



Item 9: Update on Pilot Project: Fast-Responding Regulation Service

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Board of Directors Meeting
ERCOT Public
May 14, 2013

Outline

1. Overview of Fast –Responding Regulation Service (FRRS) Pilot
2. Initial Observations
3. Overview of options for Board to consider at July meeting
4. Questions

Overview of FRRS Pilot Project

1. Approved November 2012
2. Six month duration
3. Allows procurement of up to 65 MW FRRS-UP and 35 MW FRRS-DOWN each hour; participants are paid DAM clearing prices
4. Supplements existing Regulation Service
5. Resources must register and pass FRRS qualification test before participating in pilot
6. Performance reviews determine any reductions in payments
7. Original \$3.4 million estimated cost assumed maximum participation and was based on historical Regulation prices

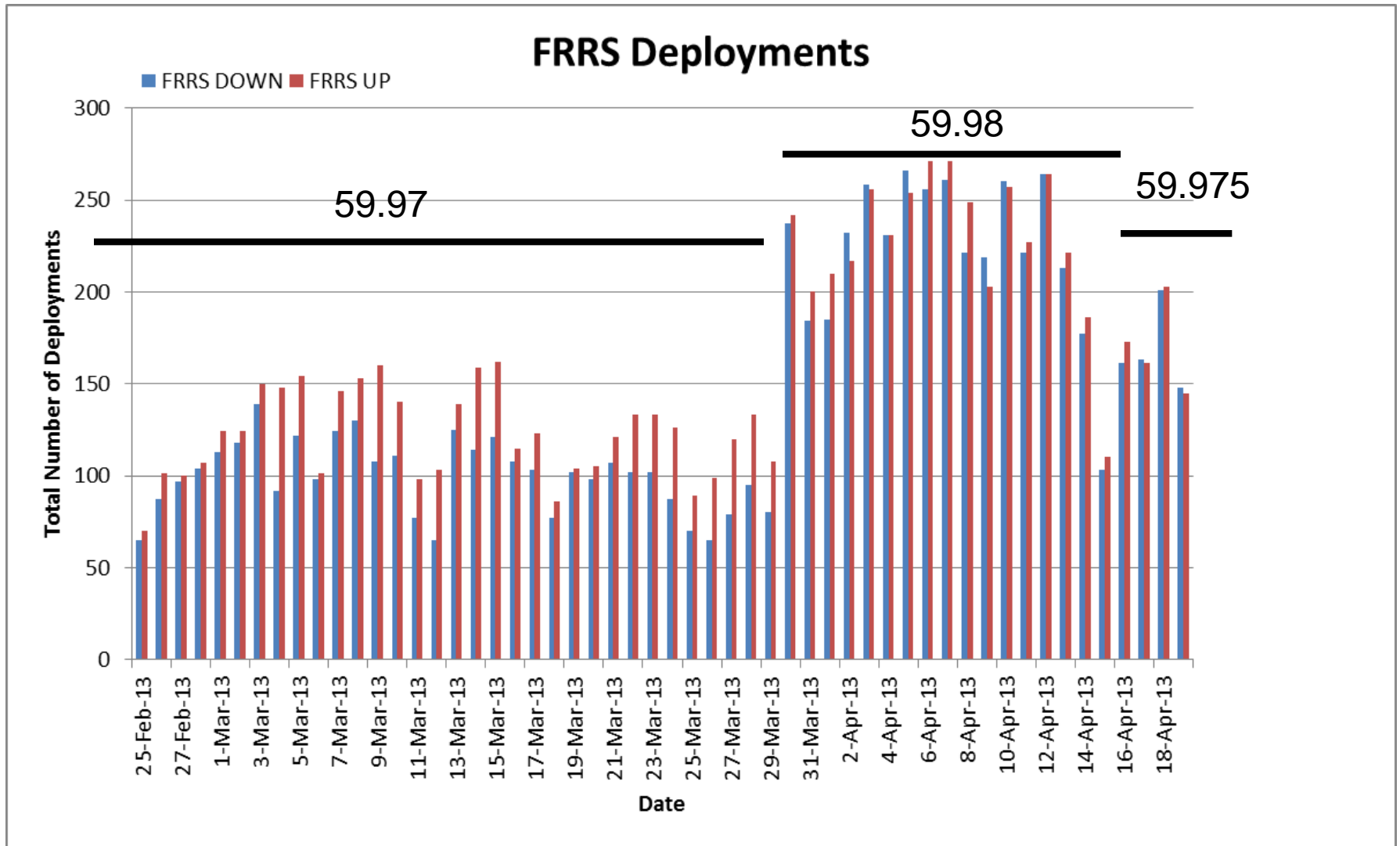
Overview Continued

7. First Operating Day for FRRS pilot was February 25, 2013
8. Initially, 32 MW FRRS-UP and 30 MW FRRS-DOWN were qualified to participate
9. Additional 1 MW FRRS-UP and FRRS-DOWN began participating on March 16, 2013
10. Additional participants are on the horizon
11. ERCOT has made FRRS parameter changes twice and more parameter changes are expected

