



Markets Gateway Roadmap

As of July 21, 2021

- Real Time Values (RTV) – FERC rejected PJM’s filing. PJM will not make the original changes to RTVs, and is socializing the plan to place additional restrictions on the use of the original Real Time Values
- Reminder regarding Fast Start go-live and updated Offer Verification information (previously reviewed at October 20, 2020 Tech Change Forum)

Action Required	Deadline	Who May Be Affected
Modification Of Real Time Values (RTV) effective time duration	FERC did not approve	Markets Gateway Users – no software change required, just notification of timing change
Fast Start Offer Verification enhancements	Effective on September 1 12 a.m.	Markets Gateway UI & XML Users (no software changes)



2021										
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
RTV change			◆ Train: May 19	◆ Production: Jun 1 FERC did not approve						
Fast Start Offer Verification							◆ Production: Sep 1			

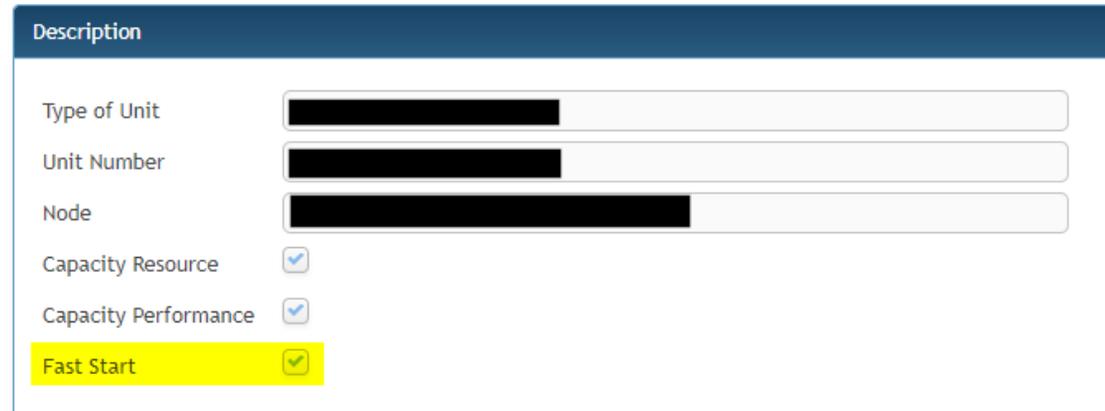
- Real Time Values (RTV) process - For Resources to communicate their current operational capabilities when the resource cannot operate according to the unit specific parameters (CP and uncommitted capacity) or exceptions based on a physical constraint.
- PJM found that, at times, RTVs have been used for reasons outside of the original intent (to communicate actual constraints), or have not been updated and so can cause reliability issues.
- The updated proposed changes:
 - Only allow real-time values to be submitted for actual unit limitations or those outside of management control
 - Submission of a real-time value would require supporting documentation within three days demonstrating actual unit limitations
 - Real-time values would be allowed to be submitted only after the close of the day-ahead market
- No Markets Gateway changes are required

- FERC Order 831 required PJM to verify incremental offers greater than \$1000, and was implemented in 2017
- For Fast Start, FERC directed PJM to enhance this process to include the incremental offer plus amortized commitment costs (startup and no-load costs for gen, shutdown cost for ELR) - now known as the “Composite Offer”
- Fast start resources with a Composite Offer over \$1,000/MWh, will be screened and validated each time a variable affecting the Composite Offer calculation is changed
- Parameters that may affect the Composite Offer calculation are:
 - Incremental Offer
 - Startup Cost
 - No Load Cost
 - Economic Maximum MW
 - Minimum Run Time
 - Shutdown Cost for ELRs Only

- FERC provided approval
- Target dates are: Train – complete, Production – September 1
- External Interface Specification Guide and .xsd are available on the Markets Gateway Tools page
- A Fast Start Refresher Education session was provided on October 19, 2020. This session was recorded and can be accessed here:

