

Light Load Operational Performance

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March 10, 2011

- Analysis was performed to test the potential impact of a light load criteria test on an RTEP case
- Modified generator deliverability tool to test the sensitivity of new variables
 - Ramping impact of wind generation above peak case levels
 - Wind impacts from neighboring systems
- Generator deliverability test & common mode outage test



Light Load Criteria – Previously Suggested Base Case Assumptions

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

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

- Initial criteria tests identified many of the same facilities that are problematic in Operations
- Overlap between initial criteria tests and conditions observed in real-time operations could be improved
 - Facility loadings
 - Interchange
- Investigating base dispatch – System bias
- Ramping limits
 - Ramp MISO wind higher (100%) to align with their criteria

- Explore the assumptions on west to east transfer in light load case
- Finalize criteria
- Manual 14B Language
- Seek MRC approval