



Markets and Reliability Committee
PJM Conference and Training Center, Valley Forge, PA
May 30, 2019
9:00 a.m. – 10:25 a.m. EPT

Administration (9:00-9:15)

Ms. Denise Foster and Mr. Dave Anders welcomed stakeholders, reviewed the agenda, and provided the Anti-trust and Code of Conduct announcements.

PJM President and CEO Andy Ott discussed the recent organizational announcements.

Consent Agenda (9:15-9:25)

Items A through G were **approved/endorsed** by acclamation with no objections or abstentions.

- A. Minutes of the April 25, 2019 meeting of the Markets and Reliability Committee (MRC).
- B. Proposed revisions to Manual 01: Control Center and Data Exchange Requirements as a part of the cover to cover review.
- C. Proposed revisions to Manual 03: Transmission Operations as a part of a cover to cover review.
- D. Proposed revisions to Manual 07: PJM Protection Standards to update applicability references and an IEEE standard reference.
- E. Proposed revisions to Manual 11: Energy & Ancillary Services Market Operations and Manual 13: Emergency Operations to clarify the impact of operationalizing gas contingencies on reserve requirements and reserve market eligibility.
- F. Proposed revisions to Manual 13: Emergency Operations as part of a cover to cover review.
- G. Proposed revisions to Manual 36: System Restoration as a part of a cover to cover review.

Endorsements/Approvals (9:25)

None

First Readings (9:25-9:50)

1. Fuel Security Senior Task Force Charter (9:25-9:40)

Ms. Rebecca Carroll presented a first read of the Fuel Security Senior Task Force Charter. The committee will be asked to approve this Charter at its next meeting.

Issue Tracking: Fuel Security

- 2. PJM Manuals (9:40-9:50)
 - A. Ms. Emmy Messina presented proposed revisions to Manual as part of the cover to cover review. The committee will be asked to endorse these revisions at its next meeting. Mr. Brian Chmielowski noted that PJM will evaluate the alignment of the proposed revisions to Manual 06: Financial





Transmission Rights section 6.7 regarding the FTR Mark-to-Auction credit requirements with with Tariff Attachment Q and the posted Credit Overview and Supplement to the PJM Credit Policy document (https://www.pjm.com/-/media/documents/agreements/pjm-credit-overview.ashx?la=en), to determine whether additional revisions to the Manual would be required. He noted that a second first read would be offered if additional changes were required.

B. Ms. Lisa Krizenoskas presented proposed revisions to Manual 14G: Generation Interconnection Requests to document current Tariff requirements and to provide clarity on site control requirements and NERC Accepted Stability Models and correct references and links. Ms. Krizenoskas noted that any proposed revisions to existing Tariff process requirements would need to be considered as a separate issue at the Planning Committee. The committee will be asked to endorse these revisions at its next meeting.

Informational Reports (9:50-10:25)

PJM Response to Comments Regarding PJM's FERC Filed Reserve Pricing Proposal

In response to stakeholder questions, Mr. Adam Keech informed stakeholders of PJM's intention to file a response to comments and protests filed at FERC regarding PJM's filed proposed Reserve Pricing reforms. He noted that PJM expects to file this response in mid-June, 2019.

3. ComEd SPS/RAS Retirement (9:50-10:05)

Mr. Alan Engelman, ComEd, presented the retirement of the SPS/RAS at Quad Cities substation.

4. FERC Order Related to Hourly Cost Offers (10:05-10:25)

Ms. Melissa Pilong provided an informational update on FERC Order ER16-372-003, 004 and 005 regarding hourly cost offers.

5. Manual 39 Changes (This item was not presented.)

A revision to Manual 39: "Nuclear Plant Interface Coordination" was posted effective 4/1/2019. This revision includes only changes to the Attachment C: "Plant Specific NPIRs Revision History" reflecting recent plant specific nuclear plant interface requirement (NPIR) changes.

