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Pay for Performance Financial Assurance

Update to the Financial Assurance Policy regarding Pay-for-Performance Penalties and Unsecured Potential Credit Risk Exposure regarding Market Participants with Inadequate Corporate Liquidity Profiles

NEPOOL Budget & Finance Committee Meeting

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The ISO plans to move forward with the filing of an additional update to the Financial Assurance Policy (FAP) regarding FCM Delivery FA and unsecured potential credit risk exposure

Executive Summary

- The ISO presented and discussed several recommended updates to the FAP with the Budget and Finance Subcommittee last year regarding FCM Delivery FA (i.e., pay-for-performance collateral)
- The first three recommended updates (Scaling Factor, Capacity Weighted Average Performance, and Realized PFP Collateral Timing/Intra-month Collateral) improve the overall effectiveness of the PFP collateral methodology to mitigate clearing, credit, and liquidation risks; they were filed with FERC during Q4 of 2023 and are pending approval with an expected effective date of March 1st, 2024 (Docket No. ER24-661-000)
- This presentation addresses the credit risk that some Market Participants may not have sufficient liquidity to cover incremental collateral requirements associated with potential PFP penalty payments that exceed the posted PFP collateral
- We are planning to present FAP Redlines at the February 9th Budget and Finance Subcommittee meeting to address such unsecured potential credit risk; the ISO will request an effective date in Q2 or Q3 of 2024

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ISO's PFP collateral design is undermined by Market Participants that are unable to post incremental collateral in scenarios where potential performance penalty payments exceed the posted PFP collateral

PFP Collateral Design Issue

- Generally, the objective of the FAP is to ensure that there is sufficient cash available to clear the market each day and to cover a participant's settled obligations in the case of a default

- The maximum potential settled obligation (i.e., the maximum potential performance payment penalty) can be calculated ahead of time in the Forward Capacity Market and prudently managed from a corporate liquidity risk perspective
  - It is intrinsically linked to the number of Capacity Supply Obligation (CSO) MWs that are awarded in the auction for the relevant Capacity Commitment Period and the associated monthly / annual stop loss limit

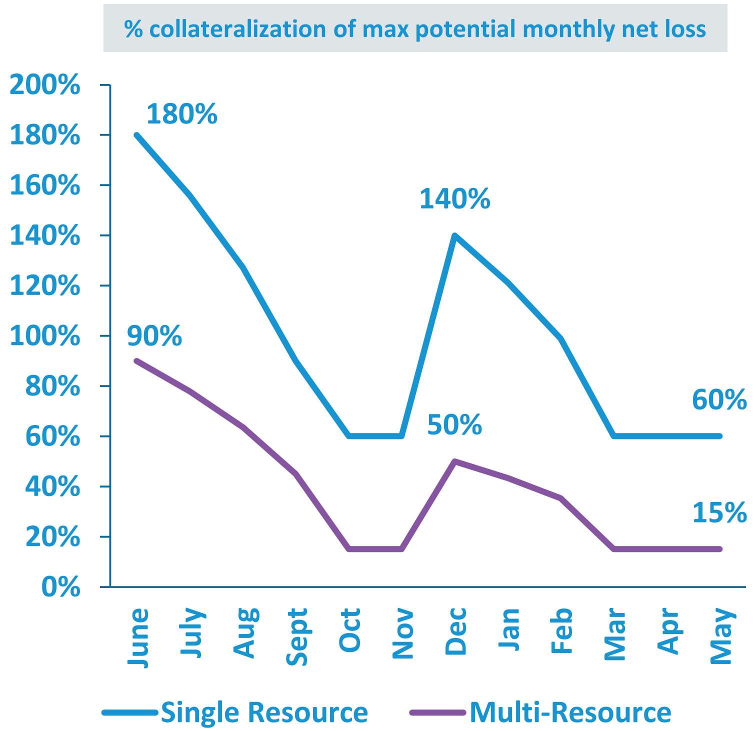
- If a settled obligation exceeds the posted PFP collateral, the ISO is faced with unsecured credit risk until additional financial assurance is received from the Market Participant (MP) to collateralize it

