Proposal for Liquidation Process to Minimize Losses to Stakeholders

PJM FRMSTF

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PERAST
CAPITAL MANAGEMENT

Discretion should be bounded

- We agree with concerns about PJM having unlimited discretion without guidelines
  - Without at least guiding principles and defined metrics, the application of unlimited discretion may or may not be applied consistently or fairly
  - In 10 years, when many of PJM's risk professionals may no longer be with PJM, the application of unlimited discretion likely would be applied differently by different people
  - PJM has no skin in the game and therefore *cannot* have the same level of motivation to minimize losses. PJM will not feel the pain of losses the way stakeholders will.
- We believe there is merit in having *some* discretion based on the many factors surrounding a defaulted portfolio
  - Discretion should be bounded within agreed upon parameters
  - For example, is there any case where an enormous defaulted portfolio comprising 20% of all outstanding market positions should be liquidated in one auction?
  - Or is there any case where a tiny defaulted portfolio should *not* be liquidated in the next regular auction?
    - Why go to the trouble of a special auction for a tiny portfolio with a small dollar impact?
    - Why let uncertainty persist by holding the defaulted positions to settlement (which also does not follow the planned margin period of risk used in initial margin)?

What is the goal in managing a default?

- The goal is to minimize losses incurred by stakeholders
- However, in many cases, eliminating the defaulted member from the market may be a competing objective
  - To minimize losses, it may be advantageous to not close out or liquidate an entire portfolio and lock out the defaulting member forever
  - This idea occurs frequently elsewhere: creditors renegotiating terms with borrowers rather than seizing assets
    - A mortgage bank doesn't grant forbearance to deserving borrowers out of the goodness of their hearts; they don't want to impose further financial strain and thereby (1) lose any chance of repayment and (2) lose even more money
  - What is more important: minimizing losses or eliminating a participant?
- Liquidating an entire portfolio (or seizing an entire portfolio and canceling/settling it) could have the same result as foreclosing on a house: (1) lose any chance of payment and (2) lose even more money by unnecessarily liquidating (selling price pressure leads to increased losses)

Restoring compliance makes cost of default $0

- We should liquidate only the portion of the defaulted portfolio necessary to raise cash for meeting the collateral call
  - In a market with finite liquidity, liquidation necessarily lowers the portfolio value
- To minimize losses, our goal should be to get the defaulting portfolio into compliance (if possible) as soon as possible
  - If the defaulting portfolio now meets margin requirements, it is just as likely as any other compliant portfolio to require another collateral call
- This is like exchange/brokerage issuing a margin call: if it is not paid, the exchange can and will liquidate any positions necessary to raise enough cash for meeting the margin call
  - The participant cannot continue trading while not in compliance
  - Once they are back in compliance, they can trade again, though the exchange/brokerage probably will require a higher level of collateral than before

Liquidation process proposal

- Measure liquidity and size of the portfolio (two factors noted by PJM)
  - For each period, divide defaulting portfolio net MWh (portfolio size) by total net MWh outstanding for entire market (liquidity). Call this the liquidity ratio.
- Set a maximum liquidity ratio allowed to be liquidated for any given period-auction
  - This would apply to all defaults every time (consistent and fair)
  - This would automatically consider size and liquidity differences between periods and auction types
  - This number should be based on a sensitivity analysis on prices from liquidating increasing portions of a portfolio
- Liquidate tranches of the portfolio in equal increments up to the maximum liquidity ratio
- PJM establishes a collateral cushion specific to this situation and default
  - This step allows for discretion based on other identified factors
  - Bounds are 10% to 100% of posted collateral
- Liquidate the necessary number of tranches until the default amount is cured *and* the required collateral cushion funds are made available
- If volume remains after first auction (because of liquidity ratio cap), continue liquidating using same procedure over subsequent auctions
- We would suggest that the second default in any rolling 24-month period should result in further disciplinary action (e.g., market ban), though this may be out of the current scope

Liquidation process proposal – example A

- Participant XYZ has $50M of collateral posted for BOPP and long-term FTRs
- A large price move in DEC 2020 auction results in a collateral call for $20M
- XYZ has only $10M additional cash available to post; XYZ declared in default
- *If* the goal of default management is minimizing losses by bringing portfolios into compliance and XYZ will not lose access to markets or its portfolio once it is in compliance, XYZ will post $10M additional collateral
  - Otherwise, XYZ will certainly not post any additional collateral, the portfolio will be seized and liquidated by whatever rules are in place, and the loss to stakeholders will be greater
- So now XYZ has $60M posted, but needs $70M for current portfolio
- For each period, divide portfolio net MWh by total market net MWh (liquidity ratios)
  - Say this results in 1.5% for DEC, 0.8% for JAN, 1.25% for FEB, and 0.9% for MAR-MAY and LT PYs
- If maximum liquidity ratio is 1%, then up to this amount of each period can be liquidated in any one auction
- In first available BOPP auction, 2/3 (=1/1.5) of DEC FTRs, all of JAN, 4/5 (=1/1.25) of FEB, and all of MAR-MAY will be potentially liquidated. In first LT auction, all LT FTRs are on the table.

