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Regulated Utility Rates Spotlight

The 5 Things Your Organization Should Know

Utility tariffs, fuel cost recovery factors, capacity costs, resource assessments, societal benefit charges...

Utilities operate in a world of stringent regulatory requirements and oversight with unique service requirements for their customer base. Generating facilities, whether fossil fueled or nuclear, are subject to tightening emissions and operations standards. And when coupled with aging infrastructures, utilities are juggling many initiatives to balance efficiency, customer service, and reliability, at a time when extreme weather patterns are literally creating the perfect storm.

For the most part, industrial and commercial organizations, particularly in the two-thirds of the nation that remains regulated, have felt that energy costs were a cost of doing business with no way to effectively stay on top of utility regulatory efforts and resulting tariff changes beyond their interactions with utility account representatives. At a time when organizations are doing more with less, it's difficult to justify having energy experts on staff that have the capability to be part regulator, part lawyer, part engineer, part economic developer, and part asset manager, all while also opening or closing new locations as part of expansion or rationalization efforts.

For those organizations managing multiple-sites across the country, not to mention the globe, in-house teams have had to come to grips with:

- Complex tariff menus and rate structures for multiple utilities.
- Data to understand and analyze energy and operational consumption characteristics to determine the optimal utility rate application for specific sites or types of building use.
- Changing regulatory environments across thousands of utility jurisdictions to keep updated on trends that can impact operations, not to mention budgets.

Much has been written about managing energy spend in deregulated environments. The objective of this paper, however, is to help commercial and industrial organizations understand ways they can more effectively approach managing utility costs in regulated environments.

1. Industrial and commercial organizations CAN realize better utility rates, and obtain incentives and rebates to optimize their energy spend.

Utility rate solutions are available for industrial and commercial organizations who have done their homework and have established strong lines of communication with their utility—easier said than done when you have to balance multiple utility relationships. These solutions can take the form of negotiated special contracts or customized rates, all while applying knowledge of the regulatory landscape to fully leverage cost avoidance opportunities. Many organizations elect to work with a consultant for this very specific expertise.

A good example is the ability to opt out of societal benefit charges on the regulated portion of bills in some states. These charges are established by states largely to fund energy efficiency incentives. If your organization does not desire to apply for incentives or rebates for energy efficiency for whatever reason, it makes sense to negotiate with the local utility to have this charge eliminated from your bill.

Following is an example of a successful negotiation strategy that addressed this type of scenario:

An Accenture client has a major facility served by a Southeastern electric cooperative that was planning a rate increase. The utility's rate menu is quite limited. In fact, a single rate applies to business customers with demands of 100 kilovolt-amperes (KVA) and above—an unusual situation to be sure. In general, utilities have multiple rates for business customers that account for different customer types, levels of consumption, or patterns of usage. In effect, the utility's larger customers were subsidizing smaller ones.

Through a series of discussions with the utility, Accenture presented evidence, based on its extensive data repository, and understanding of utility rate design that the customer was paying considerably

more for its large facility's power relative to comparable sites served by other regional utilities. Accenture recommended ways to rectify the situation with the cooperative, specifically:

- The establishment of another rate for large facilities with demands of at least 3,000 KVA; or
- Adjustment of the design of the existing rate to rectify the subsidization of smaller customers by larger ones.

The cooperative opted for the second approach, modifying the design of the rate based on Accenture's recommendation. The result was a 4 percent reduction in power costs that became effective at the same time that the average business organization served by the same cooperative received a 5 percent rate increase.

2. Misapplication of utility tariffs can result in overcharges of 1–5 percent of organizations' energy spend.

Some estimates put the aggregate amount of overcharges each year in excess of $20 billion, accounting for anywhere between 1 and 5 percent of a typical organization's annual energy spend. While billing errors can and do occur, inadvertent misapplication of rates can often be the cause.

How can this be? The story at right (see sidebar) lays out how tariff naming conventions can be complex, often leading to organizations being on a more costly rate than they should be.

In another example, a multi-site big box retailer served by a small municipal utility in the Midwest unknowingly had its account changed from the General Service rate to the Medium Power rate. An Accenture energy analyst uncovered that the account's average cost per kWh jumped from under 8 cents/kWh to over 24 cents/kWh—three years before—and had gone undiscovered by the retailer's utility bill processor. The utility investigation revealed that incorrect data had been manually entered in their system, resulting in power factor penalties each month. Once they were made aware of the error, the utility immediately made the correction with the next billing period to eliminate future overcharges and issued a refund check.

Beyond merely checking the accuracy of invoices, which is an entire business model for some tech companies, it is important to be able to have a full year of billing history to evaluate seasonal influence on accounts, benchmarking across other similarly situated accounts, and time frames. Many companies enlist the aid of a bill processor and payment company to help manage all their energy data, as well as other utilities like water, telecom, and waste. Beyond automated bill processing, however, experts in utility regulation and rate design can review tariff names, perform outlier analysis, and conduct hands-on rate reviews of your electricity accounts.

