Welcome (10:30 – 10:32)

1. Jim Gluck, PJM, provided a brief overview of the Tech Change Forum as well as ground rules and the agenda.

Past Meeting Issue Review (10:33 – 10:35)

2. Jim Gluck, PJM, requested feedback from the latest Member Community, Tech Change Forum Community and DR Hub releases. No feedback provided at this time.

Initiative Roadmap Updates (10:35 – 10:45)

3. Roadmaps for PJM initiatives through 2017 will be presented.

   A. Carla Thew, PJM, reviewed the 5-Minute Settlements roadmap. She stated the only update on the roadmap was to slide 3 with details around the XSD, business rules and CLI download/upload commands. Ms. Thew mentioned the project team is working to get the latest Power Meter code working with the XSD and business rules. She stated the plan is to go live in Train by 3Q17. Ms. Thew also indicated users may access the Tech Change Forum Community for support and feedback.

   Sreedhar Taduri, PECO Energy Company, asked if there will be an impact for load forecasting and if the 5-minute settlement forecasting will impact what PECO is currently doing. Carla Thew, PJM, stated she will touch-base offline.

   B. Carla Thew, PJM, reviewed the Coordinated Transaction Scheduling (CTS) roadmap. She mentioned that joint functional testing is to begin with MISO. Ms. Thew also indicated users may access the Tech Change Forum Community for support and feedback.

   C. Kim Warshel, PJM, reviewed the Intraday Offers roadmap. She stated no updates have been made to the roadmap and the team is currently going through Markets Gateway testing. Ms. Warshel mentioned at this time participants are expected to complete testing within the Markets Gateway Train environment. She stated additional education sessions are scheduled for Monday, August 7th and Friday, September 15th. Ms. Warshel mentioned the XSD information has been posted under the XML Schema heading on the Markets Gateway web page on PJM.com. She reminded participants to update Schedule IDs based on the new criteria.

   Alicia Battaglino, Exelon Generation Co., LLC, requested that links to referenced material are included within the slide decks.

Product Roadmap Updates (10:45 – 11:45)

4. Roadmaps for individual products will be presented.

   A. Gerry McNamee, PJM, reviewed the DR Hub roadmap. He reminded the group that DR Hub replaced eLRS and that eLRS will be removed from the PJM Tools on Thursday, May 25th. Mr. McNamee stated...
the Winter Peak Load Seasonal Resource release was completed on May 11th. He mentioned the project team is currently moving forward with the quarterly release for additional registration and settlement functionality on June 2 that will cause an outage of 15-20 minutes.

B. Gerry McNamee, PJM, reviewed the Member Voting, eDataFeed, Data Viewer, and Account Manager roadmap. He stated the 2nd quarter release for Data Viewer, Member Voting and Account Manager is planned for the end of June that will cause a 15 minute outage for the user interface.

C. Jennifer Conn, PJM, reviewed the Capacity Exchange roadmap. She stated the project team is currently on target for a Train release in November along with documentation to be available at that time. Ms. Conn will provide a design review demonstration during the afternoon session.

D. Ian Mundell, PJM, and Dana Hiser, PJM, reviewed the Gen Model, Queue Point, and Transmission Cost Information Center roadmaps. Mr. Mundell stated the Queue Point release will be changed from June 13 to June 15. He mentioned that once the Queue Point release is complete in June the DataSheet application located on PJM.com will be retired. Mr. Mundell stated that users are expected to utilize the enhanced features in Queue Point.

Ms. Hiser provided an overview of the Transmission Cost Information Center. She stated this tool was reviewed in the PC and TEAC and is currently in a beta version which was distributed to Transmission Owner representatives. Ms. Hiser mentioned the tool is expected to go live in Production on June 5 pending beta review.

Sushma Hedge, PJM, reviewed the new interconnection queues effort. She stated the new page will replace the following queue pages: Generation Interconnection, Merchant Transmission, Long-Term Firm Transmission Service and ARR Analyses. Ms. Hegde provided customer impacts and set expectations regarding the XML links that will be updated during the release later this year.

E. Sushma Hegde, PJM, reviewed the PJM.com roadmap. She stated the Contact Us page will be updated on May 24, 2017, to include Client Manager details for member companies. Ms. Hegde mentioned there will be a demo of the planning queue redesign later on the agenda.

