Energy Efficiency Audit for Business

The first step in managing energy costs

Shakopee Public Utilities

"Lighting the Way - Yesterday, Today and Beyond"

www.shakopeeutilities.com

952-445-1988

Communicate Your Way to Energy Savings

To help employees understand the cost of their actions, such as leaving the lights on at night, effective communication might include calculating the cost of an hour of lighting at full capacity. Equate the potential savings to something meaningful to your organization.

Raise the importance of energy conservation during Energy Awareness month (October).

5 Steps to Energy Savings

STEP 1 **Energy Efficiency Audit.** Understanding energy use will help identify opportunities to improve energy performance and gain financial benefits. The audit will establish a baseline and provide options for improving energy efficiency.

STEP 2 **Make a Commitment.** No matter the size or type of an organization, the common element of successful energy savings is commitment. Make a commitment to allocate staff and funding to achieve improvement.

To establish their energy program, leading organizations form a dedicated energy team and institute an energy policy.

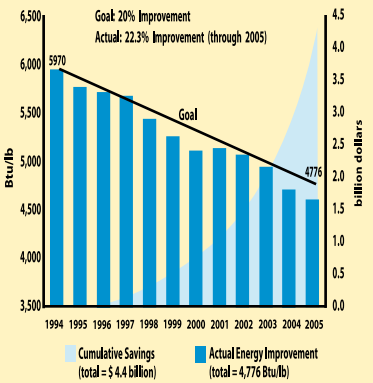
STEP 3 **Set Goals.** Well-stated goals guide daily decision-making and are the basis for tracking and measuring progress. Communicating and posting goals can motivate staff to support energy management efforts.

STEP 4 **Develop a plan.** Your organization is now poised to develop a road map to improve energy performance. Create a detailed action plan to ensure a systematic process to implement energy performance measures.

STEP 5 **Implement the plan.** People can make or break an energy program. Gaining the support of key people at different levels within the organization is an important factor in successful implementation. In addition, reaching your goals frequently depends on the awareness, commitment, and capability of the people who implement the projects.

Evaluate the progress of the action plan as compared to your performance goals. Update the plan, identify best practices, and set new performance goals as necessary.

Energy Intensity Performance



Energy Efficiency Audit

A customized energy audit examines the energy footprint of your operation. The audit begins with the collection and analysis of information that may affect your operation's energy consumption.

Let SPU help you identify ways to improve energy efficiency. The audit includes an analysis of a business' facility and equipment, including:

- **Building envelope (insulation, roofing, etc.)**
- **Equipment operation**
- **HVAC system**
- **Industrial processes**
- **Lighting**
- **Motors**
- **Refrigeration**
- **Water heating**

To encourage participation, SPU contributes up to 75% of the audit cost.

Electric Demand (kW) Consumption per Month	Cost	SPU Contribution	Co-pay
0 kW - 59 kW	$600	$450	$150
60 kW - 99 kW	$750	$565	$185
100 kW - 149 kW	$900	$675	$225
> 150 kW	Contact SPU for Estimate		

A certified energy auditor will conduct an energy analysis at your site. You will be provided a report highlighting:

- **recommendations to save energy**
- **an analysis of existing systems**
- **proposed efficiency upgrades**
- **an energy cost evaluation**

To request an Energy Efficiency Audit for Business, complete and return a request form to SPU with your payment.

Restrictions apply. Limited to SPU electric customers only.

FACT

Surveys indicate that 75% of buildings are operating inefficiently. Energy is often the greatest expense, accounting for one-third of operating expenses.

Request an Energy Audit for Business

Complete a request form, and return it with your payment to:

Energy Audit for Business
Shakopee Public Utilities
P.O. Box 470
Shakopee, MN 55379-0470

FACTS

Heating and cooling accounts for up to 70% of energy used in commercial buildings.

Properly caulking and weather stripping doors and windows reduces heating and air conditioning usage by 10–20%.

The Power is in Your Hands

Using energy wisely will lower your organization's monthly bill, and it may be easier than you think.

Any steps your business takes to improve efficiency will translate directly into savings.

Heating, Cooling and Comfort

- **Gain flexibility–** by installing programmable thermostats with weekday and weekend programs.
- **Ceiling insulation–** make sure you have sufficient insulation in the ceiling floor.
- **Insulate hot water pipes–** especially if they are located in unheated areas.
- **HVAC filters–** Clean or change filters monthly; dirty filters can increase operating costs by 20%.
- **Shading devices–** Install interior or exterior shading devices (window film, solar screens, awnings, etc.) in south- and west-facing windows to block the sun's heat in the summer.
- **Registers and vents–** Keep registers and vents clear to keep air moving freely.
- **Exterior sealing–** Seal exterior cracks and holes with weather-stripping or caulking.
- **Re-circulating systems–** Install fans or other re-circulating systems to create air movement.
- **Direct air flow–** Install reflectors to floor vents to direct cooler air upward.
- **Air conditioner economizers–** Install air conditioner economizers (common in packaged rooftop units); they use the cool nighttime air to help cool the inside of your building.
- **Choose ENERGY STAR®–** When buying new heating or cooling systems choose ENERGY STAR; they are 20%–30% more efficient than other models.

