Agenda

Tech Change Forum
PJM Conference and Training Center
April 16, 2020
1:00 – 3:00 p.m. EPT

Administration (1:00-1:05)

1. Welcome & Ground Rules

   A. Monica Burkett, PJM, reviewed the Stakeholder Webex Controls which provides guidance to anyone utilizing PJM's webex meetings.

Follow-up Previous Meeting Review (1:05-1:10)

2. Discuss follow-up items from last meeting.

   A. Monica Burkett, PJM, highlighted important upcoming 2020 Q2 dates. The dates included upcoming implementations, changes and training/information sessions.

Initiative Roadmap Updates (1:10-1:25)

3. Roadmaps for PJM initiatives through 2020 will be presented

   A. Ilyana Dropkin, PJM, reviewed the new Competitive Planning tool that will be tentatively available in the train environment on May 6 and in the production environment on June 24. She explained that this new tool will replace the current process where proposals are submitted using an excel proposal template and then entered into Secure Share to transfer files to PJM. The new process, an implementation for FERC Order 1000, would utilize a web based application. Ms. Dropkin requested anyone interested in testing the Competitive Planning tool in the train environment and/or providing feedback to contact her directly at ilyana.dropkin@pjm.com.

   B. Chad Hutchinson, PJM, reviewed the new State Net Import/Export Map that will be accessible on the Markets & Operations page of PJM.com. The State Net Import/Export Map is a new map that will provide insight into energy imports and exports at the state level. Mr. Hutchinson stated that PJM will seek feedback from various state entities and stakeholders during 2020 Q2 and will look to finalize the map during 2020 Q3 after receiving additional stakeholder feedback from state entities. The implementation date is still under internal discussion. He explained that the data in the map would utilize a Data Miner 2 feed for Market Settlements and Markets and Operations Database (MOD).

Product Roadmap Updates (1:25-2:30)

4. Roadmaps for individual products will be presented

   A. Gerry McNamee, PJM, reviewed the roadmap for DR Hub, Power Meter, InSchedule, Billing Line Item Transfer and eSuite Home Page. He explained that the DR Hub release for the testing and compliance for Price Responsive Demand (PRD) would go into train on April 16 and in production on April 28. Mr. McNamee encouraged stakeholders to utilize the DR Hub train environment where testing will be available for changes to events for PRD on May 7 with a production implementation planned for May 21. He mentioned that additional information on new changes were also available at the Demand Response Subcommittee (DRS).

   B. Carla Thew, PJM, reviewed the MSRS roadmap. She explained that PJM was enhancing the MSRS User Interface (UI) so that its look and feel is consistent with the rest of PJM's refreshed tools and that the refreshed tool was currently in development. She explained that there would be follow up communication on when MSRS would be part of the PJM two factor authentication implementation for the browserless API and that PJM was switching to token based authentication for MSRS and is using public key infrastructure (PKI) as part of refresh project. Ms. Thew

stated that PJM continues to make progress in development and that during the May Tech Change Forum she would provide the date for the high-level demonstration which provides information on how the MSRS reports can be accessed.

C. Kim Warshel, PJM, reviewed the Markets Gateway roadmap. She explained that the Markets Gateway Specification Guide updates for the Offer Verification Exception enhancement was delayed from April 15. Ms. Warshel communicated that the changes needed for the Markets Gateway User Guide and Specification Guide were both complete. In addition, she communicated that the implementation date was changed from April 15 to June 2 to allow stakeholders additional time to prepare. The Offer Verification Enhancement was implemented to comply with FERC Order 831.

