

# The SDG&E Weather Awareness System

San Diego, CA

## SCENARIO

San Diego Gas & Electric (SDG&E) hired its first meteorologist in 2009 and created the first weather utility network in the world to proactively respond to dangerous weather conditions and identify high-risk areas in its infrastructure.

## SOLUTION

In California, this quest begins with wind, temperature and humidity data.

SDG&E deployed 200 weather stations across the San Diego region to capture this information. Connected via wireless networks, these stations capture real-time data every 30 seconds.

The SDG&E Weather Awareness System consolidates sensor data into a user-friendly, one-stop online map and dashboard. Meanwhile, the system sends 200 gigabytes of data to a supercomputer center every day for any researcher in the world to access.

## RESULTS

Through these wireless-enabled weather stations, SDG&E gleaned several valuable insights—that the Santa Ana winds originate around specific slopes, for example—and was able to outfit high-risk areas with grid management infrastructure to “power down” during extreme weather events.

In addition to making the utility’s infrastructure more resilient, data from the network has helped SDG&E develop weather models to forecast fires and predict extreme weather.

Finally, the Weather Awareness System has helped SDG&E bring community outreach online during the COVID-19 pandemic. In fact, the utility has been able to reach even more people with valuable information on everything from storm safety to keeping cool during rising temperatures.

In September 2020, when a network of wireless-enabled weather stations captured record-breaking temperatures across the greater Los Angeles and San Diego counties, Woodland Hills reached 121 degrees, the **hottest temperature ever recorded** at an official weather station in Los Angeles County.