



A  Sempra Energy utility®

# Energy-Saving Solutions for Office Buildings

Nearly half of the energy used by office buildings goes toward cooling costs. There are many ways to provide top-quality service to tenants while being energy efficient. Here are some easy steps to reduce energy usage, conserve natural resources and improve your bottom line.

## NO-COST ENERGY-SAVING MEASURES

### Lighting

- Reduce lighting where possible. Turn off lights in unoccupied areas, remove excess lighting, and turn off signage and other lights that are not necessary for security or safety.
- Turn off lights in areas where daylight is sufficient. Keep lighting fixtures and lamps clean. Remove lamps wherever possible.
- Make sure time clock and photocell lighting controllers are working properly and set correctly. Exterior lighting should be off during the daytime hours.

### Heating, ventilating and air conditioning (HVAC)

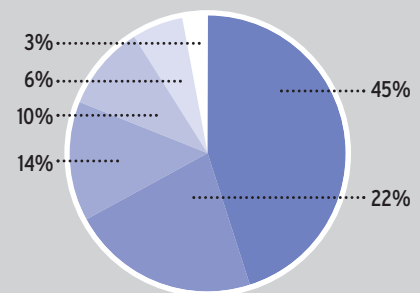
- Make sure the air-conditioning economizers are working properly and set to maximize the benefits of "free cooling."







- Pay attention to your thermostat settings. Set air-conditioning thermostats to 78°F or higher. When heating, 68°F is the recommended temperature. Turn off HVAC equipment when the building is unoccupied.
- Follow a routine maintenance schedule. Regularly clean and vacuum easily accessible components, clean or replace air filters, check fan belts, lubricate motors, pumps and fans, and inspect for refrigerant leaks.
- Turn off exhaust fans in unoccupied areas.
- Seal off unused areas and reduce or eliminate heating or cooling in these spaces. Storage rooms, warehouses and other unoccupied areas are good places to start.
- Keep exterior doors closed as much as possible so that you're not paying to heat or cool the outdoors.

### Water heating/sanitation

- Do not leave the water running when not needed, especially hot water.

The first step to managing energy usage is knowing where your business consumes the most energy. This chart illustrates how a typical office building uses energy.



Cooling		45%
Lighting		22%
Office equipment		14%
Miscellaneous		10%
Ventilation		6%
Cooking/refrigeration		3%

### Office equipment

- Reduce the hours your equipment is left running unnecessarily. Personal computers, monitors, printers, copiers and scanners should be turned off at night and over the weekend when not in use.
- Make sure your computers are using their power management capabilities. A screen saver does not save energy, but an enabled ENERGY STAR® labeled monitor will conserve energy by going blank after a preset period of inactivity.

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ENERGY-SAVING SOLUTIONS FOR OFFICE BUILDINGS (continued)

## LOW-COST ENERGY-SAVING MEASURES

### Lighting

- Install occupancy sensors to turn off lights automatically when not needed in storage areas, conference rooms, restrooms and unoccupied areas.
- Install timers, time clocks or photocells to ensure that interior and exterior lights are turned off at the appropriate times.
- Incandescent lamps can often be replaced with compact fluorescent lamps that can significantly reduce lighting costs and last up to 10 times longer.
- Purchase ENERGY STAR qualified replacement lamps.
- Replace or retrofit the incandescent lights in exit signs with light-emitting diode (LED) lamps.
- Retrofit incandescent or mercury vapor parking lot lights with more energy-efficient lighting such as high-pressure sodium vapor (HPSV) lighting.

### HVAC

- Install programmable thermostats.
- Perform preventive maintenance on rooftop equipment. Replace HVAC filters at least once every three months, insulate rooftop refrigerant lines, clean condenser coils and shade coils from the sun if possible.
- Invest in energy-efficient equipment. When upgrading or adding new equipment, look for the ENERGY STAR label, which indicates the equipment meets federal standards for energy efficiency.

### Water heating

- Install water flow restrictors and aerators, especially in sink faucets. In addition to saving on water-heating costs, these measures can save by reducing water usage.
- Insulate tanks and pipes. This simple measure will reduce standby heat loss.

### Office equipment

- Choose ENERGY STAR qualified products when upgrading or adding new equipment. These products meet federal standards for energy efficiency, and are often available at the same cost as less efficient models. And since most ENERGY STAR qualified equipment powers down during periods of inactivity, it produces less heat, which can help you save on air-conditioning costs.

