

FTR Credit Enhancements

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Members Committee
July 26, 2018

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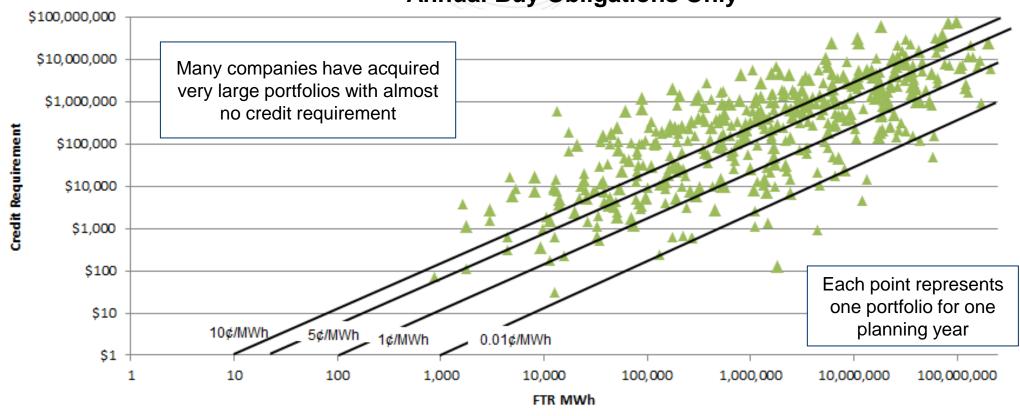
 FTR positions, even some very large positions, may have little or no credit requirement

Proposed Solution: Implement a per-MWh minimum credit requirement



FTR Credit Risk Exposure

Total FTR MWh versus Credit Requirement by Planning Period Annual Buy Obligations Only





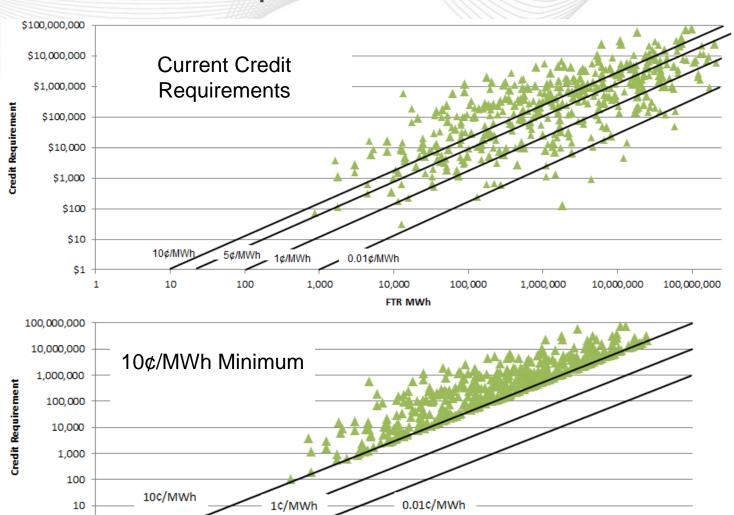
Proposal with 95% Support at the MIC:

- Implement a 10¢/MWh minimum monthly credit requirement applicable to both FTR bids submitted in auctions and cleared positions held in FTR portfolios
- 92% Support over the Status Quo
- 80% Support at the Credit Subcommittee



- Each dot represents one portfolio's FTR Annual Auction position for Buy Obligations Only
- Current requirements allow portfolios (even large ones) to have effectively no credit requirement (less than \$.0001/MWh in this historical analysis)
- A 10¢/MWh monthly minimum assures that all portfolios have at least a modest credit requirement

Impact of Per-MWh Minimum



FTR MWh

1,000

10



- Target implementation October 2018 effective date September 3, 2018
- Applied to existing positions and all future FTR activity
- Transition plan for members who experience an increase to credit requirements for existing portfolios upon implementation of the Per-MWh proposal:
 - Synchronized with existing transition plan from the spring 2018 FTR credit change for Transmission Upgrades
 - With further restriction to only sell existing FTR positions, either through FTR auctions or bilaterally, provided that the sale lowers the credit requirement
 - Expires spring 2019