<https://pjmexternal.webex.com/recordingservice/sites/pjmexternal/recording/636f5e5e17bc424196a91ba534523be9/playback>

- New Flag denotes if the unit is capable of being a Fast Start Resource
- Flag is an input to determine if the unit will be eligible for Fast Start Pricing and integer relaxation
- Only applicable for Generators on a unit level (not schedule)
 - Generator > Unit > Details
 - All Economic Load Response Resources are considered Fast Start capable

A screenshot of a web application interface for unit details. It features a dark blue header with the word "Description" in white. Below the header, there are several input fields: "Type of Unit", "Unit Number", and "Node", each with a blacked-out value. Below these are three checked checkboxes: "Capacity Resource", "Capacity Performance", and "Fast Start". The "Fast Start" checkbox and its label are highlighted with a yellow background.

Description	
Type of Unit	[Redacted]
Unit Number	[Redacted]
Node	[Redacted]
Capacity Resource	<input checked="" type="checkbox"/>
Capacity Performance	<input checked="" type="checkbox"/>
Fast Start	<input checked="" type="checkbox"/>

- New display added to Markets Gateway to provide information if the Composite Energy Offer is above \$1,000/MWh for Fast Start Resources
- Display details
 - Read-only display
 - All inputs used to calculate the composite offer
 - Composite Energy Offer calculated at Ecomax
 - Results of automated validation of Startup Cost and No Load Cost (For Generators only)
 - Shutdown Cost for Economic Load Response
 - Results can be viewed by participant or individual unit level
 - Supports XML

- Bilaterals
- Con Edison
- Demand
- ▶ Demand Response
- ▼ Generator
- Unit
- Schedules
- Dispatch Lambda
- Market Results
- Regulation Market

Market Day Portfolio

Refresh

- Offers
- Offer Updates
- Detail
- Detail Updates
- Manager
- Selection
- Availability Update
- Restriction Information
- TPS Schedule Switch
- Fuel Price Exceptions
- Composite Offer Verification

ALL UNITS													
Ho ^	Location	Schedule	Calculated Composite Offer	Noload Incremental Valid	Cold Startup Cost Valid	Noload Cost	Cold Startup Cost	Incremental Offer At Economic Maximum	Economic Maximum	Minimum Runtime	Hot Startup Time	Notification Time	Use Slope
Show all	Show All	Show	Show all	Show All		Show all	Show all	Show all	Show all	Show all	Show all	Show all	Show All



Economic Load Response Energy Offer Example

- Composite Offer greater than > \$1000/MWh with PJM approved shutdown cost of \$200
- HE 13: CSP entered shutdown cost \$1200 and incremental offer \$26 for 1MW. Composite offer >\$1000, Shutdown cost >\$200 – not valid. Offer is not used to set LMP
- HE 16: CSP entered shutdown cost \$300 and incremental offer \$900 for 1MW. Composite offer >\$1000, Shutdown cost >\$200 – not valid. Offer is not used to set LMP
- HE 17: CSP entered shutdown cost \$100 and incremental offer \$950 for 1MW. Composite offer >\$1000, Shutdown cost <\$200 – valid. Offer \$1,050 is used to set LMP

Market Day Portfolio

Offer Curve Manager Offers Offer Updates Parameters Schedule Selection Hourly Updates **Composite Offer Verification**

Hour	Location	Schedule	Calculated Composite Offer	Shutdown Cost Valid	Shutdown Cost	Incremental Offer At Economic Maximum	Economic Maximum	Minimum Downtime	Notification Time
Show all			Show all	Show All	Show all	Show all	Show all	Show all	Show
13		Sced2 (2)	1226.36	No	1200	26.36	1	1	
16		Sced2 (2)	1200	No	300	900	1	1	
17		Sced2 (2)	1050	Yes	100	950	1	1	

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Markets Gateway



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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