



MEETING MINUTES

PJM Interconnection

Net Energy Metering Senior Task Force (NEMSTF) - Meeting #9

PJM Technology Center, Visitor Center

2600 Monroe Boulevard, Valley Forge Corporate Center

Norristown, PA

April 16, 2012

9:30 a.m. – 3:30 p.m.

1. ADMINISTRATION

The meeting was called to order at 9:30 a.m. Mr. Barrett reminded meeting participants of meeting Code of Conduct & Anti-trust guidelines. He also inquired whether members of the media were present – none were present. Mr. Callis led a roll call and documented attendees (see attached roster), reviewed minutes and asked for any corrections or revisions. Hearing none, the minutes were deemed final. Mr. Barrett provided an overview on meeting purpose, process and next steps. Mr. Barrett shared the results of an April 4th Action Item regarding Jurisdiction - (for both physical interconnection and wholesale sales) and the stakeholders engaged in a series of discussions, use cases and reviewed definitions to understand the relevance and potential impact by Net Energy Metering. April 16th attendance roster is attached:



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2. OPSI – 2012 – 5 RESOLUTION REGARDING PJM'S INVOLVEMENT IN NET ENERGY METERING

Mr. Barrett shared that PJM had received a formal resolution from the Organization of PJM States Regarding PJM's involvement in Net Energy Metering. NEMSTF Stakeholders raised the following 3 questions regarding the resolution.

1. *Isn't OPSI a PJM member?*

Neither OPSI nor any of its individual state regulatory authorities is a member of PJM. OPSI members are eligible to be members of PJM, however none have chosen to join PJM.

2. *Can or will OPSI be voting on NEMSTF findings or recommendations?*

Neither OPSI nor any of its individual state regulatory authorities will vote in any PJM stakeholder group. PJM maintains open stakeholder meetings and OPSI members are free to participate in the discussions.

3. *Does PJM have plans to respond to OPSI?*

Mr. Barrett stated that PJM's State Government Policy group intends to follow up with OPSI to provide additional information with respect to the scope and charge of the NEMSTF. At this point, there are no specific actions PJM intends to take as a direct response to the resolution. Mr. Barrett indicated that he would keep the Task Force apprised of any further developments.



3. REVIEW OF CONSOLIDATED INTERESTS PRIORITY POLLING RESULTS

The stakeholders reviewed the results of the priority polling of stakeholder interests. As separate analysis was circulated and displayed to show the relative importance and rank of the interests. This concluded the formal problem investigation phase and the interests were “set aside” while the proposal development phase is conducted.

4. DESIGN COMPONENTS BRAINSTORMING

- a. The stakeholders engaged in brainstorming for design components and potential options/solutions. At the next session – the stakeholders will discuss and look for opportunities to refine, group, or consolidate the options matrix with an eye to creation of packages Stakeholders were advised to please attempt to finalize any new design components by the start of the April 30th session. For those identified components, PJM will start to research and document the status quo in order to best inform the MRC of new items or changes to existing practice.

5. MEETING SUMMARY AND CALL FOR FUTURE AGENDA ITEMS

Mr. Barrett asked for any new topics or session feedback. Mr. Callis advised participants to “stay tuned” for the upcoming meeting venue. The meeting was adjourned at 3:40 p.m.

6. FUTURE MEETING DATES AND MEETING VENUES

April 30, 2012	9:30 – 3:30pm	PJM Interconnection, Business Center
May 11	9:30 – 3:30pm	PJM Interconnection, Conference and Training Center, Tesla
May 18	9:30 – 3:30pm	PJM Interconnection, Conference and Training Center, Tesla
May 24	9:30 – 3:30pm	PJM Interconnection, Conference and Training Center, Tesla
May 25	9:30 – 3:30pm	PJM Interconnection, Conference and Training Center, Tesla
May 30	9:30 – 3:30pm	PJM Interconnection, Conference and Training Center, Tesla