- MPs that do not maintain adequate liquidity to post incremental collateral to fully cover their maximum potential penalty payment obligations present a higher credit risk to the ISO versus those that do

The FCM Delivery FA methodology per the FERC approved design allows unsecured potential credit risk exposure but doesn't currently consider the higher credit risk posed by MPs that have constrained liquidity profiles

Collateralization of Monthly Maximum Potential Net Losses Example

100 MW CSO CCP 2025-26[1,2,3 & 4]



- Per the collateralization methodology, the ISO holds the highest amount of collateral against Market Participants that have just one resource due to concerns about operational risk
- Since operational risk is diversified with Market Participants that have multiple resources in their portfolios, the methodology calls for relatively less collateral
- However, any Market Participant that is unable to post incremental collateral to satisfy their maximum potential obligation poses a higher credit risk to the pool

1) Monthly max potential net loss exposure = monthly stop loss limit minus monthly capacity base payment
2) For single resources, the collateral requirement is based on the entire resource being unavailable during the scarcity event
3) Multi-resource Market Participant based on 2 gas plants with 50 MW CSO per plant and assumes 50 MW is experiencing an outage and the other 50 MW operates per its weighted average performance
4) ISO filed updates to the FCM Delivery FA methodology which is currently pending approval with FERC and has an expected effective date of March 1, 2024 (Docket No. ER24-661-000). The data above reflects those updates.

This design issue was evident from the ISO's liquidity assessment of Market Participants that did not perform during Winter Storm Elliott

Market Participant Liquidity Assessment
December 2022 Winter Storm Elliott Stress Scenario

- ISO performed a review of the financial statements of the market participants with the highest collateral shortfalls following Winter Storm Elliott in December 2022
- The latest financial statements provided to the ISO at that time were examined in terms of availability under existing liquidity facilities as well as cash on-hand
- Many market participants had sufficient liquidity to cover stressed penalty payment obligations (i.e., up to both the monthly and annual stop loss)
- ISO identified a small subset of market participants that did not perform during the capacity scarcity conditions and did not have sufficient liquidity to cover stressed penalty payment obligations up to the monthly stop loss limit
- Such market participants pose relatively higher clearing, credit, and liquidation risks to the rest of the pool
- The PFP collateral methodology therefore needs to evolve to ensure the collateralization of maximum potential PFP penalties is commensurate with differences in the liquidity profiles of the various market participants

ISO recommends a commensurate approach to address the higher credit risk posed by Market Participants (MPs) that have inadequate liquidity profiles operating in the Forward Capacity Market

Recommendation for Liquidity Constrained Market Participants

- Currently, FCM Delivery FA treats all market participants the same irrespective of their corporate liquidity profiles and ability to post incremental financial assurance up to the maximum of their monthly / annual potential net loss exposure
- It is intended that MPs that can demonstrate adequate liquidity to fully cover such maximum potential PFP payment obligations should not be impacted by incremental collateral requirements under a revised methodology
- However, the FAP needs to evolve to ensure that the higher credit risk posed by MPs that have inadequate liquidity profiles versus their maximum potential penalty payment obligations is reasonably collateralized
- The ISO recommends that it performs a quarterly corporate liquidity test to determine if incremental collateralization is warranted for MPs that have Capacity Supply Obligations from the 2024-2025 Capacity Commitment Period onwards

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The annual maximum potential net loss exposure represents a significant liquidity requirement associated with a Capacity Supply Obligation (CSO) during a Capacity Commitment Period

Corporate Liquidity Requirements Regarding a CSO

- The monthly stop loss limits a MP's exposure to performance penalty payment obligations in a single delivery month if capacity scarcity conditions occur and it fails to perform
- A MP's exposure to performance penalty payments is therefore a function of its applicable monthly stop loss limit minus the base capacity payments which are netted against this obligation
- Per the stop loss limit mechanism rules in the FCM, the annual maximum potential net loss exposure will never exceed three times the monthly maximum net stop loss exposure
- From a corporate liquidity perspective, the award of a CSO to a MP could therefore generate a significant draw on liquidity in excess of the current FCM Delivery FA methodology

