



How to Develop an Energy Conservation Program for Your Agency

A Best Practice for Agencies

One of the most important steps any park and recreation agency can take as part of a conservation strategy is to reduce energy consumption. Making your agency's facilities and equipment more energy efficient and reducing the amount of energy you consume will reduce costs and reduce impacts on the environment, ultimately making your agency more sustainable. But how do you get started? Following is an outline of steps to consider when developing an energy conservation program.

Developing an Energy Conservation Program for your Agency

■ Measure and document a baseline of energy usage (ideally, a year's worth for each facility)

In order to conserve energy, you need to know how much each facility and energy cost center in your organization is using. This applies to electric, heat, oil, gas, fuel, and all types of energy consumed. First, determine who pays the utility bills and if they have access to utility usage data. Work with your energy provider as they may be able to run usage reports by account. Work with your facilities staff to determine which accounts belong to which facilities. Note that usage amounts and dollars spent are two different things to measure. The cost of utilities may fluctuate from year to year depending on your contracts. The usage of utilities may fluctuate month to month depending on weather or usage patterns. Once you have the usage data, develop a baseline for each account or facility—ideally a full year's worth of use or at least a seasonally representative sample of several months.

■ Understand and take credit for what the organization is already doing

Assess your organization's facilities and operations for energy use. Identify where you have already implemented energy-saving practices and where you can still apply creative solutions to reduce energy use. For example, do you purchase Energy Star certified appliances or electronics? Do facilities have motion or occupancy sensors to turn lights on and off? Are fleet managers implementing anti-idling policies to reduce wasted fuel? You may be surprised by what your organization is already doing, and your effort to identify how you use and save energy will produce new ideas for more savings.

■ Set goals and have policies for energy conservation

Once you have baseline usage, you can look at how to set a goal of reducing usage by a certain percentage. Or you may look at setting a goal of saving a specific amount of actual energy used. Review facilities for reduction opportunities that can range from the simple (turning off the lights) to the complex (HVAC system retrofits). Determine if there are facilities that are slated for energy-efficient upgrades and how much potential energy savings will be available. Prioritize the steps and retrofits you can take for energy-saving strategies from the largest amount of energy saved to the lowest and then devise an implementation plan consistent with your annual budget to achieve the greatest amount of savings for the most appropriate investments in time and money.

■ Implement simple energy conservation measures in both facilities and operations

Work with staff in the facilities to identify simple energy conservation measures such as turning off lights when no one is using facilities or is in a room. Identify equipment that is running when not in

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use, and devise ways to easily and simply turn such equipment off when it is not in use. Get surge suppressors for computers, for example, or power strips for multiple electronics. You may also be able to identify simple energy efficiency retrofits such as replacing incandescent light bulbs with compact fluorescent bulbs. No matter how much you have already done, there are almost always more ways to reduce energy use with simple solutions.

For more ideas on how to implement simple energy conservation measures, go to: www.energysavers.gov.

■ Train staff and educate the public

Develop a messaging campaign about the energy conservation measures that you are implementing. Provide staff with training on when daylighting can be substituted for interior lights. If your organization has similar facilities, develop an energy reduction contest between the facilities that compares energy reductions and then shares best practices among staff afterwards. Promote your campaign to the public, encouraging them to recognize your efforts to save taxpayer dollars, and to adopt similar steps in their own homes and businesses.

■ Measure reductions both in energy units and dollar savings

Work with your utility company or your billing department to track monthly utility usage. Compare year-to-year usage to see if reduction goals have been met. Compare costs but adjust for contract changes or off-peak prices. If facilities are reducing energy, let them know about it! Incentivize managers and staff to save energy, and provide tangible rewards and recognition to staff and facilities.

■ **Look for smart designs in retrofits and capital projects**

When considering upgrades to facilities or new facility construction, ensure that energy efficiency is part of the discussion. Consider energy-efficient lighting, high-efficiency heating and cooling systems, additional insulation, and efficient doors and windows. Look to the U.S. Green Building Council's LEED rating system as a guide for energy efficiency goals.

For larger projects, consider special training for certain staff in how to apply new technologies or design with energy-efficient equipment—or consider bringing in a consultant to advise you. Often, the savings will more than pay for the up-front expense, and these savings will extend well into the future in reduced energy consumption and costs.

For more information on energy retrofits and smart energy design, go to the

U.S. Green Building Council site at: www.usgbc.org.

■ **Incorporate alternative energy sources where possible**

If you have the opportunity to implement integrated renewable energy systems in new construction or major retrofits, look for opportunities to utilize alternative energy sources. First, ensure that you calculate the return on investment at the beginning of your process to determine potential cost savings; and if cost-benefits ratios are favorable, consider making the choice for alternative energy. Such a choice can also serve a public education benefit if it is properly interpreted and explained to the public. Alternative energy sources are particularly suitable for educational facilities such as nature and environmental education facilities where the efficient use of alternative energy can be incorporated into learning programs. When making bulk electricity purchases,

include green power in your portfolio.

For more information on how to incorporate alternative energy sources into retrofits and new construction, go to: www.epa.gov/cleanenergy.

■ **Continue monitoring your energy use**

Continue tracking energy usage to determine whether reduction goals are met. Also by tracking energy usage, you may find anomalies that indicate equipment or usage issues. Also, continue looking for energy efficiency or conservation projects that can be short-term or long-term. Look to the International Standards Organization ISO 50001 for guidance in implementation of an Energy Management System.

For more information on how Chicago Park District uses these strategies in its energy conservation program, contact: Brendan Daley, Director of Green Initiatives, Chicago Park District, brendan.daley@chicagoparkdistrict.com ☀

Solar and wind powered pedestrian lights at Northerly Island, Chicago



CHICAGO PARK DISTRICT