

Appendix M – Differences Between NERC-GADS and ISO-GADS Data Collection and Uses.

There are a number of differences between the NERC-GADS and the GADS run by Independent System Operators (ISOs), known as ISO-GADS. Some of these differences are minor; others are not.

NERC-GADS collects equipment outage data on a national basis. NERC-GADS is an equipment outage system with a focus on plant reliability and assessments. The ISOs are charged with the reliability of the bulk electrical grid and for the dispatching of the generating units in an economical manner, so the various ISO-GADS databases have taken on some marketing functions or overtones. As a result, there are differences between the NERC-GADS and the various ISO-GADS reporting instructions. This means there is a need to maintain two sets of GADS records to meet the mandatory reporting requirements of NERC and certain ISO groups.

Listed below is a brief description on how each ISO utilizes GADS data to support their marketing function, and specifically how their GADS procedures differ from those established by NERC-GADS.

PJM Interconnection (PJM) – Uses GADS data for ISO reliability studies and determining capacity payments to the Generator Owners. Significant features of the PJM-GADS are:

- PJM uses the GADS data to determine capacity payments. These payments are based on the following equation:
$$\text{Capacity Payment} = \text{ICAP} \times \text{Market Capacity Payment Price} \times (1 - \text{EFORd of unit})$$
- Use of Outside Management Control (OMC) event cause codes must be approved by PJM.
- GADS data is reported and calculated against the unit's ICAP value, which is usually its NET DEPENDABLE CAPACITY (NDC) not its NET MAXIMUM CAPACITY.
- Maintenance Outages and Derates (Event Type MO & D4) are limited to 9 days duration during the summer months.
- Data must be submitted monthly to PJM on or before the 20th of the following month.
- Errors in a previously submitted month require access approval from PJM to change any data.
- Generator Owners must submit the results to Real Power Testing twice a year. Winter and summer reporting periods are defined.

New York Independent System Operations (NYISO) – Uses GADS data for calculation of derating factors for the Installed Capacity (ICAP) Market, NYISO, the New York State Reliability Council's (NYSRC) Reliability Studies, and the determination of the Installed Reserve Margin (IRM) for the New York Control Area (NYCA). Differences between NERC-GADS and NYISO generating unit reporting instructions include:

	NERC	NYISO	Implications
Weekend Definition	Friday at 2400 hours through Sunday at 2400 hours	Friday at 10:01:00 PM through Monday at 8:00:59 AM.	This impacts the determination of whether an event is categorized as a MO as opposed to a FO; EFORD
Plant boundary	High side of unit transformer	Generator Owner responsibility ends at the low side bushings of the generator step-up transformer	This impacts the applicability of the OMC code - 9300
Outside Management Control (OMC)		Exception permitted for equipment failure that involves equipment located on the electric network beyond the generator step-up transformer, and including the step-up transformer on the output side of the Generator (9300). This exception does not apply to fuel related outages or derates or other cause codes that might be classified as Outside Management Control (OMC) in the NERC GADS Data Reporting Instructions (DRI).	Only transmission related events (9300) are excluded from consideration in the EFORD calculation for ICAP

Maintenance Outage Definition (MO)	An outage that can be deferred beyond the end of the next weekend (Sunday at 2400 hours), but requires that the unit be removed from service, another outage state, or Reserve Shutdown state before the next Planned Outage (PO). Characteristically, a MO can occur any time during the year, has a flexible start date, may or may not have a predetermined duration, and is usually much shorter than a PO.	An outage that received NYISO's approval (with minimum two days notice) and there are no reliability issues if the unit is removed from service.	
Planned Derate (PD)	A derating that is scheduled well in advance and is of a predetermined duration.	Planned/maintenance deratings must be coordinated by NYISO Operations with at least 2 days notice from unit's owner/operator.	
Maintenance Derating (D4)	A derating that can be deferred beyond the end of the next weekend but requires a reduction in capacity before the next Planned Outage (PO). A D4 can have a flexible start date and may or may not have a predetermined duration.	Approved by NYISO, and there are no reliability issues when the unit's output is reduced, flexible start time and does not require a predetermined duration	
Derate	derates must be reported for capacity loss > 2% or capacity loss lasts more than 30 minutes	derates must be reported for capacity loss > 3% or capacity loss lasts more than 15 minutes	
Event Contribution Code		NYISO only receives contribution code 1	
Submission requirements	Mandatory for 20 MW or larger conventional units in 2013	Required for ICAP suppliers	