The Going Rate

What's the Future of Utility Rate Structures?

While technology has greatly evolved in the last two decades, utility rate structures have not kept pace. Utilities still recover costs for their infrastructure and capital expenditures based on a volumetric rate.

This worked well when load growth was a given. Now, a wide range of factors is impacting both load growth and the entire utility rate structure.

The ways in which U.S. regulators are responding to these challenges vary by region. States such as New York are exploring services-based systems, while other regions are pushing for fixed variable rate recovery. Overall, however, regulators are now looking at decoupling the link between electricity sales and revenue.

ELECTRICITY SALES

REVENUE

Broadly defined, decoupling means the utility is not dependent on volumetric throughput to recover fixed costs. There are a number of ways to do this, including fixed variable cost recovery. The important point is that fixed costs for providing service aren't negatively impacted by decreased sales. This incentivizes utilities to implement demand reduction and energy efficiency programs.

Challenges to Load Growth and Utility Rate Structure

- ***Flat demand.*** For a variety of reasons, demand can no longer be counted on to cover the cost of utilities' capital expenditures. This situation will further cloud the future if it impairs the ability of utilities to borrow capital for new infrastructure upgrade projects.
- ***Reliability challenges.*** From aging infrastructure to severe weather events, challenges to grid reliability are driving investment in distributed generation, microgrids and other technologies not accounted for by current rate structures.
- ***Changing regulations.*** Utilities must find new, cleaner sources of energy to meet the requirements of the coming EPA Rule 111(d). This will impact the use — and amortization schedules — of older, high-emitting resources. Capital recovery plans will need flexibility to meet revised usage.
- ***Third-party services.*** As more customers or communities provide power or localized distribution, rate mechanisms will need to reflect the new role of utilities as a service rather than a commodity.

Automatic or semi-automatic price adjustments between rate cases enable utilities to capture allowed revenues even if sales fluctuate. And service-based structures apply market-rate thinking to performance indicators such as reliability.

All of these changes point to a performance-based ratemaking model — a solution to replace traditional cost-of-service regulation for a higher rate of return when utility performance metrics are higher.

"Performance-based ratemaking (PBR) isn't a completely new model," says Ward Camp, Vice President, Regulatory and Governmental Affairs, Landis+Gyr. "Many aspects of PBR are used throughout North America today. As technology has advanced so that utility performance can be better measured and verified, commissions can feel comfortable knowing that the utility is doing a good job and entitled to rate recovery."

New and creative methods for recovering capital, operations and maintenance costs of grid infrastructure are needed to ensure the success of tomorrow's utility. Utilities must also capitalize on technology investment incentives to ensure a sustainable and versatile smart grid.

Regulators will need to put rates in place that compensate utilities for taking risks.

A performance-based model in which utilities can get rate recovery based on how well they perform, rather than the system's volumetric throughput, may be the accelerator utilities need in order to adapt to a services-driven future. ■