Welcome (09:00 – 09:05)

1. Jim Gluck, PJM, reviewed the meeting agenda and identified the need to change the meeting start time due to the special MIC meeting.

Past Meeting Issue Review (09:05 – 09:20)

2. Jim Gluck, PJM, stated during the last meeting there was some feedback regarding Microsoft Edge and usability with PJM tools. He indicated this topic will be discussed on the agenda today.

Initiative Roadmap Updates (09:20 – 09:35)

3. Roadmaps for PJM initiatives through 2017 will be presented.
   A. Rebecca Stadelmeyer, PJM, reviewed latest updates to 5-Minute Settlements. She indicated no changes to the slides were made from the last time but wanted to ensure the topic will continue to stay on the agenda for any questions that may come up. Ms. Stadelmeyer stated a review of updates required for billing line items will be held during the November 2nd MIC meeting.
      David Pratzon, GT Power Group, stated it would be helpful to see more critical dates on the roadmap including Train availability, what market participants must do and if there are any XML changes. Jim Gluck, PJM, stated that it is too early in the project to have this information but it will be provided to the stakeholders as soon as PJM receives the details. Ms. Stadelmeyer stated the dates are posted based on PJM’s understanding of what has been provided and dependent on FERC rulings.
   B. Kim Warshel, PJM, provided further details regarding Intraday Offers. She stated an education session will occur December of 2016 and the Production go live is set for November 1, 2017. Ms. Warshel provided a new URL for testing and requested volunteer companies for early 2017 testing. Any volunteers can reach out to techchangeforum@pjm.com.
   C. Swapna Kanury, PJM, provided further details regarding Coordinated Transaction Scheduling (CTS). She reviewed the roadmap and stated the member design session will be scheduling for 2017Q1.

Product Roadmap Updates (09:35 – 10:35)

4. Roadmaps for individual products will be presented.
   A. Gerry McNamee, PJM, reviewed the DR Hub roadmap and release details. He stated the Train release for October was rescheduled to November 17 due to critical updates being
found. The second Train release will follow in 2017Q1. Mr. McNamee provided details regarding the various releases and updates that will be made in the future.

B. Todd Keech, PJM, reviewed the roadmap for InSchedule, Power Meter, Member Voting, eDataFeed, and Data Viewer. He provided an overview of Member Voting and Data Viewer as well as release details with an impact to the User Interface including an outage of 15 minutes. Updates made to the system will be internally to how contacts and orgs are managed.

C. Todd Keech, PJM, reviewed the roadmap for eRPM and FTR Center. He provided an explanation of FTR Center and that eFTR will be retired on November 2. The original retirement date was set for October 13 but due to participant concerns PJM extended the retirement to November 2.

Mr. Keech stated the eRPM refresh is underway. The refreshed tool will be called Capacity Exchange. Users should expect the look and feel of the new tool to be similar to Markets Gateway and FTR Center with a final implementation in 2018.

David Pratzon, GT Power Group, questioned when the new XML will be available for testing. Mr. Keech stated based on the current timeline it should be available with a 2017Q2 release in Train.

Sreedhar Taduri, PECO, was curious if participant interviews were completed and when to expect requirements. Mr. Keech stated someone will reach out to him regarding the interviews and the requirements should be available in 2017Q2.

D. Ian Mundell, PJM, reviewed the roadmap for Gen Model, Queue Center, and PJM.com Planning Web pages. He provided a background and overview of Queue Point as well provided the upcoming release schedule of Queue Point into Train and Production. Mr. Mundell also provided details regarding the updates to the PJM.com Planning web pages and the upcoming stakeholder interviews. He indicated if any volunteers are willing to participate in the interviews should contact ian.mundell@pjm.com or webfeedback@pjm.com.

David Pratzon, GT Power Group, requested a presentation of what the pages are as well as mock ups. Tawnya Luna, PJM, stated that PJM worked with users on the mocks and the information will be available during the beta release for users to provide feedback. Mr. Pratzon stated the information is hard to find and as not a typical user would be interested to learn. Ms. Luna stated she will schedule time with to review with Mr. Pratzon.

E. Beth Schweser, PJM, reviewed the roadmaps for ExSchedule and OASIS. She indicated that the ExSchedule database upgrade has been rescheduled to December 2016. No releases are currently planned for OASIS.

F. Rich Brenton, PJM, reviewed the roadmap for Emergency Procedures. The latest minor release to improve searching for messages that have changed names over time will go live on November 3. The update for Tier 1 Spin Postings will go live in Mid-December.

G. Kevin Bonner, PJM, reviewed the roadmap for Account Manager / Tools Security. He provided set up details regarding the Single User Multi Account. Any CAMs looking to
utilize this new feature must submit a new designation form B/B1. PJM account managers will be able to set up the users once the information has been submitted. Mr. Bonner also stated the geo-location security features went live on October 20. This feature notifies users when their account is used outside of the United States.

David Pratzon, GT Power Group, questioned how many instances have been identified where the system sent messages to users. Mr. Bonner stated PJM has seen numerous instances of user accounts being used outside of the United States and working with the account owners. Mr. Pratzon also questioned the activity of inactive email addresses. Mr. Bonner stated PJM has a catch for all bounce back messages.