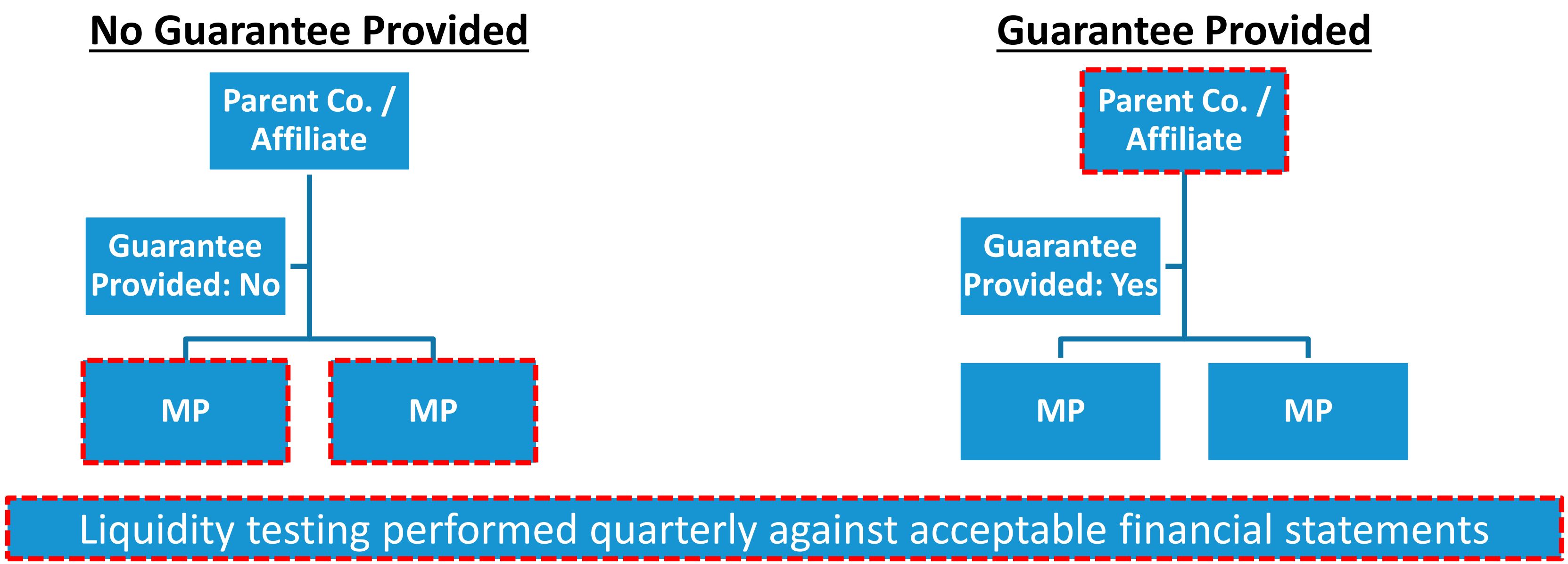
ISO intends to test if Market Participants have sufficient access to liquidity to post incremental financial assurance up to their annual maximum potential net loss exposure

Quarterly Liquidity Testing Approach

- ISO considers it prudent to periodically (i.e., quarterly) evaluate the available liquidity of market participants to cover the annual maximum potential net loss exposure associated with a CSO
- A simple test with either a "pass" or "fail" result would drive incremental financial assurance requirements
- Pass: MPs that demonstrate sufficient available liquidity (including, in certain cases, liquidity from a parent or affiliate entity) to post incremental financial assurance to cover a multiple of their annual maximum potential net loss exposure would pass the test
  - ISO would therefore not require additional financial assurance from these MPs to cover the unsecured potential credit risk exposure
- Fail: MPs that are unable to demonstrate sufficient available liquidity to post incremental financial assurance to cover a multiple of their annual maximum potential net loss exposure would fail the test
  - ISO would require additional financial assurance from this sub-set of MPs to cover the unsecured potential credit risk exposure it faces with them; this additional financial assurance would be calculated based on a new FCM Delivery FA methodology for those specific participants

ISO will look through to the creditworthiness of a parent / affiliate entity of a Market Participant that posts an acceptable unconditional guarantee when conducting the quarterly liquidity test

