

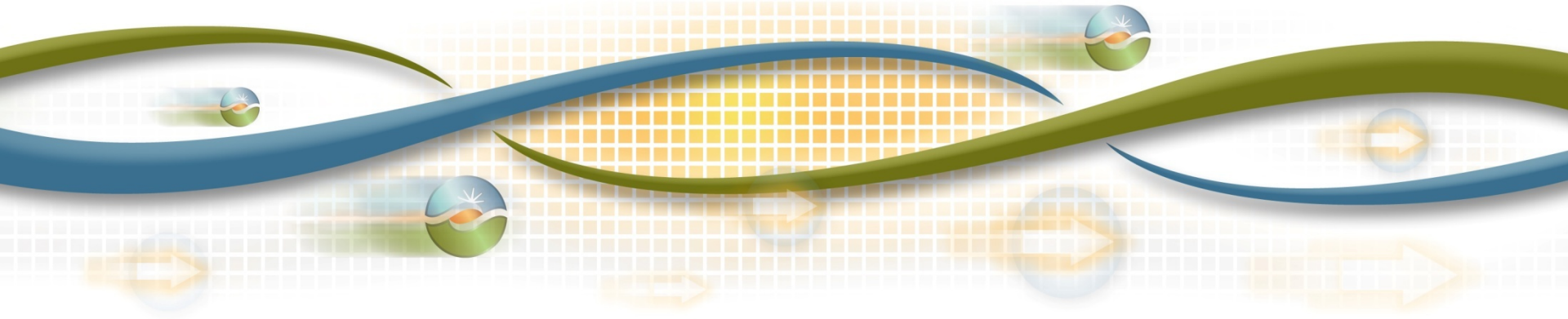
Decision on Pay for Performance Regulation

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Board of Governors Meeting

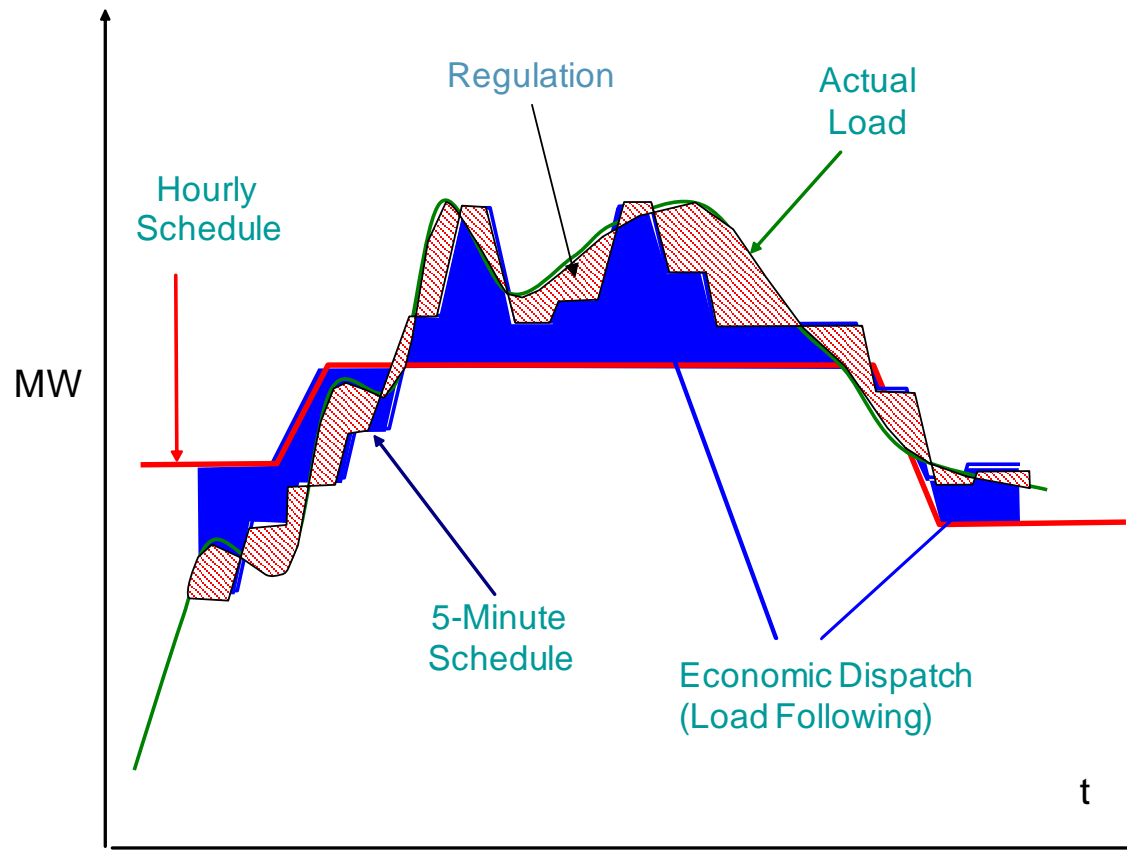
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FERC Order 755 requires significant changes in the procurement of frequency regulation.

