

Proposed TCC Credit Policy Enhancements

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Background

In March 2019, at the direction of PJM's Board of Directors, the Report of the Independent Consultants on the GreenHat Default in PJM's Financial Transmission Rights ("FTR") market ("GreenHat Report") was issued to the public.

 The NYISO reviewed the report to understand the background, issues, and recommendations for the PJM market.



Background

- The NYISO believes that the current credit requirements for the TCC market provide appropriate protection against potential default risks and already address many of the concerns/issues highlighted by the GreenHat Report.
 - A prior NYISO analysis demonstrated that application of NYISO's current TCC credit policy to a
 portfolio of TCCs similar to that held by GreenHat Energy, LLC in PJM's FTR market could have
 resulted in a collateral requirement in excess of \$300 million, which would have sufficiently
 covered the default (refer to August 24, 2018 BACWG materials).
- In light of the GreenHat Report, the NYISO also conducted a comprehensive evaluation of its current TCC credit policy and auction practices and identified potential enhancements.
- The NYISO presented these potential enhancements to stakeholders on May 8, 2020 and requested feedback by May 18, 2020.
 New York ISO

Proposed TCC Credit Policy Enhancements



Overview of Proposed Enhancements

- The NYISO identified the following potential enhancements to its current TCC auction practices and credit policy:
 - Either: (1) hold the higher of the payment obligation or holding requirement for the second year of a two-year TCC; or (2) require payment of both years of a two-year TCC at the end of the Centralized Auction in which the two-year TCC is purchased.
 - Utilize TCC auction prices to calculate credit requirements for TCCs currently only subject to the historical congestion rent credit requirement.
 - Pursue enhancements to facilitate earlier recalculation of the collateral requirements for the second year of a two-year TCC.
- Additional details regarding the potential enhancements are provided in the appendix to this presentation.
 - The appendix contains slides previously presented at the May 8, 2020 BACWG meeting.

Market Participant Feedback and NYISO Response



Market Participant Feedback – Two-Year TCC Payment Obligation:

 Support the NYISO holding as collateral the higher of the payment obligation or holding requirement until such time the second year of a twoyear TCC is paid, rather than paying for both years in advance.

NYISO Response:

- The NYISO will propose modifications to the tariff to hold the higher of the payment obligation or holding requirement until payment for the second year of a two-year TCC is received.
- This enhancement is consistent with the credit requirement treatment for all other TCCs.

Market Participant Feedback – "Historical Projection" Calculation:

• Support the NYISO removing the 90-day "historical projection" calculation and extend the application of the Auction TCC Holding Requirement to all TCC product types.

NYISO Response:

• The NYISO will propose modifications to the tariff to remove the 90-day "historical projection" calculation and extend the application of the Auction TCC Holding Requirement to all TCC product types.

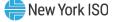


- Market Participant Feedback Administer the first oneyear round of the next equivalent Centralized TCC Auction five to six months earlier:
 - Concerns about the logistics, administrative/participation impacts/burdens, and overall cost/benefit of running a single auction round of the annual auction six months ahead of schedule.
 - Concerns that this may increase the number of rounds required to conduct a Centralized TCC Auction.



Market Participant Feedback (cont'd):

- Concerned about increases in overall costs for Market Participants due to posting collateral for a longer period of time and costs of participating in an additional auction.
- Concerned about the level of participation/interest and potential adverse impacts on auction pricing outcomes.
- Concerned this may reduce the number of entities willing to participate due to tying up capital for longer periods of time.
- Concerned that adverse impacts to administration and participation are unnecessary given the relatively low level of risk at issue, especially in light of the small volume of system capacity sold as two-year TCCs.



- NYISO Response Administer the first one-year round of the next equivalent Centralized TCC Auction five to six months earlier:
 - In recommending this enhancement, the NYISO analyzed similar auctions in PJM and found that earlier repricing provides the following benefits:
 - Facilitates recalculating the collateral requirement for the second year of a two-year TCC earlier, allowing collateral calls to be made while the second year is still profitable relative to the collateral held.
 - Provides for improved coverage with respect to potential declines in future value of TCCs.



