

FTR Credit Enhancements

Bridgid Cummings Credit Market Implementation Committee July 11, 2018



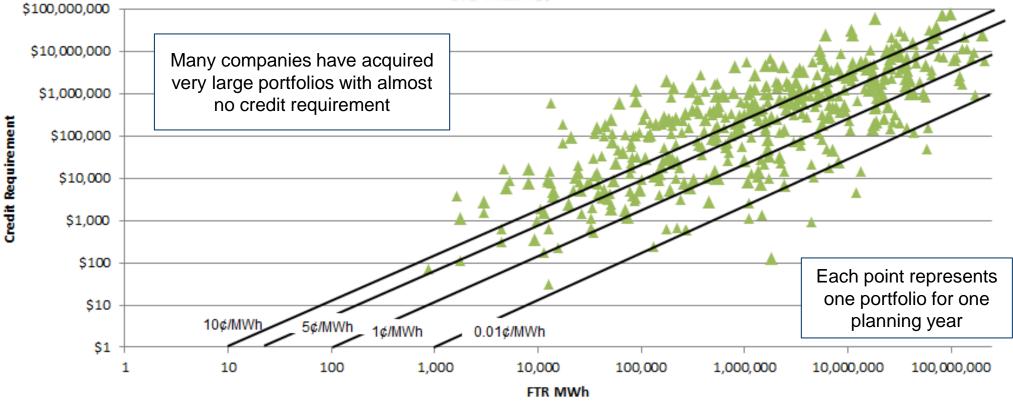
FTR Credit Risk Issue

- FTR positions, even some very large positions, may have little or no credit requirement
- Proposed Solution: Implement a per-MWh minimum credit requirement

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FTR Credit Risk Exposure

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





Proposals for MIC Consideration

- Proposal with 80% Credit Subcommittee Support (PJM Recommendation)
 - Implement a 10¢/MWh minimum monthly credit requirement applicable to both FTR bids submitted in auctions and cleared positions held in FTR portfolios
- Proposal with 62% Credit Subcommittee Support:
 - Implement a 5¢/MWh minimum monthly credit requirement applicable to both FTR bids submitted in auctions and cleared positions held in FTR portfolios



Additional FTR Credit Requirement Options Not Supported by the Credit Subcommittee

- 2% support for a 1¢ 25¢ minimum monthly credit requirement on a declining tiered scale based on MWh volume
- 25% support for a \$50 million cap on the total minimum monthly credit requirement
- 20% support for a \$100,000 deductible applicable to the current undiversified adder
- 28% support for status quo



• 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	\$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



- 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



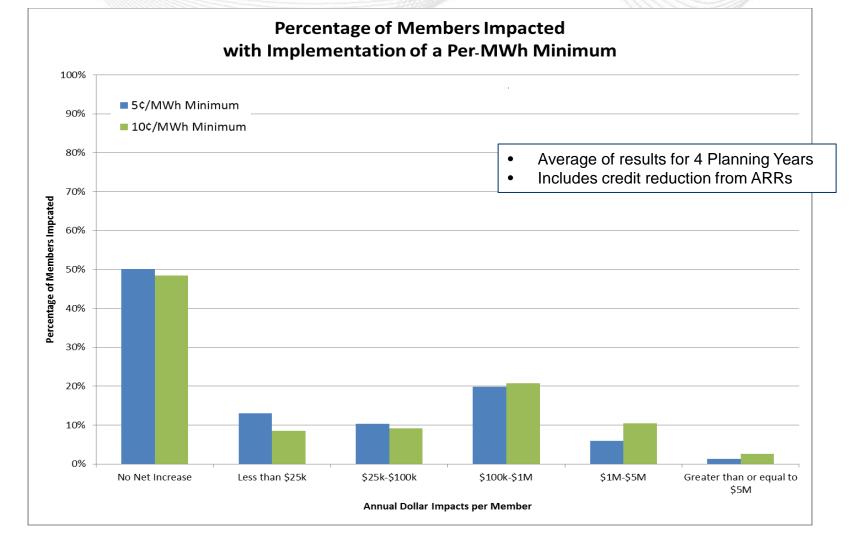
- Minimum requirements will, by definition, increase credit requirements, but only for members with current low requirements relative to their FTR volume
- PJM analyzed the impact of the per-MWh proposal using four years of historical data on Annual Buy Obligations
 - Planning years 13/14, 14/15, 15/16, 16/17



- 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

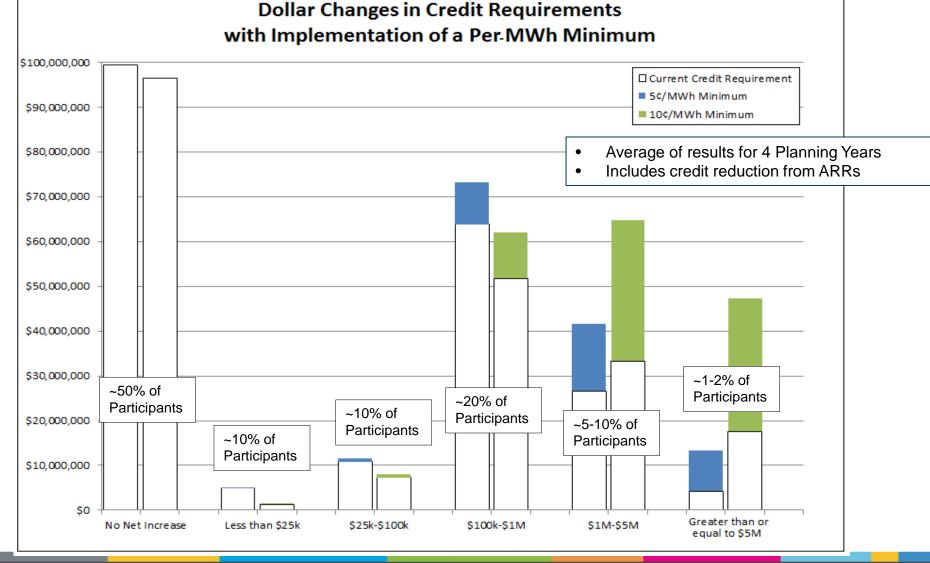


- Almost half of PJM's FTR participants would see no impact from a per-MWh minimum
- Many more would have a small impact





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





- Target implementation October 2018 effective date September 1, 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



Next Steps

- Stakeholder Timeline
 - Credit Subcommittee
 - Market Implementation Committee
- First Read Endorsement

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- Markets and Reliability Committee
- Members Committee
- FERC Filing

First Read Endorsement Endorsement

- June 11, 2018
- June 6, 2018 July 11, 2018
- June 21, 2018 July 26, 2018
- July 26, 2018
 - July 31, 2018

• Target Implementation Effective Date

October September 1, 2018