

Do It Yourself Energy Survey

Foodservice is Energy Intensive...



FIVE SURVEY AREAS:

- 1 Kitchen and Serving
- 2 Dining Room
- 3 Dish Room
- 4 Rooftop
- 5 Parking Lot and Exterior

Where the Energy Goes:



Refrigeration
6%



Lighting
13%



Sanitation
18%



HVAC
28%



Food Preparation
35%

"Experience the efficiency" by conducting this hands-on energy survey.

California Utilities Partnering for Energy Efficiency



sce.com/ctac



socalgas.com
(search "FOODSERVICE")



sdge.com/foodservice



pge.com/foodservice

1 Kitchen and Serving



Lighting (Illumination)

- Install ENERGY STAR® compact fluorescent lamps, LEDs or induction lighting—use dimmable lamps with dimming switches.
- Clean lighting fixtures and remove unnecessary lamps (de-lamp) and disconnect their ballasts.*
- Replace T12 fluorescent lamps and magnetic ballasts with T8 or T5 lamps and electronic ballasts (de-lamp where possible).*
- Install occupancy sensors and/or timers in isolated spaces such as storage rooms or walk-ins.
- Repair or replace twist-timer light controls.

Observations (Illumination)



Water (Sanitation)

- Install a low-flow, pre-rinse spray valve at the pot-washing sink.
- Repair all water leaks—especially hot water.
- Set water heater at proper temperature—usually 120°F to 140°F.
- Examine for leaks on the water heater pressure-relief valve.
- Insulate hot water lines.
- Turn off hot water recirculating pumps when kitchen is closed.
- Survey hot water hose usage and reduce if possible.
- Consider installing a high-pressure nozzle or water broom on hot water hose.
- Turn off hot water to scoop wells and/or drip wells when not needed.
- Encourage proper defrosting—do not use hot water.
- Change water filtration filters.
- Activate and maintain water heater automated flue damper.

Observations (Sanitation)



Air (Ventilation)

- Check thermostat settings and programming.
- Install programmable thermostats.
- Place fresh batteries in existing programmable thermostats.
- Turn off kitchen exhaust and make-up air fans when appliances are off.
- Consider variable-speed drives for kitchen exhaust and make-up air fans.
- Decommission exhaust fans that are no longer needed.
- Install side panels on exhaust hoods that fail to capture and contain.*
- Move four-way diffusers away from exhaust hoods.*
- Rebalance older ventilation systems.*
- Set make-up air duct thermostat to 55°F.
- Place appliances completely under their exhaust hoods.
- Place heavy-duty appliances (ranges and charbroilers) in the center of the hood.
- Reduce fire hazards by repairing or replacing damaged grease filters in exhaust hood.
- Clean grease filters.

Observations (Ventilation)



Refrigeration (Cold Food)

- Replace damaged refrigerator door gaskets.
- Install strip curtains and replace damaged strip curtains.
- Install door closers and repair or replace damaged door closers.
- Align refrigerator doors—ensure they close properly.
- Keep refrigerator doors, ice machine and prep table covers closed.
- Maintain good airflow around the evaporator. Remove boxes from front and any objects (plastic bags) from rear.
- Replace and insulate faulty condensate drain line heater wire.
- Install an evaporator fan controller in walk-in.* Or install high-efficiency ECM motors on evaporator and condenser fans.
- Clean condenser coils.
- Clean evaporator coils.
- Check defrost time clocks and set properly.
- Check evaporator for icing. If ice is present, call a service company.
- Check walk-in cooler and freezer temperatures. Adjust temperature to proper setting.
- Check refrigerant level and recharge if necessary—sight glass clear = full charge.*
- Turn off door heaters if no ice.*
- Purchase ENERGY STAR reach-in refrigerators and freezers.

Observations (Cold Food)



Food Prep (Hot Food)

- Follow an appliance start-up and shutdown schedule. Emphasize attention to broilers, ovens, griddles, rotisseries, pasta cookers and fryers.
- Turn off plug loads when possible. Emphasize attention to heat lamps, coffee warmers, holding cabinets, steam tables, plate warmers and conveyor toasters.
- Clean and repair range tops, replace missing knobs, fix air shutters and adjust flame.
- Align oven and steamer doors and replace missing gaskets.
- Repair leaks in gas lines and valves.*
- Establish monthly equipment maintenance schedules.

Observations (Hot Food)

* May require professional assistance.

