**Lighten Up on Lighting**

**During the daytime . . .**
- Look for places indoors where lights are left on in unoccupied spaces.
- Tour around outside for exterior and parking lot lights that don’t need to be on.
- Check to see if light sensors are dirty or broken, and clean or replace them.
- Consider upgrading to shielded exterior lighting to direct light where needed and reduce nighttime light pollution.

**Take better control . . .**
- Identify and assess opportunities to use lighting controls.
- Occupancy/motion sensors for low-traffic areas.
- Timers or daylight sensors to turn off exterior lights during daytime.
- Dimming controls where natural lighting can supplement or replace fixture lighting.
- Confirm that lighting controls are operating as intended.

**Evaluate the opportunity to upgrade . . .**
- Replace T12 fluorescents with T8s or T5s with electronic ballasts (no magnetic ballasts) or even better, tubular LEDs.
- Upgrade incandescent and CFL bulbs to LED.
- Replace incandescent or CFL exit signs with an LED fixture or LED retrofit kit.
- Remember: Recycle/dispose of all fluorescent lamps and magnetic ballasts properly at your lighting or building supply store.

**Tips to consider . . .**
- Purchase an inexpensive light meter (under $30) to assess whether any areas are overlit, compared to requirements, design levels or comfort.
- Assess cleanliness of lamps/fixtures for maximum light output and institute a cleaning schedule.
- Remove or de-energize lighting and ballasts that are not used.
- Review SDG&E’s current product catalog with over 160 measures from lighting to HVAC at sdge.com/bes.

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**Tighten Up the Envelope**

**Mind your doors & windows . . .**
- Inspect doors and windows to identify gaps that can be weather-stripped, caulked or filled with foam.
- If purchasing new windows, consider the savings of high-efficiency ones that cost more, but save on utility bills.
- Generally, keep outside doors closed and as well as doors to any unconditioned areas.
- When limiting natural ventilation, ensure proper mechanical ventilation with outside air to help reduce airborne contaminants indoors.

**Take protective actions . . .**
- Install solar film, insulated curtains, awnings or vegetation for east and west windows to block summer heat gain.
- Consider drought tolerant landscaping that saves money on water while providing summer space cooling and winter insulation.

**Spy leaks & cracks . . .**
- Inspect attic insulation levels and identify any inadequacies.
- If a major remodel opens walls, consider adding insulation.
- In the attic, look for signs of leaks, membrane cracks/holes or damaged insulation.
- Check roof for damage and surface aging, take photographs and see if it is still under warranty.
- Depending on view aesthetics and other issues, consider white reflective paint to reduce heat gain—even extend the life of some roofing.
### Attack the HVAC

**Things you should do . . .**
- Replace filters yourself or use a service on a regular schedule; monthly during heavy usage.
- Clear furniture, shelving, and other items from airflow supply and return vents.
- Keep thermostat away from sunlight, doors, windows and items that block ambient air.
- Ensure that individual space heaters are not being used.
- Have a plan for HVAC failure on the hottest/coldest day of the year.
- Know the anticipated useful life of your current system.

**Things professionals do . . .**
- Ensure that air system components are regularly maintained with pre-winter and pre-summer tune-ups.
- Install and right-size new HVAC equipment so that you maximize efficiency and reduce demand.

**Things you can buy . . .**
- Energy-saving ceiling fans and personal fans that make rooms feel cooler.
- Programmable and smart thermostats to pre-cool or pre-heat spaces prior to occupation or shutdown when not occupied as scheduled.

### Efficient Food Preparation

- Establish food preparation procedures that minimize power use of kitchen equipment.
- Verify oven thermostat accuracy and recalibrate when necessary.
- Ensure that range hoods and exhaust fans are only running when the range is being used.
- Ensure that unused appliances are unplugged or on a power strip that is shut off.
- Identify and assess opportunities to install variable frequency drives on kitchen hoods.
- When purchasing new kitchen equipment, review ENERGY STAR models and look for rebates in advance. Check SDG&E offerings at [sdge.com/bes](http://sdge.com/bes).

### Off-load Office Load

- Activate power management settings on computers, monitors, printers and other equipment.
- Identify equipment left on overnight that can be turned off when not in use.
- Use power strips to disconnect equipment or smart power strips that cut power off when a device is in standby mode.
- Ask staff to unplug cellphones and other rechargeable devices once charged.
- Be sure vending machines are turned off or put in sleep mode at the end of the day with a timer.
- When buying new office equipment choose ENERGY STAR® certified options.

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### Keeping it Cold

**Consider better controls . . .**
- Floating head and suction pressure controls can react to ambient temperatures to maintain necessary temperatures for savings.
- Electronically commutated motors can be programmed to speed or slow motors based on cooling needs, offering significant savings over evaporator fans.
- Anti-sweat controls monitor both temperature and humidity to activate heaters when needed to prevent condensation.
- Defrost controls intelligently sense when evaporator coils need defrosting, and only then perform that operation.

**Perform regular check-ups and maintenance . . .**
- Identify worn or leaky door seals and gaskets on refrigerators and freezers.
- Install strip curtains on walk-ins and keep condenser and evaporator coils clean.
- Check that refrigerator coils are clean and free of obstructions.
- If possible, be sure heating equipment is not near cooling equipment.

### Don’t Waste Water

- Find and fix any leaks—especially hot water leaks.
- Insulate older water heaters and the first 3 feet of hot water out pipe.
- Choose ENERGY STAR certified water heaters, including tankless/on-demand, solar and other efficient options.
- Use WaterSense® labeled faucets, toilets and other fixtures and look for rebates.
- Install high-efficiency, low-flow pre-rinse spray valves.

This information is adapted from ENERGY STAR’s Treasure Map for Restaurants/Commercial Kitchens. For more information about this energy treasure map or the Green Business Network, email greenport@portofsandiego.org.