PJM Manual 39: Nuclear Plant Interface Coordination

Future Agenda Items (10:25)

No additional future agenda items were identified.

| Future Meeting Dates | | | |
|----------------------|-----------|------------------|--|
| June 27, 2019 | 9:00 a.m. | Wilmington, DE | |
| July 25, 2019 | 9:00 a.m. | Valley Forge, PA | |
| August 22, 2019 | 9:00 a.m. | Valley Forge, PA | |
| September 26, 2019 | 9:00 a.m. | Valley Forge, PA | |
| | | | |





October 31, 2019 9:00 a.m. Valley Forge, PA
December 5, 2019 9:00 a.m. Valley Forge, PA
December 19, 2019 9:00 a.m. Valley Forge, PA

Author: D.A. Anders

Chair & Secretary

| Foster | Denise | PJM Interconnection | Not Applicable |
|--------|--------|---------------------|----------------|
| Anders | David | PJM Interconnection | Not Applicable |

Voting Participants

| Last Name | First Name | Company | Sector |
|------------|---------------|--|----------------------|
| Benchek | Jim | American Transmission Systems, Inc. | Transmission Owner |
| Campbell | Bruce | MidAtlantic Power Partners, LLC | Other Supplier |
| Davis | James | Virginia Electric & Power Company | Transmission Owner |
| Dugan | Chuck | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Fitch | Neal | NRG Power Marketing, LLC | Generation Owner |
| Hohenshilt | Jennifer | Talen Energy Marketing, LLC | Generation Owner |
| Horstmann | John | Dayton Power & Light Company (The) | Transmission Owner |
| Huang | James | Rockland Electric Company | Transmission Owner |
| Hyzinski | Thomas | Dynegy Marketing and Trade, LLC | Generation Owner |
| Hyzinski | Thomas | GenOn Energy Management, LLC | Generation Owner |
| Johnson | Carl | Allegheny Electric Cooperative, Inc. | Electric Distributor |
| Johnson | Carl | American Municipal Power, Inc. | Electric Distributor |
| Johnson | Carl | Blue Ridge Power Agency, Inc. | Electric Distributor |
| Johnson | Carl | Borough of Chambersburg | Electric Distributor |
| Johnson | Carl | Borough of Mont Alto, Pennsylvania | Electric Distributor |
| Johnson | Carl | Buckeye Power, Inc. | Electric Distributor |
| Johnson | Carl | Central Virginia Electric Cooperative | Electric Distributor |
| Johnson | Carl | City of Dover, Delaware | Electric Distributor |
| Johnson | Carl | Delaware Municipal Electric Corporation, Inc. | Electric Distributor |
| Johnson | Carl | Easton Utilities Commission | Electric Distributor |
| Johnson | Carl | Hagerstown Light Department | Electric Distributor |
| Johnson | Carl | Illinois Municipal Electric Agency | Electric Distributor |
| Johnson | Carl | North Carolina Electric Membership Corporation | Electric Distributor |





| Johnson | Carl | Northern Illinois Municipal Power Agency | Electric Distributor |
|---------|---------|--|----------------------|
| Johnson | Carl | Northern Virginia Electric Cooperative (NOVEC) | Electric Distributor |
| Johnson | Carl | Old Dominion Electric Cooperative | Electric Distributor |
| Johnson | Carl | Thurmont Municipal Light Company | Electric Distributor |
| Johnson | Carl | Town of Williamsport (The) | Electric Distributor |
| Johnson | Carl | Indiana Municipal Power Agency | Generation Owner |
| Johnson | Carl | Energy Cooperative Association of Pennsylvania (The) | Other Supplier |
| Johnson | Carl | Galt Power, Inc. | Other Supplier |
| Johnson | Carl | Madison Gas & Electric Co. | Other Supplier |
| Johnson | Carl | North Carolina Municipal Power Agency Number 1 | Other Supplier |
| Johnson | Carl | WPPI Energy | Other Supplier |
| Keenan | Matthew | Elwood Energy, LLC | Generation Owner |
| Philips | Marji | Direct Energy Business, LLC | Other Supplier |
| Prokop | Brenda | ITC Interconnection LLC | Transmission Owner |
| Trayers | Barry | Citigroup Energy, Inc. | Other Supplier |
| Wicks | Tonja | Duquesne Light Company | Transmission Owner |

