

April 30, 2014

1. MA to revisit presentation / education slices on the evolution of the deviation buckets

This item was addressed during the 5/1 EMUSTF meeting. The original slides can be found at <http://www.pjm.com/~media/committees-groups/task-forces/emustf/20131018/20131031-item-02a-ma-educational-session-part-b-updated.ashx>. The slides were reposted on the 5/1 EMUSTF page:

<http://www.pjm.com/~media/committees-groups/task-forces/emustf/20140501/20140501-or-allocation-education.ashx>

2. PJM to investigate impact of imports/exports on uplift during peak load times

Electricity flowing into or out of PJM from neighboring areas, known as interchange, can lead to uplift when it differs significantly from the expectation PJM operators use to schedule and dispatch resources to maintain reliability. An interchange transaction can either be an import, meaning power is purchased from a neighboring area and sold into PJM, or an export, where power is purchased from PJM and sold in an external area. These transactions, which are typically price-takers, can be submitted with as little as 20 minutes notice and are only curtailed or limited due to reliability concerns from either the sourcing or sinking area. In contrast, deploying emergency demand response under today's rules, for example, requires up-to two hours notice. This timing difference creates a situation where system operators must forecast an expected amount of interchange and then operate the system based on that expectation. When that expectation significantly differs from actual system conditions, it can create uplift.

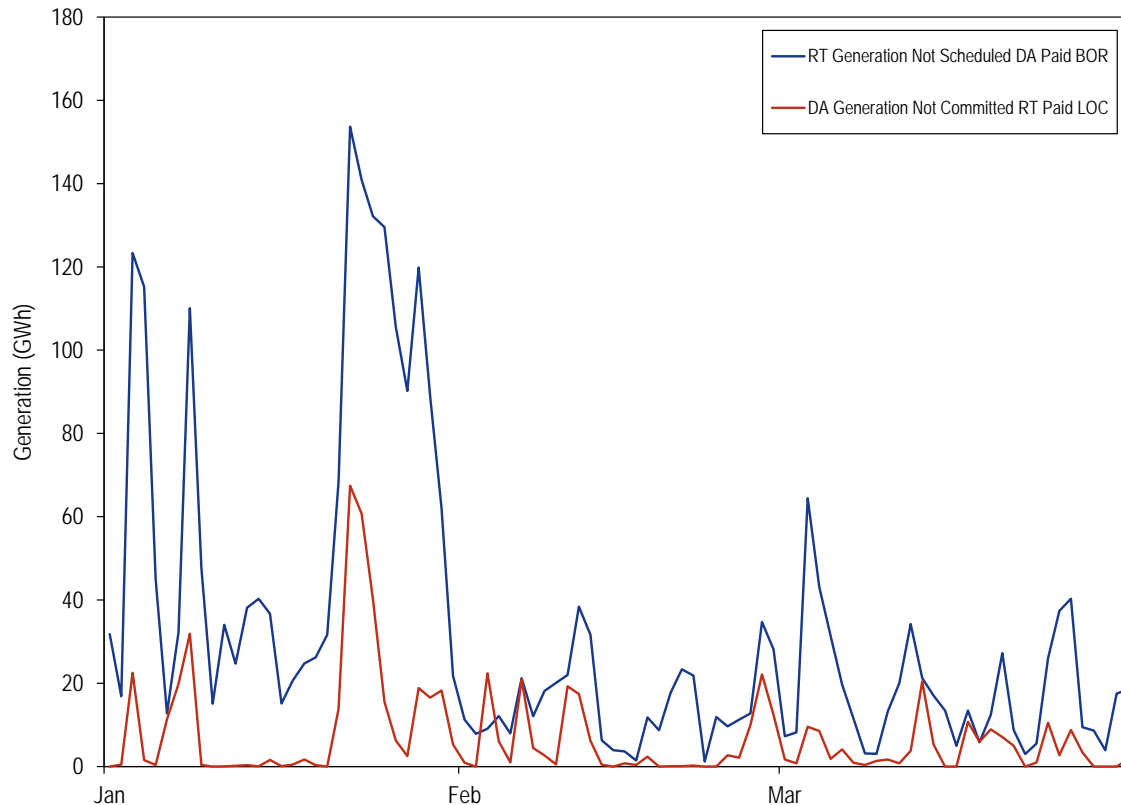
Additionally, in order to maintain system control when excess power imports into PJM, conventional generating units are ramped down in order to balance supply and demand which results in the lowering of LMPs across the system. Despite the low LMPs on the system, PJM could still be running high priced supply resources including gas generation and emergency demand response in order to meet the minimum run time requirements on such resources. Low LMPs during a period where expensive supply resources are being run at PJM's direction requires make whole payments and thus creates uplift. In an attempt to gain more certainty with regard to interchange forecasting, PJM is currently discussing the need for more timely information regarding interchange expectations in the Energy/Reserve Pricing & Interchange Volatility special sessions of the MIC and in the PJM/MISO Interchange Optimization special sessions of the JCM.

