Operating Committee
PJM Conference & Training Center, Audubon, PA
February 9, 2016
9:00 a.m. – 4:00 p.m. EPT

Administration

The OC Agenda for this meeting was approved.

Draft Minutes of the January 5, 2016 OC meeting and the January 20, 2016 OC Special Session were reviewed and approved.

The OC Work Plan was reviewed.

Review of Operations

Review of Operational Events

Mr. Phil D'Antonio, PJM, reviewed PJM Operations since the last OC Meeting. The review included a complete summary of December 2015 operational events, and a partial summary of January 2016 events. The December summary included 2 Synchronous Reserve events and 3 Shared Reserve events. The January summary included 2 Cold Weather Alerts, 1 Synchronous Reserve event and 2 Shared Reserve events.

Endorsements / Approvals

There were no items scheduled for Endorsement at this Operating Committee Meeting.

First Readings

Manual 01 Changes

Mr. Ryan Nice, PJM, reviewed proposed changes to Manual 01: Control Center and Data Exchange Requirements. Changes included administrative updates to references and naming conventions, as well as the addition of Section 3.8 for planning, coordination and notification of system changes and events. The Operating Committee will be asked to endorse these changes at the next meeting.

Manual 12 Changes

Mr. Sree Yeddanapudi, PJM, reviewed a proposed revision to Manual 12: Balancing Operations. The revision consisted of a new attachment to the manual, Attachment F: Dynamic Transfers. Attachment F provides details of PJM business rules for implementing Dynamic Transfers, and is based on a whitepaper presented to OC members in March 2014. The updates also require revisions to the PJM Operating Agreement (OA) and Open Access Transmission Tariff (OATT); however, the OA/OATT revisions will be handled by the Governing Documents Enhancement & Clarification Subcommittee (GDECS). Stakeholders discussed the proposed changes and determined that a Problem Statement may be needed to thoroughly review and approve the document changes. Mr. Dave Souder, PJM, presented a related Problem Statement, but further committee discussion resulted in consensus that additional stakeholder education would be sufficient, and a Problem Statement would not be necessary. A vote was then held to determine next steps. The proposal was for the OC to forego a

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Problem Statement, and instead, for PJM to provide additional education related to the Dynamic Transfer process implementation described in Attachment F of the Manual 12 revision. **The Operating Committee approved this proposed approach with 0 objections and 0 abstentions**. Additional Dynamic Transfer education will be provided to OC members at an OC Special Session scheduled for February 24, 2016. The Operating Committee will be asked to endorse these changes at the March OC meeting.

Regional Transmission and Energy Scheduling Practices Changes

Mr. Chris Pacella, PJM, reviewed proposed changes to the Regional Transmission and Energy Scheduling Practices document. The proposed changes were driven by the gas/market timeline alignment effort, as well as the generator offer flexibility proposals. The changes impact Sections 1.6, 2.1.2.2 and 2.1.2.11. This review is being provided to the Operating Committee for informational purposes.

OC Subcommittee Updates

System Operations Subcommittee (SOS)

Mr. Yeddanapudi provided a summary of the most recent SOS meeting.

Systems Information Subcommittee (SIS)

Mr. Mike Del Viscio, PJM, provided a summary of the most recent SIS meeting. Included in the summary was a recommendation for the OC to sunset the Phasor Data Quality Task Force (PDQTF), as it has met its goals, and create a new quarterly special session within the SIS to continue collaboration on phasor data quality. Mr. Del Viscio also reviewed plans for an upcoming survey to evaluate SIS efforts and provide feedback. The survey will be made available to SIS and OC members in mid-February.

System Restoration Coordinators Subcommittee (SRCS)

The SRCS had not met since the last OC meeting. The next SRCS meeting is scheduled for February 11, 2016.

Metering Task Force (MTF)

Ms. Nancy Huang, PJM, provided a summary of MTF activity since the last OC meeting.

