

Implementation of Peak Hour Period Availability (PHPA) Enhancement

Background:

FERC's March 26, 2009 Order approved a provision in PJM's December 12, 2008 filing (Docket No. ER09-412) which allows available capacity (i.e., uncommitted capacity) that satisfies all the capacity resource obligations of a committed resource to serve as replacement capacity to offset potential Peak Hour Period Availability Hour Penalties.

This document describes the implementation of this provision effective with the 2009/2010 Delivery Year.

Implementation Details:

Calculation of Eligible Available Capacity (EAC) for Individual Units

- PJM will determine the Eligible Available Capacity (EAC) for each generation resource. A unit's EAC represents the amount of the unit's available capacity for the DY that met the capacity resource obligations by (1) offering into the DA Energy Market (if available) (2) satisfying summer and winter capability test requirements (i.e., test to their committed ICAP level) and (3) entering outages into eDart and GADS.
- PJM will determine the Daily EAC for a unit for each day of the Delivery Year and calculate the resource's Average Daily EAC for the entire Delivery Year.
 - For a unit that (1) passed Summer and Winter Capability Tests or (2) failed their Summer or Winter Capability Test; however, the owner/operator entered a partial forced outage in the eGADS system for the difference between the claimed summer or winter ICAP rating and the test result. (Essentially these are units that will not be assessed Rating Test Failure Charges.)

Daily EAC = Lesser of (Daily Minimum Hourly ECOMAX in DA Energy Market, Daily Summer Net Dependable Rating of Unit) – Lesser of (Daily ICAP Commitment MWs, Daily Summer Net Dependable Rating) – Daily Unoffered ICAP MWs

Where:

Daily Minimum Hourly ECOMAX in the DA Energy Market is determined from the price based offer submitted in eMarkets. If no price offer is available then the schedule of the cheapest cost schedule will be used. Hourly ECOMAX values can be viewed on the Unit Schedule Hourly tab in eMarkets.

Daily Summer Net Dependable Rating is the daily summer ICAP rating of the unit that is based on approved Capacity Modifications for the unit in the eRPM system.

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Daily ICAP Commitment MWs = Sum of unit's Daily RPM Commitments in UCAP/(1 – Final EFORD for DY) + Sum of unit's Daily FRR Capacity Plan Commitments in ICAP]

Daily Unoffered ICAP MWs represents the total amount of ICAP MWs that were not offered from the unit by RPM entities in RPM Auctions for the Delivery Year. Daily Unoffered ICAP MWs does not include the Unoffered MWs of an FRR Entity.

- For a unit that failed their Summer or Winter Capability Test and the owner/operator failed to enter a partial forced outage in the eGADS system for the difference between their claimed summer or winter ICAP rating and their test result (Essentially these are units that have the potential to be assessed Rating Test Failure Charges):

Daily EAC = Lesser of (Daily Minimum Hourly ECOMAX in DA Energy Market, Daily Summer Net Dependable Rating of Unit, Test Result) – Lesser of (Daily ICAP Commitment MWs, Daily Summer Net Dependable Rating) – Daily Unoffered ICAP MWs

Where:

Daily Minimum Hourly ECOMAX, Daily Summer Net Dependable Rating of Unit, Daily ICAP commitment MWs and Daily Unoffered ICAP MWs are defined above.

For June 1 – Oct 31, the Test Result will be the unit's Summer Test Result. From November 1 – May 31, the Test Result will be the unit's Winter Test Result. For Hydro Units, the Test Result will be the hydro unit's annual test result.

- If a negative Daily EAC is calculated, a zero Daily EAC will be used in the calculation of the Average Daily EAC.
- A unit's Average Daily EAC for the delivery year is equal to the [Sum of the Daily EAC for the Delivery Year]/Number of Days in the Delivery Year.

Allocation of a Unit's Average Daily EAC to Multiple Providers

- If portions of the unit are committed by multiple resource providers, the unit's Average Daily EAC is allocated to resource provider's that had available capacity during the Delivery Year to determine a Provider's Share of Average Daily EAC. The pro-rata allocation will be based on the provider's Average Daily Available ICAP MWs on such unit for the entire Delivery Year.
 - The Provider's Daily Available ICAP on a unit is captured from the eRPM system and is based on the provider's Daily ICAP Owned, Daily Unoffered ICAP, Daily RPM Resource Commitments, and Daily FRR Capacity Plan Commitments. If a negative Daily Available ICAP value is calculated, a zero Daily Available ICAP will be used in the calculation of the Provider's Average Daily Available ICAP for the Delivery Year.