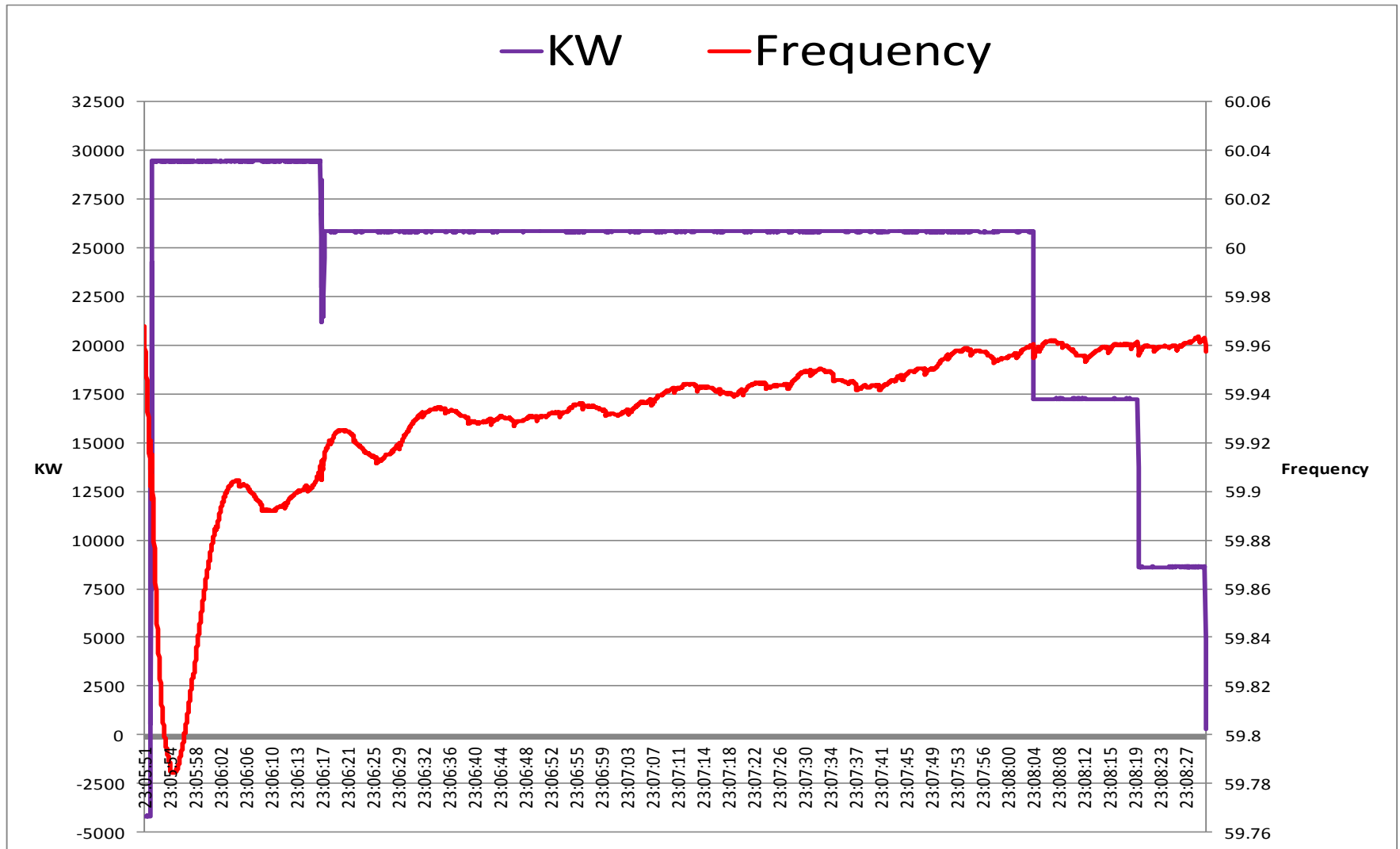
Initial Observations

1. Initial performance has been good. ERCOT deployments have generally been followed and self-deployments have generally occurred as expected (following slides to show some events)
2. Awarded amounts of FRRS-UP and FRRS-DOWN have been significantly less than the maximum 