NYISO Response (cont'd):

- A critical recommendation from the GreenHat Report is to reprice TCCs more frequently to capture changes in credit risk over time.
 - The NYISO currently does not recalculate the credit requirement for the second year of a two-year TCC until approximately one year after the initial award.



NYISO Response (cont'd):

- Potential impacts on auction administration, level of participation, and/or outcomes are unknown until the revised auction procedures have been implemented and data is available for evaluation
- The NYISO continues to recommend this option to ensure more current pricing is utilized to provide for improved coverage against potential declines in future value of the second year of two-year TCCs.
- The proposed enhancements are intended to better protect Market Participants from the risk of being charged a bad debt loss due to another Market Participant's default.



Next Steps

BACWGMay 2020

BACWGJune 2020

BIC Q3 2020

• MC Q3 2020

Board of DirectorsQ4 2020

FERC FilingQ4 2020

Planned Implementation October 2021



Questions?



Appendix

(Slides Presented at 5/8/2020 BACWG Meeting)



Current TCC Credit Policy



Minimum Participation Criteria

- The NYISO requires Market Participants in the TCC market to provide audited financial statements indicating at least \$10 million in assets or \$1 million in tangible net worth ("TNW").
- Absent audited financial statements, or if unable to meet the asset or TNW thresholds, TCC
 Market Participants must provide \$500,000 in secured credit.
- TCC Market Participants are required to provide their risk policies, or a certification stating the policies have not materially changed, each year.
 - The NYISO credit team and legal department review the policies to ensure they meet the minimum criteria as defined in the NYISO tariffs.
- TCC Market Participants are required to provide notice to the NYISO of a material change to their risk policies within five business days of implementing the change.

All TCC Market Participants must provide secured credit to participate in the market.

Unsecured credit is not permitted in the TCC market.



- The TCC credit requirement is equal to the greater of (a) the Auction TCC Holding Requirement or (b) the Mark-to-Market Calculation (historical projection).
 - Only TCCs awarded in Centralized TCC Auctions, Reconfiguration/Balance-of-Period Auctions, and Fixed Price TCCs are subject to the Auction TCC Holding Requirement.
 - Certain other TCCs are only subject to the Mark-to-Market Calculation (*i.e.*, Grandfathered TCCs, Incremental TCCs, ETCNL TCCs, and RCRR TCCs).
- However, upon initial award of a TCC until the NYISO receives payment for that TCC, the NYISO will hold the greater of the payment obligation or the credit requirement listed above.
 - The exception is the collateral held for the second year of a two-year TCC.



Suspension Policy for TCC Market Participants

- If at any time, losses exceed 50% of the collateral posted in the TCC market, the Market Participant will receive a request for payment of the losses or additional collateral in that amount, which must be received in full that same day, otherwise the entity will be automatically suspended from the TCC market.
- Suspension from the TCC market will prohibit Market Participants from further participation, including submitting additional bids. However, the Market Participant continues to own any TCCs they have been awarded prior to suspension and remains obligated to satisfy the credit requirements and all other TCC obligations.



- All TCCs, other than the second year of a two-year TCC, are paid for prior to the beginning of their term.
 - The first year of a two-year TCC is paid for prior to the beginning of its term while the second year of the two-year TCC is paid for prior to the commencement of the second year of that TCC.
 - The NYISO holds a collateral margin on the payment due for the second year of a two-year TCC to cover declines in value relative to the auction price.
- Each TCC auction updates market-clearing prices that are used by the Credit Management System ("CMS") to recalculate collateral requirements based on the updated prices.
 - If there is a collateral shortfall due to the updated market-clearing prices, the Market Participant will receive a collateral call due two business days later.
 - If the collateral call is not met, the Market Participant will have two business days to cure the
 default.
 - If the default is not cured, the NYISO has the right to suspend or terminate their participation in the NYISO markets.



