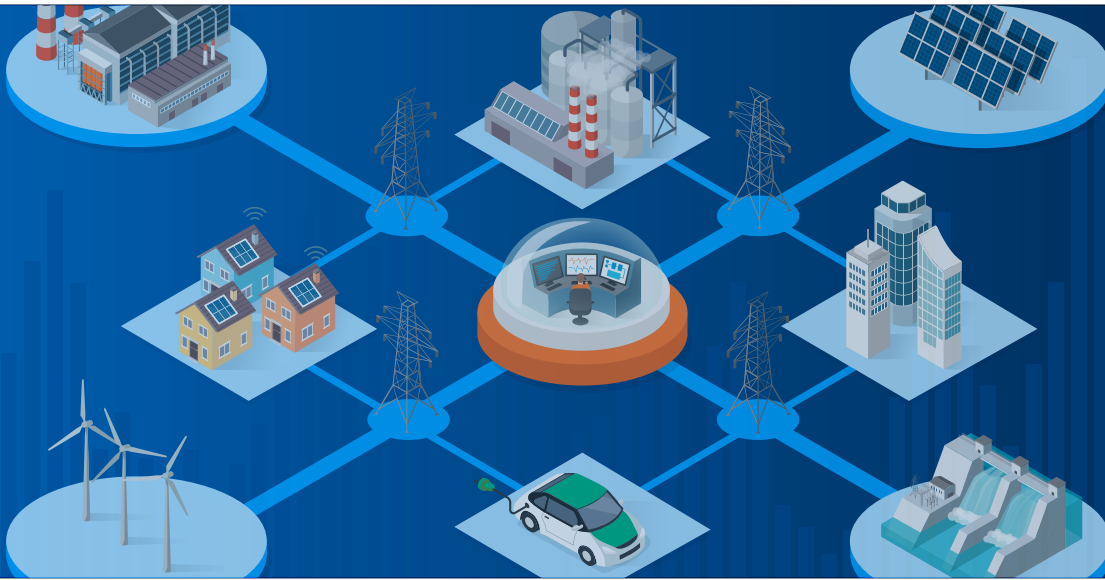


# Maximize existing planning and forecasting resources

Improve load forecasting performance, reduce uncertainties and generate value



Available on-premises  
or in the cloud



Highly scalable, automated and  
flexible modeling capabilities



Trustworthy, large-scale  
enterprise forecasting



Easily manageable, repeatable  
and customizable processes  
for planning workflows

## The Issue

As many new energy sources come on the grid, utilities struggle to make informed predictions about energy demand. Many can't automatically track model accuracy and easily update models when changes are needed. And without high-performance computing options, it isn't easy to efficiently handle increasingly large volumes of data. Utilities must make discoveries, solve complex problems, and deploy accurate results and information across the enterprise faster - while integrating with existing systems, such as GIS, CIS, data warehouses and ERP systems.

The changing nature of the grid requires a forecasting platform capable of handling massive data sets and providing granular information down to the circuit level. Utilities need repeatable, scalable, traceable and defensible forecasting performance across all locations, at all levels of aggregation, to confidently plan. Transparent and 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.

## The Challenge

**Inaccurate forecasts.** When forecasts don't accurately reflect what's happening in the business, it isn't easy to plan confidently for the future 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. There's also no way to get hourly forecasting on all time horizons, so existing planning resources are ineffective.

**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. Competitive advantage is lost when teams can't quickly make risk-mitigating decisions and surface new business opportunities.

## Our Approach

Utilities gain a competitive advantage when they have accurate forecasts, maximize the value of their data and efficiently use existing planning and forecasting resources. SAS delivers software and services that help utilities:

- **Improve load forecasting performance and capabilities to plan for future events.** Repeatable, scalable, traceable results improve forecasting across all locations and levels of aggregation.
- **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.** Better predictions about energy demand are possible 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.** A common forecasting methodology and data integration processes across forecasting horizons eliminate the need to train forecasters on multiple software tools.

## The SAS® Difference

Utilities using SAS can be confident that they'll operate more efficiently and effectively at all levels of decision making due to our automation, scalability, statistical sophistication and transparency. Plus, we have experience working with hundreds of utilities worldwide.

**User-driven hierarchical forecasting.** Hourly forecasting for all time horizons is based on trusted data and advanced forecasting algorithms.

**Integrated data management.** Reliable data with a transparent and auditable lineage is ensured, along with data governance and quality capabilities.

**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.

**What-if analysis and scenario planning.** Prepackaged economic forecasts let users compare alternate scenarios by running what-if analyses.

**Flexibility and scalability.** An extensible model repository includes data mining, linear/logistic regression, decision trees and neural networks.

**Available as a service.** The completely redesigned architecture is compact, cloud native and fast.



Develop short-term forecasts showing predicted load.

For more information on how you can maximize planning and forecasting resources on-premises or in the cloud, please visit [SAS Energy Forecasting](#).