Non-Voting Participants

| Last Name | First Name | Company | Sector |
|-------------|---------------|---|----------------------|
| Abend | Erik | Erik Abend Consulting | Not Applicable |
| Barker | Jason | Exelon Business Services Company, LLC | Not Applicable |
| Bleiweis | Bruce | DC Energy | Other Supplier |
| Boyle | Steve | Merion Energy | Not Applicable |
| Branch | John | SunCoke Energy, Inc. | Generation Owner |
| Brown | David | NJ Board of Public Utilities | Not Applicable |
| Bruce | Susan | McNees Wallace & Nurick LLC | Not Applicable |
| Campbell | Bruce | EnergyConnect, Inc. | Other Supplier |
| Carmean | Gregory | OPSI | Not Applicable |
| Christopher | Mahila | The Public Utilities Commission of Ohio | Not Applicable |
| Coczo | Michael | Old Dominion Electric Cooperative | Electric Distributor |
| Colbert | Cathleen | NRG Power Marketing, LLC | Other Supplier |
| Dasher | Brett | The Energy Authority | Other Supplier |





| Davis | Jim | Dominion Energy Marketing, Inc. | Generation Owner |
|--------------|-----------|--|----------------------|
| Delosa | Joe | New Jersey Board of Public Utilities | Not Applicable |
| DePillo | Ray | PSEG Energy Resources and Trade LLC | Other Supplier |
| Dillon | Matt | UGI Development | Generation Owner |
| Dinicola | Laura | FirstEnergy Solutions Corp. | Transmission Owner |
| Domian | Christin | Duquesne Light Company | Transmission Owner |
| Durinsky | Frank | FirstEnergy Solutions Corp. | Transmission Owner |
| Engelmann | Alan | Commonwealth Edison Company | Transmission Owner |
| Esposito | Pat | A2A Energy | Not Applicable |
| Feller | John | PPL Electric Utilities Corporation d/b/a PPL Utilities | Transmission Owner |
| Filomena | Guy | Customized Energy Solutions, Ltd.* | Not Applicable |
| Foladare | Ken | Tangibl | Not Applicable |
| Ford | Adrien | Old Dominion Electric Cooperative | Electric Distributor |
| Fuess | Christian | PBF Power Marketing LLC | Generation Owner |
| Garza | Mark | FirstEnergy Solutions Corp. | Transmission Owner |
| Gebolys | Debbie | The Public Utilities Commission of Ohio | Not Applicable |
| George | Brian | Environmental Defense Fund | Not Applicable |
| Hamad | Musa | ETC Endure Energy | Other Supplier |
| Hanser | Erik | Michigan Public Service Commission | Not Applicable |
| Heinle | Erik | DC People's Counsel | End Use Customer |
| Hoatson | Tom | Riverside Generating, LLC | Other Supplier |
| Horning | Lynn | Customized Energy Solutions, Ltd.* | Not Applicable |
| Horton | Dana | Appalachian Power | Transmission Owner |
| Horstmann | John | Dayton Power & Light Company (The) | Transmission Owner |
| Huntoon | Steve | Chesapeake Transmission | Other Supplier |
| Hurwich | Mark | Elliott Bay Energy Trading, LLC | Other Supplier |
| Janicki | Diane | Boston Energy Trading & Marketing | Generation Owner |
| Jett | William | Duke Energy | Generation Owner |
| Kauffman | Brian | EnerNOC, Inc. | Other Supplier |
| Keegan | Jack | Just Energy Solutions, Inc. | Other Supplier |
| Kelly | Stephen | Brookfield Energy Marketing LP | Other Supplier |
| Kerecman | Joe | Calpine Energy Services | Generation Owner |
| Knernschield | Jenny | Old Dominion Electric Cooperative | Electric Distributor |
| Kogut | George | New York Power Authority | Other Supplier |





| Kozhuharov | Dimitar | Delaware Municipal Electric Corporation, Inc. | Electric Distributor |
|------------|-----------|--|----------------------|
| Lieberman | Steven | American Municipal Power, Inc. | Electric Distributor |
| Marinelli | Richard | PSE&G | Transmission Owner |
| Martin | Valerie | FERC | Not Applicable |
| Matuszak | Alex | UGI Energy Services | Other Supplier |
| Midgley | Sharon | Exelon Business Services Company, LLC | Transmission Owner |
| Nadel | Steven | PPL Electric Utilities Corporation d/b/a PPL Utilities | Transmission Owner |
| O'Boyle | Brian | Rockland Electric Company | Transmission Owner |
| O'Connell | Robert | PPGI Fund A/B Development, LLC | Generation Owner |
| Ondayko | Brock | Appalachian Power Company | Transmission Owner |
| Pakela | Gregory | DTE Energy Trading | Other Supplier |
| Pelletier | Eveline | HQ Energy Services | Not Applicable |
| Peoples | John | Duquesne Light Company | Transmission Owner |
| Pezalla | William | Old Dominion Electric Cooperative | Electric Distributor |
| Poulos | Gregory | CAPS | Not Applicable |
| Price | Ruth | Division of the Public Advocate of the State of Delaware | End Use Customer |
| Prokop | Brenda | ITC Mid-Atlantic Development, LLC | Other Supplier |
| Rainey | Frank | PEI Power Corporation | Generation Owner |
| Rohrbach | John | Southern Maryland Electric Cooperative | Electric Distributor |
| Salaneck | Alexandra | Monitoring Analytics | Not Applicable |
| Sasser | Jonathan | Customized Energy Solutions | Not Applicable |
| Schreim | Morris | Maryland Public Service Commission | Not Applicable |
| Schum | Alice | Illinois Municipal Electric Agency | Electric Distributor |
| Segner | Sharon | LS Power Transmission, LLC | Not Applicable |
| Shah | Pulin | Exelon Business Services Company, LLC | Transmission Owner |
| Shanker | Roy | H.Q. Energy Services (U.S.), Inc. | Other Supplier |
| Sillin | John | FERC | Not Applicable |
| Skucas | Ruta | Pierce Atwood | Not Applicable |
| Slagel | Ronald | MICS | Not Applicable |
| Smith | Christen | RTO Insider | Not Applicable |
| Stern | Alexander | Public Service Electric & Gas Company | Transmission Owner |
| Stewart | Travis | Gabel & Associates | Not Applicable |
| Stone | Andy | Gabel Associates | Not Applicable |
| Sturgeon | John | Duke Energy Carolinas, LLC | Other Supplier |





| Swalwell | Bradley | Tangent Energy | Other Supplier |
|-----------|-----------|--|----------------------|
| Sweeney | Rory | GT Power Group | Not Applicable |
| Tangirala | Subha | ABB | Not Applicable |
| Thomas | Amber | PPL Electric Utilities Corporation d/b/a PPL Utilities | Transmission Owner |
| Thompson | Matthew | XO Energy | Other Supplier |
| Tibbetes | Maeve | Pierce Atwood | Not Applicable |
| Tom | Jens | Black Oak Capital | Other Supplier |
| Toomey | Megan | PPL Electric Utilities Corporation d/b/a PPL Utilities | Transmission Owner |
| Tyler | Catherine | Monitoring Analytics | Not Applicable |
| Vander | Aaron | Trade Wind Energy Inc. | Not Applicable |
| Vayda | Brian | Borough of Park Ridge New Jersey | Electric Distributor |
| Whitehead | Jeffrey | GT Power Group | Not Applicable |
| Wisersky | Megan | Madison Gas & Electric Co. | Other Supplier |

PJM Participants

| Last Name | First Name | Company | Sector |
|-----------|---------------|---------------------|----------------|
| Barrett | Francis | PJM Interconnection | Not Applicable |
| Bennett | Daniel | PJM Interconnection | Not Applicable |
| Bennett | Stephen | PJM Interconnection | Not Applicable |
| Berner | Aaron | PJM Interconnection | Not Applicable |
| Bernstein | Matthew | PJM Interconnection | Not Applicable |
| Boyle | Glen | PJM Interconnection | Not Applicable |
| Bresler | Stu | PJM Interconnection | Not Applicable |
| Brown | Rich | PJM Interconnection | Not Applicable |
| Bryson | Michael | PJM Interconnection | Not Applicable |
| Buck | Rachel | PJM Interconnection | Not Applicable |
| Buehler | Susan | PJM Interconnection | Not Applicable |
| Burdis | Tim | PJM Interconnection | Not Applicable |
| Burlew | Jim | PJM Interconnection | Not Applicable |
| Carroll | Rebecca | PJM Interconnection | Not Applicable |
| Caven | Augstine | PJM Interconnection | Not Applicable |
| Chen | Lu | PJM Interconnection | Not Applicable |





