



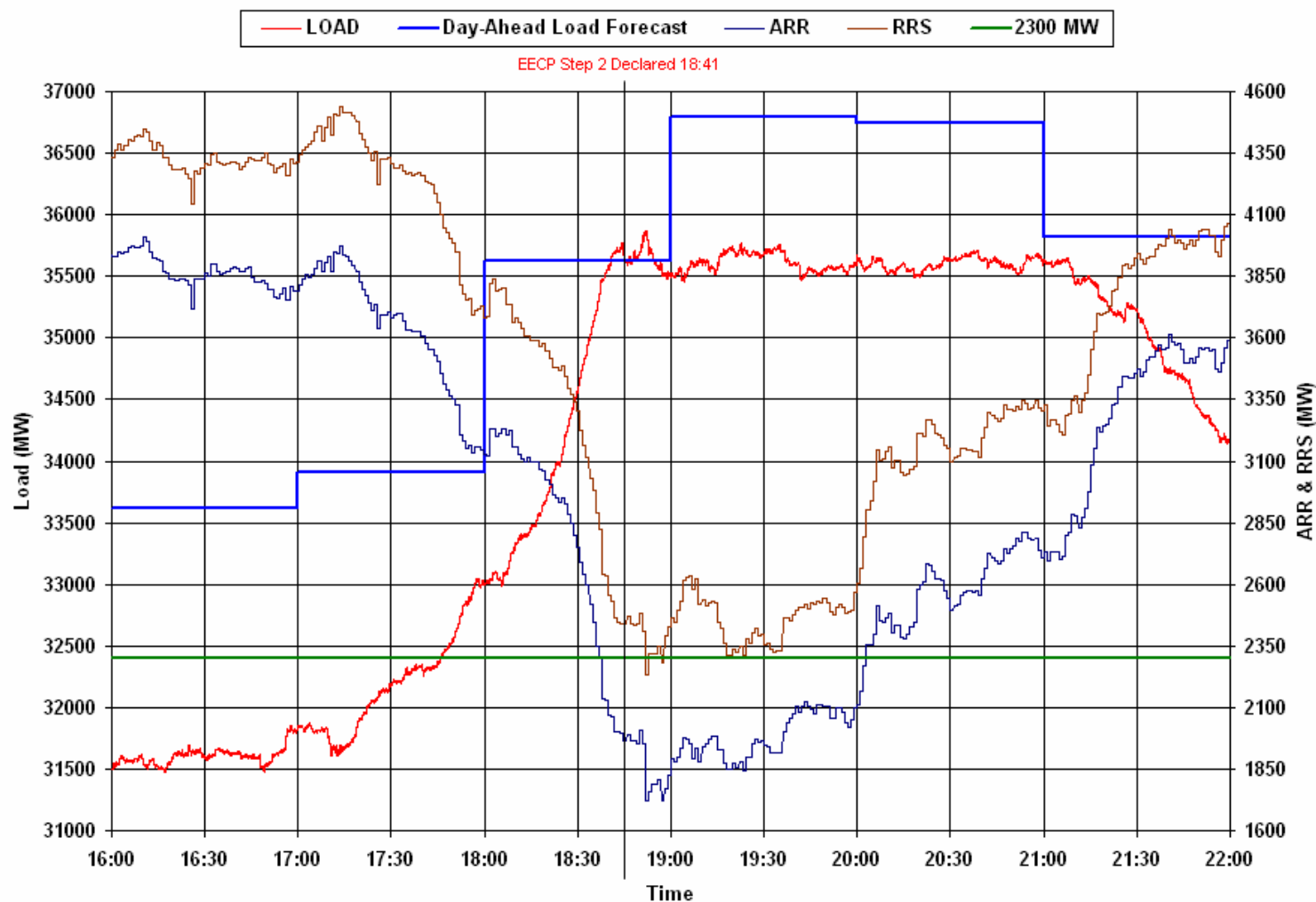
February 26, 2008 EECP Step 2 Report

March 18, 2008

What Happened?

