



Manual 13, Revision 83

Emergency Operations

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January 26, 2022

- Clean Energy Jobs Act is restricting the number of run hours for gas fired CTs in Illinois to their average run times over the 2018, 2019 and 2020 years.
- To manage near term reliability concerns, PJM is recommending a temporary change to the Maximum Emergency provisions in Manual 13 for Combustion Turbines (CTs) to expire April 1, 2022.

Resource Limited Unit (Type)	Resource Limitations					PJM Member Actions
	On-site Fuel Only	Emissions	Cooling Water	Demin. Water	Other	
CT					< 72 hours	Report as Resource Limited in Markets Gateway
					< 24 hours	Update Max Run fields in Markets Gateway
					< 16 hours	Verbally notify PJM Master Coordinator
					< 16 hours	Can be placed in Max Emergency during normal operating conditions
					< 16 hours	Place in Max Emergency (if PJM issues Cons. Ops/Hot/Cold Weather Alert)
Steam					< 72 hours	Report as Resource Limited in Markets Gateway
					< 32 hours	Verbally notify PJM Master Coordinator
					< 32 hours	Can be placed in Max Emergency during normal operating conditions
					< 32 hours	Place in Max Emergency (if PJM issues Cons. Ops/Hot/Cold Weather Alert)
					< 24 hours	Update Max Run fields in Markets Gateway

Yellow Highlighting - Minimum Level Thresholds for Resource Limited Units

Gas-Only Units with Fuel Limitations:

- 1) These are not considered Resource Limited Units, and should not be reported as Resource Limited in Markets Gateway.
- 2) These should not be placed in Max Emergency, following PJM Cons. Ops/Hot/Cold Weather Alerts, but remain Economic, unless directed otherwise by PJM.
- 3) Gas-Only Units with other Resource Limitations (emissions, etc) should report as indicated in the above table.

Dual Fuel (Gas/Other) Units:

- 1) These should report as Resource Limited for only on-site fuel restrictions or other Resource Limitations as indicated in the above table. They should not report natural gas fuel restrictions.
- 2) These may be placed in Max Emergency, following PJM Cons. Ops/Hot/Cold Weather Alerts, for only on-site fuel restrictions (when unavailable on natural gas and on-site fuel falls below Minimum Level Thresholds) or other Resource Limitations as indicated in the above table.

Exhibit 5: Resource Limitations Reporting

Note:
 During the interim period expiring no later than April 1, 2022, PJM may request the resource owner to move fuel or emissions limited steam units into the Maximum Emergency category if the resource's remaining run hours fall below 240 hours (10 days). Unless needed for reliability, the units would remain in Maximum Emergency status until their inventory rose above 21 days (504 hours). This would only be implemented to address concerns with local or regional reliability.

- Section 6.4 Resource Limitation Reporting
 - Temporary changes to the “Notes” in the Real-Time Reporting section

Steam Units: During the interim period expiring no later than April 1, 2022. PJM may request the resource owner to move fuel or emissions limited steam units into the Maximum Emergency category if the resource’s remaining run hours fall below 240 hours (10 days). Unless needed for reliability, the units would remain in Maximum Emergency status until their inventory rose above 21 days (504 hours). This would only be implemented to address concerns with local or regional reliability.

CT Units: During the interim period expiring no later than April 1, 2022. PJM may request the resource owner to move emissions limited CT units into the Maximum Emergency category if the resource’s remaining run hours on all fuel types fall or are expected to fall below 24 hours. Unless needed for reliability, the units would remain in Maximum Emergency status until the run hours increased above 24hrs.

Appendix



Manual 13: Maximum Emergency Implementation Details (updated for CTs)

- Maintain system reliability
- Continue to incent Gen Owners to manage their fuel inventories **and emissions limitations**
- Provide a mechanism to help manage fuel and emissions when the generation owner is unable to manage them using economic options. (i.e. unit is being offer capped)
- Appropriately and effectively utilize Emergency Procedures to manage the reliability of the system
 - i.e. Do not create administratively driven emergency procedure declarations today, to avoid a potential reliability concern in the future

- Entering CT units into Maximum Emergency Status
 - PJM Actions:
 - Monitor emissions run hours for all CTs.
 - If a CT approaches or falls below 24 hours of remaining run time, PJM will contact the Generation Owner to confirm if there are economic options available to manage the run time.
 - If there are not and the remaining run hours are expected to continue to decrease based on projected run times, PJM may request the unit owner to bid the unit as Maximum Emergency to conserve the run hours, provided there is not a reliability need to run the unit.
 - Member Actions
 - Generation Owners will monitor run hours for all units CTs and notify PJM if a CT approaches or falls below 24 hours of remaining run time and there are no economic options available to manage the remaining run hours.
 - If requested by PJM, the Generation Owner may elect to offer their unit or a portion of the unit as Maximum Emergency.

- Removing CT units from the Maximum Emergency Status at PJM's request
 - PJM Actions:
 - PJM will monitor current and forecasted operating conditions. If conditions indicate a potential need to run a resource that is currently in the Maximum Emergency status, PJM will notify the Generation Owner and request the unit be removed from the maximum emergency status and offered as economic. The unit will then be available for economic scheduling
 - NOTE: This request may be made multiple days in advance, day ahead or real time.
 - Member Actions
 - If requested by PJM, the unit owner should remove the unit requested from the Maximum Emergency status and offer the unit economically.
 - NOTE: The Generation Owner can also remove the unit from the Maximum Emergency status under their own volition at any time.
- This process, along with existing market rules, incent generation owners to offer their units economically when they may be needed for reliability.

- FERC Capacity Performance Order
 - 478. Consistent with our findings in section V.C of this order, we find that any capacity that is designated by a Generation Capacity Resource as a Maximum Emergency Offer and not dispatched by PJM because of its use of a Maximum Emergency Offer should be considered non-performing for application of Non-Performance Charges.
- As a result of the FERC Order, and consistent with practices prior to this temporary Manual 13 change, unless dispatched down/off by PJM, if a resource does not remove itself from the Maximum Emergency status AND PJM issues any Emergency Procedures that would trigger a PAI (pre-emergency demand response, demand response, etc.) those resources may be assessed a penalty if the sole reason they were not called on is because they are in the Maximum Emergency status.
 - See the “Calculation of Scheduled MW for Penalty” in the document “Non-Performance Assessment Settlement Calculation – Additional Detail”
 - <https://www.pjm.com/-/media/markets-ops/rpm/performance-assessment-settlement-summary.ashx>

- PJM currently posts the RTO Maximum Emergency capacity on Data Miner 2:
 - https://dataminer2.pjm.com/feed/day_gen_capacity

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