



Updated Hourly Offers Proposal Overview

GOFSTF

November 12, 2015

- PJM revised the previous proposal to address some of the market manipulation concerns raised by the IMM and some stakeholders.
- The same guiding principles used to develop the previous proposal were followed
 - Keep the implementation as simple as possible (within reason) given the deadline to implement changes prior to winter 2016/17
 - Allow resources to articulate and recover their costs
 - Eliminate foreseeable opportunities for market abuse
 - Minimize schedule switching throughout the day
 - Avoids undesirable dispatch patterns that could impact system cost and control

- Limit changes to price schedules during committed hours
- No changes to MW blocks after the rebid period
 - Also no changes to MW blocks for committed hours during the rebid period
- Apply TPS test to online units hourly

Other aspects of the proposal are largely unchanged

- Price based offers can be increased and decreased in uncommitted hours
- Price based offers can be decreased in committed hours; however, they cannot be increased
 - Increase will be measured relative to the committed value
- If a unit is committed on price and its cost subsequently exceeds its price based offer, it may elect to be switched to its cost based offer
 - It must then stay on its cost based offer until the end of the day or it is released

- Cost based offers may be increased or decreased in both committed and uncommitted hours.
 - Increases to cost based schedule are limited to increases in fuel cost component of offer
- Cost based offers must still comply with the rules in Manual 15: Cost Development Guidelines (capped at cost + 10%)
- Cost based offers must be updated as frequently as specified in the fuel cost policy.
 - Additionally, IF the price based offer is changed
 - THEN the current cost based offers must be decreased ONLY IF the updated estimated cost based offer decreases \$5/MWh or more from the current cost based offer.

No change from previous proposal

- MW blocks may differ hourly in the DA market
- MW blocks are not required to be consistent between cost and price based offers
- In the rebid period, MW blocks may be updated for uncommitted hours only
- After the rebid period, MW blocks may not be updated for any hours
 - Allows offers that constitute an increase to be more easily identified

- Day Ahead Market
 - TPS test will be run hourly
 - Offer capped resources will be offer capped for their entire run segment
 - No change to DA TPS with hourly offer updates except to consider offers that differ by hour (same as previous proposal)
- Real Time
 - Test performed for uncommitted resources called on for transmission
 - No change to TPS test for uncommitted resources with hourly offer updates except to consider offers that differ by hour (same as previous proposal)

The revised PJM proposal was enhanced to test all online units regardless of whether their offer was changed or not

- Previously proposed to apply offer capping only to those online units that increase their price based offer
- Test will use existing TPS logic (generation owner based)
- Test will be performed hourly
- Participants will be notified of offer capped units via Markets Gateway (eMKT)

- Online resources owned by suppliers failing the TPS test will only be offer capped if they are outside of their DA commitment and min run time
 - Units were already tested for hours during DA commitment and/or min run time at time of commitment
 - Units already on their cost schedule will also not be subject to additional offer capping outside their DA commitment / min run time if their price based offer subsequently becomes lower than their cost based schedule (prevent excessive schedule swapping)
- Offer capped resources will remain offer capped until the earlier of:
 - The end of the day
 - The unit is released
 - The start of its next pre-existing commitment
 - Applies to units cycled in the DA commitment or brought online in RT prior to DA commitment

Balancing Operating Reserve & LOC rules are largely unchanged

- Balancing Operating Reserve Credits

- Resources will be made whole to the lesser of their committed offer and final offer
- Balancing Value portion of the calculation will not make units whole for buying back energy as a result of increasing their offer



Only Change

- Removed the following rule:

- If a resource increases its **price based** offer by more than 10% in the hours adjacent to a pre-existing commitment without a corresponding increase in the cost based offer, the resource will be made whole using the offer value used for the adjacent committed hour's make whole payment

- Balancing Operating Reserve Charges

- Resources that change their offer for previously committed hours will be subject to additional deviation charges

- Lost Opportunity Cost Credits

- Changes proposed to the version of the schedule on which a resource will be compensated

- Participants that prefer to opt out of submitting hourly offers will have the option to do so on a unit by unit basis.
 - Those who opt out will have the ability to enter hourly differentiated schedules in the DA market, but will not be able to submit RT updates.
- Opt out elections will apply on a monthly basis. Elections must be submitted by the 15th day of the month prior to the opt out start month, or upon approval of fuel cost policy change.
 - Opt out election continues until participant elects to opt back in.
- Opt out is only available for units that are not required to change their cost intra day per their approved fuel cost policy.

No change from previous proposal

Summary of Tariff Revisions Since Last Meeting

	Change	Reason
Real-time Offer	Included offers made in the rebid period in the definition of Real-time Offer	Stakeholder suggestion
Committed Offer	Specified it is for a clock hour	Simplification
Cost-based Offers	Removing obsolete language	Clarification

	Change	Reason
1.10.1A (d)	Non-substantive	Clarification
1.10.1A (d)(i) & (ii)	Adding 'clock hours'	Conforming
1.10.1A (d)(v)	Adding 'additional'	Allows multiple Real-time Offers to be submitted
1.10.1A (d)(vi)	Removed reference to section 1.10.1(n) which was removed in total from latest draft and reworded for clarity	Section 1.10.1(n) was removed. Intent of that section is now captured in 1.10.1A(d)(xi).
1.10.1A (d)(vii)	Non-substantive	Supports implementation of hourly updates
1.10.1A (d)(xi)	Adding that offers in DAM may be updated hourly in RT	Simplification - Ability to make RT updates to DA offers was previously implemented in 1.10.1(n) which has been removed.

	Change	Reason
<p>1.10.1A (e), (j) and (k)</p>	<p>Adding “for each clock hour for which the Market Seller desires to make it resource available to the Office of the Interconnection to ...”</p> <p>and</p> <p>“Such offers may vary hourly, and may be updated each hour, up to 60 minutes before the applicable clock hour during the Operating Day.”</p>	<p>Language allows offers to be updated according to changes made in 1.10.1A(d)(xi)</p>

	Change	Reason
1.10.9 (Rebid Period)	Minor changes to implement hourly updates in RT	Section should have been changed in original set of edits
1.10.9B(a)	Implements the rule that price based offers cannot be increased once a resource is committed	New rule in this version of the proposal
1.10.9B(b) & (c)	Reworded	Clarification

	Change	Reason
6.4.1(e)	Added specifics around Market Seller vs. unit	Clarification of existing practice
6.4.1(f)(v)	Units within DA commitment & Min Run Time are not subject to additional offer capping in RT	Supports change to TPS test in this version of the proposal that subjects online units to additional opportunities for offer capping (with this one exception)

	Change	Reason
Definitions	Changed 'Final Real-time Offer' to 'Final Offer'	Reflecting that the Final Offer could happen in DA
	Changed 'Total Operating Reserve Cost' to 'Total Operating Reserve Offer'	More accurate wording
3.2.3(b)	Adding language showing applicability to Demand Resources	Clarification
	Removed reference to 'Committed Offer'	Simplification – remove redundant language
3.2.3	Changed 'schedule deviations' to 'deviation'	Alignment with existing language