**Markets Gateway Data for Non-Energy Regulation Resources**

A non-energy regulation resource must have a valid schedule ID for it to be considered, then clear as either self-scheduled or pool-assigned if economical in the Regulation Market. Schedule ID is necessary in order for the resource’s market data to propagate through the Market system that allows resource visibility to the Market Clearing Engines. Other energy related data like Schedule Offer with an offer curve set at $999 as previously advised for a non-energy regulation resource is no longer necessary and will need to be removed.

For a non-energy regulation resource, a schedule type “1-Cost-PLS” for generators or a schedule type “1” for demand response resources must be created. In Markets Gateway, the “Schedule Manager” page for generators or “Offer Curve Manager” page for demand response is used to create these types of schedules. The “Create a New Schedule Type” section of the Markets Gateway User Guide provides additional information.

**Resource type: “Generator”**

**Schedules**

Under the “Generator” section in the left-hand directory, select “Schedules”, then “Manager”. For the selected “Portfolio”, and selected “Location”, right-click to “Add Item”, then fill in unit’s schedule name, schedule description, and select “1-Cost-PLS” under schedule type. Then click “Save”. This process needs to be completed one time only. Use the screenshots below as a guide.

![Screenshot of Markets Gateway for creating a new schedule type](image)

**Unit Hourly Updates**

Values for Economic Min and Economic Max are required. They can be set as daily defaults on the Unit -> Detail screen under the Economic & Emergency section. These can also be set on an hourly interval on the Unit -> Hourly Updates screen.
Regulation Offer & Updates

The following fields are required as part of the Regulation Offer:

- Offer MW
- Capability Offer Cost
- Performance Offer Cost
- Availability
- Reg Min MW
- Reg Max MW

The Capability Offer Price and Performance Offer Price are optional.

Any hourly values on the Regulation Market -> Updates screen will override the daily values on the Regulation Market -> Offers screen. If no changes are made on the updates page, the daily values will be used. Daily defaults for Reg Min and Reg Max can also be set on the Unit -> Detail screen under the Regulation section.

The Regulation MWs available to clear are bounded by the following limits:

\[
RegHi = \min\{EcoMax, RegMax\} \\
RegLo = \max\{EcoMin, RegMin\} \\
RegMW \leq \frac{(RegHi - RegLo)}{2}
\]

**Resource type: “Demand Response”**

**Schedules**

Under the “Demand Response” section in the left-hand directory, select “Demand Response” then “Offer Curve Manager”. For the selected “Portfolio”, and selected “Location”, right-click to “Add Item”, then fill in resource’s schedule name, schedule description, and select “1” under schedule type. Then click “Save”. This process needs to be completed one time only. Use the screenshots below as a guide.
**Hourly Updates**

Values for Economic Min and Economic Max are required. These can be set on an hourly interval on the Demand Response -> Hourly Updates screen. Commit Status can be set to ‘Unavailable’ for non-energy resources.

**Regulation Offer & Updates**

The following fields are required as part of the Regulation Offer:

- Offer MW
- Capability Offer Cost
- Performance Offer Cost
- Availability
- Reg Min MW
- Reg Max MW

The Capability Offer Price and Performance Offer Price are optional.

Any hourly values on the Regulation Market -> Updates screen will override the daily values on the Regulation Market -> Offers screen. If no changes are made on the updates page, the daily values will be used.

The Regulation MWs available to clear are bounded by the following limits:

\[
\begin{align*}
\text{RegHi} &= \min\{\text{EcoMax}, \text{RegMax}\} \\
\text{RegLo} &= \max\{\text{EcoMin}, \text{RegMin}\} \\
\text{RegMW} &\leq \frac{(\text{RegHi} - \text{RegLo})}{2}
\end{align*}
\]

**Appendix**

For additional information on using Markets Gateway, please see the [User Guide](#).

Please contact the PJM Member Relations Hotline with questions at 866-400-8980 or email custsvc@pjm.com.

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