

## 5.7 Load Shed Directive Procedure

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### Load Shed Directive

Issuance of this procedure will trigger a capacity **Performance Assessment Interval (PAI)** as detailed in *PJM Manual 18, PJM Capacity Market*.

For a facility exceeding its LTE, STE or LD thermal rating, PJM and TO Operators should utilize the following steps to determine when to Shed Load:

**STEP 1:** Contact between the PJM and TO should be made immediately. In particular for a facility exceeding its LD rating, there is minimal time for delay outside of the initial recognition of the event.

**STEP 2:** Compare real-time (RT) flows to state estimator (SE) flows.

- If there are no discrepancies, move on to **STEP 3**.
- For any discrepancies:
  - If the reason for the discrepancies is NOT immediately obvious, PJM and TO shall agree upon the most-conservative values.
  - If the reason for the discrepancies is immediately obvious, and the facility is determined not to be in an LTE, STE or LD overload:
    - PJM and TO should work together as needed to resolve the discrepancy.
    - PJM and TO operators should log the discrepancy.
    - Cease Load Shed Determination Procedure if it is determined that the facility is not in an overload situation. Otherwise, go to next step.

**STEP 3:** Compare LD and Emergency (LTE and STE, if both are provided) ratings between PJM and TO.

- If there are no ratings discrepancies, move on to **STEP 4**.
- For any discrepancies:
  - If the reason for the discrepancies is NOT immediately obvious, PJM and TO shall agree upon the most-conservative/lowest values.
  - If the reason for the discrepancies is immediately obvious, and the facility is determined not to be in an LTE, STE or LD overload:
    - PJM and TO should work together as needed to resolve the discrepancy.
    - PJM and TO operators should log the discrepancy.
    - Cease Load Shed Determination Procedure if it is determined that the facility is not in an overload situation. Otherwise, go to next step.

**STEP 4:** Switching and or Generation Option

**Step 4A:** Flow exceeds LD

- There are only 3 options available to alleviate to ensure flow is brought below limits within 5 minutes:
- A reclose attempt on a facility that just tripped and caused the present Load Dump overload; and/or
- A [Pre-Studied Switching Solution](#); and/or
- ONLINE Generation Redispatch; Provided the generation has significant enough ramp-rate and relief potential to alleviate the overload within the given time constraints (5 minutes for a LD overload from the time Flow exceeded the LD rating). If reducing generation or shedding load are both options, generation should be reduced or tripped offline before shedding load.
- If a Pre-Studied Switching Solution or ONLINE Generation Redispatch is not immediately implemented ... Go to **STEP 5**.

Field Code Changed

**Step 4B:** Flow exceeds STE but not LD (including if STE = LTE)

- Operators have some time to study Switching Solutions and/or Generation Redispatch.
- If no controlling actions are identified or if the actions will not alleviate the overload within 15 minutes from identification of the overload...Go to **STEP 5**.

**Step 4C:** Flow exceeds LTE but not STE

- Operators may have additional time to study Switching Solutions and/or Generation Redispatch. The additional time is dependent upon the STE time based rating for the facility as documented in [Manual M-03](#) Attachment F and posted on at this OASIS site (typically 30 mins – 2hours).
- <http://www.pjm.com/~media/etools/oasis/system-information/m03-attachment-f-ste-rating-list.ashx>
- However, if flow is above the LTE rating and 5 minutes away from becoming a Violation of the STE time based rating AND if a Switching Solution and/or Generation Redispatch is not expected to alleviate the overload ...Go to **STEP 5**.

**STEP 5:** PJM will initiate a [Load Shed Directive](#) to the Transmission Owner(s) immediately and without delay.

Field Code Changed

- Transmission Owner may coordinate with BtMG facility interconnected to the transmission system, or through the relevant electric distribution utility, during expected prolonged emergency load dump/shed or as otherwise necessary to help mitigate a grid emergency. As BtMG facilities do not participate in the wholesale energy market, any request to operate for the purpose of helping to mitigate a wholesale market issue is on a voluntary basis at the discretion of the BtMG owner, other than the existing Non-Retail BtMG provisions. Any request to operate to mitigate a wholesale market issue will be communicated to the BtMG as a voluntary request at the discretion of the BtMG owner, other than the existing Non-Retail BtMG provisions. Refer to Manual 14D Appendix A for more information regarding BtMG.

### Load Shed Determination Flow Chart For a Facility Exceeding Rating

