



require different corrective strategies, the Transmission Owner and the PJM RTO dispatchers communicate to work out an overall solution for both problems, provided the net impact in MWs shifted for other Transmission Owners does not exceed that which is required for the single contingency.

Note 1: Under normal operations, PJM does not operate for double-circuit tower line (DCTL) contingencies, however, PJM may operate for DCTL contingencies if Conservative Operations are declared.

Note 2: Generation redispatch for DCTL contingencies will be borne by the Transmission Owner and will not be allowed to set LMP while not under Conservative Operations.

Note 3: PJM system operations will implement actions to control for system congestion caused by DCTL contingencies resulting from the declaration of Conservative Operations. PJM will issue a PCLLRW when calculated post-contingency flows exceed Long Term Emergency (LTE) ratings. PJM will initiate redispatch of generation when calculated post-contingency flows exceed the Load Dump (LD) rating permitting off-cost generation to set LMP.

2.1.1 Facility Ratings

Three sets of thermal limits are provided for all monitored equipment:

- normal limit
- emergency limit
- load dump limit

PJM systems expect Normal (continuous), Emergency (long term and short term emergency are set equal unless specifically approved otherwise) and Load Dump limits.

Eight ambient temperatures are used with a set for the night period and a set for the day period; thus, 16 sets of three ratings are provided for each monitored facility. Ambient temperatures of 95°, 86°, 77°, 68°, 59°, 50°, 41°, and 32°F for both day and night periods are collated to constitute the 16 rating set selections. All Transmission Owners' and the PJM RTO's security analysis programs must be able to handle all 16 sets and allow operating personnel to select the appropriate rating set to be used for system operation. With a minimum of two set selections required daily (day/night), the Transmission Owner and the PJM RTO security analysis programs use these 16 ambient temperature rating sets for monitoring actual and contingency overloads. All temperatures associated with the ambient temperature rating data sets are in degrees Fahrenheit.

Certain facility ratings can be further adjusted by average bus voltage. The PJM RTO security analysis programs do not reflect these voltage adjustments in the 16 ambient temperature rating set selections. Coordination is required to ensure reliable PJM RTO operations.

The PJM RTO examines the set of thermal ratings that apply to Monitored Transmission Facilities during all operating periods. The PJM RTO dispatcher selects the ambient



temperature rating sets, using the system weather forecasts. The PJM RTO dispatcher performs the following actions:

- Any discrepancy between the PJM RTO and a Transmission Owner for a facility rating is logged and reported to the PJM Real Time Data Management Department for resolution. The immediate resolution for a rating discrepancy is to use the lower of the two disputed values until a more permanent resolution can be affected.
- If it becomes necessary in actual operations to initiate off-cost operation for a facility, the operation is based on PJM RTO security analysis program information, unless a more limiting condition is detected by the Transmission Owner's security analysis program.
- When a Transmission Owner's facility is experiencing constraints in an area that has an actual temperature (degrees Fahrenheit) less than the ambient temperature rating set being used by the on-line programs, the actual temperature in the area is used to select a more appropriate rating set for that facility. The selection is made from the remaining 15 sets. This adjustment is exercised when both the PJM RTO and the Transmission Owner are in agreement, and have logged that agreement.
- Any adjustment to facility ratings, such as the temporary use of a different rating, must be approved by PJM. These changes must be submitted to PJM through the Transmission Equipment Ratings Monitor (TERM) consistent with PJM Manual 3A, Energy Management System Model Updates & Quality Assurance, Appendix A: TERM Processing Ratings Data Check List. TERM is an internet-based interactive database located through eDART. The procedure and the rating are reviewed prior to approval by PJM. If an emergency rating change is needed, the change can initially be approved via phone call to PJM; however, a TERM ticket must still be entered by the next business day.

PJM requires a separation between Emergency and Load Dump ratings in order to enhance PJM Operator awareness. In the event where the TO calculated Load Dump and Emergency Ratings are the same, the Emergency Rating submitted by Transmission Owners (TOs) shall be, at a minimum, 3% lower than the submitted LD rating. If this change results in a normal rating that is higher than the LTE rating the TO shall, at a minimum, make the normal rating equal to the LTE rating.

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Load Dump ratings are determined to aid the system operator in identifying the speed necessary to relieve overloads. Operation at a Load Dump rating should not result in any facility tripping when actually loaded at that value for at least 15 minutes. For a facility loading to approach the Load Dump rating, either multiple contingencies must have occurred or the system had been operated beyond first contingency limits.

Note1: PJM dispatchers must return actual flows below Emergency ratings within 15 minutes and below Load Dump ratings within 5 minutes, as indicated in the tables below.