What's in a Name?

By and large, the responsibility for selecting the correct utility rate lies with the customer. But electric utility rates and their names vary from one to utility to another. Tracking demand at thousands of locations across the country, all with different utilities and rate names, can be challenging for multi-site organizations.

Consider a Midwestern utility with rates called "General Service" and "Large General Service." Small customers (defined in terms of demand or kW) can be served under either rate, and many would pay less on Large General Service.

A Western utility has a "Medium General Service" rate. The tariff indicates that small business customers can also be on the rate, and many would realize savings on the Medium General Service rate.

3. Deregulation is only relevant in one-third of the United States, and the remaining two-thirds of the country remain regulated.

Since deregulation came to the electricity industry in 1996, it has received mixed reviews. The fact remains that two-thirds of the nation's electricity markets are still regulated markets. Even in deregulated supply markets, the delivery portion of the bill remains subject to regulated tariffs—assuming you have access to the right market intelligence and insight.

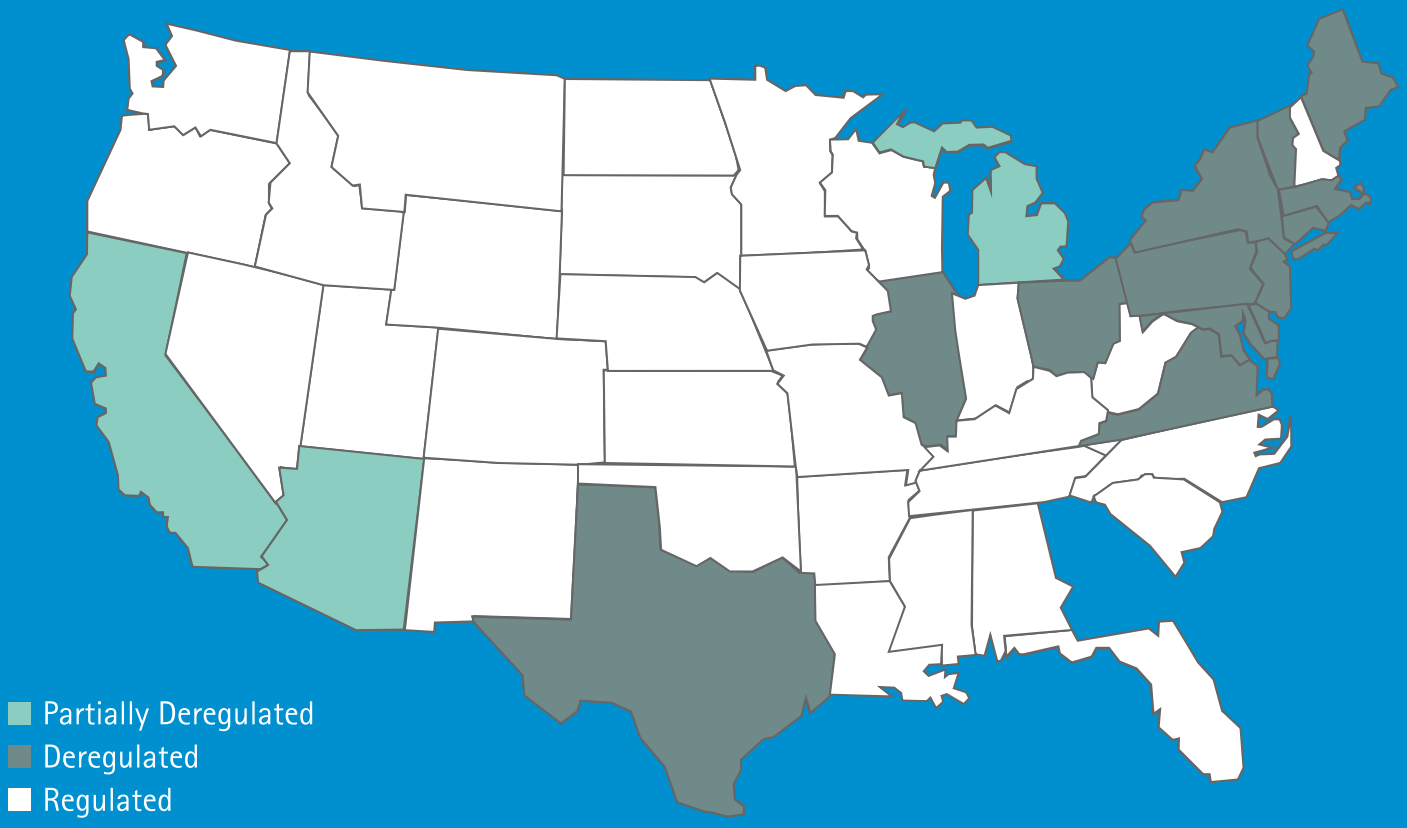
Consider this basic example of how a customer can save on its regulated electric utility rates:

Suppose a business facility consumes power fairly evenly (few spikes/valleys in demand) during all hours of a day, and that this relatively level consumption profile prevails throughout a year. In other words, the facility has a high load factor. A facility with a high load factor and level consumption pattern benefits the utility because a smaller investment in generation equipment is required to serve it as opposed to the resources required to service a customer facility with the same total consumption, but with a highly variable demand pattern. The facility is being billed under a rate that effectively penalizes its high load factor as opposed to another rate in the utility's tariff book that would reward it for its even consumption pattern by providing a lower rate. Switching to this rate will produce savings because the utility has a lower cost-to-serve for this type of client.

Utilities expend considerable effort and resources to provide customer service and key account management to assist their industrial and commercial customers to:

1. Ensure that their businesses are on the appropriate rate class;
2. Provide access to incentives and rebates to fund new energy efficiency equipment; and
3. Guide large businesses through major utility processes when expansion or contraction is planned.

The challenge is making sure that your organization can take advantage of all of the programs put in place by utilities that are designed to educate energy users and help organizations understand to reduce energy costs. When managing multiple utilities across the globe, it is easy to be overwhelmed by the sheer volume of energy data and information. Managing energy data is complex, and most organizations require help in sorting through interval data, demand, load factor, and sorting out options, whether locations are in regulated or deregulated locations.



Transforming specific energy data into business intelligence for leaders in procurement, operations, and finance is one of the first steps in **taking control** of an organization's energy spend.

4. Most companies are moving to streamline, standardize, and centralize energy data collection, procurement, energy efficiency, and sustainability processes across the globe to achieve the most benefit.

Companies across the globe are busy centralizing and systematizing processes to reduce variability and leverage scale—regardless of the category. In many cases, these efforts are part of large-scale change management efforts, whether stated or implied, to attach the same level of rigor and discipline to energy procurement as organizations apply to other categories of spend. Energy costs are no exception, although it has traditionally been viewed by many as too localized to centralize.

By centralizing data, internal benchmarking of facilities with similar operational characteristics becomes possible. Accenture strongly recommends that multisite organizations centralize not only their data, but also integrate their bill processing, regulated rate review and deregulated procurement with demand management initiatives.

In addition, by totaling load for each utility, some clients have been able to take advantage of utility aggregation tariffs or special discounts only available to those companies whose load exceeds certain minimum thresholds.

There are two ways to look at this:

i. What companies don't know about energy and the way their organization consumes it puts them at the center of powerful market and regulatory risk; and
ii. Transforming specific energy data into business intelligence for leaders in procurement, operations, and finance is the first step to taking control of an organization's energy spend.

Changes in facility consumption patterns and usage levels are important determinants of electric rate savings opportunities. For example, if a manufacturing plant adds another production shift, its load factor may increase to the point that another rate in the utility's tariff book becomes advantageous. The new rate might be in the form of a time-of-use rate, which recognizes that much of the plant's consumption is now during off-peak periods when the utility's variable cost of production (largely fuel) is lower relative to peak periods, when more expensive generation must be accessed. During the past several decades, time-of-use rates have become increasingly more prevalent at electric utilities. Sometimes they are introduced gradually through pilot programs.

If the size of a facility increases, it could qualify for a utility tariff that provides lower costs per kilowatt-hour of power consumed. Furthermore, facility expansions, as well as new facilities, can potentially qualify for Economic Development Riders (EDRs) contained in the tariff books of many utilities. EDRs provide percentage discounts off of utility bills for a given time frame (most often five years).

Utility rate savings can also result from contraction at a facility. Many business utility rates contain minimum billing demand requirements. These minimum demand levels are imposed if the actual demand for power at a facility falls below the minimum specified in the rate tariff. If the demand at a facility declines dramatically, that facility can realize significant savings by moving to a rate with a minimum billing demand below their new level of demand.

5. Utility rate cases are on the rise, and so, too, are electricity costs.

At the beginning of the last decade, many utilities were heavily engaged in unregulated enterprises that were intended to be the primary vehicle for earnings growth to offset expected losses from deregulation. These efforts often emphasized the installation of merchant generators that were supposed to capitalize on the promise of deregulated power markets. Pursuant to over-building,

profitable opportunities for merchant generation declined sharply; and by 2003, many utilities realized that unregulated businesses were not the primary avenue to achieve earnings growth.

Regulated earnings are a direct function of the approved magnitude of these assets and the rate of return allowed on them. Both are established by regulators through rate cases (in the rate case process, a utility argues for—or "makes the case" for—why it should be allowed to increase generation capacity, increase the rates it charges customers to cover its investments and expenses, or both).

