Optimize decisions, unburden IT with energy forecasts as a service

Get repeatable, traceable and defensible load forecasts with reduced computing requirements

Delivered as a service/ in the cloud

Highly scalable, automated and flexible modeling

Trustworthy, large-scale enterprise forecasting

Easily scalable, repeatable and customizable workflow planning

The Issue

As many new energy sources come on the grid, utilities and smart cities struggle to make informed predictions about energy demand. Many can't automatically track model accuracy and easily update models. And without high-performance computing options, it isn't easy to handle large volumes of data.

These organizations must make discoveries, solve complex problems and deploy accurate information across the enterprise faster – while integrating with existing systems. The changing grid requires a platform capable of handling massive data sets and providing information down to the circuit level, including renewable generation.

Forecasters and planners need repeatable, scalable, traceable and defensible forecasting across all locations, at all levels of aggregation, to confidently plan. Transparent, trusted forecasts are essential for sharing with internal partners and third-party stakeholders – and avoiding millions of dollars in trading and operations losses and regulatory fines.

But not all organizations have the budget and resources to maintain forecasting software on-premises. They need to forecast without depending on IT resources. They need a solution that allows them to scale as needed and reduces computing requirements.

The Challenge

- **Inaccurate forecasts.** When forecasts don't accurately reflect what's happening in the business, it isn't easy to plan confidently or operate successfully in the market.
- **Limited data access.** Many utilities have difficulty accessing all of their data, so they can't maximize investments in smart meters and advanced metering infrastructure.
- **Manual processes on multiple systems.** Forecasters must use various software tools that require lots of manual input – making large forecasting processes unmanageable.
- **Inefficient modeling practices.** A lack of analytics capabilities and automation causes multiple scenario evaluations to take longer. It's also more difficult to anticipate outcomes and easily adjust models.
- **Prohibitive costs and resource intensive.** Maintaining load forecasting software on-site can be burdensome due to resource gaps, IT dependence and high computing costs.

Our Approach

SAS delivers forecasting capabilities in the cloud to help you:

Have accurate, reliable load and renewable forecasts at your fingertips. Automate data ingestion and systematically consider hundreds of combinations of factors to develop the best models for short-term forecasting needs and to optimize energy use.

Be prepared with defensible forecasts. Quickly and accurately generate and defend forecasts with respect to regulatory compliance.

Make better trading and contract purchase decisions. Statistical and visual indications of the likely range of forecasted outcomes let modelers incorporate quantifiable variability and confidence limits when making operational and financial decisions.

