Item 4.2: GridGeo Overview

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Board of Directors Meeting

ERCOT Public
October 9, 2018
GridGeo Platform – Overview

• GridGeo is an ERCOT-developed, browser-based platform allowing for improved situational awareness.

• GridGeo is used by the control room operators, control room support staff, and operations training.

• GridGeo provides a combined view of the network operations model, real-time and historical information from reliability systems.
GridGeo Platform - Applications

The GridGeo platform currently has three applications:

Texas Grid Map
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- Substation One-Lines
GridGeo Platform - Applications

The GridGeo platform currently has three applications:

Multi-Station One-Lines
Texas Grid Map
Texas Grid Map

Generation and/or Load values appear at closer zoom levels.

Texas Grid Map with Load and Generations Locations Identified.
Selecting a transmission line shows additional information.
Texas Grid Map – Outage Identification

GridGeo has implemented a color scheme to help identify outaged equipment while still providing insight into voltage level.
The GridGeo 3.0 release introduced weather layers, including radar, to the TGM.
Radar becomes more transparent as the Operator zooms in.
Texas Grid Map – Wind Layer

Wind layer displayed on TGM.
Texas Grid Map – Cyclone Layer

Cyclone layer displayed on TGM.
Forecast models are available but off by default.
Texas Grid Map – Watches, Warnings, and Advisories

A Weather Warning displayed on the TGM.
Substation One-Lines
Substation One-Lines

Clicking on the substation icon displays the substation one-line.

Substation one-lines match EMS layout.
Substation One-Lines – Outage Highlighting

One-line with FOD-detected outages highlighted.

One-line with scheduled outages highlighted.
Substation One-Lines – Historical Values

User can click on values on one-lines to see historical flows.
Multi-Station One-Lines
Multi-Station One-Lines allow Operators to see multiple one-lines in a single display.

**Example:** Create a MS1L with the following substations.
First, the user navigates to a one-line.
Within the one-line, the user clicks on a line to add a new substation.
An additional substation can be added by clicking on a different line.
The process can be repeated to add many substations.
The user can click on any equipment to get additional information.