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Preface: What This Document Conveys



The report you are reading is published annually by PJM to convey the results of planning studies throughout the previous calendar year and to explain the rationale behind why transmission system upgrades are needed. The discussion in this document of system drivers, reliability criteria violations and upgrades themselves is for reporting purposes to facilitate greater RTEP understanding.

Fundamentally, the Regional Transmission Expansion Plan (RTEP) is that ongoing, body of PJM Transmission Expansion Advisory Committee (TEAC) presentation materials and published baseline reports which remains PJM's authoritative source of RTEP information and data.

- PJM TEAC materials can be accessed online from PJM's Web site via the following URL link: <http://www.pjm.com/committees/teac/teac.html>.
- PJM baseline reports can also be accessed online from PJM's Web site via that following URL link: <http://www.pjm.com/planning/rtep-baseline-reports/baseline-report.html>.

Audience

PJM has crafted this report in particular with federal and state regulators and their staffs in mind to explain and emphasize the interrelationship among the following:

- system upgrade drivers (e.g., load growth, generation addition, generation deactivation)
- reliability criteria violations (e.g., thermal transmission constraints, voltage limits)
- system enhancements needed (e.g., new facilities, upgrades to existing facilities)

Readers of this report are encouraged to participate in the ongoing activities of the PJM Transmission Expansion Advisory Committee (TEAC). This forum provides opportunity for stakeholder participation and advice throughout the RTEP process and for remaining apprised of all evolving aspects of PJM's RTEP – plans and process alike.

Scope of Upgrades Discussed

Through December 31, 2007, RTEP upgrades recommended by PJM and approved by the PJM Board since 1999 numbered in excess of 1,200. However, to put reasonable parameters around the scope and length of this report, the upgrades discussed here are generally those whose cost exceeds \$10 million. A complete list of all approved RTEP upgrades, a brief description of facility and driver as well as current status can be found on PJM's Web site via the following URL link: <http://www.pjm.com/planning/project-queues/upgrade-projects.html>.

Queued Interconnection Requests

Generation and merchant transmission interconnection requests are a key part of PJM's RTEP Process. Network upgrades discussed in this report are for those queued interconnection requests that have completed System Impact Studies. From a "going-forward" RTEP power flow modeling perspective, PJM's RTEP process specifies that planning studies model all generation on-line that have a completed System Impact study. Of these generators, only those with executed Interconnection Service Agreements (ISAs) are permitted to back-off an identified transmission constraint. Ten years of experience

with queue activity and generation withdrawal rates has demonstrated that, in this manner, PJM's interconnection process encompasses sound, consistent and reliable planning, minimizing the need for retooling studies that would otherwise be necessitated by those generator interconnection requests that withdraw from the planning process.

For reporting purposes and the queue activity interest of this report audience, please note that PJM has included in many tables statistical information about interconnection request activity through queue T, the window for which closed on January 31, 2008.

RTEP Process information...

This report does not describe the RTEP Process itself in great detail. The reader is directed to a number of online resources, including those noted below, to pursue greater understanding of the RTEP Process. Detailed information on the RTEP Process itself can be found in the following resources, available on PJM's Web site, as noted further, below:

1. The M-14 series of PJM Manuals which describe the specific "business rules" under which PJM effects the entire RTEP Process. Specifically, Manual 14B addresses the details associated with the scope and procedures associated with the planning results and upgrades described in this report. PJM Manual 14B, "Regional Planning Process" can be found via the following URL link: <http://www.pjm.com/contributions/pjm-manuals/pdf/m14b.pdf>.
2. The PJM Operating Agreement, Schedule 6, codifies the provisions under which PJM executes its Regional Transmission Expansion Planning Protocol, more familiarly known (and used throughout this document) as the "PJM RTEP Process." The PJM Operating Agreement can be found on PJM's Web site via the following URL link: <http://www.pjm.com/documents/agreements.html>.
3. The PJM Open Access Transmission Tariff (OATT) describes the interconnection request process for generating resource interconnection, merchant transmission interconnection as well as specific process provisions to address long-term firm transmission service and Auction Revenue Rights as well. The PJM OATT can be found via the following URL link: <http://www.pjm.com/documents/agreements.html>.