

PJM eGADS OMC (“Outside Management Control”) Guidelines

NERC GADS DRI (Data Reporting Instructions) Appendix K (found at this link:

http://www.nerc.com/pa/RAPA/gads/DataReportingInstructions/Appendix_K_outside_management_control.pdf) defines OMC (“Outside Management Control”) events. This appendix only serves as a set of guidelines to determine what is and what is not outside management control. These OMC guidelines are also based on IEEE Standard 762, Annex D.

With those guidelines in mind, PJM has broken down the list of causes into five categories. They are:

- 1) Transmission/distribution
- 2) Acts of nature
- 3) Fuel quality
- 4) Regulatory
- 5) Miscellaneous

Transmission/Distribution related events

Management control of transmission and distribution events can be determined most of the time, with a simple test. Assuming the generator boundary is demarcated by the transmission/distribution bus bushings on the generator side, the test is: Absent the generator would the equipment in question (that equipment involved in the failure or maintenance) be used and useful? If the answer is yes, then the event caused by failure or maintenance of said equipment is OMC. There may be exceptions to the test, given circumstances unique to the generator or based on network topology. For example: Figures 1, 2 and 3 show typical generator interconnection configurations.

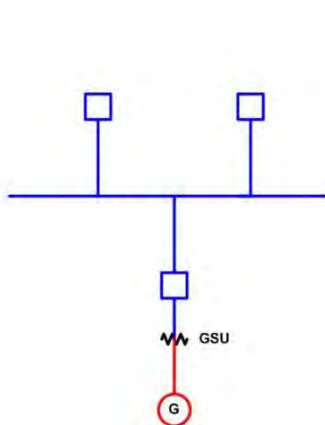


Figure 1

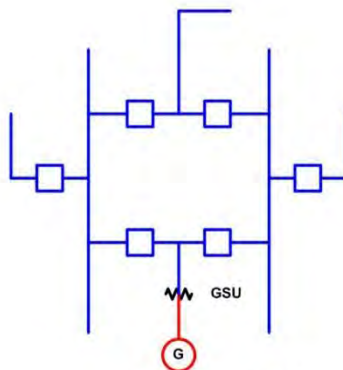


Figure 2

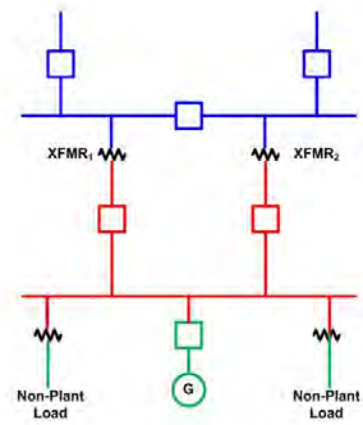


Figure 3

In Figure 1, a single circuit breaker connects a generator GSU to the high voltage bus. Figure 2 shows two buses in which two circuit breakers connect a generator GSU to each bus. In Figure 1, a failure of the breaker would be considered non-OMC since the circuit breaker serves no other purpose than to connect the generator to the high voltage bus and, absent the generator, there cannot be transmission flow over the breaker. However, in Figure 2, the circuit breakers, absent the generator, could provide a path for transmission flow. Hence, failure or maintenance of these breakers (in Figure 2) can be considered OMC. However, in both Figures 1 and 2, the GSUs would be useless (in their shown configurations) absent the generator, hence the GSUs are not outside management control. Although these breakers/disconnects and/or GSUs may be owned by the transmission entity, if the equipment has only one purpose, in that it connects the generator to the transmission system, any failure or maintenance of said equipment cannot be OMC. In Figure 3, the transformers (XFMR1 and XFMR2) are outside management control because they provide a path for transmission/distribution flow, absent the generator. They also could be considered GSU's however; absent the generator they would still serve a purpose. The variations in topology of electrical transmission/distribution networks show the need for interpretation of these guidelines and many times identify the need for exceptions to these guidelines.

Acts of Nature

For acts of nature, the root cause of the failure or maintenance must first be determined. If it is the act of nature that directly causes the failure (or need for maintenance), then the event can be considered OMC. For instance, if a tornado rips up switchyard equipment the event is OMC. If a tornado tosses about objects that impact equipment, such that the equipment fails, the event most likely can be considered OMC. However, if those objects are property of the generating plant and were not secured properly (time permitting) the event may not be OMC. Also, it is expected that facilities are designed to withstand specific weather criteria (e.g. wind speed, flood levels, icing, snow loads, etc). Any failure or maintenance caused by acts of nature within the design criteria cannot be considered OMC. Failure to maintain facilities within the design criteria cannot be considered OMC. Again, there may be exceptions to these guidelines depending on the unique circumstances surrounding the generator and the act of nature.

Fuel Quality

OMC events for fuel quality should be rare. Since all fuel is basically rendered with respect to fuel quality specifications, those specifics are delineated in purchase agreements and, if not met, companies can usually refuse delivery and there may be contractual terms that require the fuel supply contractor to pay liquidated damages. Although liquidated damages are normally outlined in these contracts, they most likely are specific to the physical damage caused therein, not necessarily lost opportunity in any or all of the PJM markets. However, if the liquidated damages cover lost opportunity in the RPM markets, then out of management control should not be granted since the generator owner would be compensated twice.