Liquidity Demonstration Options



- Upon the provision of an acceptable parent / affiliate unconditional guarantee to the ISO which would be subject to an aggregate cap, the ISO will perform the quarterly liquidity test to determine if an MP passes or fails the liquidity test based on the applicable acceptable financial statements
- The nominal value of the parent / affiliate guarantees must be sized at a minimum to the maximum annual potential net loss amount

ISO will recommend an appropriate multiplier per the new Liquidity Test methodology at the next Budget and Finance Subcommittee meeting in February

Adequacy of Available Liquidity

Liquidity Test Methodology	Result
Available liquidity ≥ x times a certain multiplier of annual maximum potential net loss exposure	Pass
Available liquidity < x times a certain multiplier of annual maximum potential net loss exposure	Fail

- Per the new liquidity test methodology, the ISO seeks to apply a reasonable multiplier in order to pass the liquidity test which considers the following
  - Market participants have many other "uses" of available liquidity on top of ISO-NE's financial assurance requirements
  - The test is only performed four times per year (i.e. per the typical financial reporting schedule) and corporate liquidity can change significantly throughout the reporting periods
  - Some market participants are publicly rated and the rating agencies reflect the adequacy of corporate liquidity in their overall assessment of creditworthiness

PFP collateral requirements for Market Participants that pass the quarterly liquidity test would remain unchanged

Applicable FCM Delivery FA Methodology

Liquidity Test Result	Applicable FCM Delivery FA Methodology	Acceptable Forms of Financial Assurance
Pass	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC (1)	Letters of Credit / Deposits with Blackrock
Fail	Updated methodology requiring higher collateral versus current FCM Delivery FA methodology (see table on next slide for revised methodology)	Letters of Credit / Deposits with Blackrock

MPs that fail the liquidity test would be required to post incremental financial assurance above the current methodology. The only acceptable forms of financial assurance are letters of credit or Blackrock deposits which will remain unchanged

1) ISO filed updates to the FCM Delivery FA methodology which is currently pending approval with FERC and has an expected effective date of March 1, 2024 (Docket No. ER24-661-000). The formula above reflects those updates.

PFP collateral requirements for Market Participants that fail the quarterly liquidity test would be determined by the methodology applicable during each month of the CCP

New FCM Delivery FA Methodology – Liquidity Test Failures

CCP Month	Applicable FCM Delivery FA Methodology for MPs that fail the Liquidity Test
June	Max Annual Potential Net Loss Exposure
July	Max Annual Remaining Potential Net Loss Exposure – MCC
Aug	Min[(2 * Monthly Max Potential Net Loss Exposure – MCC), Remaining Max Annual Potential Net Loss Exposure]
Sept	Min[(Max Monthly Remaining Potential Net Loss Exposure – MCC), Remaining Max Annual Potential Net Loss Exposure]
Oct	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC
Nov	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC
Dec	Max Annual Remaining Potential Net Loss Exposure – MCC
Jan	Min[(2 * Monthly Max Potential Net Loss Exposure – MCC), Remaining Max Annual Potential Net Loss Exposure]
Feb	Min[(Max Monthly Remaining Potential Net Loss Exposure – MCC), Remaining Max Annual Potential Net Loss Exposure]
Mar	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC
Apr	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC
May	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC

1) Monthly max potential net loss exposure = monthly stop loss minus base capacity payment (expressed as a positive value)
2) Annual max potential net loss exposure = 3* monthly max potential net loss exposure (expressed as a positive value)

The additional financial assurance requirements for Market Participants that fail to satisfy the minimum capitalization requirements are revised for those that also fail the liquidity test

FAP Capitalization Deduction Approach

Liquidity Test Result	Minimum Capitalization Requirements	Applicable FCM Delivery FA Methodology	Capitalization Deduction Treatment
Pass	Fail	DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC [1]	No change from current policy approach
Fail	Fail	Per new methodology	Excluded from additional 25% financial assurance requirement against total FCM Delivery FA obligations during summer and winter seasons

- If a Market Participant fails the liquidity test and is required to post additional FCM Delivery FA (under the new collateral methodology), such Market Participant will be excluded from additional FCM Delivery FA requirements for failing to meet the capitalization requirements in FAP Section II.A.4 during the summer and winter months
- ISO considers this a reasonable approach given the higher collateralization levels during those specific months for those that fail the liquidity test

1) ISO filed updates to the FCM Delivery FA methodology which is currently pending approval with FERC and has an expected effective date of March 1, 2024 (Docket No. ER24-661-000). . The formula above reflects those updates.