Balance-of-Period ("BoP") Credit Requirements

- The NYISO and its outside consultant, FTI Consulting ("FTI"), developed credit requirements for the BoP auctions that began in August 2017.
 - BoP auctions produce updated market-clearing prices for every remaining month within the current Capability Period.
 - The market-clearing prices from BoP auctions are used to recalculate collateral requirements ("reprice") for TCCs for every month within the current Capability Period and, if applicable, break down longer-term TCCs from the Centralized TCC Auctions for repricing purposes.
 - This ensures that the NYISO utilizes the most current market-clearing prices to determine collateral requirements for its TCCs.
 - As such, each time the auction runs, TCCs are marked-to-market, which provides the most current market-clearing prices for calculating TCC credit requirements.



Balance-of-Period ("BoP") Credit Requirements

 NYISO regularly evaluates whether the current credit policy provides sufficient collateral coverage for the portfolios of TCCs awarded.

 FTI has analyzed the available BoP auction results and found that the credit policy design implemented in 2017 has provided adequate collateral coverage.



Potential Enhancements



Payment of the Second Year of a Two-Year TCC

- As noted, all TCCs, other than the second year of a two-year TCC, are paid for prior to the beginning of their term.
 - The first year of a two-year TCC is paid for prior to the beginning of its term while the second year of the two-year TCC is paid for prior to the commencement of the second year of that TCC.
 - The NYISO holds a collateral margin on the second year of a twoyear TCC to cover declines in value relative to the auction price.



Payment of the Second Year of a Two-Year TCC

- The NYISO recommends either holding the higher of the payment obligation or the holding requirement on the second year of a two-year TCC until payment is made prior to the start of the second year or, alternatively, require payment of both years up front (i.e., require payment for both years at the same time payment is currently required for the first year).
 - Payment in advance may reduce the risk of default for the second year of the TCC.
 - Holding collateral to cover the full payment due could be less expensive to the Market Participant if the portfolio has a high enough value that collateral offsets (credits against TCC collateral requirements) cover the collateral required on the payment due for the second year.
 - Payment is due prior to the commencement of the second year of the TCC.
 - The NYISO would hold the higher of the payment obligation or the holding requirement for that TCC.
 - The credit requirement for the second year of the TCC would be the margin less the auction value.

Historical Mark-to-Market Calculation

- The TCC credit requirement is equal to the greater of (a) the Auction TCC Holding Requirement or (b) the Mark-to-Market Calculation (historical projection).
- The Mark-to-Market Calculation is the projected amount of the Primary Holders' payment obligation to the NYISO.
 - This calculation averages historical congestion rents for each TCC over the past 90 days, extrapolates the average out for the duration of each TCC up to two years, and sums the total.
 - This is the only collateral obligation used for ETCNL TCCs, RCRR TCCs, Incremental TCCs, and Grandfathered TCCs.

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Historical Mark-to-Market Calculation

- The NYISO recommends eliminating the current historical Mark-to-Market Calculation.
 - Historical congestion rents are a less accurate predictor of future payments due than current auction clearing prices.
 - Historical congestion rents over the prior 90 days do not reflect:
 - Expected changes in future market conditions, such as fuel prices, available generation or transmission outages;
 - Seasonal changes in power demand and supply.
 - The use of auction clearing prices provide a better measure of future payments due.



Historical Mark-to-Market Calculation

- The NYISO proposes to extend the application of the Auction TCC Holding Requirement to all TCC product types:
 - ETCNL TCCs and RCRR TCCs would be repriced in accordance with MST Section 26.4.2.4.2.3 – Six Month TCCs, using prices from the final Six Month round.
 - Incremental TCCs and Grandfathered TCCs would be repriced in accordance with MST Section 26.4.2.4.1.2 - One Year TCCs, using prices from the final One Year round.
 - Because of the duration of these TCC types, it may be appropriate to update the duration covered by the collateral requirement to a year every six months. This would allow for the calculation of collateral covering a new future sixmonth period.



