

**Load Analysis Subcommittee**  
**Teleconference / Web conference**  
**Wednesday, October 19, 2016**  
**9:30 a.m. – 12:00 p.m. EPT**

## Administration

1. Mr. John Reynolds opened the meeting and reviewed the agenda. Ms. Molly Mooney performed roll call.
2. The Load Analysis Subcommittee reviewed and approved the draft minutes from the December 10 2015 meeting. No changes were requested. Minutes will be posted as final.

## Education

### 3. Review of Summer 2016 Load

Ms. Mooney reviewed the peak loads and weather from Summer 2016. The August 11, 2016 unrestricted peak of 151,945 MW was 5.9% above the actual 2015 peak and 0.1% below the 2016 forecast. The weather experienced across the RTO on August 11, 2016 was in line with 50 percentile weather.

### 4. PJM Weather Normalization Methodology

Ms. Mooney reviewed the weather normalization procedure for non-coincident peak (NCP) and coincident peak (CP) loads. The regression method and data that gets included in the NCP was presented. An average zonal diversity is applied to each zone's NCP WN value to produce CP WN values. All PJM weather-normalized peaks are now information-only items. The CP WN values are used by EDCs to allocate customer peak load contributions (PLCs) but capacity obligations are set by the coincident peak forecast. A spreadsheet with details of the Winter 2015/16 and Summer 2016 weather normalization results was posted with the LAS meeting materials.

### 5. Load Forecast Accuracy

Mr. Andrew Gledhill discussed forecast model accuracy. The method used to evaluate model accuracy is to solve the model using up-to-date information and actual weather. This solved load is compared to the value the model would predict to calculate mean percent error (MPE) and mean absolute percent error (MAPE). Summer and Winter MPE and MAPEs on the 10CP days were shown for zero to five years out in the forecast.

### 6. Economic Forecast Accuracy

Mr. Gledhill presented a comparison of economic forecast accuracy from the two vendors that PJM acquires economic data from, Moody's Analytics and IHS Markit (formerly Global Insight). Mr. Gledhill reviewed the challenges of changing economic series and a complete redefinition of Metro areas in the analysis. The results show both vendors perform with a similar level of accuracy for the economic index

that PJM uses in the forecast model in a zero, three, and five year out timeframe. PJM will continue with the status quo (using Moody's Analytics) and continue to monitor performance periodically.

## 2017 Load Forecast Development

### 7. Solar Forecast Methodology Update

Ms. Bridgid Cummings provided an update on the methodology PJM uses to estimate historical and forecasted solar generation. Ms. Cummings detailed PJM's work on cloud cover measurement and using more weather stations in the back-casting analysis. PJM has contracted with IHS to produce the 2017-2032 distributed solar generation forecast that will be used in the 2017 Load Forecast Report. IHS will be providing scenario forecasts this year, which will give stakeholders a better understanding of how different factors and assumptions impact the solar generation forecast. The IHS analysis and results will be presented at the November 18, 2016 LAS meeting.

### 8. Load Forecast Assumptions Review

Mr. Gledhill reviewed the input parameters and assumptions for the 2017 load forecast. A comparison of economics, equipment indices, and updated load forecast adjustments for Dominion were discussed. PJM will review the 2017 preliminary forecast with the Load Analysis Subcommittee at the November 18, 2016 meeting. The preliminary forecast will be reviewed with the Planning Committee at their December meeting and the final forecast will be published in late December.

## In Attendance

Randy Holliday	American Electric Power
Marek Kaczanowski	Baltimore Gas and Electric Company
John McDaniel	Baltimore Gas and Electric Company
Sara Bishop	Calpine
Dennis Kelter	Commonwealth Edison Company
Rob Zacher	Commonwealth Edison Company
Rehan Gilani	ConEdison Energy, Inc.
Tiffany Smith	Constellation Energy Services
Guy Filomena	Customized Energy Solutions, Ltd
Carl Johnson	Customized Energy Solutions, Ltd
Jonathan Sasser	Customized Energy Solutions, Ltd
John Farber	DE Public Service Commission
David Hastings	DhastCo, LLC
Dana Gullquist	Dominion Virginia Power
Jeff Matzen	Dominion Virginia Power

Abhijit Rajan  
Karim Siamer  
Leon Brunson  
Maida Mayfield  
Sally Witt  
Malcolm Ainspan  
Eric DeBellis  
Jim Benchek  
Martin Bolan  
Lou D'Alessandris  
David Marton  
Bill Moll  
Jon Schneider  
Derek Hagaman  
David Pratzon  
Kenneth Foladare  
Dave Mabry  
George Kogut  
Claude Martin  
Stephen Wreschnig  
Damon Xenopoulos  
Max Servera  
Brian Hamilton

Dominion Virginia Power  
Dominion Virginia Power  
Duke Energy Ohio, Inc.  
Duke Energy Ohio, Inc.  
East Kentucky Power Cooperative, Inc.  
Energy Curtailment Specialists, Inc.  
Environmental Law & Policy Center  
FirstEnergy Corporation  
FirstEnergy Corporation  
FirstEnergy Corporation  
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FirstEnergy Corporation  
FirstEnergy Corporation  
FirstEnergy Corporation  
GT Power Group  
GT Power Group  
IMG Midstream LLC  
McNees Wallace & Nurick LLC  
New York Power Authority  
North Carolina Electric  
Public Service Electric & Gas Company  
Stone Mattheis Xenopoulos & Brew, PC  
Unicia Energy, LP  
Unknown

#### PJM Staff

John Reynolds, Chairman  
Bridgid Cummings  
Tom Falin  
Andrew Gledhill  
Jason Quevada  
Patricio Rocha-Garrido  
Ken Schuyler  
Mike Ward  
Molly Mooney, Secretary

PJM Interconnection, L.L.C.  
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