65 MW up and 35 MW down (on average about 25 MW up and 5 MW down)
3. Likewise, the dollar amounts paid to pilot Resources have been less than estimated (so far less than \$300,000—about one third of what was estimated)

Number of FRRS Deployments



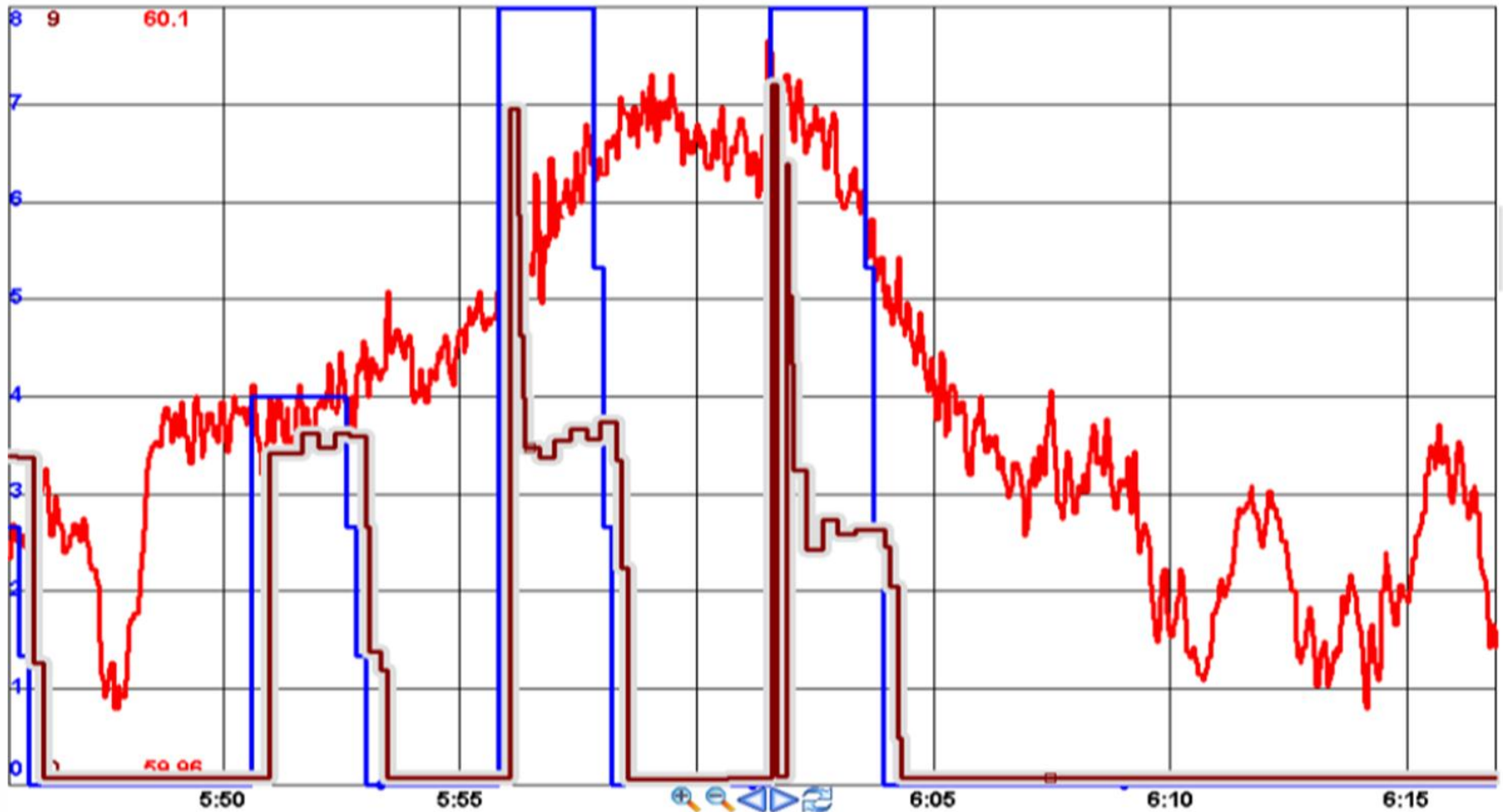
03-07-2013 Event with high resolution data



