

Become a Smart Power Consumer

How New Pricing Plans Can Save You Money and Help Improve the Environment



Did you know that the cost to generate electric power varies from season to season, day to day or even hour to hour? Today most electric customers are unaware of this because most of us pay one flat rate for each kilowatt-hour of electricity used, regardless of the time of day or actual cost to produce it. This pricing structure increases electricity costs for everyone, since we use a lot of electricity during expensive times of day and don't know it, and utilities simply integrate those high costs into the flat rate we pay.

When and How Power Is Generated Influences Its Cost

“Baseload” power plants are run continually and are tuned to run very cost-effectively, in contrast to “peaker” power plants that ramp up and down to meet higher demand and consequently run less cost-effectively.

New Power Plants and Transmission Lines May Not Be Needed

Peak weekday demand is met with expensive and – relative to baseload power plants – inefficient power plants. By reducing peak demand across the electricity grid, utilities will not have to invest as much money in power generation facilities that are only used a few hours a year. Nor will utilities have to construct as many high-voltage transmission lines and towers to meet peak demand. Avoiding these expensive utility infrastructure costs reduces costs for all electricity consumers.

The Money-Saving Potential of the Smart Grid and Smart Meters

With a smart grid in place, customers may have the option to pay lower electric rates and reduce the pollution associated with their electricity consumption by signing up for a new pricing plan if one is offered by their utility. That's because a non-flat-rate pricing plan will enable you to use electricity when it is less expensive and more efficiently generated. By choosing when and how you use electricity, you can better managing your budget and improve the environment without sacrificing comfort and convenience.

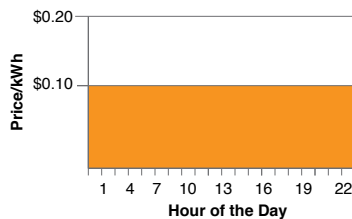


How Electricity Pricing Programs Work

Utilities have used flat rate pricing for more than 100 years. That is beginning to change due to increased stresses on the electrical grid and improved technology that enables greater price transparency for consumers. Customers in some states are being offered new pricing plans that make it possible for them to save money by controlling how much electricity they use during times of peak demand when electricity is more expensive.

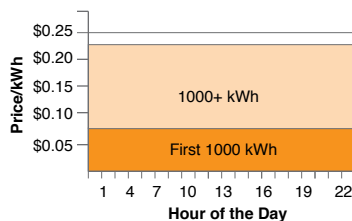
An Illustrative Example:

Many other services we need are priced based on when we use them. Airlines, for example, price their tickets according to demand higher around holidays and peak business travel times. Prices also typically rise as the departure date approaches and available seats decline. If airlines didn't have this pricing flexibility, most airline tickets would cost significantly more.



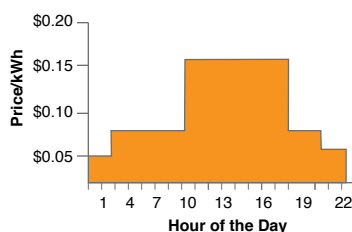
Flat-rate Pricing

This is how most utilities have charged – and many still charge – households for electricity. These flat rates reflect the average cost of electricity. Under this rate structure, customers' only opportunity to save money is to reduce usage.



Tiered Pricing

Under a tiered pricing structure, electricity rates increase as customers' use passes pre-defined thresholds during the billing month. None of the tiered rates reflects what the utility actually pays for electricity; lower tier rates are well below cost and upper tier rates are well above cost. Under this rate structure, customers can save money by conserving electricity, but are deprived of accurate information regarding the actual cost of their electricity consumption.

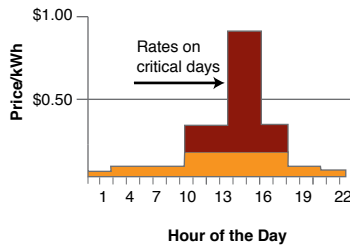


Time-of-use (TOU) / Variable Pricing

With a TOU/variable pricing structure, prices paid for energy used during specific hours of the day and days of the week are clearly established and provided to consumers in advance. "Peak" pricing is set based on when a utility's peak demand occurs, typically during afternoons and early evenings on hot summer weekdays. "Off-peak" pricing is typically lower per kilowatt-hour than in flat-rate pricing, offering customers an opportunity to save money by shifting their electricity usage from "peak" to "off-peak" times where possible.



The Green Button is a way for customers to access information collected from their smart meter by clicking on a green button on their utility company's website to securely access their household energy data. Note: not all utilities are participating in this program.



Real-time (or Dynamic) Pricing

Electricity prices in a real-time pricing structure may change hourly (or even more frequently, in some cases) based on actual electricity price changes in the wholesale market. Prices are provided to consumers either on a day-ahead or an hour-ahead basis so they can plan accordingly. Customers on this type of rate can use automated tools such as smart thermostats to adjust their electricity use in response to price fluctuations.

Critical Peak Pricing (CPP)

CPP is a premium charge for electricity when it is the most expensive and when the grid is running at maximum capacity, most often on hot summer weekday afternoons. CPP rates can be 4-6 times higher than flat-rate prices. Critical days are declared in advance by utilities, and customers have the opportunity to save money by shifting their electricity use to off-peak periods during those days.

Peak-Time Rebates (PTR)

Some utilities, rather than charging CPP, have taken the approach of providing bill credits to customers who roll back their consumption during critical days. The net effect for customers is the same – a significant opportunity to save money by conserving or shifting their use of electricity.



What the Future Holds – Easier Ways to Stay Comfortable in Your Home

Increasingly, consumers can realize even greater savings when using these different rate plans with tools such as web portals, smartphone apps, in-home energy management displays, and the “Green Button” program that help visualize and control how much energy they use on a near real-time basis. Additionally, automated “set-and-forget” technologies such as smart thermostats and smart appliances can automatically respond to utility price signals and adjust energy consumption the easy way – without any action required from you. The bottom line is that the smart grid will provide you with greater control over how energy is used in your home.

To take advantage of these tools and reduce both your energy costs and expensive utility infrastructure investment, consider signing up for a variable-rate pricing plan if one is offered to you.

For more information about pricing plans check your utility's website and visit the Smart Grid Consumer Collaborative at <http://www.smartgridcc.org>.



Working for a consumer-friendly, consumer-safe smart grid

SGCC is a consumer focused non-profit organization aiming to promote the understanding and benefits of modernized electrical systems among all stakeholders in the United States. Membership is open to all consumer and environmental advocates, technology vendors, research scientists, and electric utilities for sharing in research, best practices, and collaborative efforts of the group.

Join @ www.smartgridcc.org.