

Training and Certification Compliance

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SOS

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- PJM Certification and Initial/Continuing Training Requirements identified in PJM Manual M-40 (Section 3)
 - TO PJM Transmission Certification, NERC Certification and Training Requirements
 - MOC Generation Dispatchers PJM Generation Certification and Training Requirements
 - Small Generation Plant Dispatchers Initial training, Reduced Continuing Training Requirements
 - » 75 MW or less
 - » No Certification Requirement
 - Demand Response (CSP) Initial training, Reduced Continuing Training Requirements
 - Energy Storage Devices (ESD) Initial training, Reduced Continuing Training Requirements



- PJM has seen some increasing and chronic non-compliance with these requirements
 - Both Training and Certification
 - TOs are typically <u>in</u> compliance
- Non-compliant companies must submit "Mitigation Plans"
 - If Mitigation Plan not submitted or adhered to, issue is raised to higher levels of management
 - No financial penalties
- Some companies are repeat offenders or chronic non-responders
- PJM seeing some instances where members are not aware of their operational responsibilities
 - Gen data issues, IRC, SSR, Gen Checkout



- Issue brought to the July OC meeting as a Problem Statement
- OC approved Problem Statement at the August meeting
 - Issue assigned to the SOS to address
 - Solution recommendation will be brought back to OC



Generation

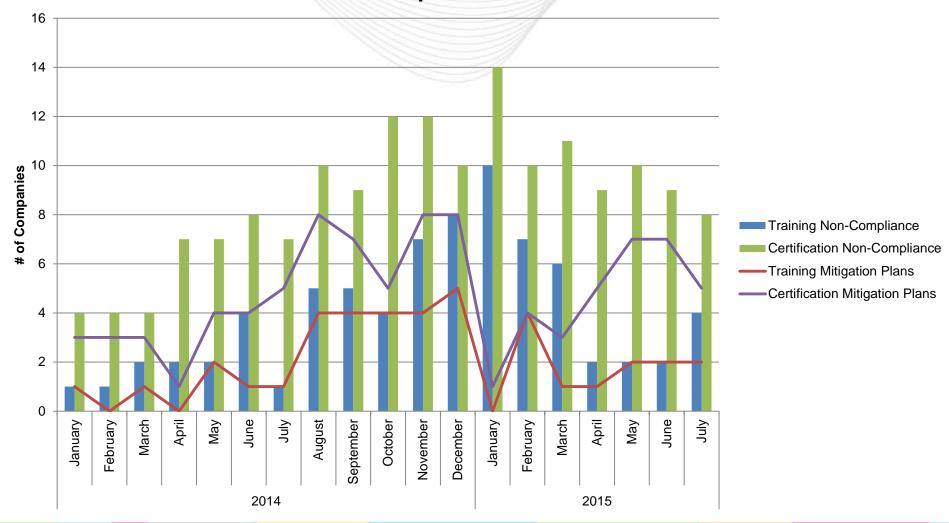
- Certification
 - » 8 companies non-compliant (13%)
- Training
 - » 4 companies non-compliant (6%)
- CSP
 - Training
 - » 5 companies non-compliant (20%)
- Small Generation
 - Training
 - » 4 companies non-compliant (18%)

