

Market Participants Allowed to Designate a Qualified Tier 2 Synchronized Reserve Demand Side Response as a Flexible Resource  
Optional Designation of Tier2 Demand Response as Flexible  
- a Markets Gateway Enhancement

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Background and Enhancement

On October 1, 2012, several changes were introduced to the Ancillary Service markets in order to be compliant with criteria established in FERC Order 719. Under these changes, DSR Demand Resource (DR) participating in the Tier2 Synchronized Reserve Market was categorized by default as an “inflexible” Tier2 resources. The designation of inflexible for Tier2 is intended to capture constraints of resources, namely: a minimum Tier2 run time of not lesser than one hour, and a minimum notification time of not lesser than 30 minutes. Inflexible resources participating in the Synchronized Reserve market are only considered in the one hour look-ahead evaluation and are not eligible to be considered in the real-time intra-hour market due to the limitations of these resources.

It has come to PJM’s attention that there are DR resources that can respond in real-time to the intra-hour Tier2 commitment changes. Therefore, PJM is making an enhancement that will allow Curtailment Service Providers (CSPs) that have Tier2 DR resources to have an option of designating their resources as either flexible or inflexible rather than a default designation of inflexible by PJM. This change may also allow for a better market clearing objective of reducing overall cost of production as the real-time market clearing engine will now have visibility to potentially less expensive flexible Tier2 DR.

More information on the changes that were introduced on October 1, 2012 can be found at this link: <http://www.pjm.com/markets-and-operations/energy/shortage-pricing.aspx>

Often at times there are non-zero five minute intervals, as well as non-zero hourly integrated Synchronized Reserve Market Clearing Prices (SRMCP) when there were no Tier2 assignments coming from ASO. Having seen these differences in prices, inflexible Tier2 resource owners inquired about the opportunity to have their resources participate as a flexible resource, allowing them more opportunities to clear for synchronized reserve awards intra-hour.

Changes in Clearing and in Markets Gateway

Similar to generating units, Tier2 DSR can now be designated will be able to identify resources as either flexible or inflexible by the market participant via MUI (Market User Interface) or XML.

In Markets Gateway, there is a new additional column labeled “Flexible”, located in the “Synchronized Reserve Offers”- page for Demand page labeled “Flexible”. Flexible is a daily parameter that can be used to indicate if the DR should be considered for Tier2 in the hour-ahead study (False — Indicates that the DR is an inflexible Tier2 resource), or if it should be

~~considered in real-time intra-hour study (True — Indicates that the DR is a flexible Tier2 resource). The default value is “False”. If set to True, then the DSR will be considered as a flexible resource. By default, this field will be “False”, indicating that the resource is inflexible. The market participant will be responsible for setting the flag for the resource.~~

~~When a resource is identified as flexible, and this flag is set to “True”, the resource will be eligible to be cleared by the SCED engine to satisfying the synchronized reserve requirement in real time. Inflexible resources will remain eligible only for the hourly clearing engine.~~

~~Flexible resources are cleared using the least cost approach to satisfy the synchronized reserve requirement. Flexible DSR’s will be eligible to set the LMP and have their offers stacked against all available flexible resources and generating units.~~

~~Flexible resources will be notified of awards either via ICCP link or the eLRS email notification system.~~

#### Requirements for Flexible Designation

In order to qualify as a Flexible resource, a Tier2 DR must be able to receive real-time intra-hour Tier2 assignment via ASPIN link to the Director box. PJM is in the process of finalizing remaining details for the communication of this information through the Director box. The implementation schedule will be discussed at the next Demand Response Subcommittee.

#### Other information regarding this enhancement

~~Information regarding changes in eMKT screens and XML codes~~ can be found in the Markets Gateway User Guide and the External Interface Specification Guide for Markets Gateway which are located here: <https://www.pjm.com/markets-and-operations/etools/markets-gateway.aspx>

Information regarding the change is located in the following sections of the documents below:

- Markets Gateway User Guide
  - Submit Synchronized Offer for Load Resources
- External Interface Specification Guide for Markets Gateway
  - Submit DSR Synch Reserve Offer
- Markets Gateway XML Schema
  - DSR Synch Reserve Offer Type