

# Regulation Mileage Ratio Calculation

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- *Regulation Mileage* is the measurement of the amount of movement requested by the regulation control signal a resource is following.
  - It is a proxy metric for the amount of movement requested while following the regulation signal.
- *Regulation Pegging* describes times when PJM is deploying 95% or more of the available regulation (in either the raise or low direction).
  - The signal controller under the 30-minute conditional neutrality is allowed to peg RegA more to help manage the neutrality of the RegD signal.
  - The accommodation of the energy capability limitations of RegD is analogous to the accommodation of ramp limitations characteristic of RegA.

$$\text{Mileage Ratio (RegA)} = \frac{\text{RegA Hourly Mileage}}{\text{RegA Hourly Mileage}}$$

$$\text{Mileage Ratio (RegD)} = \frac{\text{RegD Hourly Mileage}}{\text{RegA Hourly Mileage}}$$

If the RegA Hourly Mileage = 0, then Mileage Ratio for the hour cannot be calculated

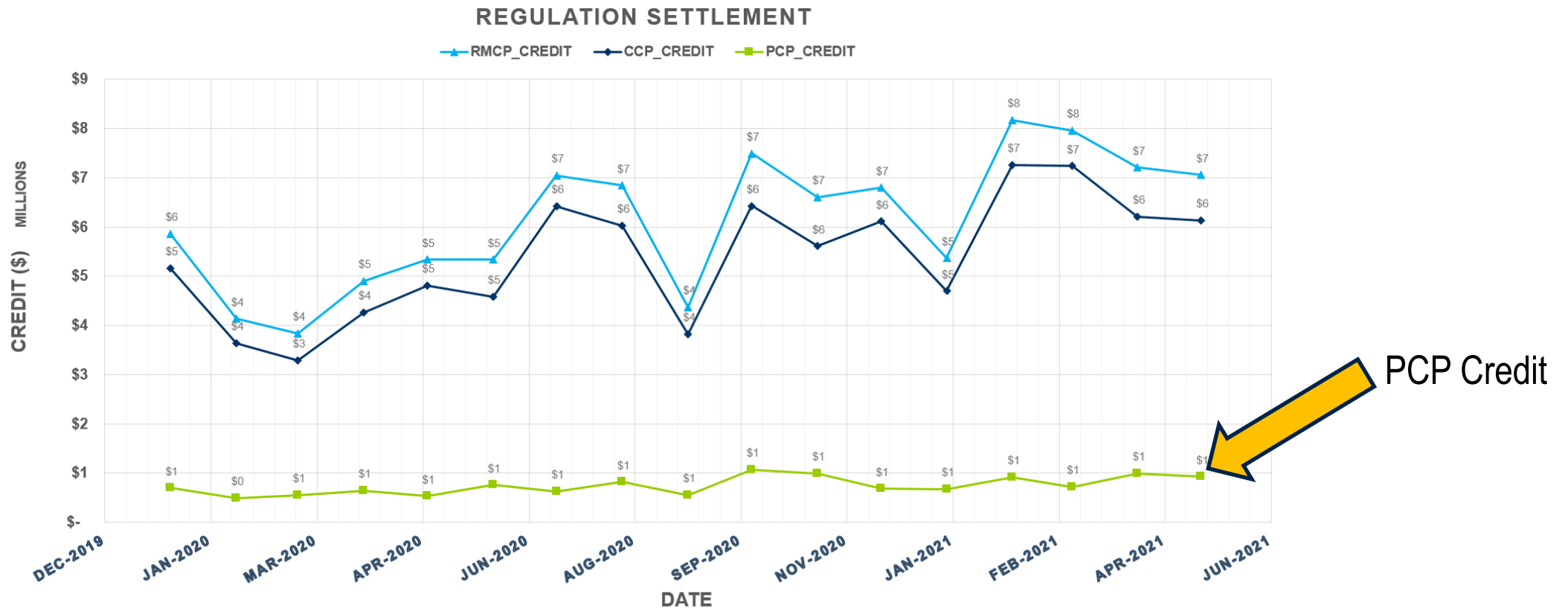
Regulation Market Performance Clearing Price (PCP) Credit =

5-min integrated Regulation MW x 5-min Actual Performance Score x **Mileage Ratio** x 5-min PCP /12



# Regulation Market Clearing Price Credit: Key Takeaway

- Regulation Market Clearing Price Credit = Capability Clearing Price Credit + Performance Clearing Price Credit
  - PCP Credit = RegMW x Actual Perf Score x Mileage Ratio x PCP
  - PCP Credit on average is about 12% of the Regulation Market Clearing Price Credit



- Substitute 0.1 only when RegA Hourly Mileage is 0.
  - Allows valid solution for Mileage Ratio while maintaining compliance with FERC Order 755 and the original market design objective.
  - Applied only 1 hour since 2012 with no impact because PCP was \$0.
  - No impact to Regulation controller in Operations, Regulation Market Clearing, or Pricing.

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