Stakeholder Timeline

_	Credit Subcommittee	Poll	June 11, 2018
_	Market Implementation Committee	First Read Endorsement	June 6, 2018 July 11, 2018
_	Markets and Reliability Committee	First Read Endorsement	June 21, 2018 July 26, 2018

- FERC Filing July 31, 2018

Target Implementation Effective Date

Members Committee

October September 3, 2018

July 26, 2018

Endorsement



Appendix

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Current FTR Credit Requirements are calculated monthly as:

 Σ_{FTR} (FTR cost - FTR Historical Value)

- + Undiversified Adder (if any)
- ARR Credits (if any)
- For <u>cleared</u> FTRs, negative individual requirements net against positive requirements within the same month
- Positive monthly subtotals sum to the total FTR Credit Requirement



Example of Per-MWh Minimum

	Small Portfolio	Large Portfolio
A MWh in portfolio	500,000	5,000,000
B Path-based portfolio credit requirement (including sales profits/losses)	\$100,000	\$100,000
C Undiversified adder	\$0	\$20,000
D Total credit requirement for FTRs (B+C)	\$100,000	\$120,000
E Per-MWh Minimum (A * 10¢)	\$50,000	\$500,000
F Greater of D and E	\$100,000	\$500,000
G ARR Credits	\$(20,000)	\$(20,000)
H Final FTR Credit Requirement (F+G)	\$80,000	\$480,000



Additional Details of Per-MWh Implementation

- MWh for FTRs of "Self-Scheduled" trade type will be included in the per-MWh calculation
 - But ARR credits will provide an offset

- MWh for FTRs of "Sell" trade type will be netted against MWh for "Buy" trade types once the auction is cleared
 - During the bid period, MWh for "Sell" trade types will be set to zero



 Minimum requirements will, by definition, increase credit requirements, but only for members with current low requirements relative to their FTR volume

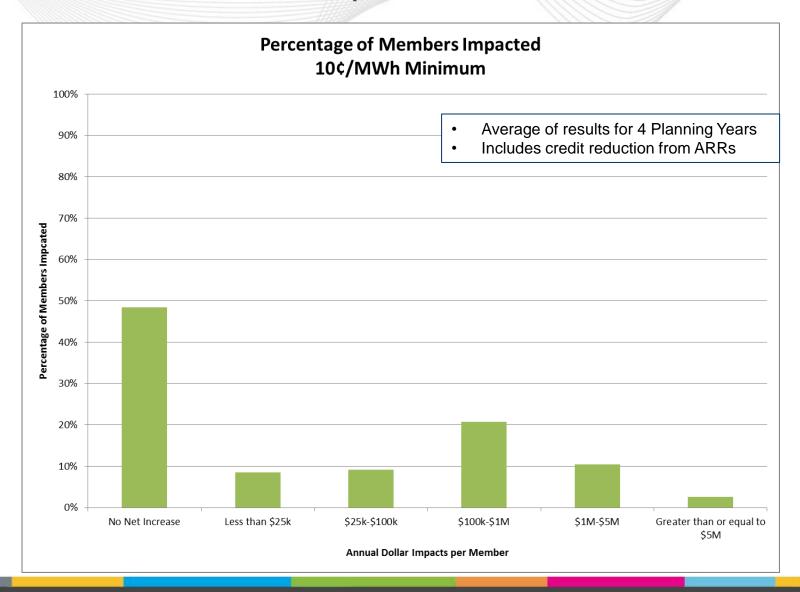
- PJM analyzed the impact of the per-MWh proposal using four years of historical data on Annual Buy Obligations
 - Planning years 13/14, 14/15, 15/16, 16/17



Almost half of PJM's FTR participants would see no impact from a per-MWh minimum

 Many more would have a small impact

Impact of Per-MWh Minimum





The dollar impact of a per-MWh minimum is concentrated in a few Participants with very large portfolios

Impact of Per-MWh Minimum

