

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 the baseline from which to track savings. Print the Data Collection Worksheet for “Automobile Dealership” found under “Retail” at <https://portfoliomanager.energystar.gov/pm/dataCollectionWorksheet>. This Worksheet lists what you need to benchmark your property in the 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 all Portfolio Manager training and tech support at <https://www.energystar.gov/buildings/training>.
- Educate and encourage employees to report water leaks, to turn off lights not in use and to look for savings opportunities.
- Adopt a purchasing/procurement policy that specifies EPA’s ENERGY STAR, WaterSense® and Safer Choice® labeled products. Customize the template letter at <https://www.energystar.gov/buildings/tools-and-resources/product-purchasing-procurement-template>.
- Make it easy for customers to take simple actions in support of your sustainability by, for example, recycling in the customer waiting area.

NOTES:



Lighting

- Purchase an inexpensive light meter (under \$30) to easily assess if any areas are over-lit or under-lit, compared to requirements or design levels.
- Identify any lights routinely left on in unoccupied spaces (including offices, restrooms, storage, hallways, etc.). Consider the use of 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.

TIP:

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



- Dimming controls in locations where natural lighting (e.g., near windows, skylights, light tubes) can temporarily supplement or replace fixture lighting.
- Confirm lighting controls are installed to “see” what they must and are operating as intended.
- Consider motion and dimming for exterior lights.
- During the day, look for “day-burners” – exterior and parking lot lighting that should only be on at night but have failed or dirty light sensors.
- If upgrading your exterior lighting, consider “shielded” fixtures to direct the light only where needed to reduce “light pollution.”
- Assess the cleanliness of lamps/fixtures (dust, bugs, any debris) and institute a regular cleaning plan for maximum light output.
- Identify where reflectors can be added to amplify existing lighting.
- Consider de-lamping areas where lights are too bright causing glare. De-energize and/or remove ballasts of fluorescent fixtures not in use.
- Review efficient LED signage opportunities at https://www.energystar.gov/products/electronics/signage_displays
- Consider upgrades to more energy-efficient lighting options:
 - Update mobile task lights (sometimes called “drop” or “drag” lights) from incandescent or halogen bulbs to high-lumen LED equipment. This will save money and improve safety and durability. Solid state LED lights are resistant to impacts.
 - 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 dimmable LEDs, especially for task lighting or specialty/decorative applications, such as ambient lighting in customer waiting area.
 - Replace incandescent or CFL exit signs with LED models, or retrofit kits.
- Properly recycle/dispose of all fluorescent tubes/CFLs and magnetic ballasts. Review ENERGY STAR product information, use calculators and find local retailers and rebates at https://www.energystar.gov/products/lighting_fans and at www.energystar.gov/lighting.

NOTES:



Building Envelope

- Inspect doors and windows to identify gaps or cracks that can be weather-stripped, caulked or filled with foam insulation.



- If in the market for new windows, consider high-efficiency options that may cost more up front but offer a reasonable pay-back.
- Try to keep closed doors to the outside and to any unheated or uncooled areas.
- Bay doors open and close dozens of times a day, increasing heating and cooling loads. Train employees not to leave them open for long periods of time. Replace missing, cracked or hardened seals to minimize air infiltration. For new doors, specify interior and exterior thermal breaks and R-10 or greater. Consider automatic sensor-driven bay door actuators to ensure quick closure after vehicles or persons enter or exit. Newer high-speed units safely close doors in a fraction of the time older units take.
- Consider installing solar film, awnings, vegetation or insulated curtains for east and west windows to block summer heat gain. Ensure solar gain in the winter through south-facing windows. Consider blocking any heat loss through windows during cooler months.
- Consider strategic landscaping to save on water bills and 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 address any inadequacies. Add insulation as necessary if remodeling.
- Check on the roof, note and take photographs of and address any damage, including cracked shingles or other surface aging. In the attic, look for signs of leaks, membrane cracks/holes, or damaged insulation.
- Consider that white, reflective paint can significantly reduce heat gain and extend the life of some roofing.

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TIP:

- For tasks beyond your staff's skills or capacity, consider professional services.



HVAC

- Ensure HVAC system components are being maintained regularly by qualified staff or under an annual maintenance contract to "tune-up" HVAC systems both pre-heating and pre-cooling seasons.
- Also remember to:
 - Regularly replace HVAC filters as needed during the heating and cooling seasons.
 - Ensure free airflow to and from supply/return registers (clear furniture, books, papers, or other materials).
 - Keep electronics and heat sources away from thermostats.
 - Use window shades/curtains to block excess heat and educate staff about when to use them.



