Weather Services for Energy Load Forecasting

The accuracy needed for supply planning, smart grid operations, successful energy trading
Weather forecasts are the most important variable affecting electric and natural gas load forecasts: up to 90 percent of the error in load forecasts can be attributed to inaccurate weather forecasting. Whether you are a utility, system operator, power marketer, energy trader, or gas pipeline operator, you will benefit from Schneider Electric’s weather forecasts for load forecasting — judged independently as the most accurate in the industry.

Results

Our accurate weather forecasts yield load predictions that most closely reflect actual demand. As a result, whether working with gas or electric power, you can significantly reduce costs and increase revenues:

- Avoid excessive base loads and reduce use of costly peaking resources
- Limit imbalance penalties
- Improve power marketing
- Improve distribution management

Demonstrated accuracy

Accurate forecasts that support on-the-mark load predictions in extreme weather can save a large power utility up to 500,000 euros, more than half a million USD, in a single day. Schneider Electric has been determined by ForecastWatch, an independent study group, to lead all U.S. forecasters for temperature forecasting accuracy. This expertise results from our unique forecasting system that leverages adaptive learning technology from the U.S. National Center for Atmospheric Research (NCAR) with our proprietary technology and continuous monitoring for quality control.

International availability

Now, the most accurate and widely used weather forecasts for load forecasting in the United States are available to support energy operations globally. The same approach in generating these forecasts is being used worldwide.
Now available globally, Schneider Electric’s comprehensive weather forecasting solution utilizes international weather observation networks. We can link with existing utility observation networks or simply implement a network for a utility with installed sensors.

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Proven reliability
Continuous enhancements in our technology and reinvestment in our forecast systems have widened the gap between the industry-leading accuracy delivered by Schneider Electric and that of other forecast vendors. Currently, more than 70 percent of all electric load forecasting agents in the United States rely on Schneider Electric weather forecasts to avoid excess or insufficient generation or power purchase — and the significant costs resulting from improper load predictions. We deliver data hourly for automated input load models, and we monitor these deliveries 24/7. Observations and forecasts are delivered for the next 15 days for all weather parameters needed by the load model. Long range, forecasts for planning or trading purposes are available for up to two years out.

Focused on customer service
Our meteorological experts are available 24/7/365 to help with your questions, online, or over the phone, whenever needed. We’ll provide historical data, as well, to help you tune your load forecast models.

Accompanying our weather feeds is WeatherSentry Online®, our Web-based visualization tool to view forecasts and monitor weather conditions. It includes our patented configurable weather alerting service to alert you to changing conditions.