- **At 18:00 on February 26, 2008 during the evening load increase ERCOT system operators began to see:**
 - A rapid decline in responsive reserves
 - Depletion of the up-balancing energy bid stack
 - Depletion of up-regulation service
 - A steady decline in system frequency
- **At 18:41 with adjusted responsive reserve at 1725 MW and system frequency at 59.85 Hz EECP Step 2 was declared**
 - At 18:49 LaaRs (1150 MW) were deployed
 - Frequency recovered to 60 Hz at 18:52
 - Arranged for emergency assistance over DC ties
- **Moved back to Step 1 at 20:08**
 - Recovered LaaRs and other responsive reserves
- **Ended EECP at 21:40**

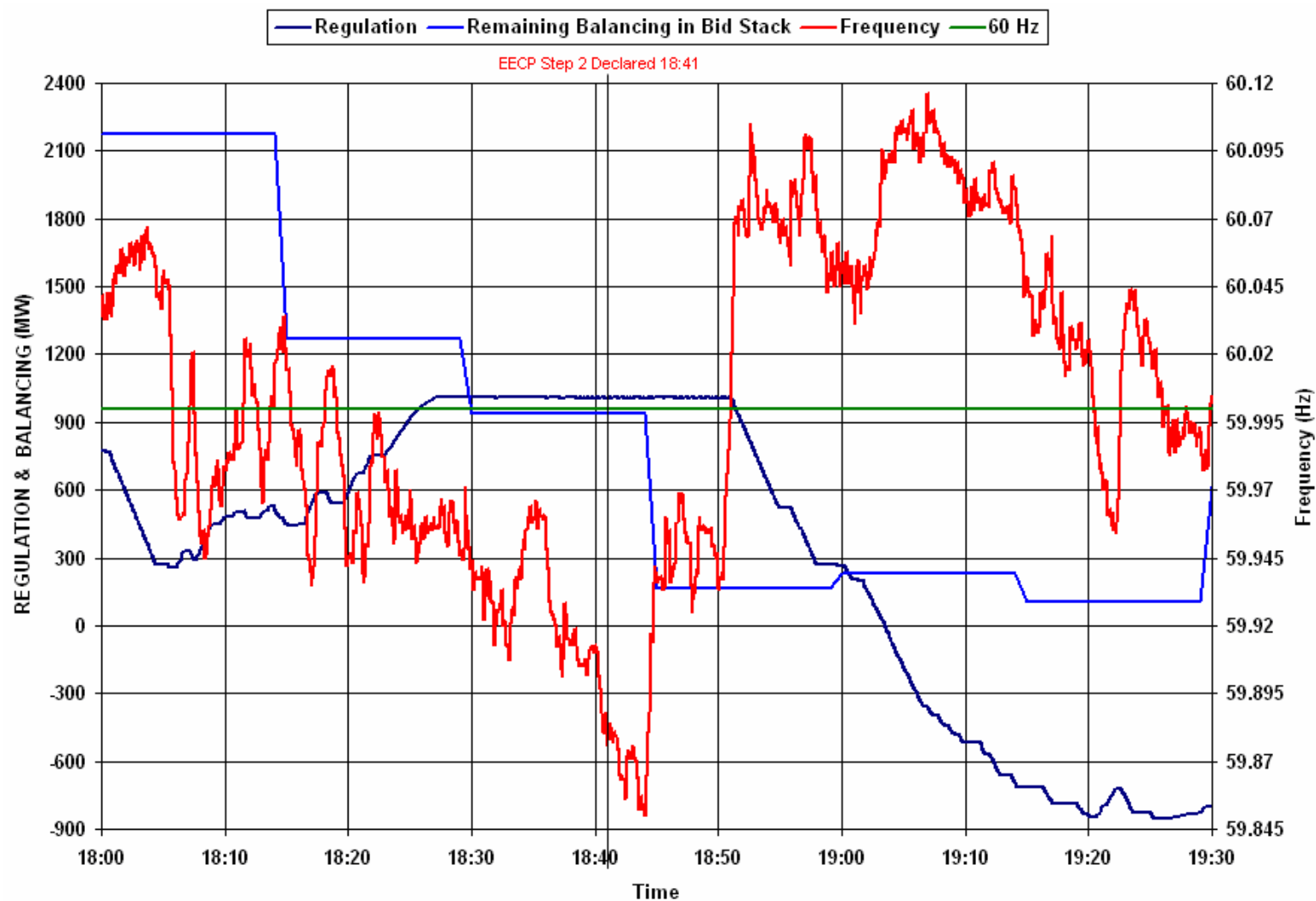
Load and Reserves



February 26, 2008

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System Frequency, Regulation and Balancing Energy