3. How often has there been displaced resources due to conservative ops): (Resources that cleared in DA but didn't show in RT)

See the chart below from the Monitoring Analytics report "2014 Quarterly State of the Market Report for PJM: January through March".

EMUSTF Phase 2 Action Item Responses

April 30, 2014



4. What are the general reasons for the top 10 DAOR credits (Joel's slide #5)

See slide 7 in the MA's slide deck posted on the 6/11/14 EMUSTF meeting page.

5. Do a Pareto diagram of Joel's slide #5 (showing reasons for uplift, instead of units)

See slide 7 in the MA's slide deck posted on the 6/11/14 EMUSTF meeting page. Note there is not a reason-unit mapping for every day a unit gets uplift.

6. Hunt down 10% adder, to better understand the source

The 10% adder was negotiated value dating back to the power pool days. The basis for this adder was to cover the uncertainty in costs, particularly the variable heat rate curve for CTs which can vary significantly based on ambient temperature.

7. Redo a chart with top 10 reasons for make-whole credits on Joel's slide 15.

See slide 17 in the MA's slide deck posted on the 6/11/14 EMUSTF meeting page. Note there is not a reason-unit mapping for every day a unit gets uplift

8. What is the correlation between the top 10 units that get balancing and deviations?

See slide 18 in the MA's slide deck posted on the 6/11/14 EMUSTF meeting page.

9. Update charts in the MA presentation to include most current data available

See the MA slide deck posted on the 6/11/14 EMUSTF meeting page.

10. Revisit design component #2 to see if there is overlap with other design components, or if we should just adjust it.

The design component was split into two components: "2a. What period of time the rate applies to" and "2b. How is rate calculated".

11. Do a backcast of a possible transaction rate (design component 4, option A) to see what it would look like

This is a work in-progress.

12. Update and reconfigure phase 2 matrix and send out

This has been completed.

13. PJM to group the phase 2 design components (similar to phase 1)

This was completed during the 5/6 internal meeting.

14. Need clarification of exports and their role in uplift (we have this for imports already)

This is a work in-progress.

15. Change "RT Load" to RT Load (metered) in Status Quo wording

This was completed in the matrix.

16. Do we need to include DR netting impact (similar to gen netting)?

DR Netting is already on the table as a design component (assuming this is not related to DR M&V rules).

17. Need definition for Physical Deviations and deviations

This presentation on slide 18 has a summary definition:

<http://www.pjm.com/~media/committees-groups/task-forces/emustf/20131018/20131031-item-02a-ma-educational-session-part-a-updated.ashx>

The 2013 State of the Market Report, Section 4, page 128 has a full description.

http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2013/2013-som-pjm-volume2-sec4.pdf

18. Put together slides for "transaction in the supply and demand deviation category"

This is a work in-progress.

19. Clean up status quo for Option 19

Updates were made to the matrix.

20. Update matrix for 19, 19a, 19b, 19c

This was completed in the matrix.

21. PJM to provide a precise definition of "Committed For Reliability"

"Committed for Reliability" is defined as everything committed outside of the day ahead run and the RAC run (excluding real-time CTs). In other words resources not called economically.

22. Look into how other ISOs and RTOs allocate uplift costs

This is a work in-progress.

23. Summarize what we've already done or what is in the SOM related to causes of uplift. Can start with Action Item #30 and show those in order of precedence. Include seasonality or unusual events in the analysis.

This is a work in-progress.

24. Members to submit solution options for the matrix

This is a work in-progress.

25. PJM to clarify row 17 option B if this is different from status quo (RT Load (metered), RT Exports --- Deviations + RT Imports (Interchange Deviations from DA schedule for imports and exports))

This is a work in-progress.