

Financial Transmission Right (FTR) Default, Credit Policy Enhancements and Liquidation Process

Suzanne Daugherty
Market Implementation Committee
August 8, 2018



Default



- GreenHat Energy LLC (GreenHat) is a Texas-based financial trading company that became a PJM member in 2014.
- Over multiple years, GreenHat acquired a 890 million megawatt hour (MWh) financial transmission rights (FTR) portfolio.
- When GreenHat acquired the majority of these positions starting in 2015 long-term FTR auctions, both historical congestion and the FTR auction clearing prices indicated that GreenHat's portfolio would be profitable.
- Accordingly, GreenHat had a low credit requirement based on the credit policy in effect at the time these positions were acquired.

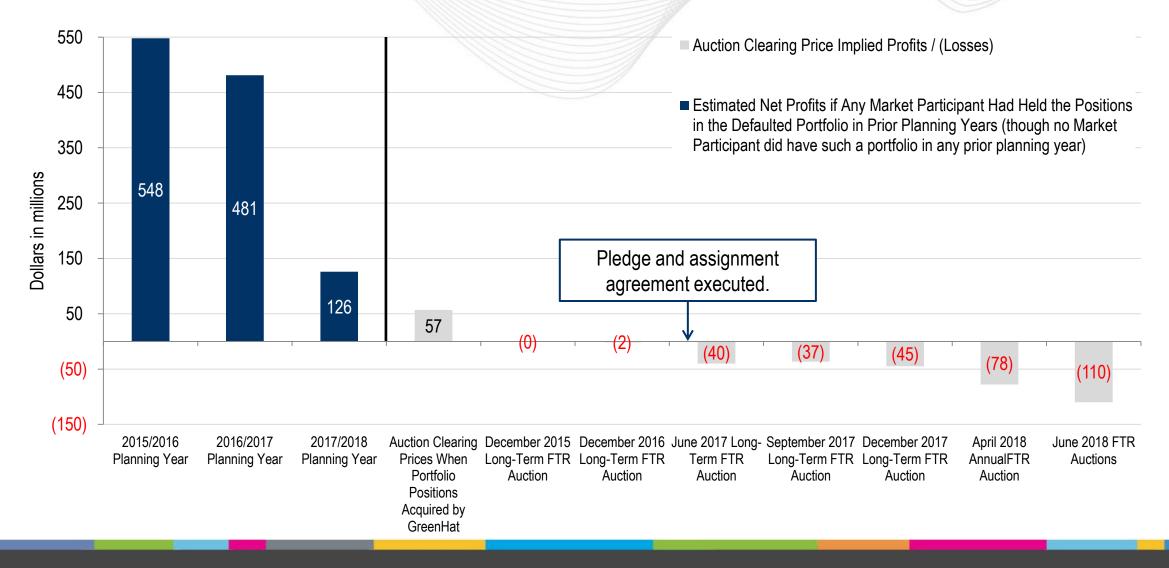


PJM GreenHat Portfolio Exposure Mitigation Efforts

- In early 2017 it became apparent that GreenHat's portfolio, which consisted of primarily prevailing flow FTRs, were on paths for which future congestion was not expected to be consistent with historical congestion primarily due to the impacts of transmission system upgrades.
- PJM had limited options on how PJM might address the exposure on GreenHat's portfolio that was
 acquired in compliance with the then applicable PJM Credit Policy provisions in Attachment Q of
 PJM's Tariff.
- In June 2017, GreenHat and PJM executed a pledge and assignment agreement committing PJM would receive the revenue stream from certain GreenHat bilateral contracts with a third party that were indicated to have tens of millions of dollars of remaining cash flow. PJM has not received any cash from this agreement. Currently, GreenHat's counterparty to those bilateral contracts does not believe it has any remaining payment obligations under those bilateral contracts.



GreenHat FTR Portfolio Historical and Auction Net Profit / (Loss) Reference Points



Default Allocation Assessment

- PJM declared GreenHat Energy, LLC (GreenHat) in payment default on June 21, 2018.
- In the default allocation assessment for the GreenHat default, the total number of Members to be assessed is 992 and the applicable three-month gross dollar transaction amount for all members to be assessed is \$24 billion.
- The total amount of the default allocation assessment will not be known until all positions are liquidated or until the FTR terms end for any positions that are not liquidated.

