

Grab a clipboard and take this map along on your treasure hunt. Focus on uncovering opportunities to save. When you find something, make notes about location; tools, materials, or expertise needed; or further research required. Feel free to add to or modify this list to suit your own needs.

Facility Name _____ Floor _____ Date _____ Team _____



Facility Management and Benchmarking

- Managing costs starts with knowing your baseline energy and water use, from which to track savings. Start by printing the Data Collection Worksheet for “Hotel” found on this menu. This Worksheet will list all the information you need to benchmark your property in the free, online Portfolio Manager® tool for tracking energy, water and recycling/materials management.
 - Create your account at <https://portfoliomanager.energystar.gov/pm/signup>
 - Learn more at <https://www.energystar.gov/benchmark> and find Portfolio Manager training and tech support at <https://www.energystar.gov/buildings/training>.
- After you enter your property and energy data, a 1 -100 ENERGY STAR® score will compare your property to other U.S. peer properties for immediate insight. A 75 or higher score is eligible for ENERGY STAR certification.
 - You will also see your EUI (Energy Use Intensity is approximately energy use/sq.ft.) for which national median is 146.7 for Source EUI (kBtu/ft2) and 63.0 Site EUI (kBtu/ft2) for lodging. Many hotels can do much better than the EUI.
- Educate and encourage housekeeping staff to report leaks, turn off lights not in use, and set temperatures to minimum levels after cleaning vacant rooms. Teach registration staff to schedule rooms in clusters to isolate vacant space. Suggest that they rent rooms last that are on top floors, at building corners, and facing west in summer or north in winter as these can be more energy-intensive.
 - Keycards are available that shut off or turn on energy consuming equipment when a guest leaves or enters the room.
- Adopt a purchasing/procurement policy that specifies EPA’s ENERGY STAR, WaterSense® and Safer Choice® labeled products when applicable. Customize your policy letter from our template.

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TIP:

- Download the ENERGY STAR Action Workbook for Small Business for more strategies, action items, and ideas. Find special content for the lodging industry. Start and support an employee Green Team. Find resources to Build Your Own Competition for savings.





Lighting

- Consider purchasing an inexpensive light meter (under \$30) to assess whether any areas are over-lit, compared to requirements or design levels.
- Determine where lights have been left on in unoccupied spaces (including offices, restrooms, conference rooms, kitchen/food service area, hallways, exercise/spa/recreation areas, storage, vacant guest rooms, etc.) and install automatic controls.
- Look for “day-burners” – that is, exterior and parking lot lighting that should be on only at night but remains lit in daylight due to a failed switch or a dirty light sensor.
- If upgrading your exterior lighting, consider “shielded” fixtures to direct the light where needed and reduce “light pollution.”
- Install timers on bathroom heat lamps and consider connecting bathroom exhaust fans to light switches to reduce excessive operation.
- Use natural daylighting and dimming controls to improve the indoor environment while reducing energy use and peak demand. Integrate daylighting into any lighting renovation.
- Identify and assess opportunities to use automated lighting controls:
 - Occupancy/motion sensors for low-traffic areas.
 - Timers or daylight sensors to turn off exterior and parking lot lights during the day.
 - Dimming controls in locations where natural lighting (e.g., near windows, skylights, light tubes) can temporarily supplement or replace fixture lighting.
 - Confirm that lighting controls are installed to “see” what they must and are operating as intended.
- Assess cleanliness of lamps/fixtures (dust, bugs, any debris) and the need to institute a regular cleaning plan for maximum light output.
- Determine if reflectors can be practically added to amplify existing lighting.
- Consider de-lamping any areas where the lights are too bright and cause glare. De-lamp and/or remove ballasts of fluorescent fixtures that are not in use.

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TIP

- Consider an “all utility audit” to look for billing errors and proper rate classification for electricity, natural gas, heating oil, water/sewer, and telecommunications. The auditing firm is paid a pre-agreed percentage only after your refund is complete. If there is no refund due, you have confirmed you are not overpaying.



- Evaluate the opportunity to upgrade to more energy-efficient lighting options:
 - Replace T12 fluorescents with T8s or T5s with electronic ballasts (removing obsolete magnetic ballasts) or consider the use of tubular LEDs (TLEDs).
 - Upgrade incandescent and CFL bulbs to LED (especially for task lighting or specialty/decorative applications).
 - Replace incandescent or CFL exit signs with an LED model, or LED retrofit kit.
 - Recycle/dispose of all fluorescent tubes/CFLs and magnetic ballasts properly at your lighting or building supply store.
- Review ENERGY STAR product information, calculators and find local retailers and rebates at https://www.energystar.gov/products/lighting_fans and more lighting facts at www.energystar.gov/lighting.

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3 Building Envelope

- Inspect doors and windows to identify gaps or cracks that can be weather-stripped, caulked or filled with foam insulation.
- If new windows must be purchased anyway, consider the incremental costs and savings of high-efficiency windows – which will cost more and save more.
- Generally, keep doors closed to the outside and to any unheated or uncooled areas.
- Consider installation of solar film, awnings, vegetation or insulated curtains for east and west windows to block summer heat gain and allowing solar gain in the winter through south-facing windows. Likewise, depending on your climate, consider blocking heat loss through windows in the winter.
- Consider strategic landscaping to save money on water bills and space cooling in the summer and heating in the winter. See tips and information at <https://www.epa.gov/watersense/outdoors>.
- Inspect attic insulation levels and identify inadequacies to be addressed. If a major remodel opens walls, consider adding insulation.
- Check on the roof: take photographs and notes on any damage, cracked shingles or other surface aging. Note if the roof is still under warranty. In the attic, look for signs of leaks, membrane cracks/holes, or damaged insulation.
 - Depending on “street view” aesthetics and other issues, consider that white, reflective paint can significantly reduce heat gain and even extend the life of some roofing.





