

# Historical Simulation Initial Margining (HSIM) Implementation Frequently Asked Questions (FAQs)

Version: *September 13, 2022*

**Q1** For bid collateral, is PJM still combining previously cleared positions with the bid positions and separating flow/counterflow into separate portfolios, then taking the square root of the sum of the squares of these two sub-portfolios?

**A1** Yes.

**Q2** What price is being used to classify existing positions as flow/counterflow? The purchase price or the most recent MCP?

**A2** Existing positions are classified based on the most recent MCP.

**Q3** What price is being used to classify bid positions as flow/counterflow? The bid price?

**A3** Bid positions are classified based on the bid price.

**Q4** Is PJM using the standard deviation approach for all trades? Or is the historical percentile being used for trades when there are enough samples? If historical percentile for some, how many samples are required to switch over to historical, or what other feature is used to determine which method is used? For historical percentiles, is PJM using linear interpolation between values? In the standard deviation approach, where can we find the list of factors PJM is using for different numbers of samples?

**A4** The use of standard deviation or percentile approach depends on the sample size. If sample size is less than 150, then standard deviation approach is used, and no other features are used. PJM is using linear interpolation between values. The IM-H Cushion Factor file posted on <https://pjm.com/markets-and-operations/ftf> goes up to 149.

- Q5** Is PJM publishing the MCP and MCC reference data that it's using to calculate the two-month MPOR price moves for every trade in history?
- A5** Yes. There is a zipped file *IM-H Historical Data* under the "FTR Credit" section on this page:  
<https://pjm.com/markets-and-operations/fttr>.
- This file will be updated going forward.
- Q6** We understand that when the auction clears, the new MCPs are used for the latest price move in the calculation. At what point do realized MCCs enter the calculation? E.g., is the current month-to-date MCC extrapolated to the entire month and used, or does the full month enter the calc when DA LMP is posted for the last day of the month, or when settlement-verified LMPs are posted?
- A6** The full month MCCs enter the IM calculation around 12th of the following month, which is settlement-verified LMPs. Please note that the DA LMP also enter the Realized Gains and / or Losses calculation on a daily basis.
- Q7** Is PJM rolling off the current month's IM throughout the month (not considering RGL)? If so, is it done on a daily basis? If so, are the days for a month prorated evenly or are peak/offpeak days treated differently? If differently, what is the calculation?
- A7** PJM rolls off the current month's IM throughout the month based on number of days left in the month, regardless of peak/offpeak days.
- Q8** Is PJM planning to exclude price moves from the "old" offpeak to the new two class types as the new class types begin printing?
- A8** PJM has broken down the historical "offpeak" prices into DailyOffPeak and WkndOnPeak prices via a class type hours ratio allocation at this time; This ensures that current positions that were cleared as offpeak will have the same IM requirement as before the split. For the new products starting to transact in the October monthly auction, we are finalizing assessment and validation of the methodology to use for their respective price histories.
- Q9** PJM publishes historical DA\_CLMP for each auction. How are they calculated for aggregate zones? Are they the DA CLMP from hourly DA prices, or from Monthly Financial Transmission Rights Zonal LMPs?
- A9** The DA\_CLMPs are the DA CLMPs from hourly DA prices, which are consistent with all other nodes. We understand for FTR settlement purpose, aggregate zone DA CLMPs are calculated by the percentage of the

load at time of annual peak associated with each individual load bus, which carry slightly different weights. For the purpose of Initial Margin calculation, the effect is minimal.

**Q10** For closed FTR positions in future months, do you treat the locked-in profits or losses as MTA or Realized Gains and/or Losses?

**A10** PJM treats the locked-in profits or losses as MTA. Realized Gains and/or Losses reflect any positions that have “flowed” and not yet been billed, as well as positions that have “flowed” and were billed, but have not yet been paid.

**Q11** Are the history of Pnode changes available, if yes, where are they located?

**A11** There is a Bus Model Update section available on LMP Model Information page: <https://pjm.com/markets-and-operations/energy/lmp-model-info>. For FTR specific LMP bus model updates, please refer to <https://pjm.com/markets-and-operations/ftr>, under section Model Information, FTRs affected by LMP Bus Model Updates.

**Q12** We have clients who do not participate in the FTR auctions but use FTR Center only to submit ARRs. Would existing LSEs that already have access to FTR Center and have self-selected ARRs in prior years be required to post any form of collateral in the next 2023-2024 reporting year? If so, can you specify which form of collateral is required?

**A12** ARR credits offset initial margin in the year they are applicable. In general, in a case where there is a FTR credit requirement, the acceptable form of collateral is either cash or a letter of credit.

**Q13** Regarding the IM calculation, the filing notes that the IM is calculated using a historical simulation value-at-risk methodology. Please advise if there is a specific document section that references the actual calculation?

**A13** See PJM Tariff filing on page 41 (HSIM model): <https://pjm.com/directory/etariff/FercDockets/6715/20220603-er22-2029-000.pdf>

**Q14** There is a new column in the eCredit member data report called "effect of RGL adjustments". What is the meaning and why it was added?

**A14** This is the effect on the total credit exposure (TCE) of moving the realized gains/losses from TCE to the FTR credit requirement. PJM added explanations in pop-ups – mouse over the field name on the eCredit screen to view the explanations. In addition, definitions and explanations can be accessed using the ‘Definitions’ button at the bottom of the eCredit screen.

**Q15** In the past, we were able to use the auction ‘credit study’ module to get an idea of what was needed prior to an auction opening. However, now FTR Center will not let you post using the ‘credit study’ module without having the necessary credit in your account

**A15** This has been identified as a defect and GE is currently working to resolve it. Currently, we expect to have the fix tested and implemented prior to the October auction. In the meantime, members can still use the credit study to submit their bids and see the total number. If they do not have enough credit, the bids will currently be rejected until the fix is implemented.

**Q16** There appears to be a change in the PJM FTR credit calculator. Upon uploading a file for the credit study, it assumes it is a bid submission file and gives an error for insufficient credit. Could you please look into it?

**A16** This has been identified as a defect and GE is currently working to resolve it. Currently, we expect to have the fix tested and implemented prior to the October auction. In the meantime, market participants can still use the credit study to submit their bids and see the total number. If they do not have sufficient credit, the bids will be rejected until the fix is implemented.