- The NYISO currently does not recalculate the credit requirement for the second year of a two-year TCC, which the NYISO holds a margin on, until approximately one year after it has been initially awarded.
 - No new prices are available for the second year of a two-year TCC until an equivalent period is run in the Centralized TCC Auction, providing new prices covering the same period as the second year of the two-year TCC.
- The NYISO evaluated certain options to potentially recalculate the credit requirement the second year of a two-year TCC earlier.



- In consultation with FTI, the NYISO evaluated two potential options to reprice the second year of a two-year TCC earlier.
 - Option 1: Reprice the second year of a two-year TCC using a price obtained in the final one-year round of the immediate next Centralized TCC Auction.
 - Option 2: Administer the first one-year round of the next equivalent Centralized TCC Auction, in which one-year TCCs are offered that cover the same period as the second year of the two-year TCC, about five to six months sooner to generate updated market-clearing price data.



- Option 1: Reprice the second year of a two-year TCC using a price obtained in the final one-year round of the next Centralized TCC Auction (interim auction price).
 - While the period covered by one-year TCCs sold in this auction would be offset by six months from the second year period intended to be repriced, it would facilitate recalculation of the credit requirements with updated prices approximately six months sooner than the current procedures.



Option 1 FTI Analysis Results

- Using this interim auction price to update the credit requirement would have provided no improvement in historical coverage of payments at the portfolio level.
- Using this interim auction price to update the credit requirement would have provided less coverage of historical payments at the TCC level.



Option 1 NYISO Conclusion

- The NYISO does not recommend this approach for the following reasons:
 - Utilizing the interim price does not improve collateral coverage compared to current practice. In fact, at the TCC level, the use of interim prices tend to provide less coverage.
 - The temporal mismatch between the period covered by the mark-tomarket calculation and the remaining duration of the two-year TCC could potentially present concerns regarding inadequate protection for certain higher risk TCCs.



- Option 2: Administer the first one-year round of the equivalent Centralized TCC Auction in which one-year TCCs are offered that cover the same period as the second year of the two-year TCC, about five to six months earlier, to generate more up to date pricing values.
 - The remaining one-year rounds of this Centralized TCC Auction would be administered following its normal schedule.
 - The proposal contemplates only shifting the conduct of a single oneyear round to an earlier timeframe.



Option 2 FTI Analysis Assumptions

- Given that the NYISO does not currently run this type of auction, the analysis
 utilized results of past PJM future year FTR auctions to evaluate the potential
 benefit of adding such an interim valuation in the NYISO market.
- The NYISO applied the non-JK credit formula to the PJM FTRs being evaluated.
 - Because there are no separate collateral requirements for on and off-peak TCCs in the NYISO market, the same formula was applied to PJM 24 hour FTRs, onpeak FTRs and off-peak FTRs.
- Since the timing of auctions in PJM are not completely aligned with the timing of NYISO TCC auctions, the analysis looked at the mark-to-market valuation provided by both intervening auctions in PJM (September and December).

- Option 2 FTI Analysis Assumptions (continued)
 - The set of PJM FTRs valued were those sold in the following annual auction.
 - These FTRs were used rather than those sold in PJM's June auction because only some FTRs source and sink pairs can be sold in the future year auctions.
 - Assumed collateral calls based on the September or December PJM FTR auction price would be met if the FTR value plus collateral exceeded its original price.



Option 2 FTI Analysis Results

- Using data from either PJM's September or December auctions to mark-tomarket FTRs purchased in the June auction, showed that running an auction round five to six month sooner could reduce the uncovered decline in auction value by ~20% at the TCC level.
- The NYISO recommends running a single one-year auction round from the next equivalent Centralized TCC Auction five to six months earlier than current auction timelines.
 - Facilitates recalculating the collateral requirement for the second year of a twoyear TCC earlier, allowing collateral calls to be made while the second year is still profitable relative to the collateral held.
 - Earlier repricing provides for improved coverage of declines in future auction value.

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- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system



