Markets Gateway Roadmap

As of June 18, 2019

Action Required	Deadline	Who May Be Affected
Resource Limitation Reporting & Tracking – new screen, new XML	Q3'19	Markets Gateway UI & XML Users

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Resource Limitation Reporting & Tracking								◆ Q3				

Current Issue

- Many generation units in PJM have limitations on how many hours they are able to run in a given time period. These limitations are often related to compliance with environmental permits, fuel availability, and demineralized water availability.

- These limitations are dynamic, and the hours a unit has left heavily depends upon how often a unit has been running, which schedule and fuel the unit is running on, and how often the unit is being cycled.

- The current methods PJM uses to track resource limitations produce information for a snapshot in time and, importantly, are not linked to actual unit run time.

Resolution Overview

- The proposed upgrades are intended to provide more dynamic notice to dispatch if a unit is running close to its limitations, and will include a calculation of estimated hours remaining using member-entered hours remaining due to a limitation and unit runtime.

- Related changes to Manual 13 are currently in the stakeholder process:

  – If a unit has less than 72 hours of run time at maximum capacity due to any resource limitation (primary or alternate fuel, emissions, demineralized or cooling water, other consumables), it along with any fuel limited units should be reported to PJM through the "Resource Limitations" page of Markets Gateway

  – The information on the "Resource Limitations" page is used for situational awareness and multi-day operations planning. The parameters entered on this page are not utilized in the Day-Ahead or Real-Time Market clearing engines

  – Any unit with less than 24 hours of run time remaining due to resource limitations should also update the Max Run fields in Markets Gateway

Changes Users Will See

- Operational Restrictions will be moved from Generator > Schedules > Restrictions Information to Generator > Resource Limitations. (Except "Operational Restriction Other" since this is used for Capacity Performance Exception)

- Resources will have the ability to enter unit level or fuel level limitation information

- Users will enter the following information:
  - Limitation Start Date
  - Limitation Start Time
  - Limitation End Date
  - Limitation End Time
  - Hours Remaining at Full Load
  - Replenished Hours at Limitation End Date
  - PJM Estimated Hours Remaining

This enhancement went into the Train environment on May 22, 2019 and the Production environment on June 4, 2019. Release Notes can be found here: **https://www.pjm.com/markets-and-operations/etools/markets-gateway/markets-gateway-release-notes-.aspx**

Current Issue

- Additional transparency and information consolidation was requested by both Dispatchers and Participants with regard to operational information on the Dispatch Lambda page in Markets Gateway

Resolution Overview

- A new "Schedule Type" element has been added. This will allow Dispatchers and Participants to immediately recognize if a schedule is Cost, Price or Price PLS

- "Schedule Type" will also be used to communicate what schedule a resource is currently running on following a schedule switch due to TPS evaluation. Note: Schedule Switch information will also continue to be found on the Generator   > Schedules > TPS Schedule Switch tab

- Column labels have been changed from "Call On" and "Call Off" to "On Time" and "Off Time" for clarity

- Markets Gateway User Guide has been updated

Changes Required

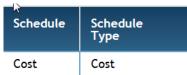- XSD/XML query changes will be required for the new element "Schedule Type"

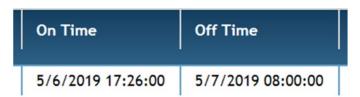| Location ▲	Schedule	Schedule Type	Lambda	Gen. MW	Non-Ramp MW	Reg. MW	Deviation MW	Econ. Min.	Econ. Max.	Capacity Max.	Tier 1 MW	Tier 2 MW	DGPSR	On Time	Off Time	Status

- ## Adding new "Schedule Type" Element to Dispatch Lambda Page

- ## Schedule Switch is also now Captured in real-time

- ## Label Change

  – ### called on to "On Time", called off to "Off Time"

- XSD Changes (schedule Type)

- XML User Guide changes (schedule Type)

Product Details

Markets Gateway allows users to submit information and obtain data needed to conduct business in the Day-Ahead, Regulation and Synchronized Reserve Markets.

Key Product Features

- View Market Results

- Manage Generation and Load Response Portfolios

- Manage Ancillary Service Data

- Manage Market Offers and Transactions