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 Data Viewer, Queue Point and Single User Multiple Account 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 that no updates have been made and the project team is currently on track with updates scheduled for 3Q17.

   Dave Pratzon, GT Power Group, questioned if there are any places where member companies will have to make IT changes besides Power Meter. Carla Thew, PJM, stated a follow up will take place after the meeting. Mr. Pratzon requested details from the participant stand point for all items that must be completed differently based on input for 5-Minute Settlement. Ms. Thew intends to have documentation further in the project with these details.

   B. Carla Thew, PJM, reviewed the Coordinated Transaction Scheduling (CTS) roadmap. She stated the initiative is currently in the design and development phase with MISO and there are no updates to the roadmap.

   C. Kim Warshel, PJM, reviewed the Intraday Offers roadmap. She stated there are no changes to the current roadmap and that Markets Gateway testing is currently in place. Ms. Warshel stated that stakeholders should be aware of two education sessions to be held on August 7th and September 15th. She mentioned that market trials will be held in the 3Q17. Ms. Warshel advised users that they may register for the education sessions via the Tech Change Forum web page and PJM.com Calendar.

   She informed the group that all Intraday Offers details are currently available toward the very bottom of the Markets Gateway web page. Ms. Warshel announced the Schedule Change where the Schedule ID is being restricted is for all users and not just the new hourly offers participants. She stated the Schedule Changes must be completed by October 31st and any schedules that do not match the numbers listed on slide five (5) will be ignored when trying to complete offer for November 1st. Ms. Warshel also stated an additional guide is available on the Markets Gateway web page to steps users through Schedule ID Changes.

   Dave Pratzon, GT Power Group, was curious about a related topic discussed at the MIC recently regarding prescreening offers. Kim Warshel, PJM, stated the Intraday Offers education sessions will include a segment to discuss and educate stakeholders of offer verification.
Adrien Ford, Old Dominion Electric Cooperative, was curious if the education sessions will be the same on both days. Kim Warshel, PJM, stated the education sessions will be the same. Ms. Ford questioned what topics will be covered in the session. Ms. Warshel stated the team will go through existing updates on Intraday Offers and then will go into detail for other processes and offer verification.

**Product Roadmap Updates (10:45 – 11:30)**

4. Roadmaps for individual products will be presented.

A. Gerry McNamee, PJM, reviewed the DR Hub roadmap. He stated a DR Hub release planned for the week of June 19th has been pushed out a week due to last minute bugs. Mr. McNamee provided release details for CBL and bug fixes going into that release. He mentioned the October release details will be available at a future Tech Change Forum meeting.

B. Gerry McNamee, PJM, reviewed the Member Voting, eDataFeed, Data Viewer and Account Manager roadmap. He stated the June 29th release has been postponed to early July. Mr. McNamee mentioned that one requested PJM received was for better scaling of the graph. He stated that PJM is unable to modify the graph scaling based on the restrictions of the third party software used for graphing.

C. Carla Thew, PJM, reviewed the Markets Gateway roadmap. She stated that several enhancements were requested when Markets Gateway initially went live. Ms. Thew stated the enhancements have been worked on and expect to go live in Train on June 26th and to Production on July 11th. She provided an overview of which enhancements will be included to Markets Gateway, such as Min Offer MW to allow participants to submit at an hourly rate, Energy Ramp Rate updated to allow up to 20 segments submitted and the Down Ramp Rate.

Dave Pratzon, GT Power Group, stated that the Action Required box on slide four (4) indicates none and curious if because the feature is optional. Cheryl Velasco, PJM, stated that is the correct assumption where no action is required due to optional fields. Mr. Pratzon requested that the Action Required box be updated in the future to state “None, but optional if users plan to update those details”.

D. Carla Thew, PJM, reviewed the Capacity Exchange roadmap with a focus on slide three (3). She stated the project team is currently working on the refresh from eRPM to Capacity Exchange with no further updates at this time.

E. Ian Mundell, PJM, and Dana Hiser, PJM, reviewed the Gen Model, Queue Point and Transmission Cost Information Center roadmap. Mr. Mundell stated all attachment forms previously in Data Sheet are now in Queue Point with the ability to provide historical data. Ms. Hiser provided an updated on the beta version of the Transmission Cost Information Center tool mentioning a demonstration will be provided later in the meeting.

