Fact Sheet

April 2012

BPA's new tiered rate structure offers greater control over power costs

BPA's customers have rightfully celebrated their continued access to the low-cost power that is provided by the Federal Columbia River Power System (FCRPS) via the new Regional Dialogue contracts that took effect with the 2012 fiscal year. The Tiered Rate Methodology, adopted in 2008, governs the rate design and cost allocation when setting rates for the power that is sold under the Regional Dialogue contracts.

The new rate methodology sends marginal energy and capacity price signals directly to utilities. BPA believes retail utilities now have the opportunity and proper incentives to reflect this price signal in their retail rates, which may cause consumers to more efficiently use electricity by installing energy efficiency and demand-side management measures that will be offered by their utilities in cooperation with BPA.

Tiered rates

The centerpiece of the new contracts is tiered rates, which offer electricity at two price levels. In its simplest form, this means that utilities lock in a set amount of power from the existing federal system at a cost-based rate, the Tier 1 rate. Beyond that, Tier 2 rates are for any energy a utility obtains from BPA in addition to its contractual right to power at Tier 1 rates. Each rate period, the amount of power BPA offers at Tier 1 rates is based on what the existing federal system can produce. Tier 2 rates are based on the actual or forecast price paid to acquire the additional power requested by the customers.

Many BPA customer utilities are sharpening their focus on developing energy conservation to effectively stretch the value of power they can buy at Tier 1 rates and avoiding or deferring the purchase of additional, presumably more costly, power.

In addition to the market-based price signal found in Tier 2, the Tiered Rate Methodology also includes two new charges within Tier 1 that send price signals to utilities to invest in energy conservation and demand response.

The Tier 1 Load Shaping Charge

Each utility's set share of the system's output sold at a Tier 1 rate includes a base amount of energy it can use during light load hours (10 p.m. to 6 a.m., Monday through Saturday and all day Sunday and holidays) and heavy load hours (all other hours). These amounts vary monthly because the output of the hydro system varies monthly.

The vast majority of a utility's Tier 1 power bill consists of a fixed charge that is based on the utility's share of the federal system's costs and includes revenue credits resulting from BPA's sales of surplus electricity at market prices.

However, BPA meets its customers' energy needs even when those loads do not match the generation amounts of the federal resources. For example, a utility may

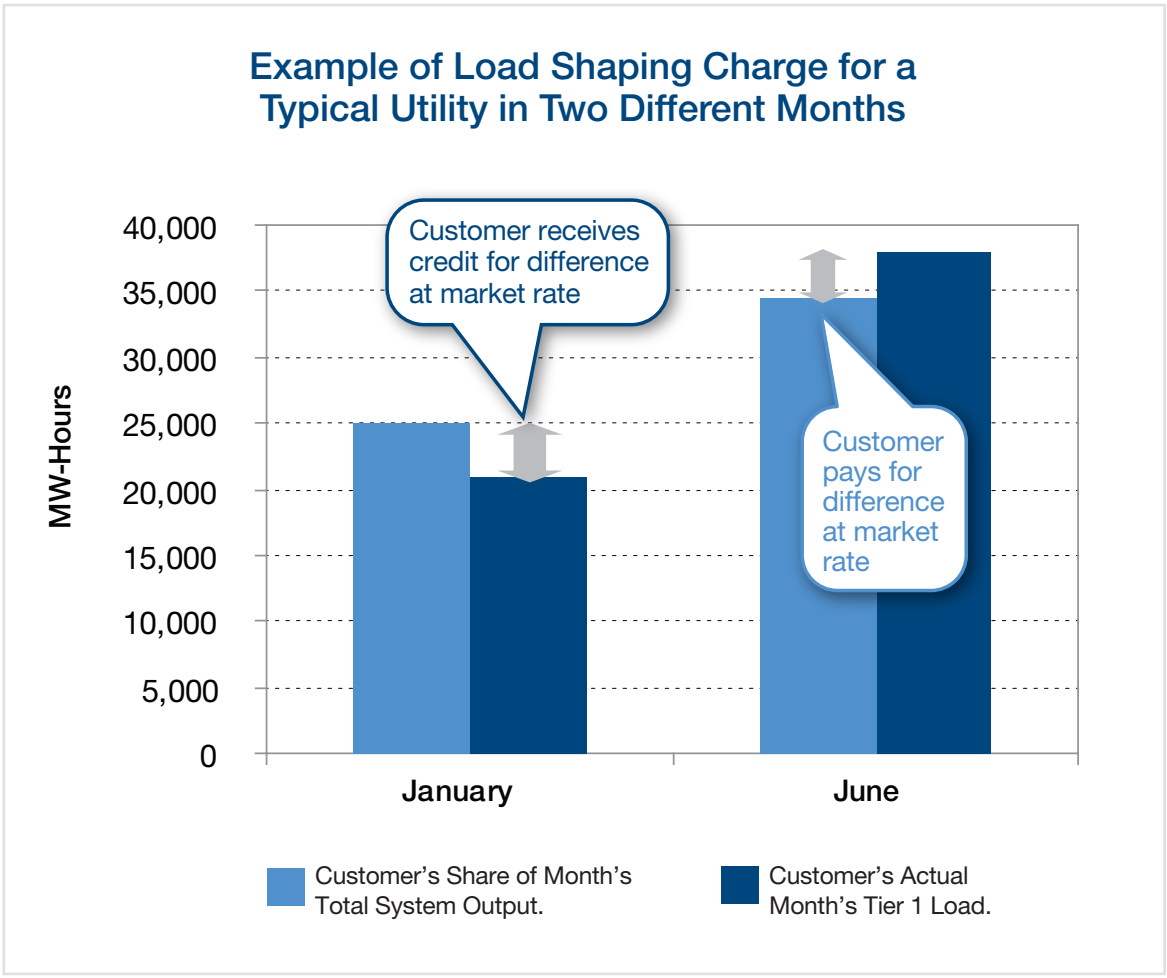
have high air conditioning loads in August when river flows decline and the output of the system is low. If such increased loads exceed the utility's base amount of energy from the federal system, BPA's Load Shaping Charge covers the costs of acquiring the power to meet that load. Conversely, if a utility doesn't use its base amount during any month, it receives a credit based on the market value of the unused power that BPA sells on the open market.

