

# Light Load Operational Performance

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PJM Planning Committee  
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- Alignment of the proposed method with historical operational data

- Good Alignment

- Load Level

- Wind Dispatch

- Non-wind Dispatch

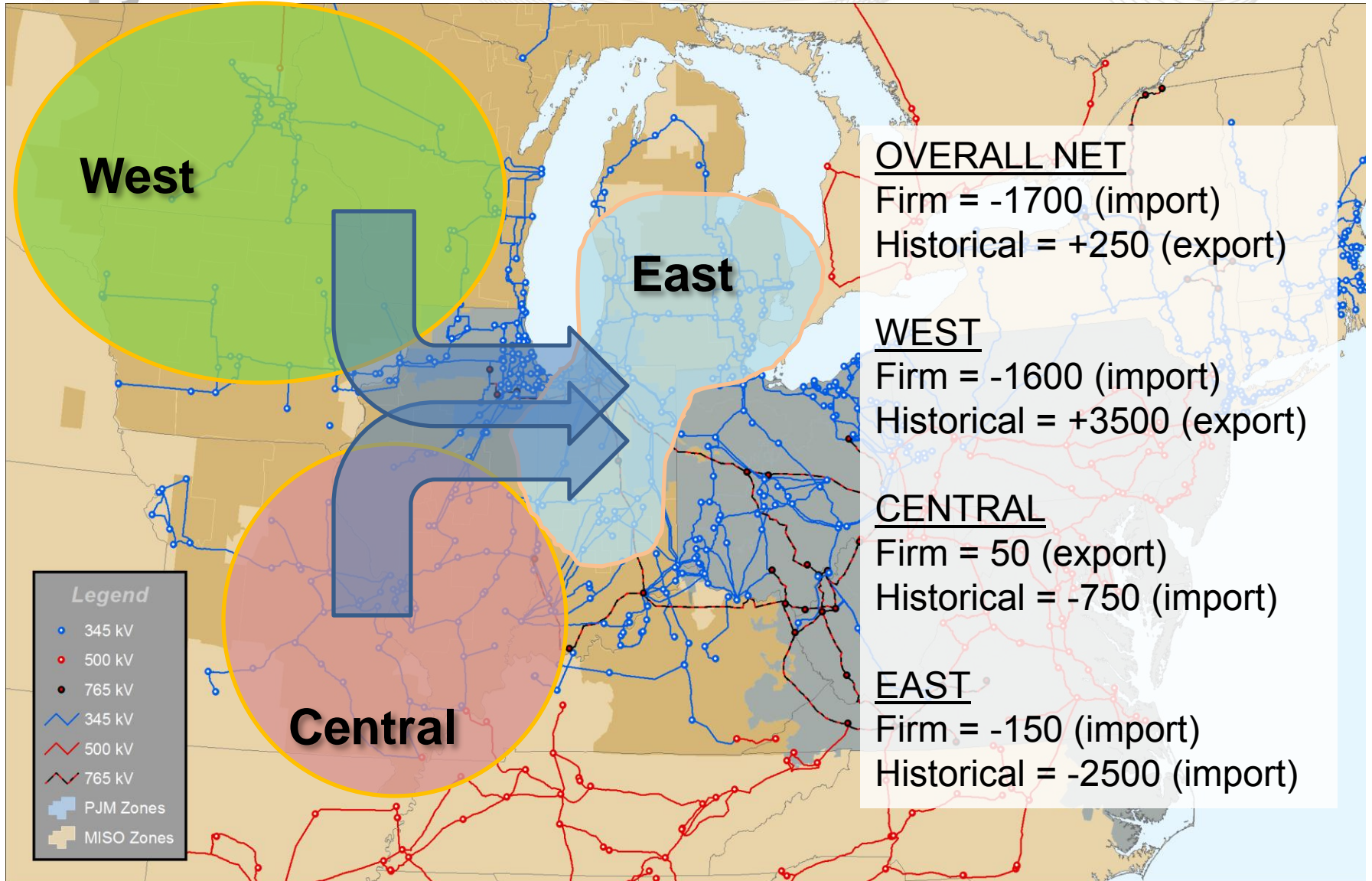
- Areas of Focus

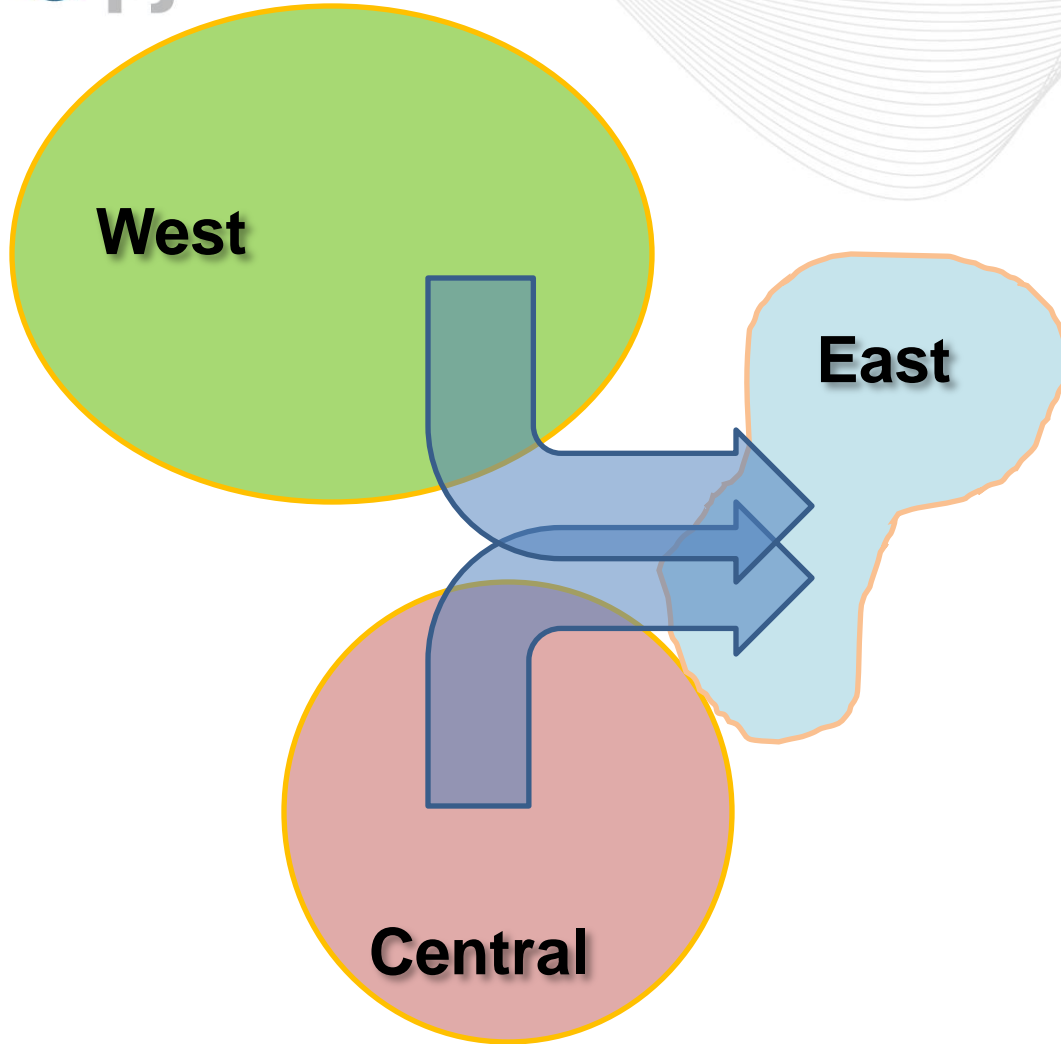
- Area interchange

- (Inter and Intra) for (PJM and MISO)

- MISO – West, Central, East

- Facilities Historically Causing Light Load Operational Performance Issues





Firm – Historical Magnitude

OVERALL NET  
1950 MW

WEST  
Historically Exporting 5100  
MW more than firm

CENTRAL  
Historically Exporting 700  
MW more than firm

EAST  
Historically Importing 2350  
MW more than firm



## Light Load Criteria – Previously Suggested Base Case Assumptions

<b>Network Model</b>	5 year out case
<b>Load Model</b>	Light Load (50% of 50/50 Summer Peak)
<b>Base Generation Dispatch (Online in base case)</b>	Coal > 500MW = 60% Coal < 500 MW = 45% Nuclear = 100% Wind = 40%
<b>External Transfers (Interchange)</b>	Evaluating Historical Values
<b>Notes:</b>	Scale coal generation to balance the case to meet load + losses + interchange
<b>Contingencies</b>	NERC Category A, B, C (except C3)
<b>Monitored Facilities</b>	All PJM market monitored facilities

# Light Load Criteria – Previous Recommendations

<b>Test Methodology</b>	Generator Deliverability (NERC Category A, B), Common Mode Outage Procedure (NERC Category C, except C3)
<b>Ramping Limits for Generator Deliverability test methodology</b>	Wind is dispatched 40% of nameplate capability in base case and ramped up to 80% if selected by the test criteria
<b>Generation Participation from Neighboring Systems</b>	All existing MISO wind generation online at 100% of their nameplate capability.

- Initial criteria tests identified many of the same facilities that are problematic in Operations
- Work to improve overlap between initial criteria tests and conditions observed in real-time operations is underway
  - Facility loadings
  - Interchange
- Analysis underway to evaluate base dispatch – System bias

- Finalize analysis on west to east transfer in light load case
- Review results with stakeholders at May PC
- Manual 14B Language – Seek PC endorsement in May
- Seek MRC approval