

Member Communications Issue

Technical Update & Solutions Matrix Overview

September 5, 2013

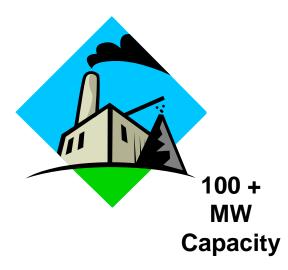
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ICCP & DNP



- **PJM EMS**
 - Telecommunication circuits installed by PJM.
 - Connection may or may not be redundant, and may also include an additional circuit to a member's disaster recovery/back up location.
 - PJMNet Connection is not synonymous with a telecommunication circuit.



ICCP

Redundant circuits required

DNP3 / RTU

- Redundant circuits evaluated on impact to PJM system
- Connection may or may not be redundant
 - Single Telcom circuit
 - Redundant Telcom circuit

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Status Quo Transmission/Generation Owner PJMNet Eligibility

Transmission Companies:

- Required by PJM for System Reliability purposes
- One connection per transmission entity
- PJM decides eligibility for connection

Generation Companies:

- Eligibility dependent on Generation capacity
- Generation MWs must be greater than Threshold
 - Generating Station under the Threshold connect through Internet SCADA
- One PJM Connection per Voting Member
 - Generator, Market Operation Center, Group of Generators

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Package A

Single Member-paid PJMNet connection available for Voting Members who do not qualify for a PJMNet connection under Manual 14-D

- For Companies not eligible due to generating capacity below current threshold:
 - Voting Members may purchase one PJMNet connection
 - Non-redundant PJMNet connection
 - Redundant PJMNet connections
- Type of Voting Member
 - Generator, Market Operation Center, Group of Generators



Package B

PJMNet connections available for Voting Members

- For Voting Member Companies that meet some or all of the following requirements:
 - Are not eligible due to generating capacity below current Threshold
 - Already have an valid existing PJMNet connection under their voting membership and desire additional connections

Cost Allocation

- PJM will pay for all connections they deem necessary for reliability purposes.
- Voting member companies can purchase up to 5 additional connections



Package C

PJMNet connections available for Voting Members

- For Voting Member Companies that meet some or all of the following requirements:
 - Are not eligible due to generating capacity below current Threshold
 - Already has a valid existing PJMNet connection under their voting membership and desire additional connections

Cost Allocation

- All voting member companies required to purchase first connection
- PJM will pay for any additional connection they deem necessary for reliability purposes
- Voting member companies can purchase up to 5 additional connections