

UNLOCKING THE POWER OF PRICE

*From Prescriptive to Personalized...
How customer analytics and advanced rate
modeling have dramatically transformed the role
and application of pricing in leading utility
organizations*

INNOVATION AREAS

Rethinking Utility Rating Engines

Increased Speed & Flexibility

Gateway to Customer Personalization

Demystifying Choices

Revenue & Risk Implications

TREND 7

*Bringing the Digital
Utility to Life*



TREND 7: UNLOCKING THE POWER OF PRICE

RETHINKING UTILITY RATING ENGINES

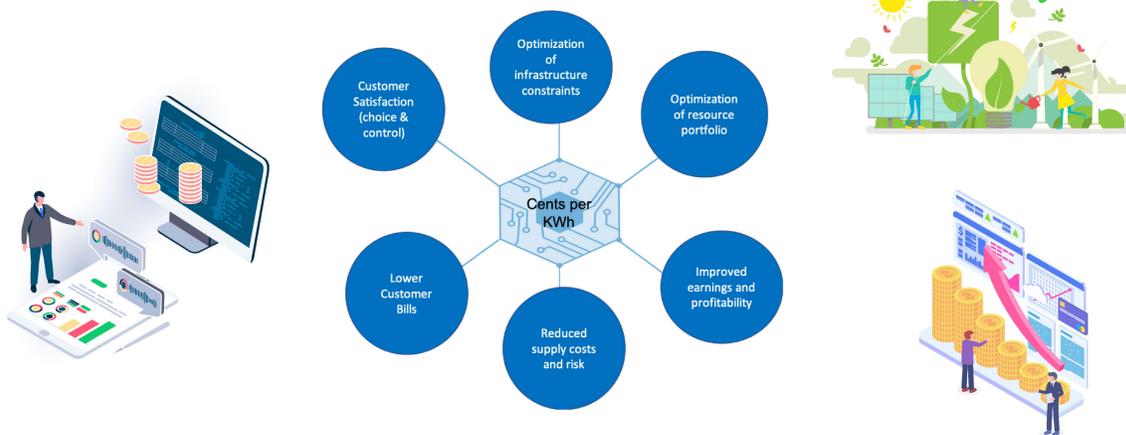
The design and execution of customer rates has long occupied a top spot on the utility strategic agenda. The design of utility rates, their successful negotiation with regulators, and how these pricing structures are operationalized within the utility can all have enormous impact on the overall profitability of the enterprise, as well as on downstream customer value and satisfaction.

In recent years, however, the management of the utility rates environment has become an increasingly complex challenge, requiring a new level of data integration, analysis, and orchestration with other aspects of the utility operations. Some of the key factors driving utilities to transform their rates environment include:

- Increased customer expectations around choice and control
- Increased needs for cost transparency and visibility
- Integration with distributed energy resources and customer programs
- Increased volume and complexity of billing determinants
- Business needs for better / on-demand revenue and profitability reporting
- Conservation and energy reduction initiatives

These factors have spawned a dramatic shift in how utilities are designing, optimizing and managing their rates environments. From the most basic block usage or time-of-use rate structures to more sophisticated and dynamic forms of pricing, utility rating engines and pricing infrastructures are being stretched to their limits, catalyzing the need for new capabilities that will close these key gaps and position the utility to take advantage of new opportunities that lie ahead.

MORE DYNAMIC RATING AND PRICING ENGINES ARE HELPING UNLOCK NEW SOURCES OF CUSTOMER, COMMUNITY AND BUSINESS VALUE



As utilities upgrade and replace their customer information and support systems, more and more emphasis is being placed on how these solutions support the assignment and administration of rates and its connection to key parts of the customer journey. Many legacy pricing and rating engines are simply insufficient to handle the volume, velocity, and complexity of data required in more dynamic pricing environments.

“As customer rates become increasingly personalized, the capabilities of traditional rating engines are being stretched to their limits.”

As “cost of service” models become more complex, the process of assigning and administering rates has morphed into a dynamic equation, requiring the integration of numerous factors occurring in near real-time (Interval metering data, real-time/nodal market prices, changing availability of distributed supply, customer program participation, and opt-in performance).