- Identify and prevent simultaneous heating and cooling by prohibiting individual space heater use. Address underlying heating and cooling issues causing employee discomfort.
- Ceiling 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. Avoid heating/cooling unoccupied spaces.
- Depending on outside temperature, set programming to turn off the HVAC 15-30 minutes before space use ends.
- Use “smart thermostats” and 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 failures. Right size new systems by having contractors quote equipment based on high efficiency levels and reduced demand. Do not buy a larger system than you need.
- Where electricity is the fuel of choice, consider heat pumps or solar for water heating. Heat pumps cost much less to operate than electric resistance heating and even some gas heating units. Where gas is used for water heating, look for a minimum 8% boiler annual fuel use efficiency (AFUE).
- Maintain boilers regularly, checking for combustion efficiency and sediment.
- See ENERGY STAR HVAC products and resources at https://www.energystar.gov/products/heating_cooling.

NOTES:



Office Equipment/Plug Load

- For office equipment that needs replacing, consider ENERGY STAR certified options using the online savings calculators and available rebates.
- Turn off equipment left on overnight unnecessarily (including equipment left in sleep/idle or screen saver mode).
- Activate power management settings computers, monitors, printers, copiers, etc.
- Use advanced power strips for easy power disconnect.
- Train staff to unplug rechargeable devices once charged.
- Use timers to turn off vending machines or put in sleep mode at the end of the day. In the alternative, install 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.



Customer Lounge/Refreshment Area/ Employee Break Room

- ❑ When purchasing new kitchen equipment, review ENERGY STAR models, calculate savings and find rebates in advance.
- ❑ Dispose of old refrigerators properly. See the EPA's Responsible Appliance Disposal (RAD) Program at <https://www.epa.gov/rad>.
- ❑ Avoid placing heating equipment near cooling equipment.
- ❑ Identify worn and/or leaky door seals/gaskets on refrigerators and freezers. To test, close a door on a piece of paper; if easily pulled out, replace the gasket.
- ❑ Keep refrigerator coils clean and free of obstructions.
- ❑ Identify major water uses. Find and fix any leaks— especially of hot water.
- ❑ Set water temperature 110 – 120 degrees or per local code to prevent scalding and save energy and money.
- ❑ 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>.



Service Areas

- ❑ Paint Booths. New paint booths are much more efficient than those available five to ten years ago as they offer premium motors, improved air-flow and ducting, variable speed drives and controls, and more efficient lighting. When buying a new booth compare efficiency features. For existing booths, consider cost-effective energy-efficient retrofits.

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TIP:

- Consider an “all utility audit” that will look for billing errors and proper rate classification for your electricity, natural gas, heating oil, water/sewer, and telecommunications. If refunds are due, the auditing firm may charge an agreed-upon percentage. If no refunds are due, you have confirmed proper billing.



- Car Wash and Detailing Facilities. These service areas can range from simple pressure washers to automated car washes with rollers and dryers. Older automated washers can be energy- and water- intensive evaluate reclamation systems as they can reduce water use by up to 60 percent
- Compressed Air. When buying new compressors, compare energy consumption rates.
 - Reciprocating compressors use pistons to maintain tank pressure and are prone to heat build-up in the compressor head and to condensation build-up. They are available in a variety of capacities, require moderate maintenance, and are easy to rebuild.
 - Scroll compressors. Use a rotating scroll to compress air and generally are more efficient than reciprocating units at higher volumes and more frequent use. They deliver greater volume with good pressure.
 - Centrifugal compressors. Typically used for large shops, they provide large quantities of air at relatively low pressures. They are low maintenance and can be energy-efficient when run at 80 percent or greater of peak capacity. But they are inefficient at lower capacities.
 - For efficient compressor operation, periodically check belts for wear and tension. Also, keep moving parts lubricated, frequently empty water separators, and regularly change air filters. When making a new purchase, consult a compressor product and service provider to determine the most appropriate system size and energy efficiency for the desired use.

NOTES:

TIP:

- Celebrate your success and recognize contributors. Also help your employees and customers achieve savings at home by referring them to www.energystar.gov/campaign/home, and at customers' workplaces with <https://www.energystar.gov/smallbiz> and <https://www.energystar.gov/work>.





Treasure Map FOR VEHICLE DEALERSHIPS

ADDITIONAL NOTES:

