



ENERGY EFFICIENCY CHECKLIST FOR BUSINESSES:

How to reduce your energy costs and improve your bottom line

Energy costs represent a significant part of any business' expenses. By using energy more efficiently, you can lower your energy bills and free up money to spend on other projects. Saving energy also prevents pollution, which benefits the entire community.

Understanding Your Energy Bill



Examining your energy bill is the first step to realizing energy savings. The utility company bills you in different ways depending on how much energy you use. If your business uses less than 25 kilowatts (kW) of electricity at any given 15 minutes in your billing cycle, you are in the **Commercial** rate class and pay a flat rate for the kilowatt-hours (kWh) of electricity you use. If you use more than 25 kW, you are in the **Secondary General** rate class and pay a **demand charge**.

The **demand charge** is determined by a business' peak electricity usage during a single 15-minute period in the billing cycle. A business is billed for this peak usage even if the average energy use is much lower. Though the peak varies from business to business, energy usage often spikes when a business opens and the lights and various plug loads, such as computers and fans, are turned on and the thermostat is adjusted.

Commercial Rate (C Rate)

With the C Rate, your bills are based simply on how much electricity you use each month.

Your bill includes*:

- Service and Facility charge of \$6.60/month
- Energy charge of \$0.06023/ kWh used
- Taxes and Adjustments

Secondary General (SG Rate)

With the SG Rate, your bills are largely based on a **demand charge**.

Your bill includes*:

- Service and Facility charge of \$15.30/month
- Energy charge of \$0.01645/ kWh
- Taxes and Adjustments
- Demand charge of \$12.55/ kW

*Xcel Energy has filed a request with the Colorado Public Utility Commission to increase electric rates beginning January 1, 2005.

Strategies to Control Peak Demand

By controlling peak demand, you can drastically lower your energy bills. As mentioned above, your peak demand is the maximum amount of electricity needed at any given 15-minute period. It often occurs when electrical equipment is used simultaneously. If you can spread out your energy use throughout the day, your peak will be lower, and you can see significant savings on your energy bill. For example, if you operate a restaurant, turning on the fryers, ovens, lights, and office equipment all at once can create a spike in energy usage. Instead, turn on equipment one at a time with 10 to 15 minutes in between.

Demand control products briefly shut off non-essential electrical loads one at a time when usage approaches a pre-determined limit. The majority of the products are fully automatic, but offer override options. These products are particularly useful in convenience stores, grocery stores, automotive shops, athletic clubs, and other locations with a variety of electrical loads.

How to Manage Your Energy Bills

There are many easy and cost-effective strategies for reducing energy consumption. The following checklist will guide you through energy efficiency opportunities at your business.

Lighting

- Replace incandescent light bulbs with compact fluorescent bulbs
- Replace older T-12 fluorescent lamps with more efficient T-8 fluorescents
- Remove, disconnect, or turn off unnecessary lights
- Install occupancy sensors and daylight harvesters to regulate light levels
- Retrofit exit signs to energy-saving LED signs

Heating and Cooling Systems

- Adjust thermostat settings warmer in the cooling season and cooler in the heating season
- Install a programmable thermostat to automatically adjust temperature during unoccupied hours
- Perform regular maintenance, including cleaning and replacing filters
- When replacing equipment, install properly-sized, high efficiency products
- Consider evaporative cooling, which saves money on energy bills and initial cost

Water Use and Water Heating

- Install a water heater insulating blanket
- Reduce water heater settings to minimum required temperature
- Install faucet aerators and efficient showerheads
- Fix hot water leaks and drips
- Consider a solar hot water heating system

Building Envelope

- Install weather stripping, caulking, or seals on openings and cracks
- Add or repair insulation
- Install shading devices, window tinting, or a reflective roof to reduce cooling load

Equipment and Machines



- Purchase ENERGY STAR-qualified products, which are guaranteed to meet or exceed the EPA's criteria for energy efficiency
- Turn off machines when not needed
- Select smaller machines when possible

Resources

Partners for A Clean Environment (PACE):

Free assistance for Boulder County businesses. Rebates available for the installation of energy efficient lighting, HVAC systems, and refrigeration equipment. 303-786-PACE <http://www.pacepartners.com>

Xcel Energy:

Energy-saving tips and an online energy assessment tool.
<http://www.xcelenergy.com>
1-800-481-4700

The ENERGY STAR Program:

Information on energy-efficient products and appliances and partnership opportunities. <http://www.energystar.gov>

Energy Efficiency Guide for Colorado Businesses:

<http://www.coloradoefficiencyguide.com>

Greenbiz.com:

Information and money-saving tools.
<http://www.greenbiz.com>