In certain cases, delivery refusal is not an option, and once accepted by the plant management (especially for fuels that are stockpiled either onsite or offsite under plant management control), any event caused by said fuel cannot be OMC since the plant management accepted delivery of 'out of spec' fuel, and/or made a management decision to sign a contract that required the generator to accept 'out of spec' fuel.

For pipeline delivered fuels (such as natural gas, or petroleum products) there may be exceptions due to pipeline issues. Specifically, exceptions for pipeline maintenance may be granted if scheduled in advance and not scheduled during PJM peak periods.

Causes such as wet or frozen coal are not completely within management control. These issues, however, can be mitigated by the good utility practices of coal pile management and housekeeping and the scheduled maintenance of fuel delivery and burning equipment (conveyors, feeders, pulverizers, nozzles, etc.). The possibility of deep freezes and heavy rains should have been considered in the design of the fuel delivery and burning systems. Any of these event(s) that has a 50% chance or greater of occurrence during the plant lifetime are typically considered in design; however, the plants are not built to those rigorous specifications; they are typically built to less than those specifications due to the expense. Based on analysis of historical data, any event that has a 50% chance or greater of occurrence during the plant's lifetime cannot be considered OMC since the event was more likely to occur than not.

Regulatory

If a regulatory agency forces a generator shutdown until the generator operator complies with regulatory requirements, which could not reasonably be foreseen and for which the generator cannot reasonably comply, the event most likely will be OMC. However, if that shutdown is a result of not meeting a compliance deadline, or through the generator's voluntarily entering into an agreement that results in a compliance obligation leading to the shutdown, the event cannot be considered OMC. If the event is caused by exceeding a compliance parameter, that too, is not OMC. Exceeding emission and/or thermal discharge limits are good examples of the regulatory issues that are not considered OMC. However, if the thermal discharge limits are exceeded due to abnormally high cooling water temperatures or abnormally low cooling water flows (river flows, pond levels, etc.), thermal discharges may be considered OMC; however, a generator owner will be required to show that these events are statistically not expected to occur. In order for an event to be classified OMC due to regulatory issues, a generator owner must demonstrate due diligence in meeting the regulatory requirements.

Miscellaneous

The miscellaneous category contains, but is not limited to, events such as labor actions, including strikes or work slowdowns, lack of fuel and emissions.

Labor Actions

If a miners' or railroad workers' strike were to halt coal deliveries, most of these events caused by the lack of coal would be considered OMC as the labor action is not within the control of the generator owner. However, if one plant has just-in-time inventory and another has thirty days supply on the ground, special consideration might be given to the plant with thirty days supply. Most likely, PJM would be aware of the situation and some form of inventory burn down would be rendered by PJM in order that inventory would be extended by fuel switching or running at reduced capability. For those units with just-in-time inventory, if they cannot burn an alternate fuel, PJM might consider a non-OMC event until many other plants with inventory are also experiencing deratings or outages. This would prevent a practice that might seem discriminatory. In contrast, labor actions at the generating plant itself would not be considered OMC as plant management has, within its control, the ability to reach a compromise with its own workers or hire replacement staff.

Lack of Fuel

The NERC GADS Data Reporting Instructions (Appendix K) provide guidance with regard to reporting lack of fuel as an out of management control outage:

“Lack of fuels (water from rivers or lakes, coal mines, gas lines, etc) in the cases where the operator of the unit is not in control of contracts, supply lines, or delivery of fuels. However, if the operator elected to contract for fuels where the fuel (for example, natural gas) can be interrupted so that the fuel suppliers can sell the fuels to others (part of the plant fuel cost-saving measure), then the lack of fuel is under management control and is not applicable to this case.”

For lack of fuel, if the event is caused by lack of inventory (for coal, oil, and other fuels for which inventories are typically kept) the events cannot be OMC as good utility practice would mandate availability of alternate fuels or on-site fuel inventories, if possible. For plants with just-in-time inventories (except natural gas) no OMC events are allowed since it would be discriminatory toward those plants with inventory. For natural gas fired generators, if the generator has firm transport contracts for delivery such that the generator can provide full load to PJM for the dispatch period, any event, such as a pipeline disruption or operational flow order that causes the lack of fuel, can be considered OMC. For any generator that has made the management decision to purchase lower cost interruptible transportation, the event cannot be considered OMC.

OMC status for low pipeline delivery pressure events cannot be granted unless the transport contract guarantees pressure at the generating plant delivery point. Nonetheless, if Operational Flow Orders (OFO) are issued by the transporting pipeline(s) there may be OMC relief for low delivery pressure if the pipeline has issued those OFOs specifically for delivery pressures at specific segments of the pipeline or as a result of Force Majeure events.

Generating plants without firm transport from the production area to the burner tip will not be granted OMC relief except in cases of pipeline maintenance.

Generating plants whose natural gas is purchased at receipt points other than the production area cannot receive OMC relief for lack of fuel if the seller fails to deliver to the receipt point; relief from this situation should be handled through liquidated damages within the vendor-client contract or agreement.

In addition, generators receiving their natural gas via a Local Distribution Company (LDC) cannot qualify for OMC lack of fuel events, since the LDC, at their discretion, can curtail delivery to the generator, unless their contract with the LDC specifically guarantees delivery at all times.

Failure to schedule sufficient quantities of gas for the day cannot be considered OMC.

Use of secondary firm transport shall be treated similarly to interruptible transport.

Curtailments caused by exceeding ratable takes are not considered OMC.