



**DATE:** October 23, 2021  
**TO:** Capacity Market Participants  
**FROM:** The Independent Market Monitor for PJM  
**SUBJECT:** Unit Specific Net Revenue Calculation (Dispatchable Units)

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## **MMU Calculated Net Revenue Updates**

On October 12, 2021, PJM notified the MMU that, based on the tariff, it is required to calculate unit specific net revenues for combustion turbines including a 10 percent adder in their energy cost.

The MMU recalculated the net revenues to incorporate the 10 percent adder, and also modified other assumptions based on a review of the inputs used in the optimization model for dispatchable units.

For some units, the model had limited the number of run hours based on units' past behavior rather than EFORd and maintenance outages. Removing this limit increased net revenues in some cases. For some units, generation owners updated environmental limitations (e.g. NOx limits) in MIRA since the time the MMU initially extracted the data. Updating this input resulted in lower net revenues for affected units. Some units did not have CO<sub>2</sub> emission rates in MIRA at the time the MMU initially extracted the data but currently do have approved CO<sub>2</sub> emission rates. Updating this input resulted in lower net revenues.

## **10 Percent Adder in CT Costs: Tariff Language**

Attachment DD, section 6.8(d-1) states:

“For the 2022/2023 Delivery and subsequent Delivery Years, Projected PJM Market Revenues for any Generation Capacity Resource to which the Avoidable Cost Rate is applied shall be equal to forecasted net revenues, which shall be determined in accordance with Tariff, Attachment DD, section 5.14(h-1)(2)(B)(ii).”

Attachment DD, section 5.14(h-1)(2)(B)(ii) states:

“The net energy and ancillary services revenue is equal to forecasted net revenues which shall be determined in accordance with the applicable resource type net energy and ancillary services revenue determination methodology set forth in Tariff, Attachment DD, section 5.14(h-1)(2)(A)(i) through (ix).”

Attachment DD, section 5.14(h-1)(2)(A)(iii) states:

“(iii) for combustion turbine resource type, the net energy and ancillary services revenue estimate for each Zone shall be determined in a manner consistent with the methodology described in Tariff, Attachment DD, section 5.10(a)(v-1)(B) for the Reference Resource combustion turbine.”

Attachment DD, section 5.10(a)(v-1)(B) states:

“The Office of the Interconnection also shall determine a Net Energy and Ancillary Service Revenue Offset each year for each Zone, using the same procedures and methods as set forth in the previous subsection.”

The previous subsection (Tariff, Attachment DD, section 5.10(a)(v-1)(A)) states:

“Each net energy and ancillary services revenue simulation is based on . . . an assumption that the Reference Resource would be dispatched on a Projected EAS Dispatch basis.”

The Projected EAS Dispatch is defined as:

“Projected EAS Dispatch” shall mean, for purposes of calculating the Net Energy and Ancillary Services Revenue Offset, a simulated dispatch with the objective of committing and dispatching a resource for the purpose of maximizing its net revenues. The calculation shall take inputs including Forward Hourly LMPs, Forward Hourly Ancillary Service Prices, and Forward Daily Natural Gas Prices or forecasted fuel prices, as applicable, in addition to the operating parameters and costs of the specific resource, including the cost emission allowances. Using operating parameters, forward or forecasted fuel prices, as applicable and other cost pricing inputs, a composite, cost-based energy offer is created for the resource such that its commitment and dispatch is co-optimized between energy and ancillary services in the Day-Ahead Energy Market and then the Real-Time Energy Market considering the electricity and ancillary service price inputs. In the Real-Time Energy Market co-optimization, the resource is assumed to be operating in the hours it was scheduled in the Day-Ahead Energy Market but is dispatched according to the real-time price inputs. In the hours where the resource was not committed in the Day-Ahead Market, the resource may be committed and dispatched in real-time only subject to the real-time electricity and ancillary service price inputs and the resource’s offer and operating parameters. For combustion turbine units only, the cost-based energy offer will include a 10 percent adder.