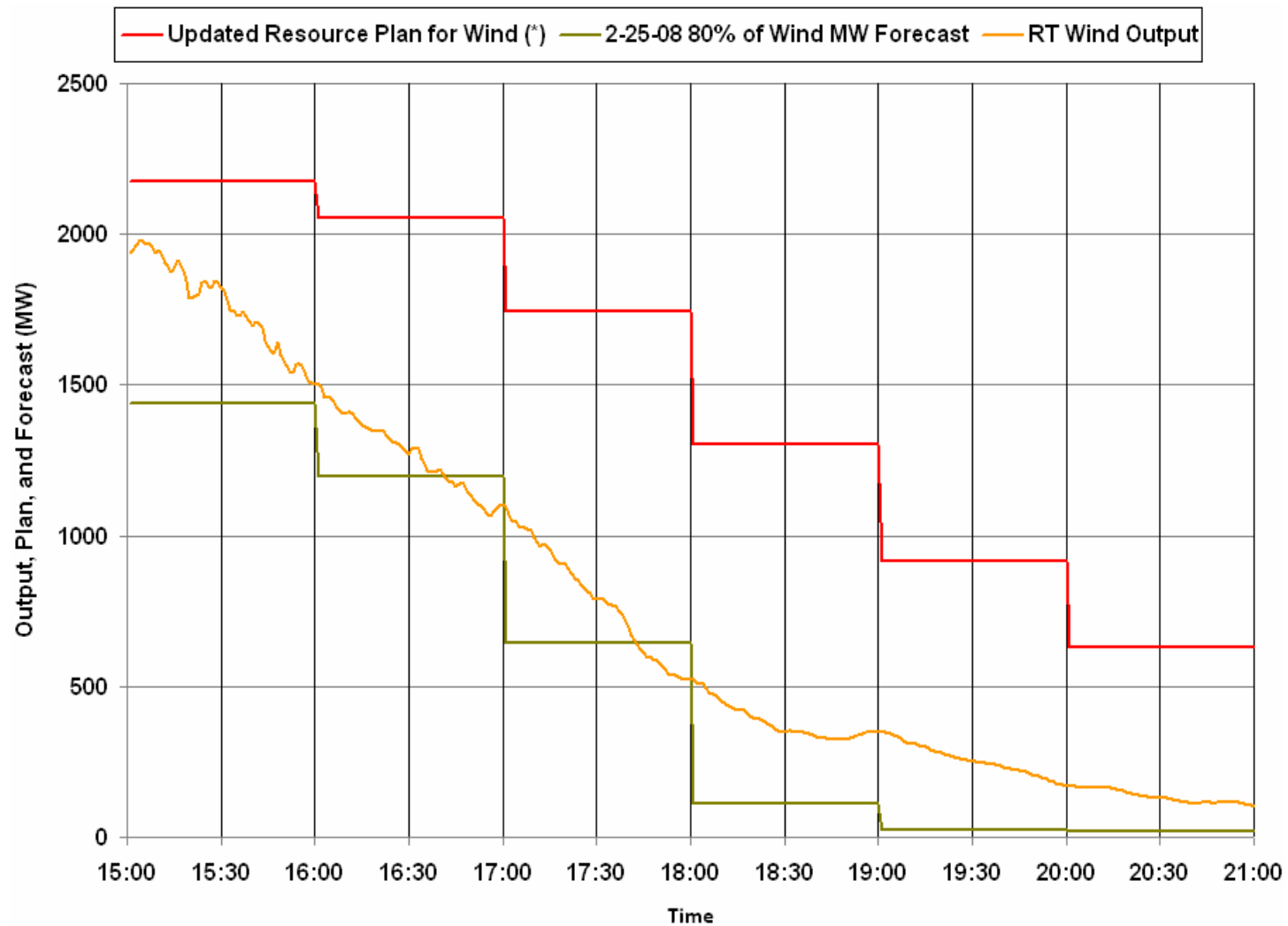
February 26, 2008

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Why Did It Happen?

