

Energy Management Plan

A comprehensive energy management plan for a school should have several components:

- Renovations to the building and energy systems to make them operate more efficiently.
- Control and management of the energy systems so that they are used only when necessary and at prescribed settings.
- Modification of behaviors of all of the consumers in the school—administrators, students, teachers, and janitors, as well as community members who use the facility.

Building & Energy System Renovations

There will be few building renovations that you as students can accomplish yourselves, except for perhaps minor repairs such as replacing broken windows, caulking, weatherstripping, and planting shade trees. Depending on how comprehensive the plan will be, you can research major renovations and new systems with their costs and payback periods, or simply prioritize the school's needs and make recommendations for improvements.

Your energy management plan should include improvements to the building envelope, as well as improvements to the heating, cooling, lighting, and hot water heating systems. The building survey that you did will point out the major deficiencies. You need to prioritize those problems and decide what changes can realistically be made in the short term and what long-term goals the school should have for increasing efficiency.

If the heating system is 25 years old, it might make sense to recommend replacing it with a new, high-efficiency system, showing how quickly the cost of the system will be paid back with energy savings. If, on the other hand, the system is only ten years old, replacing the system might be a long-term goal, even if it is not as efficient as new systems.

System Control & Management

You can have a significant impact on energy conservation by controlling and managing the energy systems in your school—determining optimum temperature settings, maintenance schedules, and policies for control of the energy systems. Be sure you consider outside areas and common areas, as well as classrooms and offices.

Installing inexpensive timers and programmable thermostats to control systems and reducing the number of people with access to controls can make a major difference. Installing blinds on windows in the direct sun and installing vents that can be opened and closed are additional ideas. Can dimmer switches be used with the light system in your school? Some fluorescent systems can be dimmed, others can't.

Look at the results of the **Building Survey and the Energy Consumption Survey** to show you where the major deficiencies are, then prioritize the problems. If every room in the school has a window air conditioner, it is much harder to control usage than if there is a central system.

Behavior Modification—Teaching Others

Changing the way people use energy can result in significant energy savings. Shut off the lights every time you leave a room. Don't leave hot water faucets running or dripping—turn them off completely. Keep windows and doors closed when the heating and cooling systems are on. Use natural lighting. Turn computers on only on days when you need to use them. The list goes on and on.

You can make a big difference in school energy consumption by developing a campaign to educate school consumers about conservation practices. Develop a plan for teaching everyone what you have learned from the **Building and Energy Consumption Surveys**, and showing them what they can do to save energy. Show them how saving energy helps protect the environment. Show them how saving energy saves money.

How will you get the message out? An article in the school newspaper? A special assembly? Posters in the halls? Announcements over the PA system? How will the program be reinforced throughout the year? A good education program must be ongoing or consumers will fall back into old energy-wasting habits.

A program to return the money saved to the school for educational programs can be an incentive for encouraging energy-saving behaviors. What other incentives might be effective?