2 Dining Room



Lighting (Illumination)

- Install ENERGY STAR compact fluorescent lamps, LEDs or induction lighting (use dimmable lamps with dimming switches.)
- Clean lighting fixtures and remove unnecessary lamps (de-lamp) and disconnect their ballasts.*
- Replace T12 fluorescent lamps and magnetic ballasts with T8 or T5 lamps and electronic ballasts. De-lamp where possible, use dimming ballasts, with integrated photo cell controls if sufficient daylighting exists.*
- Install LED retrofit lamp kits and/or new LED exit signs.
- Install occupancy sensors in isolated spaces such as banquet or party rooms.
- Install occupancy sensors in restrooms (keep one fixture/lamp on during occupied hours).*
- Install window film to block sun-generated heat, use high quality film and professional installer.* *Note: energy payback is longer, however customer satisfaction is immediate.*

Observations (Illumination)



Air (HVAC)

- Check thermostat settings and programming:
 - Set thermostat to 76°F for occupied cooling and 85°F for unoccupied (include pre-cooling if necessary). Turn off air conditioning fan during unoccupied hours.
 - Set thermostat to 68°F for occupied heating and 55°F for unoccupied (include pre-heating if necessary). Turn off heating fan during unoccupied hours.
- Install programmable thermostats with locking covers. Use remotely controllable thermostat if there are problems with tampering.
- Place fresh batteries in existing programmable thermostats.
- Turn off restroom exhaust fans during unoccupied hours.

Observations (HVAC)

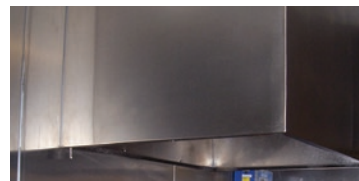
3 Dish Room



Lighting (Illumination)

- Clean lighting fixtures and remove unnecessary lamps (de-lamp) and disconnect their ballasts.*
- Replace T12 fluorescent lamps and magnetic ballasts with T8 or T5 lamps and electronic ballasts (de-lamp where possible).*

Observations (Illumination)



Air (Ventilation)

- Turn off dishwasher exhaust hood when kitchen is closed.

Observations (Ventilation)



Water (Sanitation)

- Install a low-flow, pre-rinse valve at the dish machine.
- Repair all water leaks—especially hot water.
- Avoid tank heater failure—inspect elements for corrosion.
- Fully load dishwasher racks.
- Turn off conveyors and water troughs when possible.
- Turn off dishwasher tank heater when kitchen is closed.

Observations (Sanitation)

* May require professional assistance.

4 Rooftop



Air (Ventilation)

- Clean exhaust fans and check for loose or broken belts.
- If exhaust or condenser fan motor needs replacement, use high-efficiency motors and/or direct drive units (no fan belt).*
- Maintain evaporative coolers—check: media, water flow, sump, fan belt, float level and drain.
- Replace dirty air conditioner filters.
- Maintain economizers on air conditioning units. Ensure they operate and are set to maximize outside air.
- If roofing is to be replaced, install a light color (cool) roof.*

Observations (Ventilation)



Refrigeration (Cold Food)

- Clean condenser coils.
- Shade condenser coils.
- Check refrigerant level—sight glass clear = full charge. If necessary, call a service company to recharge.
- Insulate refrigerant suction lines.
- Check refrigerant lines or compressor body for icing. If ice is present, call a service company.
- Check walk-in defrost time clocks and set properly.
- If there is a compressor time clock (not recommended), ensure it is set properly or disable.
- Check if compressors run short cycles. If cycling on/off in less than three minutes for extended period, call a service company.
- Check compressors for oil leaks. If leaks exist, call a service company.

Observations (Cold Food)

5 Parking Lot and Exterior



Lighting (Illumination)

- Check lighting time clock and/or photocells (install if none exist).*
- Turn off parking lot lights whenever possible.
- Consider parking lot lights with high-low (bi-level) controls and occupancy sensors.*
- Turn off soffit lights, menu boards, decorative lights and roof lights whenever possible. Never leave exterior lighting on during the day.
- Replace T12 fluorescent lamps and magnetic ballasts with T8 or T5 lamps and electronic ballasts (de-lamp when possible).*
- Install ENERGY STAR compact fluorescent lamps, LEDs or induction lighting.
- Convert all quartz-halogen lamps to equal light output (not wattage) pulse-start metal halide (PSMH) or high-pressure sodium (HPS).*

Observations (Illumination)



Air (HVAC)

- Turn off patio and space heaters whenever possible.
- Repair broken fly fans—they should turn off when the door is closed.*
- Turn off patio misters whenever possible.

Observations (HVAC)

* May require professional assistance.

Rebates for Equipment Replacement and New Construction

If you are purchasing new foodservice equipment for your facility, now is the time! We offer rebates on qualified pieces of foodservice equipment. These rebates can help you save by offsetting the initial cost of the equipment and lower operating costs year after year with new high-efficiency equipment. For rebate applications and qualifying equipment lists, visit your utility's web site noted on the front of this survey.