A Market Participant's available liquidity would be assessed quarterly based on an evaluation of the applicable financial statements submitted to the ISO

Available Liquidity Definition

Available Liquidity Assessment = Unrestricted Cash + Marketable Securities / Money Market Instruments + Undrawn Committed Credit Facilities − Debt maturing in 12 months

- Available liquidity per the definition above would be assessed at the guarantor level for Market Participants that have provided an acceptable unconditional guarantee
- If an acceptable unconditional guarantee has not been provided to the ISO, the ISO would make the available liquidity assessment based on the Market Participant's financial statements submitted to the ISO
- If no financial statements have been provided to the ISO, the liquidity test is considered failed by the ISO

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Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
B&F Committee February 9, 2024	Present and discuss proposed FAP revisions
Participants Committee March 7, 2024	Vote on revised FCM Delivery FA methodology for Market Participants that fail a quarterly liquidity assessment
Effective Date	Q2 or Q3 2024

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FCM Delivery Financial Assurance/ PFP Collateral Methodology pending acceptance by FERC docket ER24-661-000(1)

DFAMW*PE*max[(ABR-CWAP), 0.1]*SF – IMC – MCC	
DFAMW (Delivery Financial Assurance MW)	The sum of the Capacity Supply Obligations of each resource in the Designated FCM Participant's portfolio for the month, excluding the Capacity Supply Obligation of any resource that has reached the annual stop-loss as described in Section III.13.7.3.2 of Market Rule 1
PE (Potential Exposure)	PE is a monthly value calculated for the Designated FCM Participant's portfolio as the difference between the Capacity Supply Obligation weighted average Forward Capacity Auction Starting Price and the Capacity Supply Obligation weighted average capacity price for the portfolio, excluding the Capacity Supply Obligation of any resource that has reached the annual stop-loss
ABR (Average Balancing Ratio)	The duration-weighted average of all of the system-wide Capacity Balancing Ratios calculated for each system-wide Capacity Scarcity Condition occurring in the relevant group of months in the three Capacity Commitment Periods immediately preceding the current Capacity Commitment Period and those occurring in the months within the relevant group that are prior to the current month of the current Capacity Commitment Period. It generally reflects a participant's slice of system obligation
CWAP (Capacity Weighted Average Performance)	The average performance of a resource is the Actual Capacity Provided during Capacity Scarcity Conditions divided by the product of the resource's Capacity Supply Obligation and the equivalent hours of Capacity Scarcity Conditions in the relevant group of months in the three Capacity Commitment Periods immediately preceding the instant current Capacity Commitment Period and those occurring in the months within the relevant group that are prior to the current month of the current Capacity Commitment Period
SF (Scaling Factor)	A month specific multiplier: June / December 2.00; July and January 1.732; August and February 1.414; and all other months 1.00
IMC (Intra-month Collateral)	IMC (intra-month collateral) equals estimated monthly capacity payments incurred during the current delivery month and for each Designated FCM Participant, shall be updated three (3) days after publication of the most recent FCM Preliminary Capacity Performance Score report (or equivalent report) on the Market Information Server and shall be limited by the monthly stop loss as described in Section III.13.7.3.1 of Market Rule 1.
MCC (Monthly Capacity Charge)	MCC (monthly capacity charge) equals monthly capacity payments incurred in previous months, but not yet billed. The MCC is estimated from the first day of the current delivery month until it is replaced by the actual settled MCC value when settlement is complete.

1) ISO filed updates to the FCM Delivery FA methodology which is currently pending approval with FERC and has an expected effective date of March 1, 2024 (Docket No. ER24-661-000). The formula above reflects those updates.