

# ESA Proposal

RMISTF

October 25, 2016



Energy  
Storage  
Association

[www.energystorage.org](http://www.energystorage.org)

# Root Cause

ACE is not being kept in the band that can be managed by frequency regulation.

- ACE > TREG for 15+ minutes in 15% of hours
- ACE > TREG for 30+ minutes in 2.5% of hours

ESA's position is that this must be addressed in any complete solution to regulation market issues.

**ESA Proposal: Short-term increase in RegA when ACE > TREG for 5+ minutes.**

“Regulation refers to the control action that is performed to correct for *load changes* that may cause the power system to operate above or below 60 Hz. “ – M10, emphasis added.

# Signal

PJM's priority appears to be eliminating energy neutrality and coordinated RegA/D signals.

- ESA has accepted this priority, but believes there should be comparable treatment of technical limits of all resources. This means do not give RegA ramp limits priority over RegD energy limits.
- Proposed signal uses less than half the ramp capability of RegA.
- There is more room to manage energy.

**ESA Proposal: As PJMs, but once ACE is corrected, use all remaining RegA ramp to manage energy balance.**

**Signal definitions placed in Tariff.**



# Managing Charge

The current storage fleet was built under requirement for 15 minutes of energy. It is unreasonable to remove this without giving storage market tools to manage their charge. We have proposed several:

- Shorter scheduling intervals.
- Synch Reserve style flexible/inflexible scheduling.
- Intra-hour rescheduling.

**ESA Proposal: Any combination of the above or other ideas that lets devices built for current market rules continue to participate without undue penalty.**

**Signal definitions placed in Tariff.**

# MRTS Curve & Settlement

If the RegD signal is not constrained energy neutrality, there is no reason for the MRTS to ever be less than 1.0

- The only reason RegD might have less value than RegA is charge limits. Once those are eliminated, RegD can completely replace RegD.
- PJM's proposal sends an energy-unlimited signal but uses an MRTS for 30 minute resources.
- Most of existing RegD fleet is not energy limited.

**ESA Proposal: Use extended MRTS curve.**

**Implement signal changes and use new MRTS curve for scheduling. Review impact of those changes after one year before considering settlement changes.**

# Performance Scoring

ESA agrees that performance scoring needs reform. We support PJM's proposal with changes for practicality.

**ESA Proposal: As PJM's, except:**

- **Allow for response up to 10 seconds *faster* than expected by PJM with no penalty.**
- **Implement precision and compensation screens based on average score in each 5-minute settlement interval, rather than each 10-second interval.**
- **Open to wide range of qualification thresholds.**