7. ACTION ITEMS LOG

Created	Description	Owner	Status
Action Items Created Monday, January 30 th , 2012			
Jan-30 #1	PJM – When determining jurisdiction (PURPA, QF, FERC, etc), a process flow diagram was recommended. PJM to produce draft before next meeting <ul style="list-style-type: none"> ➤ 2/6: PJM distributed and Pauline reviewed with the participants 	PJM	Closed
Jan-30 #2	PJM - Ensure uniformity of NEMSTF matrix definitions; e.g. standby charges	PJM	Ongoing, part of 6/1 deliverables
Jan-30 #3	PJM - Create a glossary for the state and legislative NEMSTF matrix under development	PJM	Ongoing, part of 6/1 deliverables
Jan-30 #4	Harry Dessender – create a use case regarding materiality (< ____ MW) in individual and aggregate MW. When are the positive net energy injections too	PJM	Ongoing, part of 6/1 deliverables



	<p>small to warrant modeling? (ref Metering slide on Modeling, bullet 2, 1st sub bullet)</p> <ul style="list-style-type: none"> ➤ 2/6: WIP, querying the eMTR data for NULL values ➤ 2/28: Harry indicated this is a WIP and will need several more weeks to complete due to amount of data ➤ 3/7: Harry indicated WIP including data analysis on generators in State Estimator (SE), Load buses going negative (due to modeling issues). 		
Jan-30 #5	PJM - Include an education session with the NEM impact on the planning model including peak load and peak generations calculations (John Reynolds to provide training)	PJM	Closed
Jan-30 #6	TO's and utilities – "How do you manage NEM's in your region?" Document and share your practices with respect to NEM projects. Note: PJM build a posting template for TO's and utilities <ul style="list-style-type: none"> ➤ Split into 3 distinct items Feb-6 #1, #2, and #6 	Joint	Closed
Jan-30 #7	PJM - It was noted that some March and April NEMSTF meetings fall on "No Meeting dates". An action item was taken to see if the dates could be mitigated or rescheduled <ul style="list-style-type: none"> ➤ 2/6: Meetings moved to 3/7 (from 3/5) and 4/4 (from 4/2). 	PJM	Closed
Action Items Created Monday, February 6th, 2012			
Feb-6 #1	Stakeholders "Interests" – Document and share your company's interest w/r/t NEM by noon on Monday, March 5th, 2012 <ul style="list-style-type: none"> ➤ 3/7: there were a handful of responses, these were discussed and edits/additions were captured online. PJM will distribute the results Friday, 3/9. 	PJM	Ongoing, part of 6/1 deliverables
Feb-6 #2	Stakeholders "Questionnaire" – Document and share how you deal with NEM projects in your region; types and number of interactions, number of NEM projects, number of 2012 projected NEM projects, NEM project magnitude (MW), etc. by noon on Monday, March 5th, 2012 <ul style="list-style-type: none"> ➤ 3/7 Update: 14 responses gathered (13 via EDCs). The results were reviewed; there were some suggestions for making changes to the questionnaire to provide better, more consistent information. PJM took an action item to formulate ~ 3-5 new survey questions and re-distribute. The timing to publish the new data is coincident with the NEMSTF meeting on March 19th. 	PJM, Stakeholders	Closed
Feb-6 #3	PJM (Bhavana Keshavamurthy) Day Ahead Markets <ol style="list-style-type: none"> a. Revise slide # 11 for clarity of MWh for demand and MW/MVar for energy and capacity b. Distribute additional resources regarding D/A Markets (web link for eMKT user guide, web link for detailed D/A training, hotline phone number for Markets questions) <ul style="list-style-type: none"> ➤ There are three main resources that new participants can use to familiarize themselves with the Day ahead market and emkt: <ol style="list-style-type: none"> 1) Day ahead training : Day-Ahead Scheduling & eMkt - http://www.pjm.com/sitecore/content/Globals/Training/Courses/ol-da-sched.aspx 2) Emkt User guide : http://www.pjm.com/markets-and-operations/etools/-/media/etools/emkt/ts-userguide.ashx 3) Customer support: The Client Managers assigned to the participant 	PJM	Closed