- **Operators had no prior indication of the approaching capacity deficiency when they could have arranged for more capacity to be brought on line**
- **ERCOT's look-ahead tools depend on QSE submitted Resource Plans to determine how much capacity will be available in future periods**
- **Resource Plans indicated about 1,000 MW of available wind capacity during the period that was not available at that time**
- **A new wind generation forecast that will be used in the Nodal system is not integrated into the existing Zonal operating system**
- **Some non-wind QSEs were not generating to schedule**

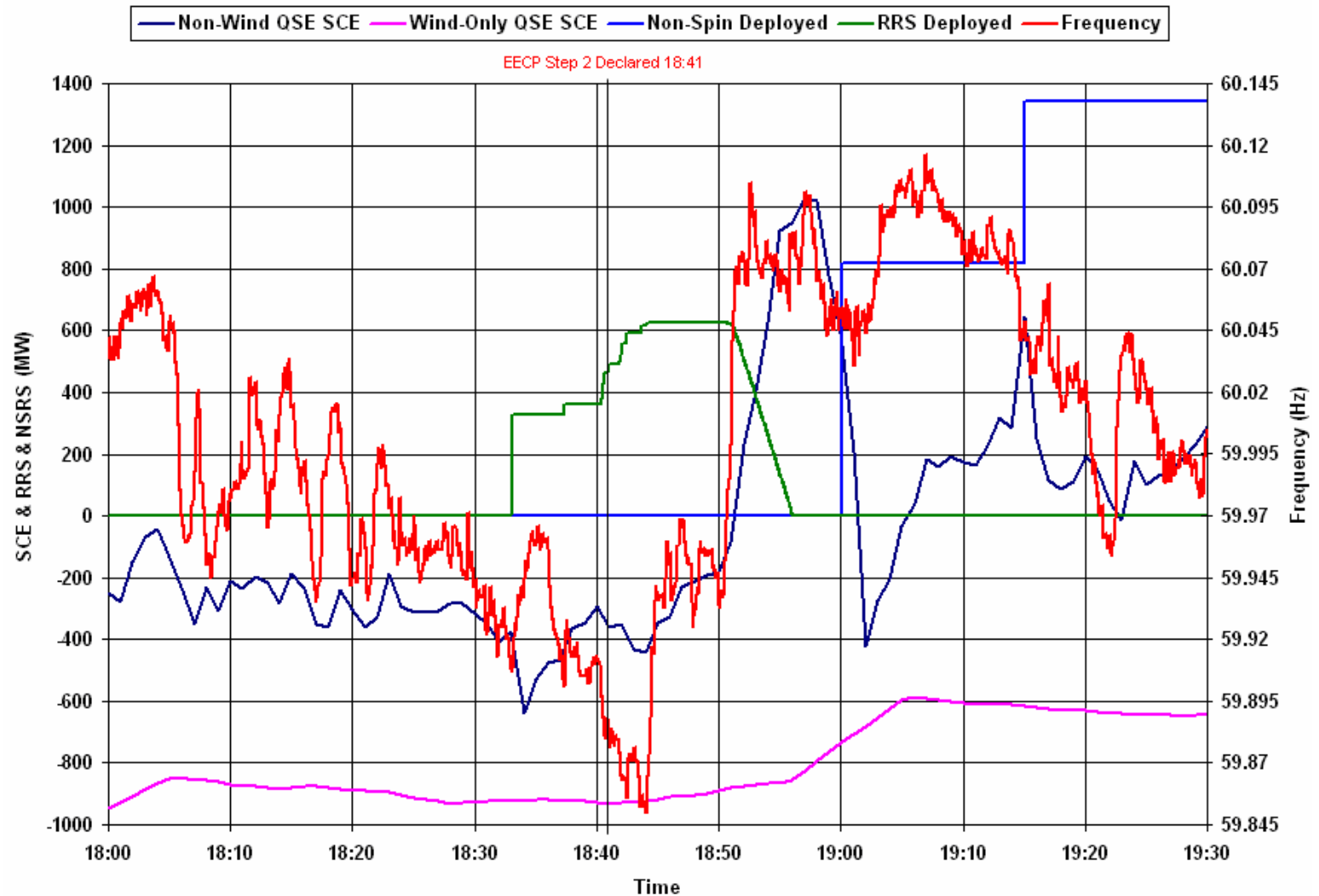
Actual Wind Generation, Resource Plan, and New Forecast



February 26, 2008

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Schedule Control Errors, Responsive and Non-spinning Reserve Deployments



February 26, 2008

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What will ERCOT Operations do in the future?

- **Determine how the wind generation forecast that will be a part of Nodal can be integrated into current Zonal operations planning**