

# Smart Grid Solutions

## Real-Time Integrated Weather

Operational Continuity • Outage Management • Consumer Energy Management Systems

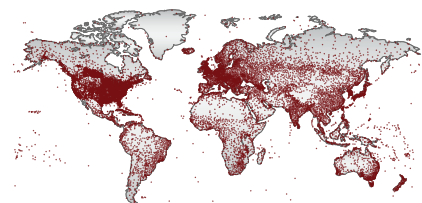
Weather and Forecast Information      Web-Based Weather Visualization Tools and GIS Data      Advanced Severe Weather and Lightning Detection

### WeatherBug Smart Grid Solutions

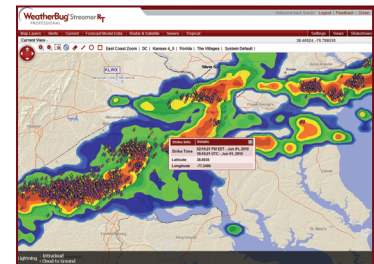
The electric power industry is in transition, consumed with the implementation of a true 'end-to-end' Smart Grid that will connect the applications within the utility to the consumer resulting in reduced energy consumption. Various new application layers will improve and optimize electricity generation, delivery and consumption.

Weather is a constantly changing, high-impact variable for the power industry, touching all aspects of the grid. Integration of a live hyper-local weather layer within grid applications, will incorporate real-time intelligence into applications enabling accurate forecasting, improved outage management, load shifting and peak-demand reduction with minimal customer impact.

WeatherBug combines its vast data processing infrastructure, information from over 8,000 live weather stations, as well as a portfolio of products and services to provide the electric power industry with information and tools to drive optimal load balancing, successful demand response and consumer energy management initiatives. The end result is lower energy consumption, reduced costs and a smaller carbon footprint.



WeatherBug Network



StreamerRT

**Weather Station**

**WeatherBug Network:** Largest weather network providing proprietary and multi-source real-time information on 27 weather variables, including wind speed and direction, lightning, temperature, humidity, and rainfall

**WeatherBug Total Lightning Network™:** In-cloud and cloud-to-ground lightning detection, known as total lightning, providing advance severe storm warning capabilities for asset protection and crew safety

**EcoResponse:** Detailed weather information and forecasts integrated into demand response programs provide predictive intelligence on energy consumption and empower users to engage in reducing their carbon footprint

**StreamerRT:** Online weather visualization and modeling tool enabling detailed weather layers on one map with custom views for multi-location monitoring within the service area

**GIS & API Weather Data Feeds:** Integrated observational and historical weather feeds enable mitigation of outages and service disruptions, Smart Grid intelligence and integrated consumer demand response programs

**Weather Stations:** Complete weather sensor deployment to improve the visibility of weather at your critical asset locations

**EcoConnect**

Mar 15, 2013 3:33 PM

Temp: 47.0°F

Today: Hi: 48°F, Lo: 32°F

Alert: Severe Thunderstorm Warning: Severe Thunderstorm Warning is in effect until 5:00 PM CDT Thursday. Expect heavy rain, gusty winds, and power outages. Expect 1 to 3 inches of rain. Heavy rain may lead to 1 to 3 inches of rain. Heavy rain may lead to 1 to 3 inches of rain.

Today's Demand Program Plan

On-Time: 9:30 AM, Off-Time: 9:30 PM

Home Energy Footprint

Your Savings: \$1,200

Smart Efficiency Tips: Maintain GFCI During Dry, Add Insulation to your Attic, Plant Tree on South Side, Close Windows/Doors, Use Black Out Window Coverings, When possible keep setting on "Efficient"

EcoResponse Solution