

Residual Zone Pricing

Markets and Reliability Committee Lisa Morelli December 21, 2011

www.pjm.com PJM©2011



- Review Proposed Packages
- Prepare for Vote at January MRC Meeting



General agreement has been reached on all aspects of the residual zone pricing business rules, with the exception of the following design criteria.

- Implementation Date
- Opt Out Provision Allows EDCs to delay implementation of residual zone pricing for their entire zone by providing opt out notification to PJM
- Sunset Date (if opt out provision supported) Date by which all zones must implement residual zone pricing
- Pricing Point for Demand Response Settlement and Dispatch
- Available ARR Sink Pricing Points

Alternative packages based on the options for these design criteria are being put forth for voting at the January MIC meeting



2013 w/ 2015 Sunset Opt Out – A (Original Package)

- June 2013 implementation date
- Opt out provision with 2015 sunset date
- DR settled and dispatched at applicable load pricing point
- ARRs default to physical zone with option to pick residual zone pricing point

2013 No Opt Out – B

- June 2013 implementation date
- No opt out provision
- DR settled and dispatched at applicable load pricing point
- ARRs sink at the pricing point at which the load is settled



2014 Sunsetting Opt Out - A

- June 2014 implementation date
- Opt out provision with 2015 sunset date
- DR settled and dispatched at applicable load pricing point
- ARRs default to residual zone with option to pick physical zone pricing point



2015 No Opt Out - A

- June 2015 implementation date
- No opt out provision
- DR settled and dispatched at applicable load pricing point
- ARRs default to residual zone with option to pick physical zone pricing point

2015 No Opt Out - B

- June 2015 implementation date
- No opt out provision
- DR settled and dispatched at applicable load pricing point
- ARRs sink at the pricing point at which the load is settled



Voting Schedule

- MIC January 11
- MRC January 26
- MC February 21



Appendix A– Tariff and Operating Agreement Revisions

www.pjm.com ________PJM©2011



OATT Attachment K – Appendix / Schedule 1 of OA

- New defined term: Residual Metered Load
- 5.2.3 Target Allocation of Transmission Congestion Credits Added description of how the Day-ahead Congestion Price of residual metered load is calculated (mirrors language for how the price is calculated for the physical zone)
- 7.4.2 (b) and (d) Auction Revenue Rights Specified ARRs will default to sinking at the physical zone, unless the network customer requests ARRs at an aggregate that more specifically defines its load
 - Language may be updated if package supporting a different ARR option is approved



OATT Part III, Section 31.7

- Updated section to specify that all load in a zone will default to residual zone pricing unless:
 - The EDC opts out on behalf of all non-nodally priced load in the EDC's service territory
 or
 - The network customer defines a more specific aggregate for their load
- Minor revisions to existing wording to leverage defined terms
- Language may be further updated if package supporting opt out sunset date or lack of an opt out provision is approved



Appendix B– Remaining Residual Zone Pricing Business Rules

www.pjm.com PJM©2011



Default Pricing with Option to Opt Out

- Zones with nodally priced load shall use residual zone pricing upon implementation unless the EDC opts out on behalf of all non-nodal load in the zone
 - Opt out elections must be provided to PJM annually
 - No later than 5 business days after the EDC notification due date, PJM will transmit this opt out information to members via email
 - EDC's opt out election will apply to <u>all</u> non-nodal load in the zone

^{*} The opt out provision is subject to exclusion depending on package approved by stakeholders.



- EDCs must provide their opt out notification by completing a form and submitting it to PJM by January 1st or at least 45 days prior to the start of PJM's annual ARR/FTR allocation process, whichever is later
 - Existing business rules require retail LSEs switching to nodal pricing to notify PJM by January 15th or 30 days prior to the start of the ARR allocation

^{*} The opt out provision is subject to exclusion depending on package approved by stakeholders



Residual Pricing Election Business Rules

- Once an EDC has elected residual zone pricing for load in its territory, physical zone pricing for RT load will no longer be available
 - All non-nodal load in the zone will be priced at the same pricing point
- Effective date for switching load from physical zone pricing to residual zone pricing is June 1 to coincide with the PJM planning period



- Differences between Nodal Customers' eSchedule Load (next day) and Reconciled Load (2 months later) may result in RT load distributions being slightly different than the original distributions.
- An adjusted distribution reconciliation rate will be used to reconcile all load priced at the residual zone, including load with no reconciliation MWh
 - Only impacts load reconciliation for transmission congestion and transmission losses
 - More precise, eliminates leftover billing for EDC / POLR load
- The adjusted distribution reconciliation rate will be posted publicly and reported in MSRS



Residual Zone Aggregate Definitions

- Day-ahead residual zone distribution factors will default to the final real-time distribution factors for the residual zone at 8:00 a.m. one week prior to the Operating Day
 - i.e., if next Operating Day is Monday, the default distribution is from 8:00 a.m. on Monday of the previous week.
 - Consistent with physical zones, the definition will apply to all hours in the day
- Preliminary 5 min. real-time residual zone LMPs will be calculated using same residual metered EDC distribution factors used for the Day-ahead market for the Operating Day
- Final hourly real-time residual zone distribution factors will be calculated using eSchedule-submitted nodal load MWh
 - RT residual zone LMPs typically posted two to three days after the market date



Residual Zone Definitions for FTR Credit Target Allocation

- Residual Zone definitions used for ARR/FTR purposes are fixed for the planning period
- Initial Residual Zone distribution for FTRs will be determined based on the contribution of each bus to the total residual load at the time of previous year's PJM annual peak
 - Consistent with the practice used to determine the physical zone distribution used for ARRs/FTRs
- Initial distribution will be adjusted by any new nodal load requests
 - LSEs moving to nodal load settlement are required to submit:
 - Peak load at time of PJM annual peak from the previous year
 - Aggregate definition distribution percentages