F. Chris Pacella, PJM, reviewed the ExSchedule roadmap. He stated no updates have been made to the timeline. Mr. Pacella mentioned the project team is working on existing efforts for MISO-CTS, Intraday Offers as well as eTags 1.8.3. He indicated the command line interface documentation has been updated for the new upload calls in regards to MISO-CTS where there will be no command line changes for Intraday Offers. Mr. Pacella stated the eTags 1.8.3 release in Train is intended for July but will be confirmed at the next Tech Change Forum meeting as the project team is currently waiting for the vendor to confirm full testing may begin by PJM. He stated the eTags 1.8.3 release is scheduled to go live in Production on October 10th that will cause a full application outage of about 30 minutes.

G. Chris Pacella, PJM, reviewed the OASIS roadmap. He stated the team is currently working on the OASIS refresh and no work is planned for the legacy application.

H. Dave Hislop, PJM, reviewed the eDART roadmap. He stated the initial focus of the eDART refresh will be on command line interfaces (CLI) with the CLI design and stakeholder presentations to be held in 2Q17 where the bulk of the web user interface work is to be done in 2018. Mr. Hislop reminded the group of the upcoming RRC Rewrite (only impactful to Transmission Owners) as well as GO Survey
Enhancements releases set for June 26. He stated a full review of the release details will be reviewed at the eDART Users Group meetings later this month.

Alicia Battaglino, Exelon Generation Co., LLC, questioned when the group will talk about reactive CSV upload/download. Dave Hislop, PJM, stated this topic will be reviewed at the May 31/June 1 eDART Users Group meetings.

I. Venkat Balachandran, PJM, reviewed the Data Miner 2 roadmap. He stated the beta period opened on May 15, 2017, with about 18 feeds available for users to test. Mr. Balachandran mentioned more postings will be implemented with about 10 feeds every two weeks where he expects to have all feeds available by mid-July. He stated PJM currently has 30+ members signed up for API. Mr. Balachandran reminded users that all feedback is due by July 31. He mentioned that PJM plans to integrate Data Miner 2 with Account Manager with availability in mid-June. Mr. Balachandran stated that the removal of flat files from PJM.com is targeted for 3Q18. He provided the API guide location and informed users may reach out to Data Miner 2 support via email and the Tech Change Forum Community.

J. Foluso Afelumo, PJM, reviewed the Tools Security roadmap. He communicated that platform maintenance will be held on May 25th and the multi-factor authentication release will go live on June 6th. Mr. Afelumo stated the project team enabled 24 hour sessions in Train on May 20th with a Production go-live date of June 1st. He mentioned the multi-factor authentication release will only be available for CAMs where all CAMs must ensure their email addresses within Account Manager are up to date. Mr. Afelumo stated users will experience intermittent authentication disruption during the May 25th platform maintenance for a period of 10-20 minutes. He mentioned the 24 hour session release is based on user feedback to extend from the existing eight (8) hour session. Mr. Afelumo communicated the Data Viewer release will onboard the application to the same single sign on platform as the other refreshed tools and will maintain its 24 hour session limit.

K. Monica Burkett, PJM, reviewed the Communities roadmap. She stated no upcoming changes have been planned for the Member Community or Tech Change Forum Community and the Planning Community is scheduled for a September go live. Ms. Burkett mentioned the Planning Community is intended to go into a beta mode in the July timeframe where PJM is looking for beta testers. She stated any beta volunteers can reach out to techchangeforum@pjm.com or rtep@pjm.com.

L. Jim Gluck, PJM, reviewed the applications with no planned updates for this month.

Lunch (11:45 – 12:30)

General Updates (12:30 – 1:00)

5. Jim Gluck, PJM, reviewed unexpected production issues that occurred over the past month as well as discussed reschedules due to the hot weather alert. He stated as weather gets hotter, PJM enforces change freezes so there are impacts to timing of events and reschedules based on enforced requirements. Mr. Gluck mentioned how project teams are moving away from dedicated email distribution lists and planning to utilize the Tech Change Forum Community for questions and feedback.
6. John Ippolito, PJM, reviewed the network implementation roadmap. He reviewed the networks project for upgrading member-facing network firewall updates throughout 2017. Mr. Ippolito stated communications are sent on a weekly basis including details about impacted systems. He mentioned that due to weather constraints the May 18th firewall upgrade was rescheduled to May 24th.