LIQUIDATION PROCESS PROPOSAL – EXAMPLE A

- In first BOPP auction, each period's potentially liquidated positions are divided into 5 (this number is adjustable) equal tranches for liquidation
- PJM must determine the collateral cushion required; say it is 50%
  - So the money posted must be 150% of the normal calculation
  - In this case, $60M is posted, so the requirement needs to be reduced to $40M
- An increasing number of tranches are liquidated, adding one tranche at a time
  - This may result in realizing more losses than gains, but IM is freed up
    - E.g., one FTR may be sold at a -$400 MTA value, but if its IM is $1000, $600 of cash is raised from the sale
  - Liquidation of the first tranche results in an XYZ collateral requirement of $45M
  - Liquidation of the first two tranches results in an XYZ collateral requirement of $40M

Liquidation process proposal – example B

- Participant ABC has $10M of collateral posted for BOPP and LT FTRs, but most ($8M) of this is variation margin that has been mounting over time
- A further decline in prices in JAN 2021 auction results in a collateral call for $3M
- ABC has no additional cash available to post; ABC declared in default
- ABC has $10M posted, but needs $13M for current portfolio
- For each period, divide portfolio net MWh by total market net MWh (liquidity ratios)
  - Say this results in 1.25% for JAN, 1.25% for FEB, and 0.2% for MAR-MAY and LT PYs
- If maximum liquidity ratio is 1%, then in first available BOPP auction, 4/5 (=1/1.25) of JAN-FEB and all of MAR-MAY will be potentially liquidated. In first LT auction, all LT FTRs are also on the table.

Liquidation process proposal – example B

- The 5-tranche procedure could still be followed, but we can skip to liquidating all 5 because we know that even total liquidation would not raise enough cash to cover losses even without a collateral cushion
  - Losses = $11M = $8M variation margin going into auction + $3M variation margin in auction
  - Collateral posted = $10M
- In JAN auction, 4/5 of JAN-FEB and all of MAR-MAY are liquidated
- Remaining 1/5 of JAN positions must go to settlement
- Remaining 1/5 of FEB positions are liquidated in FEB auction

Q & A (1)

- If a collateral default occurs, this would occur intra-auction. Should liquidation begin immediately, in that auction?
  - The defaulting member's new bids would be removed and the auction must be re-solved anyway (unless the defaulting member had no new bids)
  - If the liquidated positions are sufficiently small (per proposed size/liquidity measure), the impact to prices will be minimal, and the lack of warning about the default prior to other members submitting bids may be worth it if having such a rule would result in an MPOR of 1 in initial margin discussions
    - MPOR of 1 rather than 2 could significantly reduce collateral requirements for *everyone* with *no additional risk*. We would really need to see dollar differences between MPOR of 1 and 2 to make this decision.

Q & A (2)

- What happens if a default is cured (or could be cured if allowed) between the declaration of default and liquidation of portfolio?
  - Under our proposal, a cure would require meeting the collateral call plus cushion, and the loss to stakeholders would be $0
  - Under other proposals, would the entire portfolio still be liquidated/settled/canceled? If so, stakeholders could/would bear losses caused by such actions that are theoretically no longer necessary.
- Aren't we giving a free pass to defaulting members?
  - No; stricter requirements are imposed through the cushion. A portfolio meeting regular collateral requirements plus the cushion is less likely to require a collateral call than any other portfolio.
  - Having a 2-strike ban rule (and stricter requirements after 1 strike) balances minimizing/eliminating losses to stakeholders with adequately punishing defaulting members
  - Our proposal is not appealing for leniency; it is appealing for minimizing losses

Q & A (3)

- What about defaulted FTRs that are the only FTRs on a given path? Wouldn't liquidating these necessarily set the price very low?
  - No – paths don't matter except to the extent they are exposed to constraints. Constraints are what determine prices.
  - PJM FTR Group did an excellent study[1] on the number of participants active on all constraints
    - Only one constraint had fewer than 20 participants, and that one still had 9
    - This was based on data from 2 years ago, when there were fewer active FTR participants overall than now
- Aren't we tying PJM's hands now like they were tied for the GreenHat default?
  - No – the discretionary cushion allows for impacts of unforeseeable factors. Foreseeable factors should be considered and discussed now.
  - PJM still has all the discretionary tools in the "Market Participant Risk Evaluation Enhancements" passed in March[2]:
    - "If appropriate, PJM will … change [the Market Participant's] … Restricted Collateral, required Collateral or other assurances pursuant to PJM's ongoing risk evaluation process."
  - This proposal (or one similar to it) presents a process that should result in minimized losses to stakeholders for the vast majority of FTR market defaults
    - We are open to suggestions and feedback around our general framework, and we think a discussion to define a standard procedure is beneficial for everyone

[1] PJM FTR Group, "Financial Transmission Rights Market Review" (April 2020), Fig. 16, p23. https://www.pjm.com/-/media/library/reports-notices/special-reports/2020/ftr-market-review-whitepaper.ashx?la=en

[2] Tariff Attachment Q, Sec. II, ¶E

Restoring compliance minimizes stakeholder losses

- With minimum credit rule, MTA variation margining, and forthcoming improvements in initial margin, the days of defaulting on 10x or 100x posted collateral are over
  - Under current rules, GreenHat's default would have happened much earlier and been a small fraction of its eventual cost
- Future defaults are much more likely to be fractions of posted collateral than large multiples of posted collateral
- Our proposal liquidates as much as necessary to eliminate losses if possible
  - If losses cannot be eliminated, our proposal allows for prompt liquidation to the degree size/liquidity allows in order to stop further losses while still providing for flexibility in extenuating circumstances
- Our proposal provides a level of certainty and informs the initial margin discussions
  - Though IM also needs to inform details of liquidation rules (per Q&A-1 slide)