

Peak Market Activity Overview

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PJM establishes and monitors credit requirements on two general levels:

Long-term,
also known as the Peak Market Activity
collateral requirement, and

Short-term, also known as the Working Credit Limit requirement.

The long term (PMA) –
PJM calculates a Peak
Market Activity collateral
requirement (unsecured or
secured) for each
Participant.

- Each Participant must maintain sufficient credit to satisfy its Peak Market Activity.
- PJM uses historical activity as a measure of potential future credit needs.
- The year is divided into two semiannual periods (known as PMA reset).



PMA is calculated for each of the two semiannual periods ending in early April and October.

The PMA value is reset to the three-week average of all non-zero weekly invoices over the prior 52 weeks, unless the most recent three-week calculation is higher, in which case the higher value is utilized.



PMA Collateral Requirement Calculation Exclusions

Separate
Collateral
Requirements:

FTR Activity

Virtual Activity

Export Activity

Non-Reoccurring Charges:

- Misc. Bilateral Charges
- PJM Settlement Billing Charges
- Peak Hour Availability Charges
- DR ILR Penalty Charges

- Default Allocations
- Late Payment Interest Charges
- Load Management Test Failure Charges
- Membership Fees



Participants receiving unsecured credit may make early payments up to 10 times in a rolling 52-week period in order to reduce its PMA credit requirement.

Payments must be received prior to issuance of the invoice for a given week in order to qualify for a PMA reduction in that week.

The PMA reduction attributed to any payment may not exceed the amount of Unsecured Credit Allowance for which the Participant is eligible.



Example - Prepayment Impact on PMA Calculation

	Participant Total Bill		3 we	ek sum	early payment		New Amount		3 week sum after early payment	
Week 1	\$	3,000,000			\$	2,000,000	\$	1,000,000		
Week 2	\$	3,000,000			\$	2,000,000	\$	1,000,000		
Week 3	\$	3,000,000	\$	9,000,000	\$	2,000,000	\$	1,000,000	\$ 3,000,000	

A participant receiving \$2 million in unsecured credit from PJM has net invoices owed to PJM equaling \$3 million each in Weeks 1, 2 and 3. Absent any early payments, the participant's Peak Market Activity would be \$9 million from these three weeks alone.

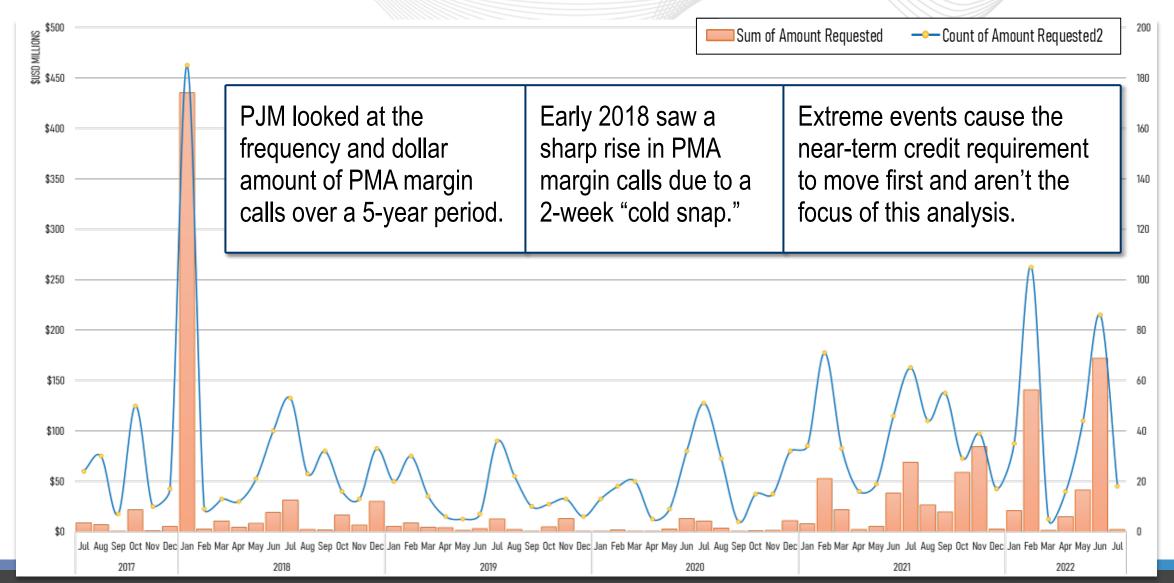
The participant may make early payments of up to \$2 million in each of those three weeks and bring its Peak Market Activity down to an imputed \$3 million total.

