



*Port of San Diego Green
Business Network*

Energy Treasure Map for Restaurants

Energy savings can be found almost everywhere you cast your view around your business. Reducing energy consumption and improving efficiency provides a treasure trove of hidden savings. Use the following suggestions and industry best practices to check your facility—and help keep San Diego Bay beautiful for all.

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.

Tighten Up the Envelope

Mind your doors & windows . . .

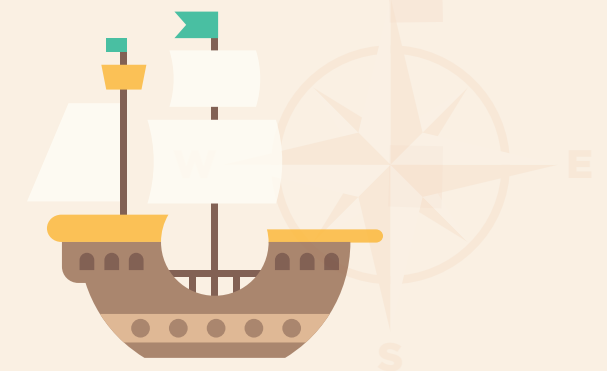
- Inspect doors and windows to identify gaps that can be weather-stripped, caulked or filled with foam.
- If purchasing new windows, consider the savings of high-efficiency ones that cost more, but save on utility bills.
- Generally, keep outside doors closed and as well as doors to any unconditioned 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 shutoff when not occupied as scheduled.

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.

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.

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.