7. Due to scheduling conflict, Ms. Ginger Quintavalla was unable to present an update on member feedback processes. This topic will be scheduled for the June Tech Change Forum meeting.

8. Joe Bowring, Monitoring Analytics, provided an overview on data security at Monitoring Analytics. He stated this presentation was requested based on member feedback in a previous Tech Change Forum meeting. Dr. Bowring provided highlights on how data is shared between PJM and Monitoring Analytics. He also indicated what type of data is copied from PJM to Monitoring Analytics. Dr. Bowring stated the service level agreement is available on the Monitoring Analytics web site and provides what information is copied over. He also reviewed what data Monitoring Analytics copies over to PJM. Dr. Bowring reviewed internal testing/audits that employees go through and stated visitors are welcome to schedule a visit with Monitoring Analytics.

**Product and Technical Design Reviews (1:00 – 1:25)**

9. Jennifer Conn, PJM, reviewed the Capacity Exchange design features. She stated the majority of the features came from participant interviews held earlier in the project. Ms. Conn reviewed how the updates to the menu are now in a tiered fashion. She stated the top status box has been removed but still available within Capacity Exchange where the Date option has been moved to Delivery Year for more accurate data.

Ms. Conn mentioned how the FRR and Credit screens have been removed from the Resource Position menu and moved to independent sections. She reviewed updates to the Load and Obligation navigation and subtabs where the PY Parameters, CTR and Zone Areas screens have been removed.

Ms. Conn reviewed the Resource Positions tab where the LDA Summary is now an independent section in the refreshed application. She stated the following features based on user feedback have been included with the refresh: integrated filters, right click within screen for expand/collapse, and numeric sort. Ms. Conn stated more interactive demonstrations will be available when the refreshed application is in Train.

10. Carla Thew, PJM, reviewed the Power Meter CLI and XSD documentation for 5-Minute Settlements. She stated all details can be found on the 5-Minute Settlements web page of PJM.com.

11. Martelle Pitts, PJM, reviewed the PJM.com Planning Queues design. He stated that PJM will be combining 7 queue tables listed on slide 2 with a design very similar to Issue Tracking on PJM.com. Mr. Pitts mentioned this enhancement allows for filtering on Project Type, Status, State, County and Megawatt. He also stated the new functionality allows users to save and load filters along with alert capabilities to set when updates are made.

12. Kevin Bonner, PJM, reviewed the Single User, Multiple Account (SUMA) design for all users. He reminded stakeholders that this feature was brought to PJM’s attention by the members. Mr. Bonner provided an overview of SUMA and how SUMA provides the ability to link multiple accounts/tools to one single user. He stated this design will be rolled out in a phased approach splitting up the tools into two buckets. Mr. Bonner then went through the process of how users can set up a SUMA account.
Phil Cox, Appalachian Power Company, questioned about all access under company and if the users would have access to it. Kevin Bonner, PJM, stated that if a user has all ten tools for that company then the user will gain access upon approval of the CAM for the SUMA account. Mr. Cox followed up regarding roll up of the phase 2 tools or whether additional action is required. Mr. Bonner stated the access will roll up.

Mr. Bonner proceeded to describe the layout of the SUMA account where the primary account details would be highlighted in blue whereas the secondary accounts will appear in black font with access rights appearing under each account. He stated that when a user navigates to each specific application they will see a drop down available to switch between the companies they have access to. Mr. Bonner emphasized that users should look at this area when taking any action for their company to avoid making incorrect company updates. He stated that if a user has more than ten accounts, the selection of company is separated into alphabetical buckets.

Phil Cox, Appalachian Power Company, was curious if the listing of companies would show up in one large list if a user has all accounts with A. Kevin Bonner, PJM, stated at this time the listing of companies would appear in one large list and how the project team will look into a better solution to assist with that.

Mr. Bonner stated Phase I will be available in Train and Production by the end of 3Q17 where the Phase II applications will be rolled out in Train and Production by the end of 4Q17 with a possible push out to 1Q18. He requested feedback on the rollout approach as well as pilot users for the implementation. Any feedback as well as interested users may reach out to techchangeforum@pjm.com to gather details and Mr. Bonner will reach out to the pilot users.