03-29-2013 High Frequency Event

ERCOT & QSE Summary

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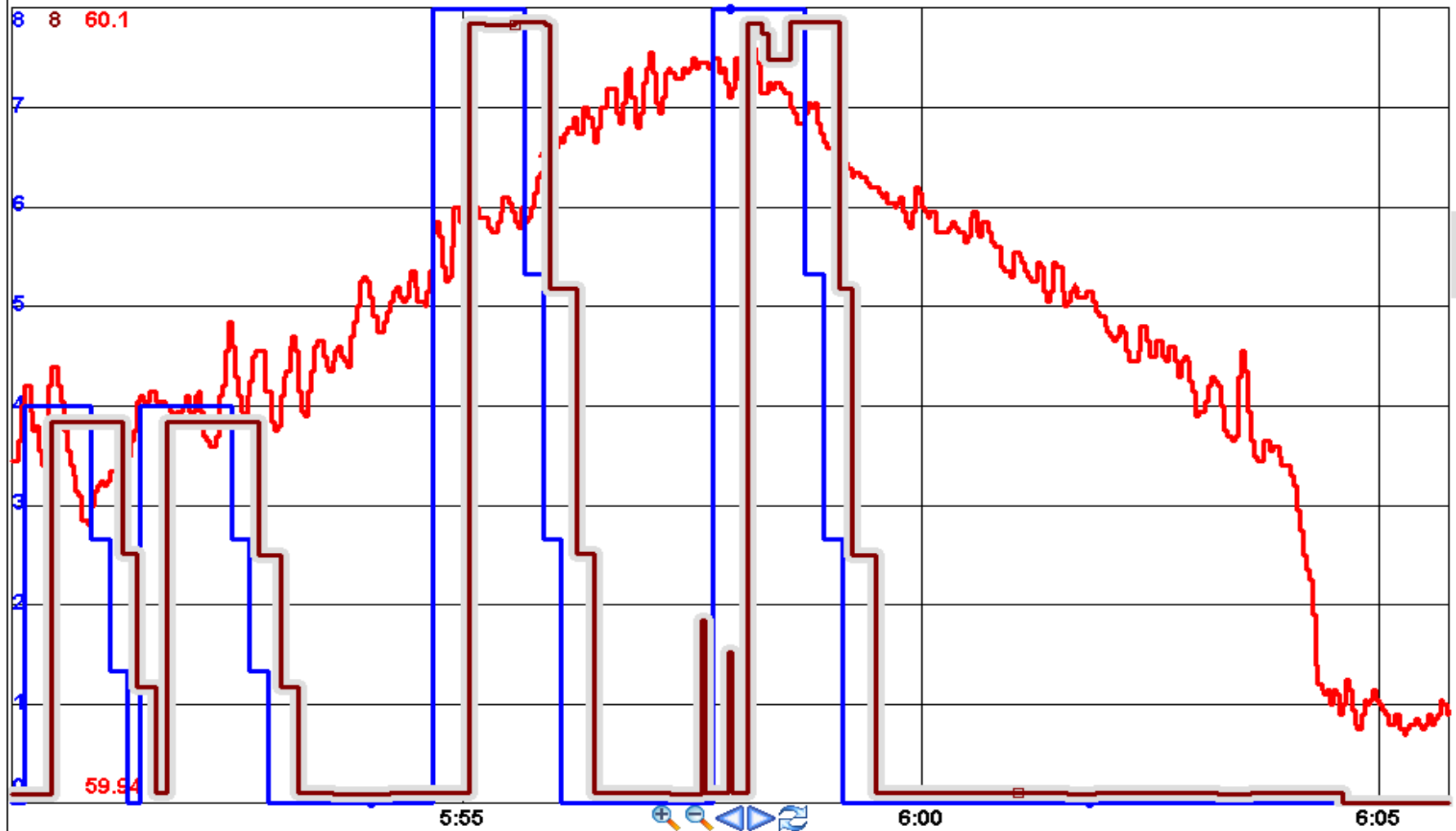


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03-30-2013 High Frequency Event

