Business Energy Guide

Helpful Tips for Saving Energy and Money

As a business owner or manager, if you had the opportunity to lower your operating cost, wouldn't you take it? Here's your chance. It's as simple as investing in energy efficiency improvements and following some of the tips on this energy guide.

Why not start with SCE's **Business Incentives & Services**? It's a new approach of offering business customers an easier way to save.

Take a free **Online Business Energy Survey** at ***www.sce.com***. You'll receive a customized report that will guide you to saving energy and money. Then participate in one of our unique incentive options, **Express Efficiency** or **Standard Performance Contract**. You can receive rebates and incentives for the purchase and installation of energy-efficient equipment.

AIR CONDITIONING

- Set and lock your thermostats to the maximum acceptable set point
- Install timers or setback programmable thermostats and set them to shut down during non-business hours
- Cool occupied rooms only
- Perform regular maintenance on filters, belts, coils and bearings
- Clean condenser coils regularly
- Verify that the economy cycle (fresh air cooling) control is set to ensure proper operation
- Treat the cooling tower water to eliminate corrosion and blockage
- Reset chilled water temperature for chillers to optimize the overall system efficiency
- Balance your air-handling system to prevent cooling loss
- Remove scale from heat-exchange vessels
- Consider installing variable air volume (VAV) systems
- For VAV systems, install variable frequency drives on air-handler motors over 7.5 HP
- Consider installing the most energy-efficient appliance when purchasing new equipment

BUILDING ENVELOPE

- Have a professionally certified building energy service conduct an infrared thermal imaging survey of your building to identify areas with deficient or missing insulation
- Increase the insulation level in walls and ceilings, whenever possible
- Inspect weather stripping around windows and doors to make sure there is no deterioration or gaps which allow air movement
- Install window film or new windows to reduce the solar heat gain in the summer
- Add interior or exterior window blinds or shades to block direct sun during the summer but allow daylight to enter during the winter
- Design your landscaping to shade the building exterior from the summer sun
- When replacing your roof use highly reflective cool roof materials which help reduce the building air conditioning load
- Add skylights along with lighting controls to allow lights to dim or turn off when adequate daylight is present

HEATING

- Set and lock your thermostats to acceptable minimum set point during regular business hours
- Install timers or programmable thermostats with temperature setback to reduce or avoid heating during non-business hours
- Verify that thermostat controls prevent heating and cooling simultaneously
- Perform regular maintenance on filters, belts, coils, bearings and burners
- Whenever it is safe, use portable space heaters to heat specific areas
- Lower the boiler temperature whenever possible to optimize overall system efficiency
- Remove scale from heat-exchanger surfaces
- Heat occupied rooms only by using appropriate control strategies
- Turn the pilot off during the summer or use intermittent ignition devices (IIDs)

LIGHTING

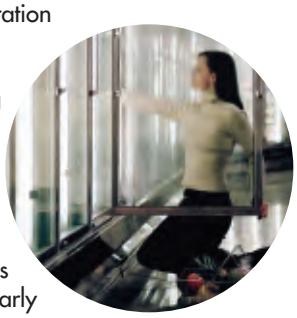
- Replace incandescent lights with compact fluorescent lamps (CFL's)
- Replace T12 fluorescent lamps and magnetic ballasts with T8 or T5 tubes and electronic ballasts
- Replace warehouse and other high-bay lighting with High Density Discharge (HID) lamps or high-bay fluorescent fixtures. HID lights produce a bright light resulting from an electric arc inside
- Install occupancy sensors in general usage areas so that lights turn on only when the area is occupied and turn off automatically when the area is not
- Clean lamps, reflectors, and diffusers regularly to maintain maximum illumination levels
- Install photocells or timeclocks on outdoor lighting systems so they only operate from dusk to dawn
- Replace incandescent exit signs with Light-Emitting Diode (LED) exit signs

MOTOR LOADS

- Replace standard motors with premium-efficiency units
- Install variable frequency drives to control the motor speed
- Install automatic shut-off devices to prevent continuous operation
- Install devices that improve power factor
- Investigate load-control devices to reduce peak demand
- Operate air compressor at the lowest pressure allowed by your system, and repair all leaks
- Practice preventive maintenance on the motor systems

REFRIGERATION

- Shelve products properly to avoid airflow blockage or voids
- Install insulation on bare or poorly insulated suction lines
- Install anti-condensation heater controls on glass door reach-in display cases to prevent continuous operation
- Replace T12 magnetic ballast lighting in display cases with T8 electronic ballast, LED, fiber optic, or cold cathode lighting
- Check for misaligned frames and hardware, and replace worn door gaskets on walk-ins and reach-ins
- Install strip curtains or swing-doors in doorways of walk-ins
- Install auto door closers on walk-in doors
- Clean cooling and condenser coils regularly
- Install night covers on open display cases
- Check for failed fan motors or evaporator and condenser belts

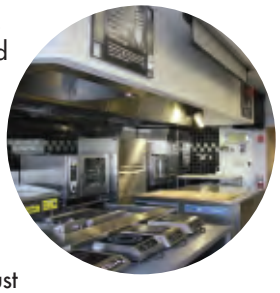


WATER HEATING

- Adjust your water temperature to 100-110 degrees unless a higher temperature is required for health or legal reasons
- Replace your high-temperature dishwasher with a low-temperature or chemical dishwashing system
- Install an insulation blanket on your water heater
- Repair all leaks
- Install water-flow restrictors on faucets and spigots
- Insulate hot-water piping
- Install timers on circulation pumps to avoid operating continuously or when hot water is not needed
- Remove scale from heat-exchanger surfaces

COMMERCIAL COOKING

- Install energy-efficient equipment such as ENERGY STAR® labeled appliances
- Stagger equipment startup times to avoid peak demand
- Preheat ovens, griddles and broilers only when it's necessary
- Cut appliance idle time by implementing a daily startup/ shutdown plan
- Whenever possible, cook during off-peak periods
- Reduce the temperature on fryers and griddles during idle times
- Minimize the use of broilers and rotisseries. Opt instead for griddles and ovens whenever possible
- Consider induction technology as a possible alternative to range tops; they are more expensive than traditional gas or electric range tops, but offer very high efficiency
- Use appropriate sized pots with flat bottoms and tight-fitting lids
- Load and unload ovens quickly to avoid heat loss
- Clean and polish heat reflectors
- Clean and check burners regularly
- Recalibrate fryer and griddle thermostats
- Cooling fans should be directed towards the workers, not the cooking equipment
- Consider exhaust hood controls. It provides huge energy savings between the lunch and dinner times, post-dinner slow down, and any other time when the kitchen is not operating at full capacity
- Perform an air balance of the kitchen exhaust system
- Increase exhaust hood performance by adding inexpensive side panels
- Place cooking appliances well within exhaust hoods, which are most effective if they overhang the equipment by more than 6 inches



If you'd like more information about how you can improve the energy efficiency of your business, contact:

- Southern California Edison
  1-800-736-4777
  www.sce.com
- EnergyStar®
  1-888-STAR-YES
  www.energystar.gov
- California Energy Commission
  1-800-555-7794
  www.energy.ca.gov/efficiency/index.html

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Printed on recycled paper

NR-201-V3-0408