*Data through July 31, 2015



2014/2015 Generation Compliance

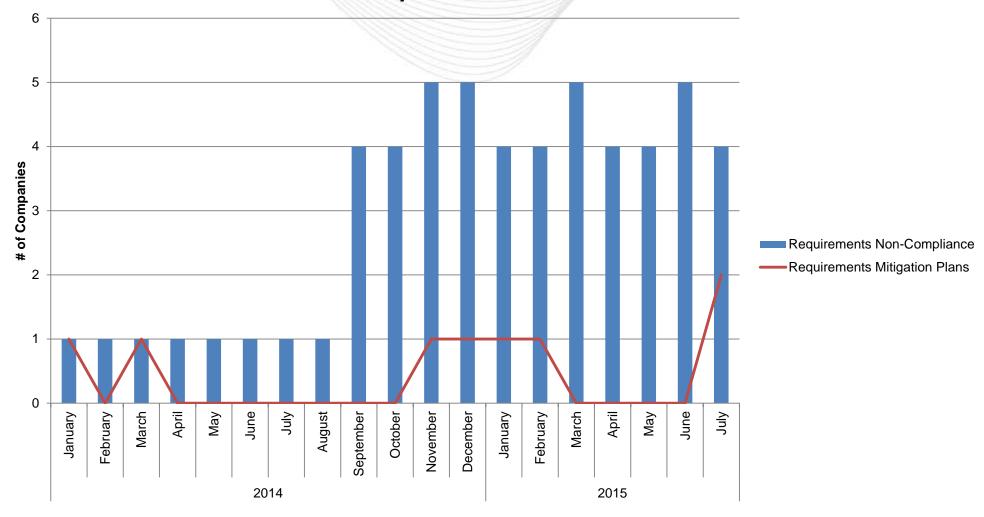
2014-2015 Compliance Data - Generation





2014/2015 Small Generation Compliance

2014-2015 Compliance Data - Small Generation





2014/2015 CSP/ESD Compliance

2014-2015 Compliance Data - CSP/ESD



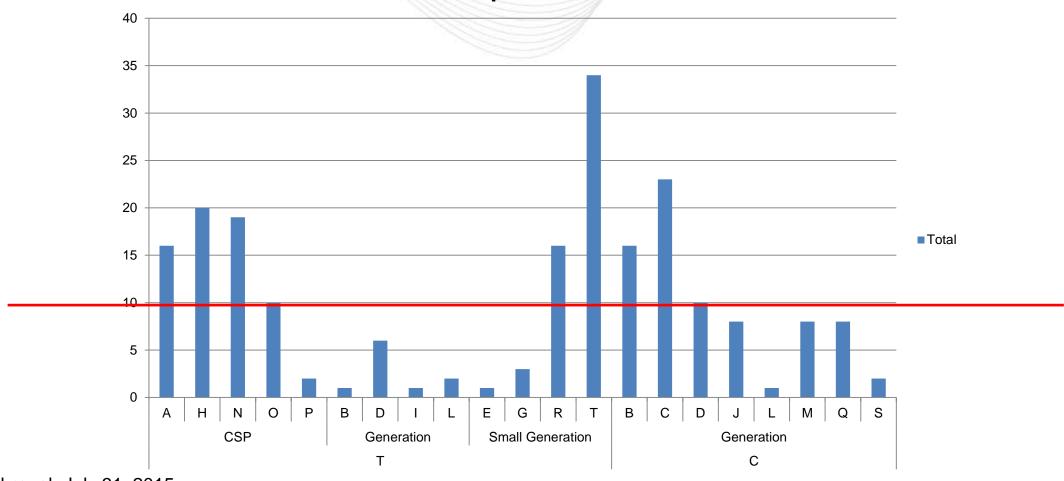


- PJM analyzed data further and created a "Compliance Score" for each company as follows:
 - Individual Score = # of months an individual at company is out of compliance
 - Company Score = Sum of individual scores for that company
- Example if a company has 1 dispatcher out of compliance for 2 months and a second dispatcher out of compliance for 3 months their Compliance Score would be 5



Compliance Score Summary – August* 2015

Compliance Score



*Data through July 31, 2015



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1.7.5 Market Operations Center.

• Each Market Participant shall maintain a Market Operations Center, or shall make appropriate arrangements for the performance of such services on its behalf. A Market Operations Center shall meet the performance, equipment, communications, staffing and training standards and requirements specified in this Agreement, and as may be further described in the PJM Manuals, for the scheduling and completion of transactions in the PJM Interchange Energy Market and the maintenance of the reliable operation of the PJM Region, and shall be sufficient to enable (i) a Market Seller or an Economic Load Response Participant to perform all terms and conditions of its offers to the PJM Interchange Energy Market, and (ii) a Market Buyer or an Economic Load Response Participant to conform to the requirements for purchasing from the PJM Interchange Energy Market.

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- Section 11.3.1 General Member Responsibilities
- (c) Provide adequate and properly trained personnel to (i) permit participation in the coordinated operation of the PJM Region (ii) meet its obligation on a timely basis for supply of records and data, (iii) serve on committees and participate in their investigations, and (iv) share in the representation of the Interconnection in inter-regional and national reliability activities. Minimum training for Members that operate Market Operations Centers and local control centers shall include compliance with the applicable training standards and requirements in PJM Manual 01, Control Center Requirements, including the PJM System Operator Training Requirements in Attachment C;

NOTE: These requirements were moved to Manual M-40 on 5/15/07



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- Section 11.3.3 Electric Distributers
- (g) Provide or arrange through another Member for the services of a 24-hour local control center to coordinate with the Office of the Interconnection, each such control center to be furnished with appropriate telemetry equipment as specified in the PJM Manuals, and to be staffed by system operators trained and delegated sufficient authority to take any action necessary to assure that the system for which the operator is responsible is operated in a stable and reliable manner. In addition to meeting any training standards and requirements specified in this Agreement, local control center staff shall be required to meet applicable training standards and requirements in PJM Manual 01, Control Center Requirements, including the PJM System Operator Training Requirements in Attachment C;

NOTE: These requirements were moved to Manual M-40 on 5/15/07



Operating Agreement

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- Section 1.7.5 Market Operations Center
- Each Market Participant shall maintain a Market Operations Center, or shall make appropriate arrangements for the performance of such services on its behalf. A Market Operations Center shall meet the performance, equipment, communications, staffing and training standards and requirements specified in this Agreement, and as may be further described in the PJM Manuals, for the scheduling and completion of transactions in the PJM Interchange Energy Market and the maintenance of the reliable operation of the PJM Region, and shall be sufficient to enable (i) a Market Seller or an Economic Load Response Participant to perform all terms and conditions of its offers to the PJM Interchange Energy Market, and (ii) a Market Buyer or an Economic Load Response Participant to conform to the requirements for purchasing from the PJM Interchange Energy Market.

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- Begin Consensus Based Issue Resolution (CBIR) process at next SOS meeting
 - Identify member interests
 - Identify solution components
 - Identify recommended solution
- Take recommended solution and any required Manual changes to Operating Committee for endorsement



QUESTIONS?