

Co-Located Load Guidance

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Key Points

- Co-located load configurations continue to significantly increase (~5000 MWs requested).
- PJM posted a guidance document that clarifies existing rules as applied to co-located load configurations.

https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/pjm-guidance-on-co-located-load.ashx

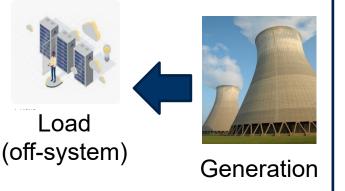
- PJM recommends that all co-located load be served from the PJM Transmission System as PJM Network Load with applicable firm transmission service.
- PJM must be notified of any planned modifications to a Customer Generation Facility and a Necessary Studies process will evaluate the potential reliability impacts.
- Co-located load that is not PJM Network Load with applicable firm transmission service must have System Protection Facilities in place to prevent the unexpected injection or withdrawal of power at the POI for the co-located Customer Facility.

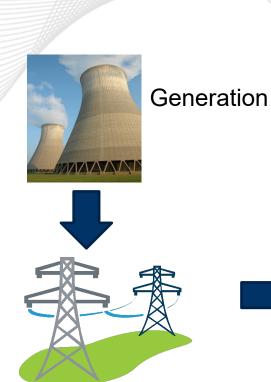


PJM Network Load & Co-located Load

Co-located load configuration that is not PJM Network load

Co-located Load (off-system): ~5000 MWs requested as of 3/20/24









PJM **Transmission** Network

PJM Network Load



Interconnection Requirements: Co-located load (Guidance document provides more details)

- Co-located load configurations must be in accordance with the applicable PJM, federal, state and local requirements.
- PJM must be notified of any planned modifications to Customer Facility and a Necessary Studies process will evaluate the potential reliability impacts.
 - Failure to provide advance notification is a breach of the applicable PJM service agreement.
- Any applicable PJM service agreement (e.g., ISA, GIA, WMPA, CSA) must be executed and/or amended to reflect all changes resulting from the incorporation of a co-located load configuration.
- Co-located load requests are not the same as Deactivation requests.
 - Co-located load requests do not result in a change in the MFO of the co-located generation because
 the generator physically has not changed its operating characteristic, it remains capable of injecting all
 of its output onto the PJM system, it still is electrically connected and synchronized to the PJM
 Transmission System and is sharing the same POI with the co-located load.
 - Deactivation requests involves the physical removal of the generation from the PJM system and the MFO will be reduced to zero.



Additional Requirements: Co-located load (Guidance document provides more details)

| | Co-located Load PJM Network Load | Co-located Load Not PJM Network Load (off-system) |
|---|---|---|
| Generation Maximum Facility Output (MFO) | No change | No change |
| Generation Capacity Injection Rights (CIRs) | No change required except if designated as Behind the Meter Generation (BTMG) must be reduced by portion designed as BTMG | Reduced by quantity of co-located load Back-up generation may retain CIRs if meet Capacity and Operational requirements |
| System Protection | N/A: Load is already part of PJM Network | System Protection Facilities in place to prevent the unexpected injection or withdrawal of power |
| Settlements | The MW consumption of the co-located load and the MW output of the co-located generation Customer Facility (net of Station Power load) must be separately metered. If the co-located generation Customer Facility elects to be designated as Behind the Meter Generation (BTMG), it can net the co-located load directly against the output of the generation facility | The MW consumption of the co-located load and the MW output of the co-located generation Customer Facility (net of Station Power load) are netted and reported as a single value to Power Meter to be used for PJM settlement purposes. |
| Metering | Real-time metering (MW & MVAR) and telemetry for the colocated load is required. | Real-time metering (MW & MVAR) and telemetry for the co-located load is required. |
| Demand Response | Eligible | Not Eligible |



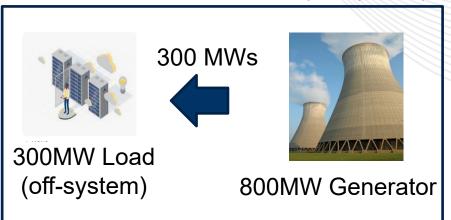
Operational Requirements: Co-located load (Guidance document provides more details)

- PJM Generation Capacity Resources are dedicated to PJM and must be available when needed
 - Provides energy to the PJM system when needed and meets the capacity and energy must-offer requirement
- Requirements for back-up PJM Generation Capacity Resource serving colocated load that is Not PJM Network load
 - Obligations must be fulfilled for the PJM Generation Capacity Resource
 - Coordination with PJM Operations is required before can serve the co-located load.
 - ➤ PJM Operations may deny for reasons including capacity related emergencies and/or load shed.
 - ➤ eDART cause code "co-located load" with a Forced Outage (FO) recognition is required because of the choice to not serve PJM Network load. All outages using cause code "co-located load" should be entered in eGADS as a forced outage.



Example 1a – Unexpected Load Concerns

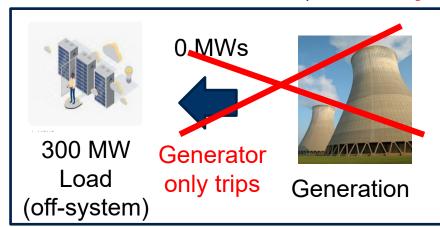
Before Co-located Load (off-system)

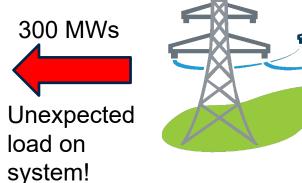




PJM Transmission Network

After Co-located Load (now on-system)







Key Point: System protection is required to avoid unexpected and unapproved load on the system



Example 1b - Concerns Resolved via Load Trip

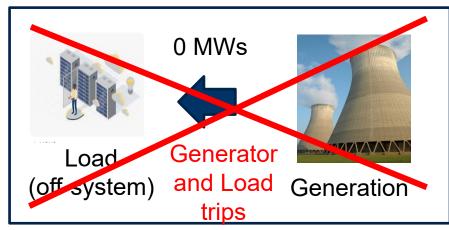
Before Co-located Load (off-system)





PJM Transmission Network

After Co-located Load (off-system)





0 MWs



PJM Transmission Network

Key Point: System protection is required to avoid unexpected and unapproved load on the system



- Consider additional feedback and update posted guidance document if necessary
 - Guidance document may be updated as necessary based on, for example, experience gained with co-located load configurations and regulatory developments.
- Review PJM manuals for opportunities to provide additional conforming language.
- Review opportunities to provide additional transparency.



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Co-located Load Guidance



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