3	\$137.7	37.7%	1.6%
2008	\$474.3	(\$29.0)	(5.8%)	1.4%
2009	\$322.7	(\$151.5)	(31.9%)	1.2%
2010	\$623.2	\$300.4	93.1%	1.8%
2011	\$603.4	(\$19.8)	(3.2%)	1.7%
2012	\$649.9	\$46.5	7.7%	2.2%
2013	\$842.8	\$192.9	29.7%	2.5%
2014	\$960.5	\$117.7	14.0%	1.9%
2015	\$314.2	(\$646.3)	(67.3%)	0.9%

October 2016 MC Webinar Markets Report



www.pjm.com 12 PJM©2017

\$ Millions