



Working to Perfect the Flow of Energy

PJM Manual 28:
**Operating Agreement
Accounting**

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Department

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5.2.4 Credits for Canceled Pool-Scheduled Resources

At the end of each month, PJM calculates the credits due to each PJM Member for pool-scheduled resources that were canceled before coming on-line.

PJM Actions:

- PJM retrieves the following information:
 - list of canceled resources (dispatcher log)
 - resource startup cost data
 - resource generation data
 - written confirmation of actual costs incurred by participants due to cancellations (to be received within 45 days of date invoice was received by participant for the month in question)
- PJM credits each PJM Member for cancellations based on the actual costs incurred and submitted in writing to the PJM Market Settlement Operations Department. Eligibility is confirmed using resource generation data and dispatcher logs. The cancellation ~~credit fee equals is defined as~~ the actual costs incurred that are typically included in Start-up Costs, when PJM cancels a pool-scheduled generation resource's start and the resource has not yet reached the point after generator breaker closure which is typically indicated by telemetered or aggregated state estimator MWs greater than zero. Cancellation Fees shall be capped at the appropriate Start-up Cost for the resource as specified in its offer data., ~~capped at the appropriate start-up cost as specified in the generating resource's offer data.~~
- PJM sums the Balancing Operating Reserve cancellation ~~credits~~ **fees** for all pool-scheduled resources for each PJM Member.
- PJM Market Settlement Operations Department enters the appropriate adjustment into the current month's billing.

5.3 Charges for Operating Reserve

The total cost of providing Operating Reserve for the Operating Day is the sum of the credits provided to PJM Members for supplying the Day-ahead and Balancing Market Operating Reserve except those Operating Reserve credits associated with the scheduling of units for Black Start service or testing of Black Start Units. The daily total cost of Day-ahead Operating Reserve excluding the total cost for resources scheduled to provide Black Start Service, Reactive Services or transfer interface control, is allocated and charged to PJM Members in proportion to their cleared day-ahead demand and decrement bids plus their cleared day-ahead exports. The daily total cost of Balancing Operating Reserve excluding the total cost for resources scheduled to provide Black Start Service is determined for each region (RTO, East and West) and allocated and charged to PJM Members in proportion to their real-time deviations from day-ahead schedules and generator deviations, or to PJM Members in proportion to their real-time load plus exports for generator credits provided for reliability. The total daily cost of synchronous condenser payments (other than that for synchronized reserve or reactive services) is allocated and charged to PJM Members in proportion to their real-time load (excluding losses) plus exports during that Operating Day. The total daily cost of reactive services is allocated and charged to PJM members serving load in the transmission zone in which the generator is providing reactive services in proportion to their real-time load (excluding losses) during that Operating Day. The total daily cost of day-ahead Operating Reserve for resources scheduled to provide Reactive Services or transfer interface control because the resource is known or expected to be needed to maintain system reliability in a zone(s) is allocated and charged to PJM Members in proportion to their total real-time load in the applicable transmission zone(s). The total monthly cost of Operating Reserves for resources providing Black Start service or testing of Black Start units is allocated to Network and Point-to-Point Transmission Customers based on their monthly transmission use on a megawatt basis. Additional details on this allocation can be found in the Black Start Service Accounting section of Manual 27.

PJM Actions:

- PJM calculates for each Operating Day the Total Cost of Day-ahead Operating Reserve by summing the following credits for all PJM Members:
 - Total Day-ahead Operating Reserve generating resource credits excluding the total cost for resources scheduled to provide Black Start Service, Reactive Services or transfer interface control (\$)
 - Total Day-ahead Operating Reserve transaction credits (\$)
 - Note: Day-ahead Operating Reserve generating resource credits associated with the scheduling of units for Black Start service are allocated in accordance with the Black Start charge allocations and are not included in the Day-ahead Operating Reserve charge allocation.
 - Note: Day-ahead Operating Reserve generating resource credits for resources scheduled to provide Reactive Service or transfer interface control are allocated in

accordance with the Reactive charge allocations and are not included in the Day-ahead Operating Reserve charge allocation.

- PJM calculates for each Operating Day the Day-ahead Operating Reserve charges by allocating the total cost of Day-ahead Operating Reserve excluding the total cost for resources scheduled to provide Black Start Service, Reactive Services or transfer interface control to each PJM Member based on their daily share of cleared day-ahead demand and decrement bids plus cleared day-ahead exports.
- PJM calculates for each Operating Day the Total Regional Cost of Balancing Operating Reserve to be charged for reliability by summing the total Balancing Operating Reserve resource credits for reliability (\$) for each region and for all PJM Members excluding those credits associated with the scheduling of units for Black Start service or testing of Black Start units.
- PJM calculates for each Operating Day the Balancing Operating Reserve charges for reliability by allocating the total cost of Balancing Operating Reserve for reliability on a regional basis to each PJM Member based on their daily share of the sum of their load plus exports in each region (RTO, East, and West). West region is defined as transmission zones AEP, AP, ATSI, ComEd, DEOK, DUQ, and Dayton, and EKPC, and East region is defined as transmission zones AE, BGE, DOM, Penelec, PEPCO, Meted, PPL, JCPL, PECO, Delmarva, PSEG, and Rockland. RTO region includes the East and West region and exports that are at interfaces or hubs not completely contained in either the East or West region.
- PJM calculates for each Operating Day the Total Cost of Balancing Operating Reserve to be charged to deviations by summing the following credits for all PJM Members:
 - Total Regional Balancing Operating Reserve generating resource credits for deviations (\$)
 - Total Balancing Operating Reserve demand resource credits (\$)
 - Total Balancing Operating Reserve transaction credits (\$)
 - Total Balancing Operating Reserve cancellation ~~credits~~-fees (\$)
 - Total Balancing Operating Reserve quick start resource credits (\$)
 - Total Balancing Operating Reserve reduction/suspension credits (\$)
 - **Note:** Balancing Operating Reserve generating resource credits associated with the scheduling of units for Black Start service or testing of Black Start units are allocated in accordance with the Black Start Service charge allocations and are not included in the Balancing Operating Reserves charge allocation.