Analytics for Rate Design and Regulation in Utilities

How to Use Data and Analytics to Optimize Rate Designs and Meet Regulatory Demands

Today's utilities face increasing regulatory burdens that pose significant threats to profit margins. In response, utilities have invested in data and analytics programs that they expect will help them develop accurate rate designs that meet regulatory requirements and maximize revenue. Unfortunately, many utilities struggle to:

- Gather and make available the reliable, up-to-date data that facilitates pro forma rate development.

- Develop the type of detailed reports needed to improve load profiling, rate case performance and rate design.

- Implement the analytical tools that improve understanding of revenue variances so Utilities can better recognize opportunities for new rates.

- Ensure accuracy and quality of data from various sources.

This is where the experts at Teradata can help.

By bringing analytical solutions to the table—along with industry-specific understanding of how to adapt solutions to your individual needs—we can help your regulatory and rate design teams pursue tightly integrated initiatives that yield the kind of results most only dream of in a time of unprecedented industry change. Our solutions also position you for future growth in your data and analytics journeys.

Load Profiling for More Informed Rate Design

Of course, meeting the rate and reporting requirements of regulatory agencies goes hand in hand with the formulation of accurate rate design. Integrated data and advanced analytics improve both, because they help you:

- Create load profiles, both by individual meter and multiple aggregations.

Finding A Multi-Million Dollar Shortfall

One large customer uses Teradata to model and confirm the revenue impacts of various rate designs. In doing so, they uncovered an $8 million shortfall that they were able to adjust before final submission to the Public Utilities Commission.

- Reconcile interval read against register reads in both kWh and kW.

- Gain insight into the accuracy of the variances by customer and rate types, so you can put in top line adjustments as appropriate.

- Improve the accuracy of rate designs by reliably identifying where margins are not meeting forecasts after rate case implementations.

- Understand margin contributions by rate and calculate normalized, forecasted and actual margin using key algorithms that include:
  - Forecast to actual margin.
  - Weather normalization—simulated.
  - Weather normalization—predicted.
  - Weather adjusted kWh.

- Make informed adjustments to 8760s, including weather, multipliers and combined load shapes.

- Apply price variables to meter or customer groups so you can understand margin impacts from various rate scenarios.

- Report rate change impact by customer groupings, such as low income and small business.

- Use disconnect/reconnect analyses to offer important insights for regulatory bodies and facilitate your ability to recover uncollected revenues.

TERADATA®

The Teradata Advantage

Teradata consultants help you realize these results by bringing the deep utility and technology experience needed to understand what works and what matters for your business. We partner with you in a straightforward and proven process aimed at quickly making you the experts in the use of your analytical tools.

Equally important, Teradata offers a flexible array of data storage and analytics options that we can readily integrate into your existing technology structures. This begins with our Teradata Unified Data Architecture,™ a remarkably comprehensive, yet flexible platform for data integration that is widely recognized as the world's most scalable analytics platform for structured, multi-structured and Big Data analytics. The integration of the data warehouse with the Aster discovery platform and open-source Hadoop provides deeper insight, integrated access, ease of use, lower costs and better insights.

Our workload-specific platforms all take advantage of our Utility-specific logical data model. Data Labs enable individual units to test ideas in an environment safely isolated from day-to-day operations. And our Teradata Insight Advantage Integration optimizes the way your data interacts with our analytic tools or virtually any leading analytical applications.

In short, by significantly improving your ability to formulate profitable rate designs and meet the demands of regulatory agencies, sophisticated data integration and advanced analytics enable you to thrive in a new era of power generation.

About Teradata

Teradata helps companies get more value from data than any other company. Our big data analytic solutions, integrated marketing applications, and team of experts can help your company gain a sustainable competitive advantage with data. To learn more about Teradata for Utilities, visit **Teradata.com/industry-expertise/utilities**.

TERADATA