

# Energy Market Must Offer Requirements for Generation Capacity Resources

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Action Required	Deadline	Who May Be Affected
<p>Ensure energy market bids are submitted in accordance with the energy must offer rules</p> 	<p><b>ASAP</b></p> 	<p>Market Sellers owning or controlling the output of a Generation Capacity Resource</p> 

- Ensure that Market Sellers understand energy market must offer requirements for Generation Capacity Resources
- Review how to stay compliant with the must offer requirement
- Review acceptable usage of Maximum Emergency

## Generation Capacity Resources

For resources not rendered on generator planned, maintenance, or forced outage

Shall submit offers for available capacity, including any portion that is self-scheduled

## Intermittent & Capacity Storage Resources

Shall satisfy the must offer requirement by either self-scheduling or offering the unit as a dispatchable resource

Hourly day-ahead self-scheduled values may vary hour to hour from the capacity commitment

- Generation Capacity Resources' energy offers shall be based on the ICAP equivalent of the Market Seller's cleared UCAP capacity commitment
- Must offer requirement applies to both the Day-Ahead(DA) and Real-Time(RT) Markets
- Example of DA/RT bidding requirement:
  - Unit A has an ICAP of 100 MW
  - Unit A's UCAP is 90 MW
  - If Unit A is committed at its UCAP of 90 MW in the capacity market, it will be required to offer its ICAP of 100 MW in the energy market

- Generation Capacity Resource must offer its ICAP economically
  - In Markets Gateway: Eco Max  $\geq$  ICAP
- If resource cannot offer its ICAP economically, then it must do one of the following to be in compliance with Schedule 1 of the OA:
  - Submit a planned, maintenance, or forced outage into eDART for MW that are unavailable\*; or
  - Designate unavailable MW as Maximum Emergency (must meet criteria in OA, Schedule 1.10.1A(d))
    - Market Seller must update the Operational Restrictions field in Markets Gateway with reason for designating MW as max emergency

\*Forced outages must also be reported to GADS on a monthly basis

## Operating Agreement, Schedule 1.10.1A(d)

Offers may only be designated as Maximum Emergency offers to the extent that the Generation Capacity Resource falls into at least one of the following categories:

- i) **Environmental limits.** If the resource has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited to operating only during declared PJM capacity emergencies by a governmental authority.
- ii) **Fuel limits.** If physical events beyond the control of the resource owner result in the temporary interruption of fuel supply and there is limited on-site fuel storage. A fuel supplier's exercise of a contractual right to interrupt supply or delivery under an interruptible service agreement shall not qualify as an event beyond the control of the resource owner.
- iii) **Temporary emergency conditions at the unit.** If temporary emergency physical conditions at the resource significantly limit its availability.
- iv) **Temporary megawatt additions.** If a resource can provide additional megawatts on a temporary basis by oil topping, boiler over-pressure, or similar techniques, and such megawatts are not ordinarily otherwise available.

- Resources that are limited due to environmental or fuel issues should follow guidance in Manual 13, Section 6.4 for properly reporting such limitations
- In order to meet the criteria for temporary MW additions, a generation resource must demonstrate that MW have a time limitation or restriction.



- Acceptable documentation for justifying the use of temporary MW additions include, but are not limited to:
  - OEM documentation showing a time limitation on the MW
  - Air permit showing time restriction
- Scenarios that do not meet criteria for temporary MW additions:
  - Increased wear and tear or maintenance costs
  - Power augmentation such as duct firing, steam/water injection, evaporative cooling, inlet chilling, wet compression, or peak firing unless OEM specified limitations
  - Inability to provide temporary MWs on demand

- Market Sellers of Generation Capacity Resources should ensure that energy market bids are in accordance with must offer rules
- PS/IC approved for Max Emergency Changes for Resource Limitation Reporting
  - Education on Maximum Emergency will be presented at the April OC

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## Energy Market Must Offer Requirement



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# Appendix

- Energy Must Offer
  - Operating Agreement, Schedule 1 Section 1.10.1A(d)
  - Manual 11, Section 2.3.3
- Maximum Emergency
  - Operating Agreement, Schedule 1 Section 1.10.1A(d)
  - Manual 13, Section 6.4

- **ICAP:** Installed Capacity. Also known as the maximum facility output.
- **UCAP:** Unforced Capacity. Installed capacity rated at summer conditions that is not on average experiencing a forced outage or forced derating.