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- For a provider, Daily Available ICAP = Daily ICAP Owned – Daily Unoffered ICAP – (Daily RPM Resource Commitments/(1 – Final DY EFORD) – Daily FRR Capacity Plan Commitments
 - Where Daily Unoffered ICAP MWs does not include the Unoffered MWs of an FRR Entity.
- A provider's Average Daily Available ICAP for the Delivery Year is equal to the [Sum of the provider's Daily Available ICAP for the Delivery Year]/Number of Days in the Delivery Year.

Calculation of a Provider's Net Eligible Available PHPA Shortfall in LDA (i.e., Provider's Net PHPA Replacement Capacity in LDA)

- PJM will calculate the Provider's share of Peak Period Capacity Available (PCAP) for the eligible available capacity portion of such unit (i.e., share of Eligible Available PCAP) as Provider's Share of Average Daily EAC *(1 – EFORp).
- For each provider, PJM will determine a Provider's Net Eligible Available PHPA Shortfall in an LDA (which represents the Provider's Net PHPA Replacement Capacity in an LDA) by summing the Provider's share of Eligible Available PCAP values for all units in an LDA within a provider's RPM account. Netting is performed across a single eRPM account only. PJM will not net values across a provider's multiple eRPM accounts. The Eligible Available PHPA Shortfall (or Resource Provider's Net PHPA Replacement Capacity in an LDA) will be represented as a negative value in the eRPM system indicating excess or overperformance.
- A Provider's Net Eligible Available PHPA Shortfall in an LDA (i.e., Provider's Net PHPA Replacement Capacity in a LDA) is used to reduce a party's positive Net Peak Hour Period Capacity Shortfall in an LDA in their single RPM account. A Provider's Net Eligible Available PHPA Shortfall in an LDA may not be used to reduce a party's negative Net Peak Hour Period Capacity Shortfall in an LDA. Please see Manual 18, Section 8 for details on how a party's Net Peak Hour Period Capacity Shortfall in an LDA is calculated.

Calculation of a Provider's Adjusted Net Peak Hour Period Capacity Shortfall in an LDA

- When a Provider's Net Peak Hour Period Capacity Shortfall in an LDA is a positive value, a Provider's Adjusted Net Peak Hour Period Capacity Shortfall in an LDA is equal to the provider's Net Peak Hour Period Capacity Shortfall in the LDA minus the provider's absolute value of Net Eligible Available PHPA Shortfall in an LDA; however, if the calculated value is negative, the Adjusted Net Peak Hour Period Capacity Shortfall in an LDA will be set to zero. When a Provider's Net Peak Hour Period Capacity Shortfall in an LDA is zero or negative, the Adjusted Net Peak Hour Period Capacity is equal to the Provider's Net Peak Hour Period Capacity Shortfall in an LDA.

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Allocation of a Provider's Adjusted Net Peak Hour Period Capacity Shortfall in an LDA between RPM and FRR Commitments

- A Provider's Adjusted Net Peak Hour Period Capacity Shortfall in an LDA will be separated into an Adjusted Net Peak Hour Period Capacity Shortfall in an LDA for RPM Resource Commitments and an Adjusted Net Peak Hour Period Capacity Shortfall in an LDA for FRR Capacity Plan Commitments.
 - A Provider's Adjusted Net Peak Hour Period Capacity Shortfall in LDA for RPM Resource Commitments = provider's Adjusted Net Peak Hour Period Capacity Shortfall in LDA*provider's Net Average Daily RPM ICAP Commitment Amount in LDA/provider's Net Share of Total Unit ICAP Commitment Amount in LDA.
 - A Provider's Adjusted Net Peak Hour Period Capacity Shortfall in LDA for FRR Commitments = provider's Adjusted Net Peak Hour Period Capacity Shortfall in LDA*provider's Net Average Daily FRR ICAP Commitment Amount in LDA/provider's Net Share of Total Unit ICAP Commitment Amount in LDA.