Primary Frequency Response Discussion

PJM RTO Primary Frequency Response

Mr. Dave Souder led a discussion around Primary Frequency Response (Governor Response). A look back at past frequency response communications was provided, including an overview of the recently distributed GO governor survey. The NERC Industry Advisory on Generator Governor Frequency Response was then reviewed, along with the Manual 14D updates which were made in response to the NERC advisory. Education on the topic of frequency response in system restoration was then provided. Future OC agenda items related to Primary Frequency Response are expected, including a summary of the GO survey results at the May OC meeting.

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Tool and Informational Updates

Review of Operating Metrics

Mr. Dave Souder reviewed the PJM Operating Metrics Slides, updated with January metrics data. Metrics included PJM's load forecast error, BAAL performance, transmission / generation outage statistics, and Perfect Dispatch performance.

NERC Lessons Learned

Mr. Phil D'Antonio reviewed 3 recently posted NERC Lessons Learned on the following topics:

- SOL and IROL Monitoring Tool Leads to Unnecessary Manual Load Shedding
- Control Network Communication Path
- Human Error Leads to Evacuation of Primary Control Room

Pricing Interface Update

There were no new or updated Closed Loop Interfaces implemented since the last OC.

Generator Cold Weather Testing Update

Mr. Schweizer provided an update on the Generator Cold Weather Testing efforts. Testing was extended into the second week of January due to the mild December temperatures, and high number of resulting test cancellations. A comparison of this winter's testing statistics compared to last winter showed a decrease in the number of units tested, but an increase in the total MWs tested. Total success rate was calculated to be 97% by unit count, and 98% by MW total.

NERC and Regional Coordination Update

Mr. Bill Temple, PJM, provided an update on NERC, SERC and RFC standards and other pertinent regulatory and compliance information, and solicited feedback from the members on the N&RC departmental efforts. There are currently several standards under development including BAL-005-1, BAL-006-2, FAC-001-3, IRO-018-2 and TOP-010-2. Standards subject to future enforcement were also reviewed, including a number of BAL, COM, MOD, PER and PRC standards which become enforceable on July 1, 2016.

Grid Security Drill

Mr. LeRoy Bunyon, PJM, provided details of the annual grid security exercise scheduled for November 9, 2016. A kickoff meeting will be held at PJM sometime in May 2016.

Capacity Performance

Unit Specific Operating Parameters vs. Real-Time Values

Unit Parameters/Values – Stakeholder Venues – Topics #2 and 3

Ms. Alpa Jani, PJM, reviewed additional details related to the Unit Specific Parameter Adjustment Process. The review included a change in the definition of Minimum Downtime, and the transition plan for implementing the change. Stakeholders were also informed that the proposed Soak Time parameter will be defined within Manual 11, but will not be added to eMKT/Markets Gateway, and will not be considered a parameter limited value for June 1, 2016. Mr. Tong Zhao, PJM, then provided a demo of the process for entering Parameter Limited Exceptions within the Markets Gateway tool.

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Finally, Mr. Mike Bryson, PJM, reviewed several Performance Assessment Hour examples involving the use of Real Time Values.

Performance Assessment Hour Education

Ms. Rebecca Stadelmeyer, PJM, review educational materials related to Performance Assessment Hour. The materials incorporated a table of resource types, and their expected vs. actual performance over the next few delivery years as the Capacity Performance product is implemented. Additional Performance Assessment Hour scenarios were also reviewed.

Performance Assessment Hour Ramp Rate

<u>Unit Parameters/Values - Stakeholder Venues - Topic #1</u>

Ms. Rebecca Stadelmeyer reviewed an updated solution proposal to the Ramp Rate problem statement. The initial proposal involved PAH ramp rate limited dispatch signal where the ramp rate was determined based on a comparison between inputted and historical average ramp rate. The new proposal looks the same for long-term implementation purposes, but the short-term plan would be for GOs to update their ramp rate value in Markets Gateway by April 1, 2016, and have PJM / IMM review each value. PJM will be holding a Special Session of the OC on February 24, 2016 to continue discussions around several current topics. During this Special Session, the proposed Ramp Rate solution will be presented to OC members as an official First Read.

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