

# Market Monitor Report

MC Webinar  
June 24, 2019

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# ICAP Must Offer Requirement

- **OA Section 1.10.1A (d) states that resources must offer in DA/RT Markets the ICAP equivalent of their committed UCAP, accounting for outages.**
- **Emergency Max + Outage Reduction  $\geq$  Committed ICAP**
  - **E.g. 75 MW + 25 MW = 100 MW = Committed ICAP**
- **Note: Storage/Intermittent resources have different rules.**

# ICAP Must Offer Requirement

- **Three data sources are needed to perform this calculation. A fourth one is needed to validate results:**
  - **RPM Committed ICAP.**
  - **Energy Market Emergency Max and Availability Status.**
  - **eGADS (official outage reporting).**
  - **eDART (RT outage reporting).**



# ICAP Must Offer Requirement

- **PJM has a process in eDART (Gen Checkout) to validate the ICAP must offer MW.**
- **eDART compares ICAP, eDART outages and Energy Market Ratings (Economic and Emergency Max) to determine if resources are meeting their ICAP must offer obligation.**
- **Gen Checkout uses broad percent thresholds to identify potential issues.**
- **Gen Checkout requires correct unit ID mapping among Capacity, Energy and eDART.**

# ICAP Must Offer Requirement

- **The Market Monitor monitors the ICAP must offer requirement using GADS.**
- **Results show significant number of units that do not meet their ICAP must offer requirement.**
  - **Some sporadically due to mismatches between outage start/end dates.**
  - **Some consistently during summer.**
- **The analysis is ongoing.**

# ICAP Must Offer Requirement

- **It is the market sellers' obligation to ensure that outage data and energy offers are consistent.**
  - **If unit was not available or derated in the energy market, an outage in GADS should reflect such reduction.**
  - **ICAP Must Offer Requirement:**
    - **Emergency Max + Outage Reduction  $\geq$  Committed ICAP**
- **Emergency MW must meet the tariff definition per section OA Section 1.10.1A (d).**

# ICAP Must Offer Requirement

- **The Market Monitor has observed consistent issues due to ambient conditions.**
- **Since GADS does not support derates due to ambient conditions, the ICAP must offer is not met during some summer days.**
- **For example, if a unit's ICAP is based on 88°F, when the actual temperature is above 88°F, the unit may not meet its ICAP.**

# ICAP Summer Test

- **Generators are required to determine and demonstrate their capability for purposes of their obligations per PJM Reliability Assurance Agreement.**
- **Manual 21 contains the rules regarding ICAP tests.**
- **Market sellers submit their testing results in GADS.**



# ICAP Summer Test

- **GADS testing results data include:**
  - **Gross and net MW and MVA<sub>r</sub>.**
  - **Station load or host load.**
  - **Power factor.**
  - **Rated and actual ambient conditions:**
    - Air temperature.
    - Water temperature.
    - Relative humidity.



# ICAP Summer Test

- **Important data and information that is not available in GADS include:**
  - **Fuel used.**
  - **Equipment in service / out of service.**
  - **Model/calculations used to interpolate MW from actual ambient conditions to rated ambient conditions.**
- **This information is relevant in the review of the ICAP test. The Market Monitor is requesting these data from market sellers.**

# Price PLS Offer Withholding

- **The purpose of parameter limited schedules (PLS) is to avoid the exercise of market power through the use of inflexible parameters.**
- **With CP, PJM clarified that during hot weather alerts, cold weather alerts and max gen alerts, units must submit and be subject to parameter limits on their price-based offers.**

# Price PLS Offer Withholding

- **The Market Monitor has observed Market Sellers that submit price-based offers with limited parameters (price PLS) with prices greater than the prices of the price-based offers without limited parameters (price nonPLS).**
- **Increasing the offer prices in the price PLS offer above the offer prices in the price nonPLS offer reduces the likelihood of unit commitment on the price PLS offers. This behavior constitutes an exercise of market power through economic withholding.**

# Price PLS Offer Withholding

- **This contradicts the purpose of the price PLS offers which is to prevent withholding through the use of inflexible parameters during peak conditions such as hot weather and cold weather alerts when aggregate market power exists.**
- **The Market Monitor recommends that all market sellers set the prices and the associated MW levels in the price PLS and price nonPLS offers at the same levels to avoid withholding.**

# Price PLS Offer Withholding

- **Section 6.6 (a) state that “Market Sellers submitting Offer Data for Generation Capacity Resources shall submit and be subject to pre-determined limits on market-based offers conforming to parameter limitations(“parameter limited schedules”) under the following circumstances:”**
  - **Max Gen Alert.**
  - **Hot Weather Alert.**
  - **Cold Weather Alert.**

# Price PLS Offer Withholding

- **Section 6.6(f)(iv) states that:**
  - **“When a Hot Weather Alert or Cold Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Capacity Performance Resource for both its market-based schedules and cost-based schedules.”**
- **Section 6.6(g)(iii) states that:**
  - **“When a Hot Weather Alert has been issued, parameters shall be based on the actual operational limitations of the Base Capacity Resource for both its market-based schedules and cost-based schedules.”**

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