This Load Shaping Charge provides BPA customer utilities with 24 market-based incentives (one heavy load hour and one light load hour rate for each month of the year) not only to reduce their overall load but also to shift energy use from heavy load hours to light load hours. By successfully shifting energy use patterns, a utility could earn credits on its power bill.

In the past, BPA's added cost to serve load growth was melded into BPA's Priority Firm rates and the incentives provided to utilities to invest in energy efficiency or demand response were substantially diluted from the forecast market price. In the new structure, load growth and load shifts are generally charged or credited at forecast market prices, which reflect the marginal cost of power. This stronger price signal provides an undiluted incentive to conserve and shift load to light load hours.

The Demand Charge

The Demand Charge focuses on each utility's peak electricity use, which is defined as the maximum one-hour consumption of power supplied by BPA in a month. The agency must maintain the generating capacity to meet the occasional high power demand created by these peaks even though the capacity may sit idle most of the time. BPA has sharply increased the rate it charges customers to meet such peaks as the costs of this service are increasing.



Under the new rate structure, BPA has committed to meet about 91 percent of each utility's historical monthly peaks as part of a base level of service. When a utility needs power beyond the 91 percent, it pays a rate based on the cost of a single-cycle gas-fired combustion turbine (SCCT), a likely source of the power the agency would acquire to meet increased peak demand.

This structure creates another incentive for utilities to manage their power costs through retail rate design and programs that encourage consumer peak use of power to avoid the most costly periods. BPA has 12 unique demand rates, one for each month of the year, that shape more of the costs of the SCCT into the more costly months.

Tools for reducing costs

A utility with a strong and targeted conservation program or retail rate structure could reduce its load sufficiently to avoid Tier 2 rates as well as the Load Shaping and Demand Charges that apply to its Tier 1 purchases. The advent of smart meters promises to reward consumers who shift high energy uses such as dish and clothes washing into the light load hours. Similar programs have changed the times when industrial-scale irrigators use the most electricity. Other programs reward consumers who reduce their load during peak hours or shift that load to times when demand is lower.

This latest rate structure creates new opportunities to make the most of the Northwest's cleanest and most affordable power. New retail rate designs, along with both proven and creative new conservation and demand response techniques, will take advantage of these important opportunities.

Tier 2 rates and new resource development

By setting Tier 2 rates based on the costs of acquiring new power sources, the tiered rate design better facilitates the acquisition of renewable energy. Renewable energy no longer needs to compete against BPA's embedded cost of power, which is much lower. Instead, renewable energy will compete directly with other new sources of power.

Example of Typical Utility's Demand (Peak) Charge