The speed and flexibility with which newer generation rating engines and optimization platforms can ingest, process, and optimize these variables has become a key differentiator in helping utilities administer these more complex and exotic rate structures. Even without the need for sophisticated rates, many municipal governments demand the flexibility to quickly change rates and block definitions based on the dynamic needs of the utility. In the past it took many months to implement and test a new rate structure. The modern engines significantly reduce this time.

GATEWAY TO CUSTOMER PERSONALIZATION

As utilities contemplate ways to personalize the customer experience, no factor is perhaps more relevant than the overarching category of price. Historically, it’s not uncommon for utilities operating in markets with comparatively and consistently high rates to experience lower satisfaction or perception scores than other utilities in more favorable cost environments. The perceived fairness of the rate, relative to nearby markets or other service providers, can leave customers feeling trapped by factors well outside of their control. But by shifting to more dynamic and personalized rate structures, utilities can increasingly offer customers more choice and control over how they are affected by costs, even in environments where embedded cost disadvantages continue to persist.

The growth in interval-based metering, combined with innovative new customer programs (conservation and demand management), distributed resource and supply alternatives (customer and grid scale renewables, storage, etc.), behind-the-meter technology, and the Internet of Things (IoT) have dramatically increased the degree to which utilities can use pricing to personalize the customer experience. Options now available to utility customers range from the introduction of time-of-use rates, to reward programs for off-peak consumption of utility services, to more exotic plans built around unique customer behaviors and the varying levels of risk they impose on utility cost structures. When combined with other aspects of the utility service offering such as participation in related conservation programs, involvement in demand response programs, installation of customer-owned renewable energy such as solar and battery storage, and extended services provided via an integrated utility marketplace, a customized price becomes the central part of a customer’s next best action.

“Matching rates with the lifestyle and behaviors of each individual customer will become the centerpiece of personalizing the utility experience.”

To accommodate these increased levels of personalization, utilities need considerably higher visibility into customer-specific behaviors and risk factors, and the ability to continuously optimize these alongside the frameworks and price points being considered by the utility. New solutions are emerging that enable utilities to accomplish this dynamically in real-time, creating a new level and type of personalization that extends to such things as personalized rate notifications and even automated rate switching.

DEMISTIFYING CHOICES

Newer generation solutions are providing vital simulation capabilities for use inside of utilities’ digital engagement channels. Using the same analytics and optimization frameworks that enable the personalization of rates, utilities have now begun

to provide customers the ability to simulate and test the relevance of different rate alternatives against how that will impact their future utility bills.

“The ability to easily calculate and simulate the impact of rate changes (on demand) unlocks a new level of transparency for the customer... and the utility.”

These on demand simulation outputs can be rendered in a variety of ways, from online calculators offered via digital channels, to software application programming interfaces (APIs) that render next best actions for use in call center interactions, or integration into automated marketing campaigns and AI-enabled servicing agents.

REVENUE AND RISK IMPLICATIONS

The ability to rapidly analyze, process and simulate rates and their impact on customer billing can be equally valuable to the utility’s revenue planning, reporting, and risk management functions. Using rate optimization solutions like these, utilities are now able to recalculate billing and revenue reports on demand, something that previously would have been burdensome and costly to do mid-cycle. This addresses a key need utilities have for mid-cycle revenue reporting and increased transparency into unbilled revenue.

These optimization platforms can also be used to simulate the revenue and profitability risk associated with different rate applications and alternatives being considered, and the impact of key drivers and choices on mitigating those risks.

EVOLUTION OF UTILITY RATING ENGINES

TRADITIONAL RATING ENGINES	INTEGRATED RATE OPTIMIZATION & SIMULATION PLATFORMS
Monthly bill calculations Ongoing administration of rate classes	Complex billing/dynamic pricing Customer risk & impact analysis Next best (pricing) actions Real-time rate comparisons/simulations On demand revenue reporting DER intergrations/transactive energy

While not every utility is contemplating rate environments of the complexity discussed here, all utilities will likely be pressed into providing considerably more choice to their customers in terms of pricing and billing alternatives in the future. As this occurs, it will be critical that these emerging capabilities are reflected in utilities’ digital roadmaps so that their customer information ecosystem is able to sufficiently adapt as more flexible rates and pricing options emerge.