The participant could then provide \$1 million of collateral (to supplement its \$2 million of unsecured credit) to meet its credit requirement rather than the \$6 million of collateral that would have otherwise been required absent the early payments.

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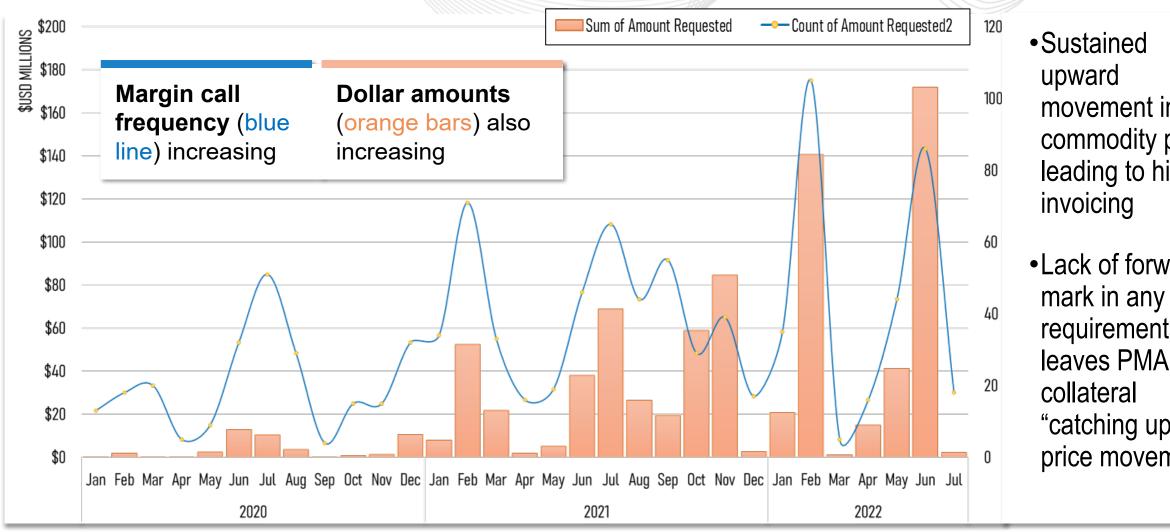
PMA Margin Call Analysis



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PMA Margin Call Analysis



- movement in commodity prices leading to higher
- Lack of forward mark in any PJM requirements leaves PMA "catching up" to price movements