Mr. Bonner continued to review the release updates for Tools Security. He stated the Single Sign On implementation for legacy tools will be held in December 2016 with full details in the roadmap timeline for each tool. Mr. Bonner also stated the multi-factor authentication (MFA) effort to enhance security for PJM and member CAMs was implemented in Production and will be expanded to all users in 2017.

Mr. Pratzon questioned if there will be a need to authenticate twice in the future. Mr. Bonner stated the multi-factor authentication will be optional for all users with the exception of PJM users and CAMs. This feature will only be available for PJM products and not the kilowatt access.

H. Sushma Hegde, PJM, reviewed the roadmap for PJM.com. She stated the documents section of PJM.com will be redesigned into the PJM Library. The features were reviewed with a pilot group of the Members Committee.

I. Chidi Ike-Egbuonu, PJM, reviewed the roadmap for eDART. Ms. Ike-Egbuonu stated the self-check report went into Production on September 20 where they plan to have data uploaded by mid-November. She mentioned the one-line diagrams will be available in multiple file formats with a Train release on November 30 and a Production release on December 14.

Ms. Ike-Egbuonu stated coordinated testing will be on December 2 and there will be an outage to eDART overnight from December 14-15.

**Recent Technical Production Issue Review (10:35 – 10:40)**

5. Jim Gluck, PJM, stated there were no recent production issues and opened the floor to see if any stakeholders experienced issues. No issues were noted.

**Product Feature Announcement / Design (10:40 – 11:40)**

6. Todd Keech, PJM, provided a background and updated details regarding the day-ahead posting timing decision. Gina Jardot, Essential Power Rock Springs, LLC, requested the current time differential of the postings. Mr. Keech provided the current and future time differences that would apply for day-ahead posting. He stated the day-ahead posting time decision will be taken back to the MIC for additional information.
Phil Cox, Appalachian Power Company, questioned the process of posting to PJM.com first and then Markets Gateway in case there was a failure with posting causing a delay to Markets Gateway. Mr. Keech stated there would be a delay to Markets Gateway to keep the posting order.

David Pratzon, GT Power Group, stated that market participants feel the data should be available on Markets Gateway and then other systems. He strongly protests that the data is available on PJM.com first and then Markets Gateway especially when the CSV files posted on PJM.com will eventually be removed with the Data Miner 2 implementation. Mr. Keech appreciated the feedback and will set the discussion as a formal agenda item for the MIC.

7. Kevin Bonner, PJM, presented the supported browsers and frameworks for the upgraded (refreshed) tools for PJM. Mr. Bonner stated preliminary testing was done on the Microsoft Edge browser and all upgraded tools are functional. PJM plans to complete testing and post any required set up. Jim Gluck, PJM, stated not all PJM tools are supported on mobile browsers.

David Pratzon, GT Power Group, requested the plan for upgrading the PJM legacy tools. Mr. Bonner stated eLRS will be redesigned into DR Hub and the final plan to have all tools moved on the refreshed framework will occur over the next few years.

8. Jim Gluck, PJM, provided an update on the application/infrastructure outage windows. He stated the process was more complicated than expected based on the number of tools and systems required for updates. PJM will continue to provide updates at future meetings and will communicate the outage windows via technotify@pjm.com.

9. Foluso Afelumo, PJM, provided an update regarding the implementation options of the concurrent sessions. Based on feedback from previous Tech Change Forum meetings as well as email and phone call feedback, the plan for PJM is to implement option two, to invalidate the oldest session. This option was implemented in Train on October 24.

Phil Cox, Appalachian Power Company, questioned if the member was not contacted they were not violating the rule. Ginger Quintavalla, PJM, stated there were reach outs to notify stakeholders of this new rule. Mr. Afelumo stated the reach out was to notify stakeholders of the impact and that action it required on their part. Mr. Cox requested a full list of users impacting his companies. Ms. Quintavalla stated this information will be shared.

10. Ginger Quintavalla, PJM, provided an update on the feature prioritization for Markets Gateway and Data Viewer. She stated PJM received the feedback and compiled with existing updates. The survey will be sent out to members to provide ranking. Ms. Quintavalla reviewed a sample of the survey being sent to members.

Future Meeting Announcement (11:40 – 11:45)

11. Jim Gluck, PJM, highlighted important upcoming dates.
General Feedback (11:45 – 12:00)

Jim Gluck, PJM, provided a demo of where the overall initiative and product roadmap is available on PJM.com. PJM.com > Committees & Groups > Tech Change Forum > Work Planning section: Initiative & Product Roadmaps

Future Forum Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1, 2016</td>
<td>10:00</td>
<td>PJM Conference &amp; Training Center/ WebEx</td>
</tr>
<tr>
<td>January 24, 2017</td>
<td>10:00</td>
<td>PJM Conference &amp; Training Center/ WebEx</td>
</tr>
<tr>
<td>February 27, 2017</td>
<td>10:00</td>
<td>PJM Conference &amp; Training Center/ WebEx</td>
</tr>
</tbody>
</table>

Author: Monica Burkett

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