| Chmielewski | Brian | PJM Interconnection | Not Applicable |
|---------------|-----------|---------------------|----------------|
| Ciabattoni | Joe | PJM Interconnection | Not Applicable |
| Connell | Jason | PJM Interconnection | Not Applicable |
| Coyne | Suzanne | PJM Interconnection | Not Applicable |
| Croop | Danielle | PJM Interconnection | Not Applicable |
| Cummings | Bridgid | PJM Interconnection | Not Applicable |
| Davis | Elizabeth | PJM Interconnection | Not Applicable |
| Derin | Bilge | PJM Interconnection | Not Applicable |
| DeVita | Thomas | PJM Interconnection | Not Applicable |
| Dolan | James | PJM Interconnection | Not Applicable |
| Fabiano | Janell | PJM Interconnection | Not Applicable |
| Fan | Zhenyu | PJM Interconnection | Not Applicable |
| Fitzpatrick | Brian | PJM Interconnection | Not Applicable |
| Franks | Christine | PJM Interconnection | Not Applicable |
| Frogg | Darrell | PJM Interconnection | Not Applicable |
| Genuario | Gabby | PJM Interconnection | Not Applicable |
| Glatz | Suzanne | PJM Interconnection | Not Applicable |
| Greening | Michele | PJM Interconnection | Not Applicable |
| Heffentrager | Scott | PJM Interconnection | Not Applicable |
| Hendrzak | Chantal | PJM Interconnection | Not Applicable |
| Herel | Suzanne | PJM Interconnection | Not Applicable |
| Herling | Steve | PJM Interconnection | Not Applicable |
| Hildebrand | Rebecca | PJM Interconnection | Not Applicable |
| Hislop | David | PJM Interconnection | Not Applicable |
| Holter | Natasha | PJM Interconnection | Not Applicable |
| Horger | Tim | PJM Interconnection | Not Applicable |
| Hsia | Eric | PJM Interconnection | Not Applicable |
| Hugee | Jacqulynn | PJM Interconnection | Not Applicable |
| Keech | Adam | PJM Interconnection | Not Applicable |
| Kenney | Susan | PJM Interconnection | Not Applicable |
| Keshavamurthy | Bhavana | PJM Interconnection | Not Applicable |
| Kimmel | David | PJM Interconnection | Not Applicable |
| Krizenoskas | Lisa | PJM Interconnection | Not Applicable |
| Kuras | Mark | PJM Interconnection | Not Applicable |
| Larocque | Matthew | PJM Interconnection | Not Applicable |





| Lu | Chen | PJM Interconnection | Not Applicable |
|-------------|-----------|---------------------|----------------|
| Mathew | Lagy | PJM Interconnection | Not Applicable |
| Mcgill | Susan | PJM Interconnection | Not Applicable |
| Mcglynn | Paul | PJM Interconnection | Not Applicable |
| Mcgovern | Jason | PJM Interconnection | Not Applicable |
| McLaverty | Megan | PJM Interconnection | Not Applicable |
| Messina | Emmy | PJM Interconnection | Not Applicable |
| Monzon | Stephanie | PJM Interconnection | Not Applicable |
| Murphy | Shaun | PJM Interconnection | Not Applicable |
| O'Hara | Chris | PJM Interconnection | Not Applicable |
| Patel | Anita | PJM Interconnection | Not Applicable |
| Phillips | Darlene | PJM Interconnection | Not Applicable |
| Picus | Steven | PJM Interconnection | Not Applicable |
| Pilong | Chris | PJM Interconnection | Not Applicable |
| Pilong | Melissa | PJM Interconnection | Not Applicable |
| Salmon | Lisa | PJM Interconnection | Not Applicable |
| Schuyler | Ken | PJM Interconnection | Not Applicable |
| Seiler | Ken | PJM Interconnection | Not Applicable |
| Shields | Jeffrey | PJM Interconnection | Not Applicable |
| Snyder | Sue | PJM Interconnection | Not Applicable |
| Souder | Michelle | PJM Interconnection | Not Applicable |
| Souder | Dave | PJM Interconnection | Not Applicable |
| Squilla | Angelica | PJM Interconnection | Not Applicable |
| Starkov | Stefan | PJM Interconnection | Not Applicable |
| Stefanowicz | Vincent | PJM Interconnection | Not Applicable |
| Swimm | Nora | PJM Interconnection | Not Applicable |
| Tribulski | Jennifer | PJM Interconnection | Not Applicable |
| Ward | Michael | PJM Interconnection | Not Applicable |
| Williams | Stanley | PJM Interconnection | Not Applicable |
| Zadlo | Thomas | PJM Interconnection | Not Applicable |