

Resource Limitation Reporting

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- Generally, a unit is considered to be resource limited if it has less than 72 hours of running time at rated capacity because of fuel or resource limitations.
- Participants are required to monitor their fuel supplies and inventories and keep PJM updated about units that are experiencing or projected to experience fuel limitations.

- Under Normal Operations, PJM members can report the following types of resource limitations using the Schedule > Operational Restrictions page in Markets Gateway
 - On-site Fuel
 - Emissions
 - Demineralized Water
 - Cooling Water
 - Other
- PJM members can also contact the PJM Master Coordinator (610-666-8809) directly with any questions regarding a resource limited unit.

- Per PJM M-13, when PJM declares Conservative Operations or a Hot/Cold Weather Alert, resource limited units that fall below certain minimum levels are to be placed in Max Emergency in order to preserve these resources for the times they are needed most.
- Based on unit type there are different minimum levels for resource limited units in order to bid them into Max Emergency category, unless directed otherwise by PJM Dispatch.

Unit Type	Minimum Levels (at Max Capacity)
Oil, Kerosene or Diesel CTs	16 hours
Gas-fired CTs	8 hours (being revised for fuel limitations)
Oil, Coal or Gas-fired Steam	32 hours

- Details on Resource limited units should be submitted to PJM via Part G “Resource Limited Units” section of the Supplemental Status Report when issued by PJM.
- The PJM Master Coordinator (610-666-8809) must be notified verbally when a unit has reached these minimum levels under these conditions.

- When PJM declares Conservative Operations, or Cold/Hot Weather Alerts, resource or fuel limited oil, coal or gas-fired steam units should be moved from Economic to Maximum Emergency when their remaining run time is less than 32 hours, unless directed otherwise by PJM.
- The concept is that 32 hours at rated output equals two 16-hour periods over a two-day period.

- When PJM declares Conservative Operations, or Cold/Hot Weather Alerts, resource limited (all CTs) or fuel limited (oil, kerosene, or diesel fired CTs) should be moved from Economic to Maximum Emergency when their remaining run time is less than 16 hours, unless directed otherwise by PJM.
- The concept is that 16 hours is equal to four 4-hour peak load periods over a two-day period.

Current M-13 Language

- When PJM declares Conservative Operations, or Cold/Hot Weather Alerts,, gas-fired CTs with a limited daily allowance of fuel should be moved from Economic to Maximum Emergency when their remaining run time is less than 8 hours, unless directed otherwise by PJM.
- The concept is that 8 hours is equal to two 4-hour peak load periods for a resource with daily restrictions.
- Given the daily nature of gas limitations, the PJM dispatcher has the option of requesting the generator owner, with daily gas limitations, to remove the fuel limited resource from the Maximum Emergency Category to ensure PJM tools economically schedule the gas fired CTs

- Black Start unit operators shall not permit their fuel inventory for Critical Black Start CTs to fall below 10 hours – if it falls below this level, unit operators shall notify PJM and place the unit in Max Emergency. (PJM Manual 14D – Section 7.1.6 – Black Start)

Questions?