- Currently, faster resources may receive more regulation dispatches than slower resources, but paid the same capacity price
- The final rule requires a two part payment for frequency regulation:
 1. A payment for regulation capacity, and
 2. A payment for performance of the resource in response to a regulation signal.

Frequency regulation maintains reliability by balancing load and generation within the 5 minute dispatch.



The ISO procures regulation up and regulation down as separate products.

To comply with Order 755, the ISO must modify its current regulation product:

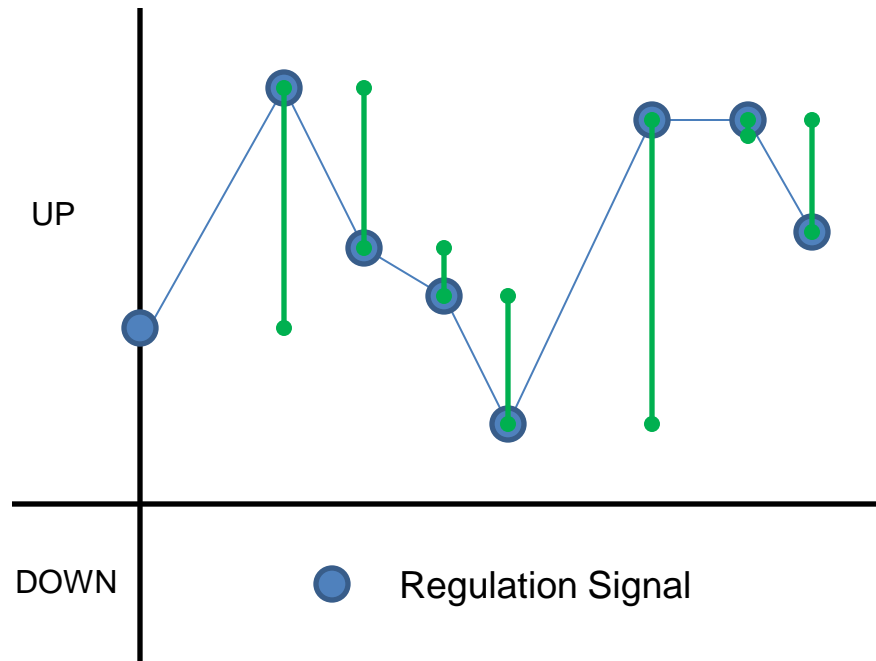
- Pay resources based upon their actual response to the regulation signals; and
- Payments to resources for their actual response should reflect the accuracy of the resource's response to regulation signals.

FERC ordered tariff language to be filed by April 30, 2012 and to implement by October 2012.

Proposal includes payments based on mileage and accuracy:

