

What are demand charges?

Your monthly electricity bill has two parts:

- 1) Energy charges—for the total amount of electricity you use
- 2) Demand charges—for “peak usage”

How are demand charges calculated?

Demand charges are based on the highest 15-minute average usage recorded on the demand meter within a given month. If your facility tends to use a lot of power over short periods, your demand charges will comprise a larger part of your bill. If you use power at a more consistent rate throughout the month, your demand charges will generally be a smaller part of your bill.

Why do demand charges exist?

Demand charges cover electric utilities’ fixed costs of providing a certain level of energy to their customers. Energy costs are the variable-costs portion (charges by kWh). The challenge is that utilities have to maintain enough capacity to satisfy all their customers’ energy needs at once (e.g., a hot day in July when every customer runs their AC). Utilities have to maintain enough power plants to supply all that energy at once, and this requires them to keep a vast array of expensive equipment on constant standby, including transformers, wires, substations, and generating stations. This capacity is extremely expensive to build, and demand charges help pay those costs. Demand charges are also a means of encouraging customers to 1) reduce power usage during peak hours and 2) shift their usage from peak to non-peak hours. This way, utilities can levy higher charges on customers with more variable loads and pass the savings on to customers with more consistent loads.

Who pays demand charges?

Demand charges usually apply to commercial and industrial customers that pay time-of-use rates and at certain bill sizes. Utilities usually install a demand meter once a customer reaches a certain demand level consistently, e.g., 2000 kilowatt-hours per month for four consecutive months. Once demand billing begins, it does not end until monthly energy consumption has gone down consistently, e.g., dropping to less than 2000 kilowatt-hours per month for 12 consecutive months. All 50 states have demand charges, although the charges vary by state. Demand charges also vary by season, with charges generally higher in summer than in winter.

Why worry about demand charges?

Demand charges make up a significant portion of commercial and industrial customers’ total electricity costs: typically between 30 and 70 percent. Demand charges are increasing across the U.S., even while energy prices are decreasing. Several trends are at work here and will continue to keep demand charges high. First, as the grid ages and requires more maintenance and infrastructure updates, the resulting costs are passed along to ratepayers. Other factors include the strong growth of solar energy. Solar power generation causes greater sensitivity to peak loads because cloud cover impacts efficiency; hence, grid loads will become increasingly volatile.