Product Feature Demonstrations (1:25 – 1:50)

13. Feature demonstrations will be presented.

A. Gerry McNamee, PJM, reviewed the DR Hub – Winter Peak Load Seasonal Resource feature that went live on May 11. He stated the Winter Peak Load and Winter Managed Load can only be entered via the user interface.

B. Venkat Balachandran, PJM, provided a live demonstration on the Data Miner 2 user interface and API. He stated documentation is available on PJM.com > Markets & Operations > PJM Tools > Data Miner 2. He mentioned that when selecting the API Portal, the user will be directed to another site with log in criteria. Mr. Balachandran navigated throughout the API Portal showcasing the numerous

Phil Cox, Appalachian Power Company, asked if this will impact eDataFeed. Venkat Balachandran, PJM, stated that the initial roll out is specifically for public data feed that exist on PJM.com. Mr. Balachandran mentioned that Data Miner 2 will eventually be enhanced with the data on eDataFeed. Mr. Cox followed up if those with eDatafeed access may have to change to a new process. Mr. Balachandran stated no updates will be required at this time but when Data Miner 2 eventually integrates with eDataFeed the users would have to change their process.

Felix Tse, Inertia Power I, LLC, stated that there is a 1000 row limit on each request and questioned if his team will need to make over 200 calls since they download several files that have about 10000 nodes by 24 hours. Venkat Balachandran, PJM, stated the limit in place is configurable and currently set at 1000 for beta testing. Mr. Balachandran mentioned that the limit can be accommodated for more data for one call based per feed. Mr. Tse followed up with a concern on latency between Data Miner and the PJM systems
especially with the future of 5-minute data availability. Mr. Balachandran stated that based on current testing the latency is a matter of seconds rather than minutes.

C. Gerry McNamee, PJM, reviewed new feature in Data Viewer for the LMP Hourly Price Graph. He stated the data points and lines have been corrected based on the new graph line updates.

D. Dave Hislop, PJM, provided an overview of the eDART Email Notification Request Form. He informed stakeholders that the previous form was a PDF and replaced with an electronic form located on PJM.com. Mr. Hislop stated that upon submission, a case ticket is created for review by the client team and then sent over to eDART team. He mentioned that users will receive confirmation at the end when everything has been processed.

Phil Cox, Appalachian Power Company, questioned if this form was hosted on the Member Community. Monica Burkett, PJM, stated the form is not part of the Member Community but the team will review the possibility of adding this feature. Mr. Cox was curious how users would go about accessing the form. Dave Hislop, PJM, informed the group that the form is available from the eDART web page on PJM.com.

E. Sunil Rachakonda, PJM, reviewed the multi-factor authentication feature and provided a demonstration. He stated that upon entering the username and password a soft token ID field appears. Mr. Rachakonda informed the group that an email is sent to the user where they can copy the soft token and paste into the browser field. He stated this extra level of security is only for Account Manager access.

Phil Cox, Appalachian Power Company, was curious what would cause to re-initiate the multi-factor authentication. Sunil Rachakonda, PJM, stated that a new soft token is required when users move between different browser and devices as well as once system properties are changed on a computer causing a change to browser characteristics. Mr. Cox was concerned if a soft token will be required when clearing browser cache. Mr. Rachakonda stated the soft token session is stored on the server side so clearing the cache will not require a new soft token.

Gautam Punjabi, PJM, stated that users can have up to five (5) devices stored at the same time. Mr. Rachakonda informed the group that once the user has a sixth (6th) device the system will remove the oldest device. He then demonstrated various methods of requiring the soft token as well as what happens when entering the wrong token. Mr. Rachakonda stated the soft token is only valid for five (5) minutes and after four (4) invalid soft token attempts the account will be locked.

Future Meeting Announcement (1:50 – 1:55)

14. Gautam Punjabi, PJM, highlighted important upcoming dates.

- Intraday Offers education session on Aug 7th and Sept 14th
- eDART Users Group – May 31/June 1
- June Tech Change Forum – June 20
General Feedback (1:55 – 2:00)

Gautam Punjabi, PJM, stated the Tech Change Forum Community is available for feedback and collaboration. He also stated any feedback can be sent to techchangeforum@pjm.com.

Future Forum Topics

Future Forum Dates

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Author: Monica Burkett

Visit learn.pjm.com, an easy-to-understand resource about the power industry and PJM's role.