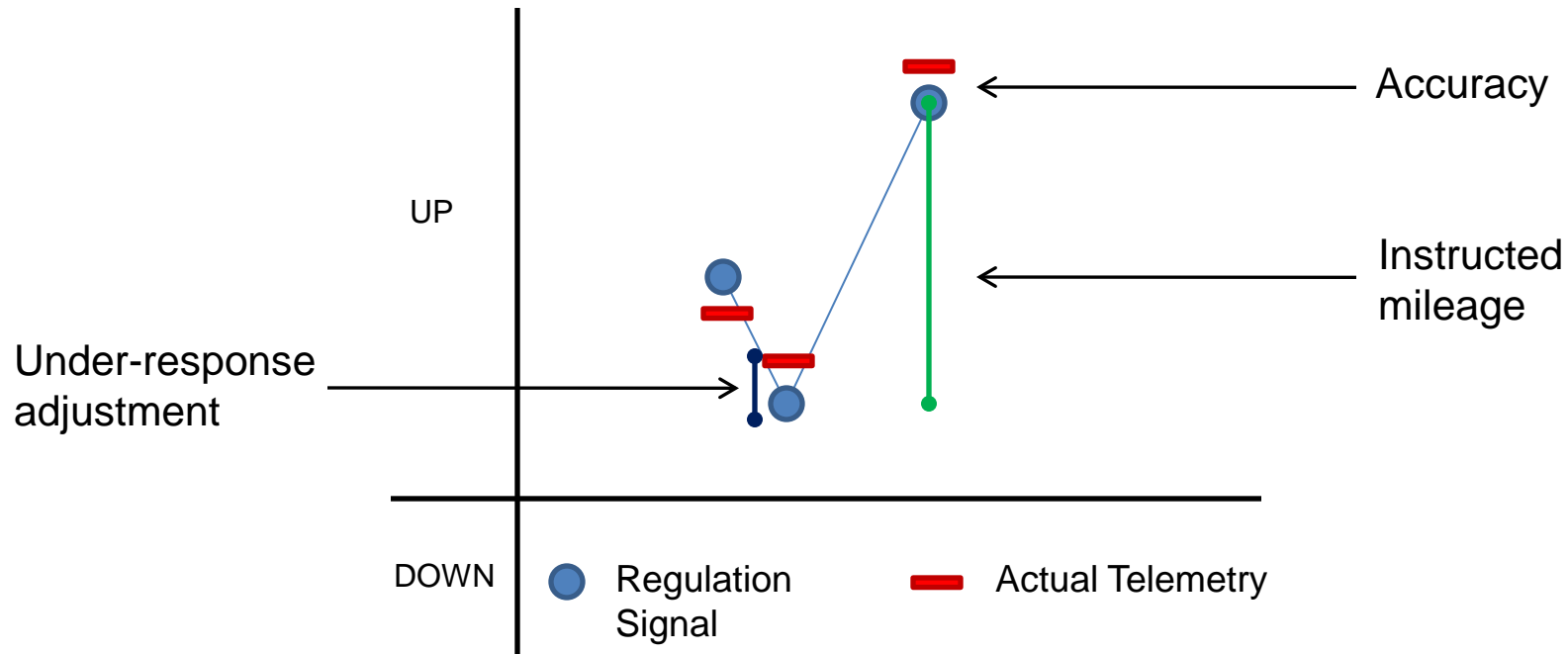
- **Mileage:** resource movement as measured by the absolute change in regulation signals between 4 second intervals
- **Accuracy:** comparison of regulation signal to actual telemetry

Instructed regulation movement or “mileage” is the sum of all green bars in a 15 minute interval.



Resources receive a regulation signal of the MW output needed every four seconds.

Accuracy adjustments reduce mileage payment based upon performance.



1. Under-response adjustment reduces mileage paid when a resource doesn't provide actual movement
2. Accuracy measured by actual telemetry versus regulation signal

Additional market design elements of proposal:

- Address mileage payment and cost
 - Include in bid cost recovery calculations
 - Allocate mileage costs in the same manner as regulation capacity costs
 - Rules to disqualify mileage similar to regulation capacity payments
- Publish the mileage price, system mileage multiplier, and actual mileage incurred on OASIS
- Mileage bids will be subject to the grid management charge bid segment fee of \$0.005

Stakeholders support proposal

- The final proposal addresses concerns raised by stakeholders, the Market Surveillance Committee, and the Department of Market Monitoring.
- Cost allocation of regulation capacity and regulation mileage will be addressed in current cost allocation initiative.

Management will request authority from FERC to extend implementation date to spring 2013

- Order 755 requires implementation in October 2012
- Implementation will require significant modifications across many of the ISO's market systems that could not be reliably completed by October 2012

In summary, Management recommends approval of the pay for performance regulation market design:

- Market design complies with FERC Order 755
- Proposal broadly supported by stakeholders
- Proposed compensation to regulation resources provides incentives for higher performance
 - Resources that are moved more in response to regulation signals receive higher payments
 - Resources with greater accuracy receive higher payments