Michaels Engineering Energy Brief

COMMERCIAL & INDUSTRIAL ELECTRIC BILLS

SUGGESTIONS...

Do you have certain Energy Efficiency topics you'd like to know more about? Send an email with your suggestion to the author listed below and your topic might become a future Energy Brief!

DID YOU KNOW...

...Knowing what the components of the energy bill represent may help you reduce the bottom line.

...You may pay for your summer peak all year if it is too high relative to the rest of the year.

MEET THE AUTHOR

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WHAT'S THE MYSTERY?

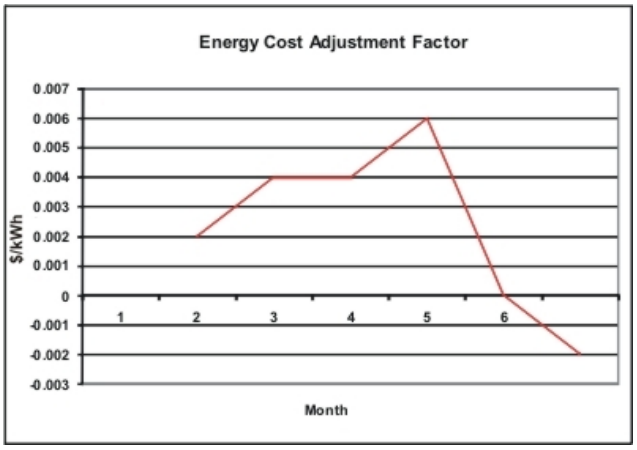
We've all looked at our dreaded electric bills and wondered "What the heck are all these charges?" These bills are nothing more than a series of components that build to a final crescendo-the total amount due. If evaluated individually, the components are easy to understand. Knowing what the components of the bill represent may help you reduce the bottom line.

UNDERSTANDING THE BASICS

Demand is a utility term that measures how much energy you need at a particular moment in time or the rate at which you are using energy. Demand is expressed in kW, but don't be mislead by this unit, as it is not power. Almost all utilities measure energy. If the utility measures energy for a known period of time, the average rate of energy usage can be determined. For example: If you used 500 kWh in 15 minutes, the average rate of use would be 2000 kW (500 kWh divided by 0.25 hours = 2000 kW). Most utilties use a 15 minute period, but some use a half-hour, and others use an hour. The bottom line is that the "demand" in kW is an average over this period and not an instantaneous measure of power. Therefore, although very short-term loads add to the demand, they are not likely to establish the maximum. And it is the maximum demand that the utility charges for that month.

From the utility perspective, this demand represents the capacity of the electrical delivery system to supply energy at the rate required. The utility must have generation, transmission, and distribution equipment sized to meet this demand.

But watch out. Many utilties have a "ratchet" that looks at 12 months and bills this demand as the monthly demand or as an added demand charge. You may pay for your summer peak all year if it is too high relative to the rest of the year.



Energy on your bill is simply the amount of energy you consumed during that month. Usually, energy charges represent the cost of producing or purchasing the electricity and are measured in kWh. In the case of generation, energy charges represent fuel for the power plants. In the case of purchased electricity, these markets typically buy and sell in energy commodities.

Energy Cost Adjustment/Fuel Cost Adjustment is a mechanism used by utilties to equalize revenue to the cost of acquiring energy. Utilties establish rate schedules for their customers. These schedules are the result of a long, detailed process often involving customer input. Rates are determined in part based on a projected cost of acquiring energy. Once in place, these rates seldom reflect the actual cost of acquiring energy so the utility makes adjustments from the projected cost using a factor. This factor could add or subtract from the bill automatically on a monthly basis, depending on whether the actual cost of acquiring energy was more or less than that projected.

NOW THAT WE HAVE THE BASICS, LET'S GET TO THE TOUGH STUFF

Next time!

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