

The Energy Audit

The energy audits can lead to the identification of specific energy- and cost-saving measures, which may include operations and maintenance activities.

An energy audit should typically produce a report that contains the following elements:

- A comprehensive analysis of energy costs
- Specific recommendations on energy- and cost-saving renovations
- Recommendations to reduce electrical (or other fuel) demand costs
- Estimated costs of energy efficiency measures
- Projected annual energy and cost savings
- Available financial or other support from the utility (or others) for specific measures
- Recommendations on further analysis needed

Evaluating Your Energy Use

- Lower energy costs
- Increase productivity
- Improve the bottom line
- Obtain attractive investment return
- Improve competitive position
- Show environmental responsibility.

20 Quick and Easy Ways to Save Energy Now

Using combinations of the following measures can save you 10% to 50% on your energy bills.

- **Adjust thermostats** - Turn down the building's heating thermostat and turn up its cooling thermostat, especially when the building is not occupied. *No Cost.*
- **Reduce the hot water temperature** - Reducing the temperature on your water heater thermostat can decrease heat loss from your tank. *No Cost.*
- **Install water flow restrictors and aerators in sink faucets** - These measures can save you money by reducing water use (including hot water). *Low Cost.*
- **Reduce lighting** - Remove lamps where you have more lighting than you really need, but be sure to maintain safe lighting conditions for work areas. Turn lights off when they're not in use. *No Cost.*
- **Seal heating and cooling ductwork** - Leakage from areas such as joints, elbows, and connections can be substantial—as much as 20% to 30%. This is especially costly if the ducts travel through unheated or uncooled spaces such as attics, basements, or crawlspaces. Use duct tape or caulk to seal ducting. *Low Cost.*
- **Wrap the hot water tank with jacket insulation** - This simple, inexpensive measure will reduce standby heat loss from the tank. Be sure to leave the air intake vent uncovered when insulating a gas water heater. *Low Cost.*
- **Replace air filters regularly and follow maintenance schedules for furnace and air-conditioning equipment** - Replacing a dirty air filter can save money by reducing the amount of electricity needed to run a blower motor (because there is less resistance to airflow with a clean filter). *Low Cost.*
- **Install programmable thermostats** - These inexpensive devices can help optimize your building's heating and cooling needs. You won't need to remember to change thermostat settings every time you open or close your business. *Low Cost.*
- **Install automatic room-lighting controls** - These devices help optimize lighting use by automatically turning lights on or off, depending on occupancy or time of day. *Low Cost.*

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- **Clean heat exchangers and perform routine maintenance on refrigerating equipment** - These simple measures will ensure the most efficient operation of heat exchangers needed for cooling or refrigerating equipment. *No Cost.*
- **Seal off unused areas and don't heat or cool these areas** - Storage areas represent a good place to start; turn off heating and cooling to these areas. *No Cost.*
- **Turn off machines and equipment when not needed** - In many businesses, this simple approach can achieve big savings. Don't underestimate the energy savings you can get by turning off unused computers, monitors, printers, and copiers. *No Cost.*
- **Buy energy-efficient equipment** - When buying or replacing computers, copiers, and other office equipment, compare energy requirements of various models. *Low Cost.*
- **Seal exterior cracks and holes, and ensure tight-fitting windows** - Seemingly small cracks or holes in the building exterior (like walls, windows, doors, ceiling, and floors) can really add up to substantial heating or cooling losses. Install weather stripping and caulking to stop these air leaks. *Low Cost.*
- **Shade sun-exposed windows and building walls** - In most areas of the country, direct sunlight streaming through windows at the wrong time of the year can substantially increase your air-conditioning costs. During the cooling season, use shading methods (like window coverings, awnings, trees, and bushes) wherever possible. *Low Cost.*
- **Repaint building exterior with light colors** - When it's time to repaint the exterior of your building, consider using light colors. More sunlight will be reflected away from the building, thus lowering air-conditioning expenses—perhaps your largest energy expense. This is especially true for your roof. *Low Cost.*
- **Keep exterior doors closed as much as possible** - Don't heat or cool the outdoors. *No Cost.*
- **Block and insulate unneeded windows and other openings** - Aside from the important security benefit, covering unneeded windows and doors can greatly reduce energy losses from these openings. *Low Cost.*
- **Buy energy-efficient vehicles** - When buying or replacing company-owned vehicles, compare energy requirements of various models. *No Cost or Low Cost.*
- **Encourage employees to be energy conscious** - The importance of getting employee cooperation shouldn't be underestimated; their practices and activities can make or break efforts such as these. Consider offering a small reward or other incentive for the employee who saves the most energy. *No Cost.*

Related Links for Business Owners or Operators

Energy Star for Small Business

http://www.energystar.gov/index.cfm?c=small_business.sb_index

NREL's Clean Energy Basics

<http://www.nrel.gov/learning/>

Financing Solutions for Small Businesses

<http://www.eere.energy.gov/financing/>

Consumer Guide to Renewable Energy for Your Home or Small Business

<http://www.eere.energy.gov/>

Geothermal Heat Pumps/Photovoltaics/Small Wind Turbines

<http://www.eere.energy.gov/redirects/consumerinfo.html>