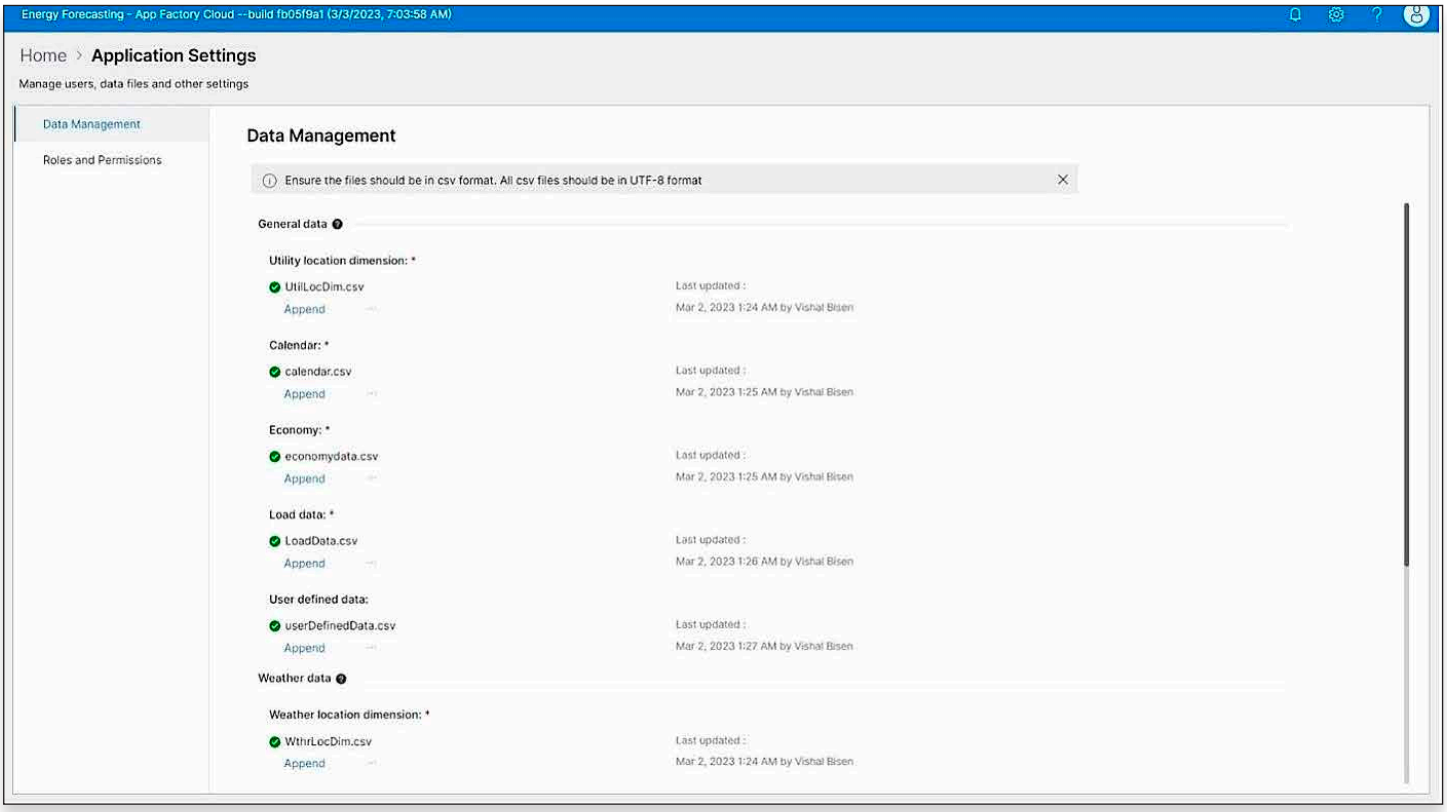
Use all data to maximize investments in smart meters and advanced metering infrastructure. Make better predictions about energy demand with accurate predictive models based on data from more sources, including smart meters and IoT-connected devices.

Do more – better – with existing planning and forecasting resources. Eliminate the need to train forecasters on multiple tools with a common forecasting methodology and data integration processes.

The SAS® Difference

Utilities and smart cities using SAS Energy Forecasting Cloud can be confident that they'll operate more efficiently and effectively due to our automation, scalability, statistical sophistication and transparency. Plus, we have experience working with hundreds of utilities worldwide.

- **Available as a service.** Get quality forecasts without maintaining software on-site, plus scale to meet business demands. And our automated champion model selection and forecasting architecture is compact, cloud native and fast.
- **Forecasting for very short-term and short-term loads.** Automate and streamline data ingestion, including GLM, ARIMA, NN, UCM and ESM models.
- **Renewable generation forecasting.** Model renewable generation resources with advanced machine learning and deep learning algorithms. Hourly and sub-hourly forecasting is based on trusted data and advanced forecasting algorithms.
- **High-performance load forecasting.** Maximized value from existing planning resources and improved forecast performance enable utilities to operate more efficiently.
- **Single administration and reporting interface.** A visual interface lets users view forecasting results from the forecast workbench – and no coding is required for autocharting capabilities.



Get accurate, robust and scalable load forecasts at your fingertips.

Request a demo and learn more about SAS Energy Forecasting Cloud.