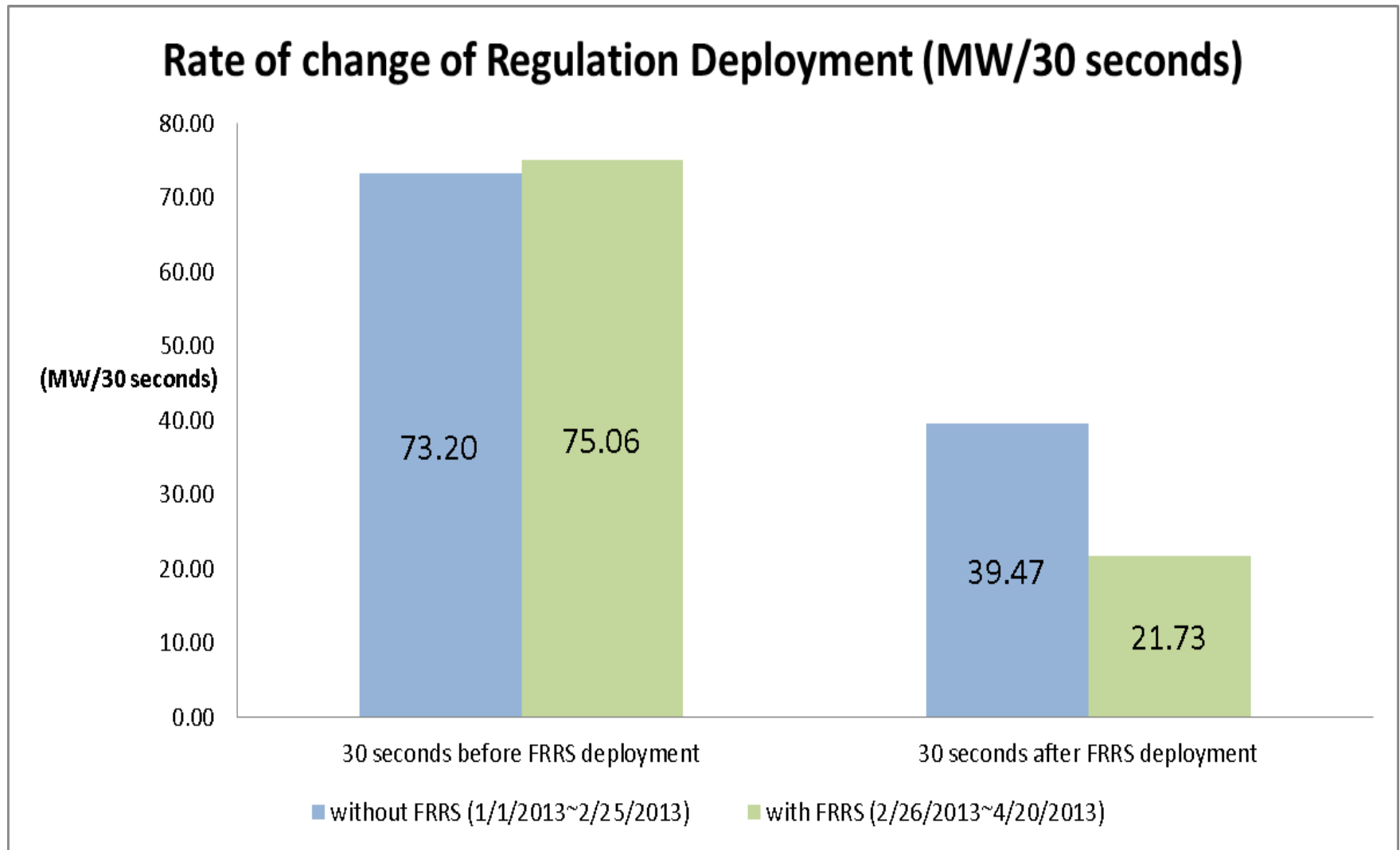
ERCOT & QSE Summary

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FRRS Impact on Reg-Up Deployments



Possible options to be proposed at July Board meeting

1. Let FRRS Pilot project end August 23, 2013. No action required at July Board meeting.
2. Extend the Pilot project and modify Governing Document as necessary.

Next Steps

1. Prepare and post 3-month report in early June.
2. Continue to review findings and analysis with the various subcommittees and working groups in May and June.
3. Discuss options with stakeholders.
4. Bring options for Board to consider at July meeting.