Residual Auction Revenue Rights

Asanga Perera

Manager, Market Simulation Department

Market Implementation Committee

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- Auction Revenue Rights (ARRs) prorated in Stage 1B of the annual ARR allocation maybe allocated residual ARRs on a monthly basis
  - New upgrades and monthly re-serviced outages

- Residual ARR paths could receive negative values based on monthly FTR clearing prices

- Stakeholders are interested in exploring enhancements to reduce customer exposures to negatively priced residual ARRs

- Package A
  - Proposed by Exelon and Direct Energy
  - Requires PJM to run another SFT proration with all negatively valued bids removed
  - Can not be started until the monthly FTR auction is final

- Package B
  - Proposed by PJM staff
  - Requires ARR holders to notify PJM if they wish to remove ARR bids from the monthly allocation
  - Option to exclude will occur each month (include is default)

- Based on the current monthly FTR schedule, performing a second iteration of the monthly Residual ARR market will require significant administrative work in only a few days

- Adjusting the monthly FTR schedule will have multiple effects including:

  - Base case set-up time for PJM

  - Availability of FTR auction user data postings

  - Credit timeline impacts and potential for locking credit longer than normal

  - Potential member impacts

- PJM would prefer to give members option to include bid rather than zero out

- Provide flexibility for ARR holders to remove bids prior to the simultaneous feasibility test (SFT) run each month
  - Gives ARR holders option each month whether or not to include ARR bids for evaluation
  - Does not require significant additional administrative work
    - Will not require adjusting FTR/ARR monthly market timelines

Appendix – Residual ARR Educational Material

- ARRs are allocated to Network & Firm Transmission Service Customers

- ARRs entitle the holder to receive an allocation of FTR Auction revenues

- ARRs are reassigned on a proportional basis within a zone as load switches between   LSEs within the planning period

- ARRs must be simultaneously feasible

- Residual ARRs may be available within a planning period for increased transmission capability

- ARRs prorated in Stage 1B of the Annual Allocation may be allocated Residual ARRs for the following:

- Increased transmission capability made available by certain transmission upgrades made during the planning year that were not modeled in the Annual ARR Allocation
- Increased transmission capability made available for periods when Annual ARR modeled transmission outages are not out of service

- Residual ARR MWs plus previously awarded Stage 1 and Stage 2 MWs cannot exceed the Network Service Peak Load value for a particular participant

- Residual ARRs are effective the first month the increased transmission capability is modeled in the Monthly FTR Auction

- Economic value of Residual ARRs are based on the MW amount and the nodal clearing price difference between the source and sink nodes for the FTR Obligations resulting from each monthly FTR Auction the Residual ARR is effective

- Market is created with prorated stage 1B requests from Annual Allocation
  - All ARR requests from stage 1B that did not fully clear

- Proration is done manually by operator until violated facilities are minimized as much as possible
  - Constraint basis – residual requests that impact violated constraints are prorated

– Residual ARRs are valued based on the nodal clearing prices from the corresponding monthly FTR Auction

– Results are posted in eFTR roughly same time as monthly FTR Auction

– Residual ARRs will shift with load within a zone

– Settlements calculates a daily rate – billed weekly evenly throughout month

Residual ARR Credit by Month
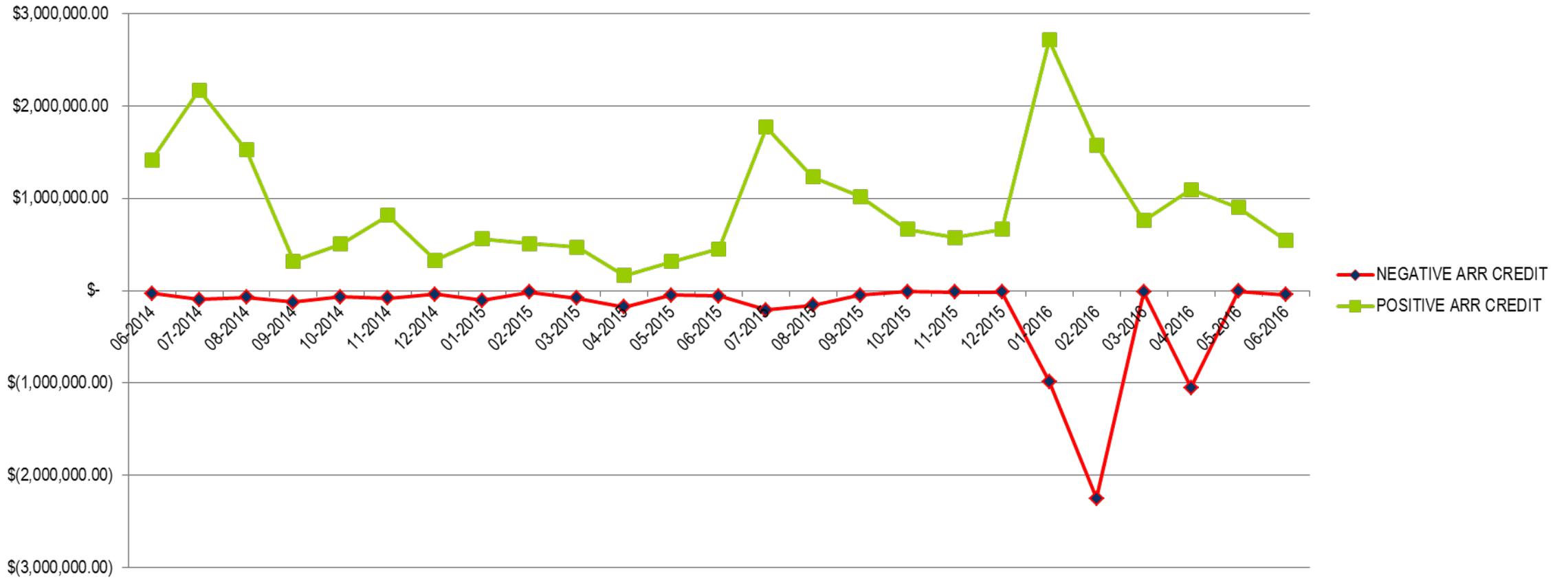
Market	Residual MW Total	Total Value (Annual)*	Total Value (Monthly)
2014/2015 ARR	22,532.90	$ 4,894,781.83	$ 8,160,918.27
2015/2016 ARR	37,043.80	$ 8,138,975.75	$ 8,620,612.69

*Represents the total cleared Residual ARR MWs priced at the average 4-round annual clearing prices divided by 12.