

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.**

Background

- The NYISO presented these potential enhancements to stakeholders on May 8, 2020 and requested feedback by May 18, 2020.
- On June 18, 2020, the NYISO responded to Market Participant feedback.
- Feedback on a potential alternative option to facilitate earlier recalculation of the credit requirements for the second year of a two-year TCC was requested by June 26, 2020.
- Additional details regarding the potential enhancements, Market Participant feedback, and the NYISO's initial response are provided in the appendix to this presentation.
 - The appendix contains slides previously presented at the May 8, 2020 and June 18, 2020 BACWG meetings.

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.
 - Market Participants support the NYISO holding as collateral the higher of the payment obligation or holding requirement until such time the second year of a two-year TCC is paid, rather than paying for both years in advance.
 - The NYISO will propose modifications to the tariff reflecting this enhancement, which is consistent with the credit requirement treatment for all other TCCs.

Overview of Proposed Enhancements

- **The NYISO identified the following potential enhancements to its current TCC auction practices and credit policy (cont'd):**
 - Utilize TCC auction prices to calculate credit requirements for TCCs currently only subject to the historical congestion rent credit requirement.
 - Market Participants support the NYISO removing the 90-day “historical projection” calculation and extending the application of the Auction TCC Holding Requirement to all TCC product types.
 - The NYISO will propose modifications to the tariff reflecting this enhancement, which is consistent with the credit requirement treatment for all other TCC product types.

Overview of Proposed Enhancements

- **The NYISO identified the following potential enhancements to its current TCC auction practices and credit policy (cont'd):**
 - Pursue enhancements to facilitate earlier recalculation of the collateral requirements for the second year of a two-year TCC.
 - Market Participants expressed various concerns regarding the NYISO's option to administer the first one-year round of the next equivalent Centralized TCC Auction five to six months earlier, including logistics, administrative/participation impacts/burdens, and overall cost vs. benefit.
 - As an alternative to the NYISO's proposal, a stakeholder suggested offering an 18-month TCC product as a means to provide earlier data regarding the implicit value of the second year of a two-year TCC.
- **The NYISO requested feedback on this 18-month TCC product alternative by June 26, 2020.**

Market Participant Feedback and NYISO Response to Alternative Proposal

MP Feedback and NYISO Response

- **Market Participant Feedback – Offer an 18-month TCC product as an alternative to administering an annual round five to six months early:**
 - Reconfiguration options may be more readily available to TCC holders for an earlier conducted one-year TCC product offering rather than implementing a new 18-month TCC product offering.
 - An 18-month TCC product does not provide direct information regarding the value of the second year of two-year TCC; instead, the pricing value must be implied.
 - A new 18-month TCC product may be more administratively burdensome to implement from the perspective of required NYISO system changes, as well as the burden and time required to administer and participate in TCC auctions.

MP Feedback and NYISO Response

■ NYISO Response:

- An 18-month product will require system and process changes that may materially delay implementation of enhancements.
- A critical recommendation from the GreenHat Report is to re-evaluate credit requirements for TCCs more frequently to capture changes in credit risk over time. However, adding an entirely new product to obtain a more recent price for credit protection appears excessive if other options requiring a lesser degree of overall market changes are readily available.
- Using an 18-month product does not provide direct valuation of the market clearing price for the second year of a two-year TCC, instead such value can only be derived implicitly. The NYISO's proposal would directly provide updated pricing values.

MP Feedback and NYISO Response

■ NYISO Response (cont'd):

- Implementing a new 18-month product will add a round(s) prior to the one-year auction rounds of the Autumn Centralized TCC Auctions, which is likely to result in an increase in the number of auction rounds for the Autumn Centralized TCC Auctions.
 - Administering an annual round of the subsequent Spring Centralized TCC Auctions five to six months earlier could be run concurrently with a round of the Autumn Centralized TCC Auction or following the completion of all rounds of such auction.
- While the NYISO understands concerns regarding potential cost to Market Participants with regard to running a round early, 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 is concerned that the alternative of implementing a new 18-month product appears to present the same or similar concerns, while potentially resulting in further delays to implement the enhancements compared to the NYISO's proposal.

MP Feedback and NYISO Response

■ NYISO Response (cont'd):

- The NYISO continues to recommend administering an annual round of the subsequent Centralized TCC Auction offering the equivalent one-year period covered by the second year of a two-year TCC five to six months earlier to ensure more current pricing is utilized, providing 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

- BACWG May 2020
- BACWG June 2020
- BACWG July 2020
- **BIC Q3 2020**
- **MC Q3 2020**
- **Board of Directors Q4 2020**
- **FERC Filing Q4 2020**
- **Planned Implementation October 2021**

Questions?

Appendix

(Slides Presented at 5/8/2020 and 6/18/2020 BACWG Meetings)

Current TCC Credit Policy

Current TCC Credit Policy Overview

■ 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.

Current TCC Credit Policy Overview

- **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.

Current TCC Credit Policy Overview

■ 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.

Current TCC Credit Policy Overview

- **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 two-year 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.

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 six-month period.

Reprice Collateral for the Second Year of Two-Year TCC

- **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.**

Reprice Collateral for the Second Year of Two-Year TCC

- **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.

Reprice Collateral for the Second Year of Two-Year TCC

- **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.

Reprice Collateral for the Second Year of Two-Year TCC

■ 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.

Reprice Collateral for the Second Year of Two-Year TCC

■ 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-to-market calculation and the remaining duration of the two-year TCC could potentially present concerns regarding inadequate protection for certain higher risk TCCs.

Reprice Collateral for the Second Year of Two-Year TCC

- **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 one-year round to an earlier timeframe.

Reprice Collateral for the Second Year of Two-Year TCC

■ 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, on-peak 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).

Reprice Collateral for the Second Year of Two-Year TCC

■ 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.

Reprice Collateral for the Second Year of Two-Year TCC

■ Option 2 FTI Analysis Results

- Using data from either PJM's September or December auctions to mark-to-market FTRs purchased in the June auction, showed that running an auction round five to six months 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 two-year 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.

Two-Year TCC Repricing Enhancements: Initial Feedback and Response

MP Feedback and NYISO Response

- **Market Participant Feedback – Administer the first one-year 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.

MP Feedback and NYISO Response

■ 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.

MP Feedback and NYISO Response

- **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.

MP Feedback and NYISO Response

■ 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.

MP Feedback and NYISO Response

■ 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.

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