Tips & Tools

Learn more ways to increase energy efficiency and lower energy costs by visiting **www.shakopeeutilities.com**

> Commercial
> TechLine
> Tools You Can Use
> Facility Assessment Wizard

- **Variable speed motors and compressors–** Use variable speed motors and compressors on heat pumps and air conditioners to more closely match energy use to temperature fluctuation.
- **Water heaters–** Consider replacing your water heater if it's more than 10-years-old. Older water heaters are about 50% less efficient than a new models.
- **Lower heating bills up to 50%–** Consider investing in a geothermal heating and cooling system to lower heating bills up to 50% and lower cooling costs up to 30%.

Lighting

- **Reduce lighting costs up to 75%–** Replace conventional incandescent bulbs with compact fluorescent light bulbs (CFLs). CFLs use only 25% of the electricity used by incandescent lights and last up to 10 times as long.
- **Electronic ballasts–** Install electronic ballasts to increase fluorescent lamp efficiency by up to 25% and increase light output by 10%–15%.
- **Ensuring safety–** Leave minimal lighting on during non-business hours, ensuring safety.
- **Reduce wattage–** Replace T-12 fluorescent tube lighting with T-8 or T-5 fixtures which use as little as 25 watts.
- **Control room lighting–** Install automatic occupancy sensor room-lighting controls to turn lights on or off in frequently unoccupied areas.
- **Use task lighting–** Decrease the use of overhead lightingwhere possible by using task lighting instead.
- **Light-Emitting Diode (LED) Exit Signs–** Replace incandescent or fluorescent exit signs with LED exit signs.
- **Regularly clean–** Clean light bulbs, fixtures, lenses, lamps and reflective surfaces.

FACT

Lighting accounts for 25-30% of energy costs in commercial buildings and is a primary source of heat gain and waste heat.

We're here to help. Rebates Available*

SPU offers energy-efficiency rebates to help defray the cost of energy improvements. Available rebates include:

- Energy-Efficient Lighting
- Energy-Efficient Cooling
- Motors & VFD
- Custom Rebates
- Office Equipment

For details about commercial rebates, call 952.445.1988 or visit www.shakopeeutilities.com

*Restrictions apply. Funds limited.

FACTS

Notebook computers use 90% less energy than desktop models. LCD flat-screen monitors use less energy than conventional desktop monitors.

Equipment

- **Control energy bandits–** Turn off printers, copiers, desk lamps, fans, and coffee machines during down periods, especially when the office is closed. Keep rarely used equipment turned off until needed.
- **Sleep mode–** Set energy-saving features on all office equipment to put it into sleep mode when not in use.
- **Use 90% less energy–** Use notebook computers and flat screen monitors. Notebook computers use 90% less energy than desktop models, and LCD flat-screen monitors use less energy than conventional desktop monitors.
- **Use ink-jet printers–** Consider using ink-jet printers; they use 90% less energy than laser printers.
- **Equipment placement–** Avoid placing heat-generating equipment near thermostats.
- **Temperature control–** Set the refrigerator temperature between 36 and 42 degrees and the freezer between -5 and +6 degrees.
- **Refrigeration equipment–** Protect refrigeration equipment from direct sunlight. Avoid placing refrigerators and freezers close to fryers and heat lamps.
- **Monthly maintenance–** Examine refrigerator door seals for leakage; clean the condenser/coils, and defrost when necessary.
- **Choose ENERGY STAR–** When replacing equipment, look for the ENERGY STAR label.
- **Lower water use–** Install faucet aerators in restrooms and low-flow showerheads in any shower facilities.

Be an ENERGY STAR

As you replace old, in-efficient equipment and appliances, look for the ENERGY STAR label.

Visit www.energystar.gov for a list of qualifying products.

Look for the **ENERGY STAR** label

Contact SPU with questions.

Phone: 952.445.1988
Email: tpetrich@shakopeeutilities.com

Powerful Solutions

at *NO COST* from Shakopee Public Utilities

Enroll in TechLine Today.

This powerful internet resource library includes knowledge databases, targeted research, Ask an Expert on-line, plus new features each month. Visit shakopeeutilities.com today to sign up.

Energy Resource & Library Tool

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- Tools You Can Use
- At a Glance

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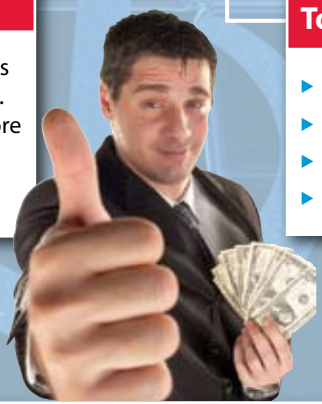
Tools You Can Use

- Benchmark Data
- Efficiency Recommendations
- Facility Assessment Wizard
- Appliance Calculator

At a Glance

Highlights many of the features included in our no cost service. Click on a featured item for more details or use our navigation menu to find additional information.



To enroll in TechLine visit www.shakopeeutilities.com
For more information, call 952.233.1531 or email tpetrich@shakopeeutilities.com

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Fact

There are additional ways SPU helps you save:

- Lighting Rebates
- Air Conditioning Rebates
- Motors/VFD Rebates
- Office Equipment Rebates
- Custom Rebates

For details about commercial rebates, call 952.445.1988 or visit www.shakopeeutilities.com

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