	will help with the paperwork needed to get their accounts setup . For specific questions related to portfolio setup, participants can contact the PJM Markets Hotline at 610-666-8998 or send an email to markets_hotline@pjm.		
Feb-6 #4	PJM publish any FERC Order and tariff citations with respect to non-retail generation <ul style="list-style-type: none"> ➤ 1.27AA Non-Retail Behind The Meter Generation: Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load. ➤ Non-Retail Behind the Meter Generation (NRBTMG) is in Schedule 8 of the Reliability Assurance Agreement (RAA). ➤ Section 1.27AA Non-Retail Behind The Meter Generation: ➤ Section 34.3 Netting of Non-Retail Behind The Meter Generation. ➤ SCHEDULE 15 - Non-Retail Behind The Meter Generation Maximum Generation Emergency Obligations 	PJM	Closed
Feb-6 #5	PJM (Pauline Foley) – edit/revise and distribute the Jurisdictional decision table <ol style="list-style-type: none"> a. Correction for QF non-purpose sale, slide 2 b. Add a NEM row to the table c. Revise high level flow chart (Jason Keyes, Pauline Foley) <ul style="list-style-type: none"> ➤ 2/28 – Items a and b are complete. Pauline and Jason are discussing a topic related to item c, and when complete, the document will be re-issued to the stakeholders (and included in the final deliverables). 	PJM	Ongoing, part of 6/1 deliverables
Feb-6 #6	PJM publish NEM template for stakeholders by 2/13/12.	PJM	Closed
Action Items Created Monday, February 27th, 2012			
Feb-27 #1	Review Reliability Assurance Agreement (RAA) Schedule 6, § L for potential conflict with current NEM legislation (reducing load below zero). <ul style="list-style-type: none"> ➤ This was completed and no conflict was confirmed by Pauline. 	Pauline Foley	Closed
Feb-27 #2	Create a chart/visual of the NEM project options and alternatives regarding Behind the Meter, energy only, or capacity resource.	PJM	Ongoing, part of 6/1 deliverables
Feb-27 #3	Ensure the state and legislature matrix can be pivoted by State or Feature/variable	Brad	Closed
Feb-27 #4	Re-issue the NEMSTF Survey Questionnaire to include <ol style="list-style-type: none"> a) "Please identify the respondents sector" with a special emphasis on EDC data b) Add "NEM" to question #3 	Tracy	Closed
Feb-27 #5	Provide refresher for Senior Task Force polling expectations <ul style="list-style-type: none"> ➤ 3/7: Fran updated the NEMSTF that the group will employ straw polls and Webex online polling in order to permit timely, efficient and extensive task force feedback. Mr. Barrett noted the guiding sections of the PJM Stakeholder Meeting Manual (Manual 34) and informed the stakeholders that, as a Senior Task Force, certain voting guidelines must be upheld prior to submission for consideration by the MRC. 	Fran	Closed
Feb-27 #6	PJM will circulate a brief narrative for each of the panels (one panel on physical interconnection and real time metering, and a second panel on data aggregation and market settlements), solicit speakers and their availability, and identify the timing of the panels (March 7 th and/or March 19 th). Panelists shall be stakeholder practitioners dealing with NEM Projects.	Tracy	Closed