F. Martelle Pitts, PJM, reviewed the PJM.com roadmap. He stated the following Manuals will be in HTML format: Manuals 6, 7, 12, 14E, 19, 28, 29, 34, 36, 39. Mr. Pitts also reviewed the Planning section refresh project where improvements to be made late 2017 and early 2018 based on stakeholder feedback.

Adrien Ford, Old Dominion Electric Cooperative, was curious if all Manuals are already in the HTML format or if the ones noted are the first. Martelle Pitts, PJM, stated the ones listed will be the first set going live this week.
G. Beth Schweser, PJM, reviewed the ExSchedule roadmap. She stated the team plans to have eTags available in the Train environment in July.

H. Beth Schweser, PJM, reviewed the OASIS roadmap. She stated the team plans to have a first look available in August with the date communicated during the July Tech Change Forum meeting.

I. Vy Le, PJM, reviewed the eDART roadmap. She stated the eDart Refresh is currently ongoing and the RRC Rewrite Phase 2 Production release will be pushed out to July. Ms. Le mentioned the GO Survey Enhancements will go live on June 26th causing an eight (8) hour outage for the User Interface and Browserless. She provided an update on the Reactive Testing Results Browserless enhancements where there will be no XML Upload developed or planned for June 26th release. Ms. Le stated the eDART Refresh CLI update has been pushed out to 3Q17. She requested that any interested eDART web user interface users to provide feedback should contact Chidi.Ike@pjm.com.

Renee Tumbleson, FirstEnergy Solutions Corp., stated her group was currently having sporadic issues submitting generation via browserless eDART. Vy Le, PJM, stated the team is aware of issue and troubleshooting as of last week. Ms. Le mentioned the team has narrowed down the issue to one (1) out of the four (4) servers supporting eDART and working with server administrators to resolve as soon as possible.

J. Swapna Kanury, PJM, reviewed the Data Miner 2 roadmap and stated a demonstration will be provided in the afternoon session. She also stated users experiencing issues logging into Data Miner 2 should send their username to DataMiner2Support@pjm.com.

Bill Walker, PJM, reviewed the Communities roadmap. He provided an overview of the Member Community and the Tech Change Forum Community as well as mentioned the new Planning Community objectives. Mr. Walker stated there are no updates to date for the Member Community or Tech Change Forum Community. He updated the group with new and updated Knowledge Articles available in the communities. Mr. Walker stated the Planning Community plans to go live in beta testing mode mid-July with a potential go live in early September. Interested beta users should contact rtep@pjm.com or techchangeforum@pjm.com.

K. Jim Gluck, PJM, reviewed the list of applications with no planned updates for this month.

General Updates (11:30 – 11:50)

5. Jim Gluck, PJM, reviewed recent production issues, provided a first look into the 2018 initiatives and announced the rescheduled date for the September Tech Change Forum meeting due to Grid 20/20.

6. John Ippolito, PJM, reviewed the network implementation roadmap. He discussed the next 6 upgrades through July with several for the backup center at Milford. Mr. Ippolito stated that overall, 13 pairs have been upgraded with 11 left going into the August timeframe. He mentioned that the upgrades have been going fairly well and stakeholder should continue to look for Communications via TechNotify.

7. Bill Walker, PJM, provided an update on the member feedback process. He stated the feedback is received in various format where PJM received about 150 requests overall. Mr. Walker stated that about 50% of the requests
have been resolved with 7 currently in progress and the balance of the requests are under review with the proper department to be included with ongoing projects.

Lunch (11:50 – 12:30)

Product and Technical Design Reviews (12:30 – 12:40)

8. Kevin Bonner, PJM, reviewed the Single User, Multiple Account (SUMA) design for all users. He 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 stated this feature is backward compatible and users are not required to use this new functionality.

Dave Pratzon, GT Power Group, requested further details on what this new feature provides and if someone can access both companies they may be an agent for with one account. Kevin Bonner, PJM, explained how one user could have one primary account and link other accounts that are managed to the primary account.

David Oleniacz, Duquesne Light, was curious if SUMA will be in scope for MSRS. Kevin Bonner, PJM, stated the SUMA feature is currently only available in the new tool framework. Mr. Oleniacz requested this feature be implemented for MSRS as they have 50 sub accounts and it would be very useful. Mr. Bonner stated the team look into how this can be handled in the original framework.

Mr. Bonner then went through the process of how users can set up a SUMA account. He 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 also mentioned that if a user has more than ten accounts, the selection of company is separated into alphabetical buckets.

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 due to other priorities. He stated a survey was sent to users and the Technical Notifications subscription list to provide feedback on how they would like to see this feature implemented in Production: Phased approach or Single application approach. Mr. Bonner requested feedback on the rollout approach during the session as well as pilot users for the implementation. Any feedback as well as interested users may reach out to techchangeforum@pjm.com.

Phil Cox, Appalachian Power Company, requested more details on how long each approach will take. Kevin Bonner, PJM, stated that all application updates would be implemented toward the end of the quarter for one month for the phased approach where the single application approach would take several months to implement and test each
individual application. Mr. Bonner stated that future communications would be available via the Tech Change Forum and the Tech Change Forum Community as well as the Technical Notifications (TechNotify) subscription list.

### Product Feature Demonstrations (12:40 – 1:15)

9. Feature demonstrations will be presented.

A. Chad Hutchinson, PJM, provided a demonstration of the System Map. He stated that feedback received from stakeholders provided direction to refresh the system map. Mr. Hutchinson showcased the enhancements with a focus on the revised navigation system. He did mention the refresh does not include new features but has been reorganized for ease of use. He demonstrated the collapsible left navigation screen which includes filtering and search capabilities. Mr. Hutchinson stated users can search up to five (5) areas at one time and that all windows are dockable where you can move throughout the screen.

Dave Pratzon, GT Power Group, requested how to access the System Map and who was eligible to view it. Chad Hutchinson, PJM, stated that any user with MyPJM Credentials had access to the site and can access it via PJM.com > Library > Maps > System Map.

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

C. Ian Mundell, PJM, provided an overview of how to navigate to the Queue Point application via PJM.com as well as supporting documentation from the Expansion Planning Process web page. He stated the application went live on January 26, 2017, and was recently updated with the latest forms. Mr. Mundell requested that users should provide feedback and suggestions to make Queue Point easier to use via techchangeforum@pjm.com or the Tech Change Forum Community.

Ken Foladare, Tangibl, was curious on the process of continuing a form already in the process. Ian Mundell, PJM, stated the form will show up in the Existing Requests tab. Mr. Mundell did mention that two (2) new fields were added for Attachment N. Mr. Foladare asked if users will have to fill in a federal tax ID even if the company does not exist yet. Mr. Mundell stated the project team is aware of this issue and the current workaround is to input dummy data in to field, submit the form and follow up with system administrators.

Mr. Mundell also showcased the Take a Tour button which allows users to see an introduction to the application and how the various buttons take action. He stated this feature is a good supplement to the user guide. Mr. Mundell also stated sample forms are available for review within the application.

D. Dana Hiser, PJM, provided an overview and demonstration of the Transmission Cost Information Center. She stated the tool is Microsoft Excel based and currently available to beta users. Ms. Hiser showcased the numerous details regarding transmission costs that users can fill out and submit. She stated once the tool is available in Production it can be found on the Cost Allocation web page on PJM.com.

E. Foluso Afelumo, PJM, provided a demonstration of the Tools Security – Multi-factor Authentication in the Train environment. He stated that users will only have five (5) minutes to enter the soft token and that if a user enters the code incorrectly up to 4 times the user will get locked out. Mr. Afelumo indicated that users
would receive an email containing the soft token and the soft token will be available for 90 days per device. He mentioned that the system uses various features to recognize the system/device where if changes are made to your device it will require you to enter the soft token again.

Mr. Afelumo did state that if users accidentally tried to log in but needed to go somewhere else they should choose Sign Out instead of closing out of the browser or navigating to another tool. He indicated that if users do not choose Sign Out the application does not recognize this and causes an error.

**Future Meeting Announcement (1:15 – 1:20)**

10. Mr. Jim Gluck highlighted important upcoming dates.

- 10.31.2017 – last day to change schedules in Markets Gateway
- 06.26.2017 – eDART release
- 07.11.2017 – Markets Gateway Production release

September Tech Change Forum moved from September 20th to September 22nd to accommodate for Grid 20/20.

**General Feedback (1:25 – 1:30)**

**Future Forum Topics**

**Future Forum Dates**

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<thead>
<tr>
<th>Date</th>
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<tr>
<td>July 18, 2017</td>
<td>10:30 a.m.</td>
<td>PJM Conference &amp; Training Center/ WebEx</td>
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<tr>
<td>August 22, 2017</td>
<td>10:30 a.m.</td>
<td>PJM Conference &amp; Training Center/ WebEx</td>
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Author: Jim Gluck

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