D. Tawnya Luna, PJM, reviewed the roadmap for PJM.com and communicated the RTEP Upgrades & Status Section retirement date was May 29. She explained that the implementation plan to add three dates to the XLS and XML files for the Project Status & Cost Allocation page updates took place on March 26. Ms. Luna also explained that if anyone receives a notice that their Secure Area access was expiring, they should click on the Renew button on the secure area page. She communicated that by April 30, any users who have bookmarked pages in the RTEP Upgrades & Status section or who pull data via XML from those pages should update any systems that utilize the existing XML file. She explained that any users who scrape the Operational Data and Dispatch Rates pages should update their systems to pull this data from Data Miner 2 by July 21. Ms. Luna communicated that phase 2 of the home page redesign that incorporates Single Sign On (SSO) was rescheduled to Q3 2020 and that PJM is seeking feedback at TechChangeForum@pjm.com on any changes discussed. She stated that PJM will continue to send monthly communications for the Operational Data and Dispatch Rates pages retiring on July 31.

E. Vy Le, PJM, reviewed the eDART roadmap and provided information on the completed releases. Ms. Le reminded stakeholders that PJM continues to seek feedback for the new browserless functionality planned for train implementation in Q2 2020 and that stakeholders who are interested in utilizing the Company Distributed Workflow (CDW) should email the TechChangeForum@pjm.com. She explained that there would be one combined meeting on May 6 for eDART XML and eDART Forum.

F. Swapna Kanury, PJM, reviewed the Data Miner 2 roadmap and communicated that there will be Data Miner 2 releases on March 25, April 29 and May 27 for which communications will be sent. Ms. Kanury explained the data available in eDatafeed and Data Viewer has been updated but there is still approximately 20% of additional updates that will be communicated at the May Tech Change Forum.

G. Heather Bird, PJM, provided a Connect.pjm.com Upgrade roadmap update explaining that the planned integration of Connect.pjm.com with PJM's Single Sign-On (SSO) was tentatively rescheduled to May 24. She reminded stakeholders of the Connect.pjm.com education recording available for review.

H. Sandy Honore, PJM, reviewed the Networks roadmap and explained that the April 16 maintenance may cause rolling outages to most of the PJM tools.

I. Sunil Rachakonda, PJM, reviewed the Tools Security roadmap and explained that the May 5, previously communicated as April 21, change of the Single Sign On (SSO) login URL will affect all users of SSO tools. These include all of the PJM tools with the exception of eGADS and eDART. He reviewed the Q3 2020 impacts to ExSchedule, OASIS, and Account Manager. Mr. Rachakonda explained the PJM initiative to implement public key infrastructure (PKI) authentication on ExSchedule and OASIS to comply with the FERC order issued on February 4 and that stakeholders should obtain a certificate from an authorize vendor. Mr. Rachakonda explained that users would need to use Account Manager to associate valid PKI certificates with user accounts. He explained that PJM intends to make PKI available to secure the browserless application program interface (API) for all PJM tools in the future. Mr. Rachakonda suggested that stakeholders review the FAQs that PJM has posted about PKI Certificates and Two-Step Verification for Browserless/API and added that PJM will continue to update the FAQs based on questions received. He explained that as of May 5, any Single Sign On (SSO) bookmarks that have been saved will need to be removed. Stakeholders should instead bookmark the application URL.

J. Bhavana Gagrani, PJM, reviewed the Account Manager, Bulletin Board, Data Viewer, eDataFeed, Messages, and Voting roadmap and discussed the May 27 tools home page change and the June 30 Account Manager whitelist feature. Ms. Gagrani explained that for security reasons, PJM is requiring that all accounts have a whitelist entry in Account Manager by June 30 and that all CAMs will start seeing this information in May and suggested that CAMs review the information on how to utilize the whitelist feature. She asked stakeholders to update any current bookmarks and links for the Tools Home Page to https://tools.pjm.com to maintain compatibility with PJM's Single Sign On (SSO) login.

K. Ian Mundell, PJM, reviewed the eGADS roadmap stating that the April 28 production date implementation is now tentative and a communication will be sent once PJM confirms the correct date.

