



*Port of San Diego Green  
Business Network*

# **Energy Treasure Map for Retail and Office**

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.
- Educate and encourage employees to report leaks, turn off lights not in use and look for savings ideas. Tell your workers and customers about sustainability successes!
- Review SDG&E's current product catalog with over 160 measures from lighting to HVAC at [sdge.com/bes](http://sdge.com/bes).

## **Tighten Up the Envelope**

### **Mind your doors & windows . . .**

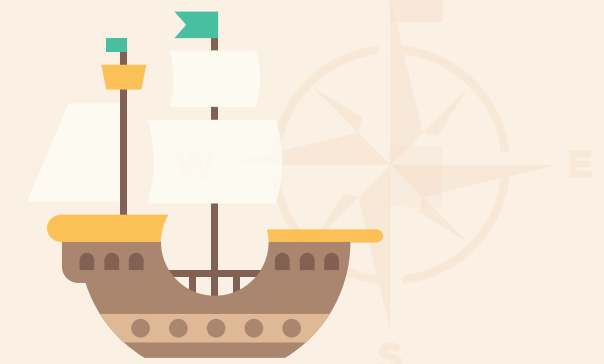
- Inspect doors and windows to identify gaps that can be weather-stripped, caulked or filled with foam.
- If purchasing new windows, consider the savings of high-efficiency ones that cost more, but save on utility bills.
- Generally, keep outside doors closed and as well as doors to any unconditioned 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. Learn more about programmable thermostats at [energy.gov/energysaver/thermostats](http://energy.gov/energysaver/thermostats).

## ⚡ 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.
  - Learn more about plug load and smart power strips by watching these short videos: [tinyurl.com/geec-plug-load](http://tinyurl.com/geec-plug-load).
- 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.



## Savings in the Kitchen and Breakroom

- 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.
- If possible, be sure heating equipment is not near cooling equipment.
- Identify worn or leaky door seals and gaskets on refrigerators and freezers.
- Check that refrigerator coils are clean and free of obstructions.
- Some stores may have residential type refrigerators, which should be replaced if they are more than 9-10 years old.
- 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).



## 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 Retail Store**. For more information about this energy treasure map or the Green Business Network, email [greenport@portofsandiego.org](mailto:greenport@portofsandiego.org).