The shift in strategy by utilities in how to achieve earnings growth coincided with burgeoning societal desires relating to pollution control, the upgrading of aging delivery infrastructure, the advent of renewable portfolio standards, and smart grid investments. The result has been an explosion in annual regulated utility capital expenditures nearly tripling since 2003. This increase in capital investment has been accompanied by a tripling of the annual number of rate cases filed compared to the annual rate of filings in the late nineties and the early years of the last decade.[1]

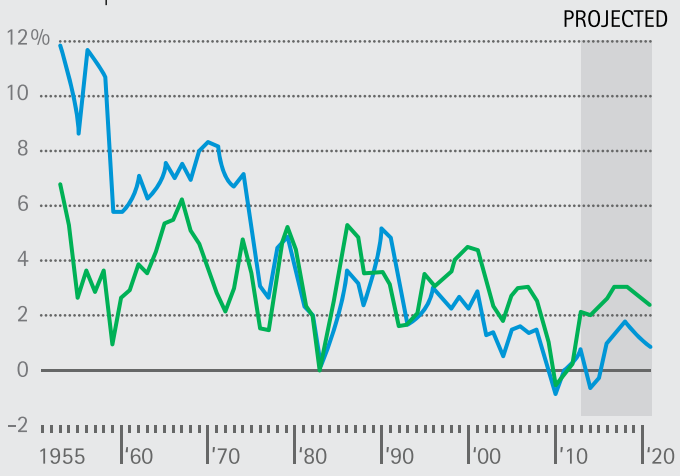
A recent Wall Street Journal article also outlined the dilemma faced by utility executives today: costs are rising, but electricity sales volumes remain sluggish for the seventh year in a row as increasing energy efficiency more than off-sets the increased demand associated with improving employment statistics and the explosion in the number of electronic gadgets in use.[2] The article states that energy efficiency improvements have come as a result of the convergence of technological changes and government regulations that have led to aggregate reductions in overall electricity demand as highlighted in the graph below. This is further exacerbated by consumers and businesses alike that are increasingly electing to generate their own power.

The elevated levels of investment that have produced the great increase in rate case frequency will very likely continue, and the U. S. Energy Information Administration admits that it does not foresee electricity sales keeping pace with GDP growth. It is therefore appropriate to anticipate that electric utility rate case volumes will continue to be robust, moving electricity rates up for businesses and consumers alike. In light of the trend toward higher prices industry-wide, it is all the more important to arm your organization with the insight and information described in this paper to drive savings and help manage risk, where possible, across your organization's energy spend.

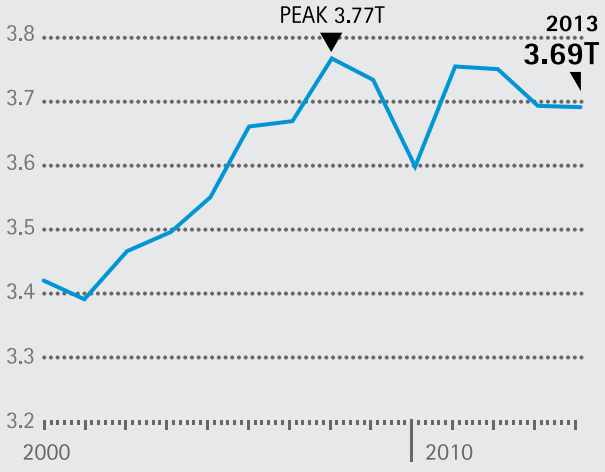
Energy Lag

Electricity use no longer follow overall economic condition including GDP, as technological advances, government regulation and other changes have prompted Americans to use less electric energy.

Change in U.S. electricity use and gross domestic product



Electricity retail sales in trillion kilowatt-hours



Source: U.S. Energy Information Administration

The Wall Street Journal

[1]Edison Electric Institute Industry Data Analysis, www.eei.org.
[2]Rebecca Smith, Wall Street Journal online edition, "Electric utilities Get No Jolt from Gadgets, Improving Economy," July 28, 2014.

Conclusion

There has been much dialogue about deregulation, and how organizations can save money by switching suppliers in open markets. However, expertise in and knowledge of utilities' operations, utility rate structures and regulation, as well as an understanding of how your operations consume power, can produce significant savings in electricity expenditures—even in regulated markets.

As your organization plans for the future, Accenture recommends you take a hard look at energy budgets in both regulated and unregulated states to begin to take control, if you haven't already done so, of what has traditionally been viewed as uncontrollable costs in a category that could be one of your organization's top three areas of expenditure.

By optimizing regulated rates and improving energy efficiency, organizations can boost savings whether they are in a deregulated market or not.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with more than 305,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$30.0 billion for the fiscal year ended Aug. 31, 2014. Its home page is www.accenture.com.

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