



Manual 13 Revision 71: Resource Limitation Reporting

Vincent Stefanowicz
Sr. Lead Engineer, Generation
SOS
July 2, 2019

Action Required	Deadline	Who May Be Affected
Resource Limitation Reporting via new Markets Gateway Page in place of Supplementary Status Report (SSR)	8/1/2019	Generation Owners



- Ensure consistent restriction reporting by providing a single location for reporting operational restrictions that impact multi-day operations planning, replacing multiple forms of reporting currently employed by members.
- Improve Operations situational awareness and enhance communication around potential cross-sector interdependencies that may impact the operation of the system.
- Incorporate lessons learned from 2018/2019 Winter Operations.

Following discussions with stakeholders to address their concerns with natural gas restrictions reporting, the following changes were made:

- Excluded natural gas units with daily fuel restrictions from the Resource Limited Unit definition and new reporting requirement via Markets Gateway, due to their daily nature.
 - These daily restrictions should continue to be reported as they are today via updated unit parameters, and outage reporting if unit is unavailable.
- Added clarifications on which units may be placed in Max Emergency during emergency operations.

- Terminology related to “Fuel Limited” units changed to “Resource Limited” to clarify applicability of reporting requirements.
- Units considered Resource Limited if less than 72 hours of remaining runtime at maximum capacity limited by primary/alternate on-site fuel, emissions, demineralized or cooling water, other consumables.
 - Resource Limited units are to report these resource limitations via new Markets Gateway page. Targeted for implementation on 8/1/2019.
 - Natural Gas-fired units with fuel limitations are not considered Resource Limited and are excluded from resource limitation reporting via Markets Gateway.
- References to Supplementary Status Report (SSR) for reporting resource limitations removed and replaced with instructions to use new Markets Gateway page.
- Impacted Sections:
 - Updates to Sections 1.1, 2.3, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 5.1, 5.2, 6.4, Attachment B
 - Attachment C: Supplementary Status Report removed
- New Exhibit 6 added to Section 6.4 – Resource Limitation Reporting Table



Clarifications for Reporting Limited Units during Emergency Operations

When PJM has declared Conservative Operations/Hot or Cold Weather Alert:

- CT/Steam units that are Resource Limited should place these resources in Max Emergency if limited to less than 16/32 hours of runtime, unless PJM Dispatch directs otherwise. (No Change)
- Fuel limited Gas-fired units should not be placed in Maximum Emergency. Instead, they should remain available for economics to ensure that PJM tools economically schedule the gas fired units, unless PJM Dispatch directs that they are placed in Maximum Emergency. (New)
- Dual fuel units (Gas/Other on-site fuel) should be placed in Maximum Emergency when limited by non-fuel resource limitations to less than 16 hours for CTs / 32 hours for Steam. When fuel limited, they are to be placed in Maximum Emergency only when unavailable on natural gas, and their on-site fuel inventory is less than 16 hours for CTs / 32 hours for Steam. (New)

These changes were made to align with existing language in the PJM Operating Agreement for designating fuel limited resources as Maximum Emergency.



New Exhibit - Resource Limitation Reporting Table

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					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					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.

