Peak Market Activity Recap and Next Steps

Risk Management Committee
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May 23, 2023

1. PMA Review (Current Tariff)
2. Back-Tested Approaches
3. Proposed Solution (Preview)

PMA Review (Current Tariff)

May 2023

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1 4/19 MTD Bill PJM Payment by 5PM EPT	2 4/26 MTD Bill Issued by 5PM EPT	3	4	5 4/26 MTD Bill Payment Due by 12PM EPT April Bill Issued by 5PM EPT	6
7	8 4/26 MTD Bill PJM Payment by 5PM EPT	9 5/3 MTD Bill Issued by 5PM EPT	10	11	12 April & 5/3 MTD Bills Net Payment Due by 12PM EPT	13
14	15 April & 5/3 MTD Bills Net PJM Payment by 5PM EPT	16 5/10 MTD Bill Issued by 5PM EPT	17	18	19 5/10 MTD Bill Payment Due by 12PM EPT	20
21	22 5/10 MTD Bill PJM Payment by 5PM EPT	23 5/17 MTD Bill Issued by 5PM EPT	24	25	26 5/17 MTD Bill Payment Due by 12PM EPT	27
28	29 **Memorial Day**	30 5/17 MTD Bill PJM Payment by 5PM EPT 5/24 MTD Bill Issued by 5PM EPT	31			

- Peak Market Activity (PMA) is a measure of exposure for which credit is required, involving peak exposure in rolling 3-week periods.
- PMA as of 5/23, intends to cover 3 weeks of obligations (if payment not received on 5/26):
  - Billed obligations (past billing week, billed on 5/23): 5/11 – 5/17
  - Unbilled obligations (current billing week): 5/18 – 5/23
  - Upcoming obligations (next billing week): 5/24 – 5/31
- Reset semi-annually, in October and April.
- Amount
  - 3 highest consecutive weeks of total PJM bills in the semi-annual period
  - No less than the 3-week average over the prior 52-weeks
  - No more than the greatest 3-week total invoices in the prior 52-weeks
- Maximum of 10 early payments are allowed.
- Requirement can be satisfied by unsecured credit

Back-tested Approaches

- Add forward looking components
  - Components: Forward prices; forecasted loads; forward prices & forecasted loads
  - Benefit: reduced collateral under collection during high price and high load periods
  - Challenges: total collateral requirement not reduced; volatile forward prices; inaccurate load forecasts

- Adjust reset frequency
  - Reset frequency: from current 6-month to 3-month, 1-month, or Weekly
  - Benefit: reduced over-collection; shorter period of holding high collateral after peak
  - Challenges: under-collect during high price and high load periods; increased funding volatility

- Modify number of invoice weeks
  - Number of weeks: rolling 3-week invoices; rolling 4-week invoices; include estimated current week unbilled obligations
  - Benefit: reduced Root Mean Square Error, median shortfall, and failure rate for some options
  - Challenges: increased funding volatility; total collateral requirement reduction not substantial

Proposed Solution (Preview)

	RMSE_Under	RMSE_Over	RMSE_Total	Failure Rate	Shortfall Median	Total Collateral Change (%)
Current_PMA	1,685,799	11,759,081	11,879,306	7.6%	(23,056)	
Proposed Solution	1,541,428	10,513,367	10,625,765	5.4%	(20,754)	-4.2%

- Rolling 4-week invoices with floor
- Introduce Minimum Exposure to allow small PMA deficiency
- Introduce Minimum Transfer Amount (similar to ISDA agreement)

- Preliminary back-test results show the proposed solution is better than Current PMA calculation
    - Reduced RMSE
    - Reduced Failure Rate
    - Reduced Median Shortfall
    - Reduced total collateral requirement
    - Shorter period of holding high collateral after peak

- Details will be presented in next month's RMC

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Peak Market Activity Credit Requirement

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