

The New Reactive-Power Charge and Mandatory Hourly Pricing

What You Need to Know Now, and Why

Improve Your Power Factor, Reduce Your Reactive-Power Costs

Beginning January 2011, all of New York State's large electric customers will begin paying for reactive power.

If you can raise your facility's power factor above 95 percent, you will reduce, and possibly eliminate, the new reactive-power charge.

Raising the power factor also reduces the amount of energy used, which is especially important during times of peak demand when energy costs more. An improved power factor also increases the capacity of your system, reduces the amount of lost energy, and lowers equipment costs.

A low power factor leads to increased voltage drop as well as power losses in your distribution system. Excessive voltage drops can cause overheating and premature failure of motors, cables, and other equipment. An improved power factor minimizes voltage fluctuations.

Improved power factors also reduce the amount of electricity the grid loses, substantially reducing the carbon emissions released to the atmosphere. If all Con Edison's customers were at 95 percent power factor, the energy saved would offset 32,600 tons of carbon dioxide emissions, which is equivalent to removing 5,400 commuter vehicles from the road for one year.

The higher the power factor, the lower the reactive-power charge.

Ways to Improve Power Factor

To improve or correct your facility's power factor:

- Add capacitors to your system to decrease the amount of reactive power, thus increasing its power factor.
- Turn off motors and associated transformers when not needed.
- Develop a schedule that alternates the start-up and operation of motors and other equipment, and run all equipment only when needed.
- Install controls to operate equipment more efficiently.
- Replace motors, transformers, and other equipment at the end of their lives with energy-efficient models. Even an energy-efficient motor must be operated near its rated capacity to realize the benefits of a high power-factor design.
- Shut off induction equipment during times of peak demand, when possible.
- Avoid operating equipment above its rated voltage and equipment that is not fully loaded.

Want to Know More

For more information on how to improve power factor, contact:

- U.S. Department of Energy, energy.gov (see Industrial Power Factor Analysis Report).
- National Association of Energy Services Companies (NAESCO), naesco.org.



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