## INVESTMENTS IN ENERGY SAVINGS

### Lighting

- Replace existing T-12 fluorescent lamps and magnetic ballasts with T-8 or T-5 lamps with electronic ballasts.
- Install electronic dimmable ballasts and daylighting controls to dim the lights when sufficient daylight is available.
- Replace incandescent or mercury vapor parking lot lights with metal halide or high-pressure sodium vapor (HPSV) lighting.
- Replace or retrofit channel sign lighting with LED products.

### HVAC

- When replacing HVAC units, install high-efficiency equipment.
- Install adjustable-speed drives on HVAC fan motors.
- Install an energy management system (EMS) to control HVAC fans and other equipment.
- Install low-emissivity windows to reduce heat transfer through the windows.

### Building systems

- Invest in energy-efficient equipment. When upgrading or adding new equipment, look for the ENERGY STAR label, which indicates the equipment meets federal standards for energy efficiency.

## HELPING BUSINESS CUSTOMERS – REBATE PROGRAMS AND SERVICES\*

San Diego Gas & Electric® has rebates available that can help businesses save money on energy costs. The Small Business Super Saver (SBSS) program targets small businesses, and the Express Efficiency rebate program is designed to help medium and large commercial, industrial and agricultural businesses. SDG&E's Small Business Super Saver program has rebates available to small business customers for energy-efficient lighting, refrigeration, food service and other technologies. For more information, call 1-800-644-6133 or visit [www.sdge.com/sbsupersaver](http://www.sdge.com/sbsupersaver).

Express Efficiency helps customers retrofit or replace old equipment with new energy-

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\*Rebate programs and services are funded by California utility customers and administered by SDG&E under the auspices of the California Public Utilities Commission. Programs may be modified or terminated without prior notice, and are provided to qualified customers on a first-come, first-served basis until program funds are no longer available. For more information, call 1-800-644-6133 or visit [www.sdge.com/business](http://www.sdge.com/business).

ENERGY-SAVING SOLUTIONS FOR OFFICE BUILDINGS (continued)

saving technologies that can lower operating costs and improve productivity. For more information, call 1-800-644-6133 or visit [www.sdge.com/express](http://www.sdge.com/express).

SBSS rebates apply to any small business customer on a valid SDG&E® commercial, industrial or agricultural rate with a monthly electric demand under 100 kilowatts (kW) and/or an average monthly natural gas usage under 4,166 therms. The Express Efficiency rebate program applies to accounts with a monthly electric demand of 100 kW or higher and/or an average monthly natural gas usage above 4,166 therms. Additional requirements apply.

SDG&E also offers On-Bill Financing (OBF). This program is designed to facilitate the purchase and installation of qualifying energy-efficiency measures by businesses that might otherwise not be able to afford these upgrades. For more information, visit [www.sdge.com/obf](http://www.sdge.com/obf).

SBSS and Express Efficiency provide rebates for the installation of both electric and natural gas energy-efficiency measures, including:

#### Electric measures

- Lighting
- Food service equipment
- Refrigeration

#### Natural gas measures

- Boilers and water heaters
- Food service equipment
- Pipe and tank insulation

### MORE SERVICES TO HELP BUSINESS CUSTOMERS

#### Energy-efficiency business seminars

SDG&E offers a variety of seminars and training opportunities designed to help businesses increase the energy efficiency

of their operations. These free seminars are both informational and technical, covering topics such as rebates available to businesses, how to become more energy efficient, what's new in energy-efficient technologies and much more. Please call 1-800-613-8970 for more information or check the seminar calendar at [www.sdge.com/training](http://www.sdge.com/training).

#### Energy use analysis surveys (online and on site)

These free surveys include an evaluation of your business's energy use, a customized chart of your usage and recommendations for savings. You will find opportunities to reduce the cost of lighting, heating, cooling and more. To take the online survey, visit [www.sdge.com/analyzer](http://www.sdge.com/analyzer), or call 1-800-644-6133 to schedule an on-site energy audit appointment.

Helping businesses understand and manage their energy use is part of SDG&E's commitment to providing exceptional customer service and energy solutions for the region.

Please note: Energy and cost savings for individual offices will vary based upon operating conditions, equipment, personnel, building envelope, weather conditions and other factors.