Operating Agreement, Schedule 2 Penalty Formulae Changes

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Market Implementation Committee

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Problem Statement Summary

- Market Sellers are subject to penalty under Operating Agreement, Schedule 2, section 6.1 when it is determined that their cost-based offer violates their approved Fuel Cost Policy or Operating Agreement, Schedule 2
- The current penalty does not account for scenarios when there the LMP is negative and thus can result in a negative penalty (credit) issued to the Market Seller.

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Operating Agreement, Schedule 2, section 6.1
Penalty Formulae

$$\text{Non-Escalating Penalty} = \text{Maximum}\left(0, \sum_{h=1}^{24}\left(\left(\frac{1}{20}\right) * LMP_h * MW_h * E * I\right)\right)$$

$$\text{Escalating Penalty} = \text{Maximum}\left(0, \sum_{h=1}^{24}\left(\left(\frac{d}{20}\right) * LMP_h * MW_h\right)\right)$$

Note: Variable definitions available on slide 6.

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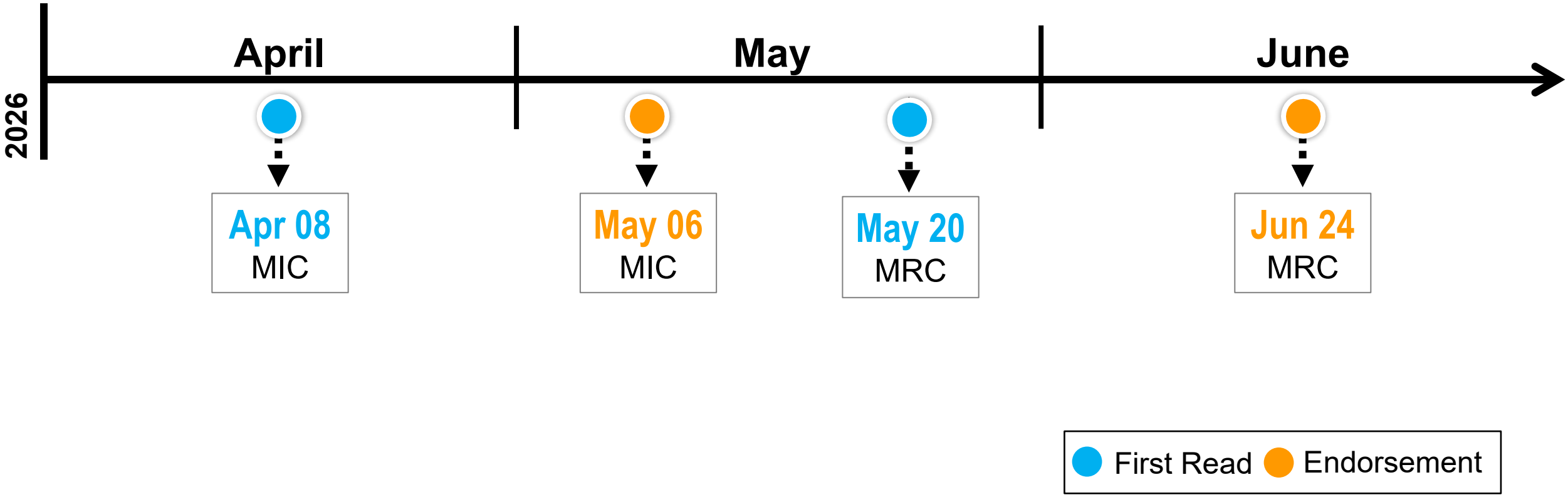
Review/Endorsement Timeline



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Operating Agreement, Schedule 2 Penalty Calculations

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Formulae Variable Definitions

- **h** is the applicable hour of the Operating Day.
- **LMP_h** is the average hourly real-time LMP at the applicable location of the resource for the given hour across the non-compliant period.
- **MW_h** is the average hourly available capacity of the resource for the given hour across the non-compliant period, where available capacity is defined as the greater of the realtime megawatt output and emergency maximum of the generation resource.
- **E** is the Market Seller error identification factor. The Market Seller error identification factor shall be equal 0.25 when the non-compliant offer is identified by the Market Seller without inquiry from or being prompted by PJM or the Market Monitoring Unit, and PJM, with timely input and advice from the Market Monitoring Unit, agrees that the Market Seller first identified the error. The Market Seller error identification shall equal 1 in the absence of a valid self-identified error.
- **I** is the market impact factor over the duration of the non-compliant cost-based offer. The market impact factor shall be equal to 1 if the Market Seller continued submitting noncompliant offers after receiving notice from PJM of its non-compliant offer, or if the Market Seller continued submitting non-compliant offers after notifying PJM of the noncompliant cost-based offer, or when any of the additional applicable conditions listed in Operating Agreement, Schedule 2, Section 6.1 are met.
- **d** is the number of days, starting at 2 and increasing by 1 for each additional day of non-compliance following notification, and capped at a value of 15.

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