L. Monica Burkett, PJM, reviewed the Communities roadmap. She communicated that PJM was holding three Membership Management Community training sessions on April 13, April 22 and April 28 and that anyone with an Officer, Authorized Representative or Maintenance Manager role should attend one of the scheduled sessions. In addition, the same roles were suggested to be aware of the new maintenance feature available for re-certifications and requests on May 11 in the Membership Management Community. Ms. Burkett explained for those that submit Declaration of Authority (DOA) forms, to attend the PJM scheduled demonstration session on May 6 and that registration was open. The session would cover the DOA enhancements that would be a part of the Member Community and anyone interested in participating in the pilot should contact TechChangeForum@pjm.com

M. Monica Burkett, PJM, reviewed the tools and applications that had no changes from last month.

General Updates (2:30-2:50)

5. General updates will be presented

A. Roger Cao, PJM, reviewed the 2020 Variable Operations of Maintenance (VOM) changes that will be implemented on June 15. He encouraged any Market Seller that plans to submit a VOM to attend the April 21 information session. He explained that the session would be recorded and posted and that June 15 is the deadline for templates to be submitted.

B. Zhenyu Fan, PJM, reviewed the Posted Contingency List posting changes that PJM was making. He explained that the current format (HTM) will be retired and replaced. The new file would be an improvement for PJM and stakeholders and would take place on September 16, coinciding with the PJM model build. Up until then, both formats (HTM and XML) would remain posted to allow stakeholders to make any necessary changes and to become familiar with new format.

C. Monica Burkett, PJM, provided general updates and reviewed the feedback PJM received from the 2019 Stakeholder Satisfaction Survey that involved PJM tools and applications. She stated that based on feedback received, PJM wanted to enhance the Tech Change Forum meetings to start providing short monthly demonstrations beginning in May. She reviewed potential topics for Account Manager, Data Miner 2, and Markets Gateway based on the survey results but requested feedback from stakeholders on any suggestions they may have for other demonstrations. She asked that suggestions are sent to TechChangeForum@pjm.com so that PJM could incorporate any higher priorities stakeholders may have. Ms. Burkett reviewed the only production issue PJM had was in the train environment for Single Sign On (SSO) and that the PJM development team was working with the vendor to resolve it.

Product Design Review & Feature Demonstrations (2:50-2:55)

6. None

General Feedback and Future Forum Topics (2:55)

Future Meeting Dates

May 20, 2020	1:00 p.m. - 3:00 p.m.	WebEx
June 16, 2020	1:00 p.m. - 3:00 p.m.	WebEx
July 15, 2020	1:00 p.m. - 3:00 p.m.	WebEx
August 18, 2020	1:00 p.m. - 3:00 p.m.	WebEx
September 15, 2020	1:00 p.m. - 3:00 p.m.	WebEx
October 20, 2020	1:00 p.m. - 3:00 p.m.	WebEx
November 17, 2020	1:00 p.m. - 3:00 p.m.	WebEx
December 15, 2020	1:00 p.m. - 3:00 p.m.	WebEx

Author: Risa Holland

Antitrust:
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. Stakeholders are also not allowed to create audio, video or online recordings of PJM meetings. PJM may create audio, video or online recordings of stakeholder meetings for internal and training purposes, and your participation at such meetings indicates your consent to the same.

Participant Identification in WebEx:
When logging into the WebEx desktop client, please enter your real first and last name as well as a valid email address. Be sure to select the "call me" option. PJM support staff continuously monitors WebEx connections during stakeholder meetings. Anonymous users or those using false usernames or emails will be dropped from the teleconference.

On the Phone, Dial ***6** to Mute/Unmute	**Linking Teleconference Connection to Webex** When logging in to the meeting, access Webex first and select the "call me" feature to receive a direct call to your phone. Using this feature will connect your name to your Webex presence.

Join a Meeting	1. Join meeting in the WebEx desktop client 2. Enter name (*First and Last**) and corporate email 3. Under "Select Audio Option" select "Call Me" option from the dropdown menu

*Note: Anonymous users or those using false usernames or emails will be dropped from the teleconference.

Provide feedback on the progress of this group: *Facilitator Feedback Form*
Visit *learn.pjm.com*, an easy-to-understand resource about the power industry and PJM's role.