

Regulation Performance Senior Task Force Charter

Problem Statement

The existing PJM regulation market lacks the ability to distinguish between various levels of performance. More accurate performance could result in more reliable system control and a more efficient market outcome. While PJM System Operations has the ability to send both fast and slow regulation signals, there is no additional compensation for regulating resources to perform at a high level once they have qualified for the regulation market.

After 5 months of discussion the Task Force has created a two-phase approach to introduce pay for performance to the PJM Market. Phase 1 introduces performance scores and disqualification procedures, where the next marginal resource benefits, as well as an energy limited ramp rate to minimize conflict between units ramping for energy and regulation. Phase 1 will allow PJM and our members to gain experience with these calculations which will ensure the performance factors accurately reflect the benefit each resource provides for system control. Performance factor data will allow us to determine the magnitude of regulation procurement for Phase 2. This phase includes the introduction of the two-part regulation payment that includes compensation for regulation capability as well as compensation for the amount of movement a unit undertakes. This is scheduled to be implemented in Q 4 of 2012. The Task Force should continue to meet periodically to discuss the progress of Phase 1 work and findings and to relate these findings to the Phase 2 implementation.

[Original Problem Statement](#)

[Friendly Amendment](#)

[Issue Tracking Link](#)

Issue Source

PJM staff brought this issue forward at the Markets and Reliability Committee. Two regulatory agencies, the Federal Energy Regulatory Commission (FERC) and the North American Reliability Commission (NERC) have recently issued statements for public comment on improving accuracy of regulation frequency and creating pay for performance rules.

Key Work Activities

1. Define bright-line criteria for regulation performance. This includes the criteria for measurement and verification of regulation resource performance as well as megawatt limitations on speed and energy ramp rates.
2. Identify potential enhancements to the fleet-based regulation deployment structure to align with performance metrics and allow for real time scoring of regulation resources. These scoring mechanisms must accommodate multiple regulation signals.
3. Review current energy market, dispatch protocols and data exchange processes for alignment with new regulation performance metrics.
4. Develop/revise regulation eligibility testing criteria for existing and new regulation signals.
5. Design a market clearing process and a compensation mechanism that correlates to accurate tracking of the regulation signal(s) and values different qualities of regulation provided.

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6. Perform a cost-benefit analysis to quantify the impacts on total regulation billing as a result of changes to the regulation compensation mechanisms. Perform a qualitative analysis on anticipated reliability benefits and electricity markets benefits.
7. Study and quantify impact of Phase 1 and Phase 2 through a post implementation review to see if the proposed enhancements achieved their goals.
8. Setup process for on-going report to Operating Committee regarding benefits of performance scoring in the regulation market.

Areas of Outside of Scope

The Task Force will not address demand side response registration, automatic governor response or economic dispatch, except as it is necessary to clarify how these topics would interact with or influence frequency regulation. The Task Force will not make comments directly addressing [FERC's Notice for Proposed Rule Making RM11-7-000](#) or [NERC's BAL-003-1 Standard](#), though these documents may be used for reference by the Task Force.

Expected Deliverables

1. A set of metrics used to measure compliance with a regulation signal.
2. Any required changes to operational protocols needed to comply with the defined performance requirements.
3. A set of market rule changes that define or describe compensation to regulating resources that respond more quickly and more accurately to the regulation signal.
4. A cost-benefit analysis to quantify the impacts on total regulation billing as a result of changes to the regulation compensation mechanisms. Also a qualitative analysis on anticipated reliability benefits and electricity markets benefits.
5. Two Part Payment
6. Settlement Methodology

Expected Overall Duration of Work

Implementation for Phase 1 is planned for Q1 2012. Implementation for Phase 2 is planned for Q4 of 2012. The Task Force may be on hiatus from November of 2011 through March of 2012 during implementation of Phase 1 but should reconvene prior to implementation of Phase 2 to analyze the data and results from Phase 1.

Decision-making Method

While this issue is not expected to be contentious there is possibility for a fragmented opinion. The group will seek a unanimous consensus, but if that not can be obtained, it will present multiple alternatives to the MRC. The multiple alternatives will be presented by the Chair, Ruston Ogburn.

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Administrative

1. The Task Force's Chair will make regular reports to the MRC, RSPTF's parent committee, in person and in written form when the MRC meets.
2. The Task Force's Chair will make regular reports to the OC in verbal form when the OC meets.
3. PJM members may self nominate to be part of the RPSTF.
4. Meetings are to be held approximately twice a month **or as needed**.
5. **The Chair will notify the group when the Task Force should reconvene via the RPSTF major domo list and post the meeting on the RPSTF page.**
6. All documents that are to be presented at a meeting are recommended to be sent to the secretary 5 days prior to the next meeting to ensure a two day window prior to the required posting date. Insofar as it is practicable, all documents will be prepared by the Secretary of the RSPTF to ensure consistency and adherence to the guidelines set forth in [Manual 34 – PJM Stakeholder's Manual](#).