

Reserve Price Formation - EMS Communication Element Changes

Effective October 1, 2022 several aspects of the PJM Reserves market will change because of the Reserve Price Formation (RPF) efforts. Areas of change include consolidation of Tier1 and Tier2 Synchronized Reserve products, alignment of reserve products in Day-Ahead and Real-Time, and flexible modeling of reserve subzones. All changes are conforming to FERC Orders EL19-58 000 and ER19-1486-000.

RPF impacts described in this document are related to the EMS system. PJM is repurposing some of the existing reserve SCADA data points as well as creating new ones.

SCADA Points for Reserves

ATIER1SR is a prior-existing data point that communicates Tier1 synchronized reserve MW calculated on a resource. At the RPF go-live, ATIER1SR will be retired in place, and will send out zero (0) MW only. Eventually this data point will be removed from member communication links.

DGPSR is a prior-existing data point that “looks back” over the prior few intervals to determine how closely a unit is following dispatch, and then incorporates that information into the ultimate determination of where the appropriate dispatch basepoint for the resource should be in the upcoming intervals. DGPSR ranges from zero (0) to one (1). At the RPF go-live, DGPSR will be retired in place, and will send out a value of 1.0 (100%). Eventually the ATIER1ST data point will be removed from member communication links.

ASPIN is a prior-existing data point that communicates Tier2 synchronized reserve MW assignment on a resource. At the RPF go-live, this data point will be similarly used. The data point will continue to communicate *synchronized reserve MW assignment* on a resource.

NSRSPIN is a prior-existing data point that communicates *non-synchronized reserve MW assignment* on an offline resource that has capability to come online and generate within ten minutes at the request of the PJM dispatcher. At the RFP go-live, this data point will continue to be used without changes.

ASECRES is a new data point that will communicate the secondary reserve MW assignment to a resource that has reserve capability that can be fully converted into energy within ten (10) to thirty (30) minutes following the request of the PJM dispatcher. The resource may be online or offline.

To subscribe for the ASECRES data point, please email a request to PJMTelemetrySupport@pjm.com for implementation. PJM will process requests in the order received.

Pending implementation of ASECRES data point, the same data can be accessed in the Markets Gateway Dispatch Lambda page as “SecR Assignment”.

SECRESST is a new data point, sent from the resource to PJM in real-time, to communicate in real-time the actual resource ability to provide reserves. This communication is functionally similar to making a phone call to PJM Dispatch to report reserve unavailability situation pending making such update in the Markets Gateway portal.

A value of 1/Closed means the resource is available to provide reserve power. This status is the default. A value of 0/Open means the resource is unavailable to provide reserve power.

To qualify to subscribe for SECRESST data point, a resource owner will first need to email a request to reserves@pjm.com. A copy of this email will be made available to the Market Monitoring Unit. The request should include the Markets Gateway unit name, unit id, and technical information about the operational modes, limits, or conditions to support the request. PJM will determine, with the advice and input of the Marketing Monitoring Unit, whether the request is approved or denied and provide a written notification to the generation resource owner no later than 60 business days from the date of data submittal supporting the request. If the request is denied, PJM will include in the notice a written explanation for the denial. If the request is approved, the request will be forwarded to PJMTelemetrySupport@pjm.com for implementation. PJM will process requests in the order received. Additional information on how to submit a request is described in section 4.4.3.1 of Manual 11.

GENRUNR is a prior-existing data point that acts as a packed-bit map for various reasons to run, sent from PJM to a resource. See PJM Manual 14D for existing values and meanings for GENRUNR. Due to a new reserve product introduced in the Reserve Price Formation, a new GENRUNR value of 37 will be added for Condense Secondary. This is for condense capable resource that must be able to flip from condensing mode into generation within ten (10) to thirty (30) minutes following the request from PJM dispatcher to load.

Additional RPF Changes and Notes

VACAR Reserve Sharing

Coincident with the Reserve Price Formation, effective October 1, 2022 Dominion-Virginia Power will exit the VACAR Reserve Sharing Group. The related data communication between Dominion-Virginia Power and PJM will have values go to zero (0), and eventually will be removed.

Flexible Reserve Subzone

The flexible reserve subzone allows PJM to predefine multiple reserve subzones based on criteria defined in Manual 11. Only one reserve subzone can be active at any given time. A new subzone will not be created within a day. However, a subzone switching



among the predefined subzone can occur on a day-ahead basis and if necessary, intra-day, for rare reliability reasons.

All subzone switching and resource mapping will be communicated via the Markets Gateway.

The Mid-Atlantic/Dominion (MAD) subzone will be the default subzone, and the only subzone that will be used at the go-live on October 1, 2022.

Future telemetry changes will reflect the RTO and subzone that will be dictated by which subzone is active at the time of a spin event. Until the change to the telemetry point, the voice "All-Call" will inform the resource owner of the reserve subzone to load in response to a spin event.

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The Intelligent Reserve Deployment changes will not be in effect until further notice as FERC did not approve the proposed changes.

For any related questions, please send email to reserves@pjm.com.