Action Items Created Monday, March 7 th , 2012			
Mar-7 #1	Schedule two (2) "HOLD" NEMSTF meeting dates in May to alleviate any potential workload/schedule conflicts. PJM agreed to determine if future meetings may be relocated to the Visitor's Center in the Technology Center.	PJM	Closed
Mar-7 #2	<p>PJM took an action item to formulate ~ 3-5 new survey questions and re-distribute. The timing to publish the new data is coincident with the NEMSTF meeting on March 19th.</p> <ul style="list-style-type: none"> • Number of net MWh positive (2011 and any possible multiyear trends) • Peak, instantaneous NEM generation that might affect PJM reliability and real time operations • Revised meter survey question – (David Ellis to assist in formulation) • Survey question on queue timing and cost data 	Facilitation Team	Closed
Mar-7 #3	<p>Review Manual 41 for Glossary terms for energy injections and formulate a term specific to excess distribution level, NEM generation that affects the wholesale administered markets</p> <ul style="list-style-type: none"> ➤ 4/30 – Initial posting to occur this evening. This will be re-distributed as updates come in 	H. Dessender	Ongoing, part of 6/1 deliverables
Action Items Created Monday, April 4 th , 2012			
Apr-4 #1	<p>Related to the Glossary and Flowchart/Decision Tree:</p> <p>A) Review FERC NEM definition. With respect to net excess injections at a transmission node at the end of the FERC defined billing period, does PJM have any liability?</p> <p>B) Review the "Wall Mart" example.</p>	F Barrett, P Foley, Sarah Cosby (Dominion)	Ongoing, part of 6/1 deliverables
Apr-4 #2	Connect and complete the coordination with the ISPTF as outlined in the charter	F. Barrett	Ongoing
Action Items Created Monday, April 16 th , 2012			
Apr-16 #1	Research or develop "basic" flowchart for when an ISA or WMPA is utilized.	PJM - K. Graff	May-11
Apr-16 #2	<p>Determine if a regular, periodic surveys of BTM units, capacity and location takes place.</p> <p>A) If so, report out (documenting Manual, Tariff citation) as to its purpose (e.g. Operations, Reliability, Security)</p> <p>B) If reported – document "what happens next" with this information</p> <p>C) Document "Who solicits this information from whom." (Does PJM contact BTM Customer or does EDC or other PJM Member collect information from BTM Customer?)</p>	Fran, PJM	Ongoing, part of 6/1 Deliverables
Apr-16 #3	Ensure that NEMSTF Report footnotes or hyperlinks Physical Interconnection decision tree	Barrett	Jun-1
Apr-16 #4	Discuss unique example of LSE "switching" during a "billing period."	PJM/FE (Dessender, Ed Stein)	Apr-30
Apr-16 #5	<p>Re-visit Feb-6 #5:</p> <p>A) Finalize action item to complete the Physical Interconnection Decision Tree. Update on website.</p> <p>B) Inform stakeholders (NEMSTF Secretaries)</p>	Pauline Foley, Jason Keyes	Apr-30

Anti-trust:

You may not discuss any topics that violate, or that might appear to violate, the antitrust laws including but not limited to agreements between or among competitors regarding prices, bid and offer practices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that might unreasonably restrain competition. If any of these items are discussed the chair will re-direct the conversation. If the conversation still persists, parties will be asked to leave the meeting or the meeting will be adjourned.



Code of Conduct:

As a mandatory condition of attendance at today's meeting, attendees agree to adhere to the PJM Code of Conduct as detailed in PJM Manual M-34 section 4.5, including, but not limited to, participants' responsibilities and rules regarding the dissemination of meeting discussion and materials.

Public Meetings/Media Participation:

Unless otherwise noted, PJM stakeholder meetings are open to the public and to members of the media. Members of the media are asked to announce their attendance at all PJM stakeholder meetings at the beginning of the meeting or at the point they join a meeting already in progress. Members of the Media are reminded that speakers at PJM meetings cannot be quoted without explicit permission from the speaker. PJM Members are reminded that "detailed transcriptional meeting notes" and white board notes from "brainstorming sessions" shall not be disseminated. PJM Members are also not allowed to create audio, video or online recordings of PJM meetings.