FTR Positions	% of Total Portfolio MWh Volume	Basis for Default Allocation Assessment	Default Allocation Assessment (in millions)	Month-End Billing Timing
June 2018	6%	Actual Portfolio Net Losses	\$7.2	July 2018
July 1 – 18, 2018	6%		\$9.4	
July 19 – 31, 2018			\$1.8	August 2018
August 2018	6%	Liquidation	\$24.1	



FTR Credit Policy Enhancements



FTR Credit Policy Enhancements Completed to date in 2018 through Stakeholder Process

- April 1, 2018 FTR credit requirements incorporate projected congestion on paths that are expected
 to be materially different in the future compared with historical congestion due to transmission system
 changes.
 - This credit policy change on its own would have established an approximately \$60 million credit requirement for GreenHat to bid on the FTR portfolio on which it has defaulted.
- September 3, 2018 proposed FTR credit requirements include a volumetric minimum credit requirement of 10 cents per MWh of FTRs bid and cleared.
 - Would have established an approximately \$90 million credit requirement for GreenHat to bid on the FTR portfolio on which it has defaulted.



Additional FTR Considerations

- Engage external consultants to review factors that can affect future congestion levels and gap analysis against how FTR credit requirements would address those factors
- Potential stakeholder discussion of whether actual benefits of long-term FTRs and FTR options exceed risks
- Add a third reference point in the "highest of" determination of monthly FTR credit requirements:
 - 1. Path specific calculation with enhancements effective April 1, 2018
 - 2. Volumetric minimum targeted for September 3, 2018 effective date
 - 3. Mark-to-auction clearing prices to be discussed in stakeholder process with PJM supportive of using auction clearing prices in a "highest of" FTR credit requirement determination, but not as a reference point to reduce credit requirements on cleared portfolios
- Potential increase in the minimum FTR market participation requirements



Next Steps re: FTR Credit Policy Enhancements

GOAL: Complete stakeholder process, including senior committee voting, on mark-to-auction and minimum participation requirements to support any associated FERC filing(s) no later than the end of 2018. Timing of addressing additional recommendations to be determined when recommendations are complete.

August 21, 2018 – Credit Subcommittee Meeting

- PJM proposal re: adding mark-to-auction considerations to FTR credit policy
- Minimum participation requirements

September 18, 2018 – Credit Subcommittee Meeting

- PJM proposal re: adding mark-to-auction considerations to FTR credit policy
- Minimum participation requirements
- Observations and recommendations from work with external consultants
- Ongoing discussions in monthly Credit Subcommittee meetings.



FTR Liquidation Process



- The portfolio on which GreenHat defaulted includes FTR positions for the current planning year and the next two planning years.
- As required under the Operating Agreement, during the balance of planning period auction which commenced on July 16th, PJM began the liquidation of the significant volume of August 2018 through May 2019 FTR positions.
- The current liquidation process directs PJM to offer the positions for liquidation "at an offer price designed to maximize the likelihood of liquidation of those positions."
- The potential impact of the existing liquidation process became evident through the review of the bids submitted to take the positions offered for liquidation in the FTR auction conducted in July 2018. For the September 2018 through May 2019 periods, the liquidation prices would have been approximately four times the pre-default auction clearing prices on the same paths.



- Based on this initial review, PJM decided it was not prudent for PJM to liquidate FTRs for all of the remaining months in the current planning period from the GreenHat portfolio in the last month's FTR auction.
- PJM believes it is important to take a pause to engage members on the current liquidation process and possibly some alternatives before locking in the liquidation costs and the potential default allocation assessment.
- PJM filed a waiver request at FERC on July 26, 2018, asking that PJM only offer for liquidation these FTR positions for one month forward in any of the FTR auctions to be completed in July 2018 through October 2018.
- The waiver is intended to allow PJM time to talk with the Members, and file any changes to the current FTR liquidation process, if agreed to by the Members.

Next Steps re: FTR Liquidation Process

GOAL: Determine by the end of August whether the Members would prefer to retain the status quo or would prefer to continue discussions of potential changes. This timing would inform PJM whether to file with FERC to extend the waiver request for any additional months it may take for the Members Committee to vote on any potential changes.

- August 10, 2018 Special MRC meeting from 1:00 pm 4:00 PM
 - Discuss potential alternative FTR liquidation process options
- August 23, 2018 MRC Meeting
 - Target date for indicative vote on whether Members would prefer to continue discussions of potential change(s) to the FTR liquidation process
- Additional MRC discussions will be scheduled if August 23, 2018 MRC indicative vote shows Members' would prefer to continue discussions on this topic.