HVAC

- Ensure that HVAC system components are being maintained regularly. If not by qualified staff, then consider an annual maintenance contract to “tune-up” HVAC, both pre-heating and pre-cooling seasons. Qualified staff or a professional should implement the full HVAC maintenance list. However, everyone can help remember to:
 - Replace filters on a regular schedule; monthly during heating/cooling season. Ask your facility staff how often filters are changed.
 - Ensure free airflow to and from supply/return registers (clear furniture, books, papers, or other materials).
 - Ensure that electronics and heat sources are located away from thermostats.
 - Use window shades/curtains to block excess heat and educate staff about when to use them.
 - Identify and prevent any instances of simultaneous heating and cooling. Ensure that individual space heaters are not being used. The use of such personal devices may indicate broader heating issues that should be addressed at the system level.
- Ceiling fans and personal fans can help with energy savings by making rooms feel cooler during summer months. A smart thermostat can be programmed to pre-cool or pre-heat spaces for comfort an hour prior to occupation rather than maintaining the comfort level when not occupied.
 - Depending on outside temperature, programming can be set to turn off the HVAC 15-30 minutes before space use ends for additional savings.
- Read about “smart thermostats” and implementing a temperature setback policy for heating/cooling when the building is unoccupied (including any special considerations for summer/winter months).
- Have a plan for HVAC failure on the hottest/coldest day of the year. Know the anticipated useful life of your current system, have your contractor “right-size” the new HVAC system to account for your new level of efficiency and reduced demand so you do not pay more for a larger system than you need.
- See ENERGY STAR HVAC products and resources at https://www.energystar.gov/products/heating_cooling.

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TIP:

- Use your Zip Code in the rebate finders for ENERGY STAR® and WaterSense® labeled products to check on utility or retail vendor cash rebates before you buy any products. Utilities may have pre-purchase application requirements.





Office Equipment/Plug Load

- Identify any new office equipment that will be needed soon. Start looking for ENERGY STAR certified equipment options, use the online savings calculators and look for available rebates.
- Identify any equipment left on overnight (including equipment left in sleep/idle or screen saver mode), that should be turned off when not in use.
- Ensure that power management settings are activated on office equipment such as computers, monitors, printers, and copiers.
- Identify where power strips can be used for easy disconnect from power source. Consider the use of advanced power strips.
- Be sure staff know to unplug 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. Consider installing motion/occupancy-based vending machine controls.
- Review ENERGY STAR office products and resources at https://www.energystar.gov/products/office_equipment; see ENERGY STAR vending machines at https://www.energystar.gov/products/other/vending_machines and water coolers at https://www.energystar.gov/products/other/water_coolers.

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Kitchen/Food Service Equipment

- If the store anticipates purchasing new kitchen equipment, review the ENERGY STAR models, calculate savings and find rebates in advance.
 - Some motels/inns may have residential type refrigerators, which should be replaced if they are more than 9-10 years old.
 - Dispose of old refrigerators properly. See the EPA's Responsible Appliance Disposal (RAD) Program at <https://www.epa.gov/rad>.
- If possible, be sure heating equipment is not near cooling equipment.
- Identify worn and/or leaky door seals/gaskets on refrigerators and freezers. Close the door on a dollar bill or piece of paper, and if it is easily pulled out, replace the gasket.
- Check that refrigerator coils are clean and free of obstructions.
- Survey water use to identify major uses; find and fix any leaks—especially hot water leaks.
- Typically, set water temperature 110 – 120 degrees or per local code to prevent scalds and to save energy and money.



- Check out ENERGY STAR labeled water heaters, including “tankless/on-demand,” solar and other models; find local retailers and rebates at https://www.energystar.gov/products/water_heaters.
- See EPA’s WaterSense® program for water saving labeled products and rebates, for indoor/outdoor water efficiency tips, and best practices at www.epa.gov/watersense.
- When purchasing signage displays, monitors, televisions, water coolers, vending machines and other products look for the ENERGY STAR label at <https://www.energystar.gov/products>.
- Verify oven thermostat accuracy and recalibrate if necessary.
- Establish operating procedures for cooking/baking equipment (for instance, preheating only when necessary, turning down/off equipment when not in use).
- 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.
- Determine if low-flow pre-rinse spray valves can be installed.
- Identify and assess opportunities to install variable frequency drives (VFDs) on kitchen hoods.



Water: Hot and Cold

- Survey water use to identify major uses; find and fix any leaks—especially hot water leaks.
- If you have food service, offer guests water, but don’t serve water unless requested.
- If you have hot tubs, cover after use to reduce heat loss and maintain cleanliness.
- Typically, set water heater temperature at 110 – 120 degrees or per local code to prevent scalds and to save energy and money.
 - Insulate 7-year or older water heaters and the first 3’ of heated water “out” pipe.
- Consider “tankless” heaters (on-demand) for low-use areas, solar water heating and other models, use calculators; find local retailers and rebates at https://www.energystar.gov/products/water_heaters.
- See EPA’s WaterSense® program for water saving labeled products for restrooms, irrigation and other needs; find rebates; indoor/outdoor water efficiency tips; and best practices at www.epa.gov/watersense.

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TIP:

- Check out the American Hotel and Lodging Association (AHLA) Food Waste Toolkit to reduce wasted food, water, and energy.
- Keep up with the AHLA Sustainability Committee.
- Look into the Green Hotel Association.
- Celebrate your success and recognize contributors. Help your guests and employees achieve savings at home and at guests’ workplaces and Bring Your Green to Work.





Treasure Map FOR HOTELS/MOTELS/INNS

ADDITIONAL NOTES:

