Super Bowl 2018 Update. Three-Minute Window Beginning at 6:37 pm CST.
Television Screens Go Dark Nationwide at 6:38 pm for 20 Seconds, Causing Load Shedding.
Changes in Grid Frequency are Approximately that of a Large Generator Trip, but in the Opposite Direction.
According to News Media, an Equipment Failure Caused this Short Interruption in Broadcast.

Details such as voltage magnitude and phase angle deviations are shown on pages 3-5.

Texas Synchrophasor Network, Sponsored by Schweitzer Engineering Labs and ERCOT.
Grid Frequencies for the 5-Hour Period. Super Bowl Event.

**Texas Synchrophasor Network**

During the Halftime Show, TV Screen Brightness of the Broadcast is Reduced, Essentially Causing a Load Drop.

**Eastern Interconnection**

**ERCOT**

**Western Interconnection**
Eastern Grid, Three-Minute Window

Note the onset of oscillation at LSPADRA.

DC angle rises, indicating that the East Coast had significant load loss due to population density.

Voltage Phase Angle Relative to OKC

Voltage Phase Angle Diagram (First and Last Seconds)

Before Voltage Phasors

After Voltage Phasors

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Texas Synchrophasor Network, Baylor Univ. Feb. 6, 2018 Page 3 of 5
ERCOT, Three-Minute Window

Voltage Phase Angle Relative to AUSTIN

ERCOT frequency is less impacted than Eastern and Western grids.

Voltage Magnitude in Per Unit

Before

After

Texas Synchrophasor Network, Sponsored by Schweitzer Engineering Labs and ERCOT.
Western Grid, Three-Minute Window

Voltage Phase Angle Relative to ABQ

Oregon angle falls, indicating that the Northwest exports less power during the event, but quickly returns to pre-event status.

Western grid frequency curves have sharper corners than the other grids.