PMA Lag Example

Week Ending	Current Invoice	New PMA	PMA Posted Date	Next Invoice	TwoWeekPrior	Exposure at PMA Post Date	PMA Gap
7/6/2022	\$1,037,000	\$2,737,000	7/13/2022				
6/29/2022	\$762,000	\$2,686,000	7/6/2022	\$1,037,000	\$877,000	\$2,676,000	\$11,000
6/22/2022	\$877,000	\$2,622,000	6/29/2022	\$762,000	\$984,000	\$2,623,000	(\$1,000)
6/15/2022	\$984,000	\$2,569,000	6/22/2022	\$877,000	\$698,000	\$2,559,000	\$10,000
6/8/2022	\$698,000	\$2,500,000	6/15/2022	\$984,000	\$833,000	\$2,515,000	(\$15,000)
6/1/2022	\$833,000	\$2,500,000	6/8/2022	\$698,000	\$842,000	\$2,373,000	\$127,000
5/25/2022	\$842,000	\$2,280,000	6/1/2022	\$833,000	\$792,000	\$2,467,000	(\$187,000)
5/18/2022	\$792,000	\$2,105,000	5/25/2022	\$842,000	\$614,000	\$2,247,000	(\$142,000)
5/11/2022	\$614,000	\$1,945,000	5/18/2022	\$792,000	\$668,000	\$2,073,000	(\$128,000)
5/4/2022	\$668,000	\$1,945,000	5/11/2022	\$614,000	\$609,000	\$1,890,000	\$55,000
4/27/2022	\$609,000	\$1,886,000	5/4/2022	\$668,000	\$637,000	\$1,913,000	(\$27,000)
4/20/2022	\$637,000	\$1,867,000	4/27/2022	\$609,000	\$615,000	\$1,861,000	\$6,000
4/13/2022	\$615,000	\$1,773,000	4/20/2022	\$637,000	\$598,000	\$1,851,000	(\$77,000)
4/6/2022	\$598,000	\$2,319,000	4/13/2022	\$615,000	\$549,000	\$1,763,000	\$556,000

*** Illustrative purposes only

1 week lag + backward-looking credit requirements leaves membership under-collateralized during contango forward curve



- In 2010, NYISO adopted a fuel Price-Adjustment factor, which incorporates Henry Hub gas futures pricing into their Operating Requirement
- NYISO Long-Term Energy & Ancillary Services Requirement

\$ Prior-Year Full *
Month Bill

PMA Lag Example
Current HenryHub front-month Future
Average Prior-Year Henry Hub Spot Price

16 day

* period of risk

of Days in the Month



Appendix

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PMA Default Scenario Example

Week Ending	Current Invoice	New PMA	PMA Post Date	Next Invoice	TwoWeekPrior	Exposure at PMA Post Date	Potential Loss
7/6/2022	\$1,037,000	\$2,676,000	7/13/2022				
6/29/2022	\$762,000	\$2,623,000	7/6/2022	\$1,037,000	\$877,000	\$2,676,000	(\$117,000)
6/22/2022	\$877,000	\$2,559,000	6/29/2022	\$762,000	\$984,000	\$2,623,000	(\$108,000)
6/15/2022	\$984,000	\$2,515,000	6/22/2022	\$877,000	\$698,000	\$2,559,000	(\$92,000)
6/8/2022	\$698,000	\$2,467,000	6/15/2022	\$984,000	\$833,000	\$2,515,000	(\$48,000)
6/1/2022	\$833,000	\$2,467,000	6/8/2022	\$698,000	\$842,000	\$2,373,000	(\$125,000)
5/25/2022	\$842,000	\$2,248,000	6/1/2022	\$833,000	\$792,000	\$2,467,000	(\$393,000)
5/18/2022	\$792,000	\$2,074,000	5/25/2022	\$842,000	\$614,000	\$2,248,000	(\$334,000)
5/11/2022	\$614,000	\$1,914,000	5/18/2022	\$792,000	\$668,000	\$2,074,000	(\$160,000)
5/4/2022	\$668,000	\$1,914,000	5/11/2022	\$614,000	\$609,000	\$1,891,000	(\$30,000)
4/27/2022	\$609,000	\$1,861,000	5/4/2022	\$668,000	\$637,000	\$1,914,000	(\$64,000)
4/20/2022	\$637,000	\$1,850,000	4/27/2022	\$609,000	\$615,000	\$1,861,000	(\$88,000)
4/13/2022	\$615,000	\$1,773,000	4/20/2022	\$637,000	\$598,000	\$1,850,000	\$469,000
4/6/2022	\$598,000	\$2,319,000	4/13/2022	\$615,000	\$549,000	\$1,762,000	\$557,000

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