

SCHOOL DISTRICT OF THE CITY OF ERIE ENERGY CONSERVATION GUIDELINES

The School District of the City of Erie has determined that improved energy conservation is vital in order to reduce its costs and minimize the district's environmental "footprint". A strong commitment on the part of the administration is considered important in this effort. **It will be the responsibility of each District employee and student to actively participate in a conservation program in order to effectively reduce consumption. In turn, it will be the responsibility of the District to ensure that staff receives information, guidance and assistance regarding this initiative. The District Energy and Education Committees will oversee informing all staff and students regarding these guidelines and related programs.**

Instituted as part of the District's E2 Plan: Energy and Education, these guidelines are designed to save natural scarce resources at minimal cost. Behavioral change is key. The Board fully supports the guidelines and sincerely hopes they are followed. All operations of District facilities will be governed by the guidelines and participation by all District staff and students is highly encouraged. The District Energy Committee will oversee guideline implementation and report to the Board periodically on progress in school energy conservation.

The guidelines are divided into specific recommendation categories for district staff and students. Motivational tips are also provided to aid in program implementation. Through the cooperation of all parties, the district should achieve its goal of cutting energy use by 10% by July 1, 2012, with further reductions to follow in the future.

The District Energy Committee consists of: the School District of the City of Erie Facilities Coordinator, Service Center Supervisor, electrician, and science teacher; Department of Environmental Protection Sustainability Coordinator, Green Building Alliance Projects and Outreach Manager, Metz Food Service Coordinator, and local consultants from Erie Insurance, the Erie Art Museum, and Mercyhurst College.

The District Energy Education Committee consists of the School District of the City of Erie teachers, science coaches, and facilitators; local consultants from Earth Action, Asbury Woods Nature Center, and Mercyhurst College; and the regional STEM coordinator.

The Building Engineers and Custodians should:

LIGHTING

1. Have lighting in unoccupied areas turned off. Safety lighting should be held to the minimum level necessary for safe passage. All lights should be turned off when students and teachers leave school. Custodians should turn on lights only in the immediate area in which they are working.
2. Where possible, we are all encouraged to take full advantage of natural light. When adequate illumination is available from sunlight, consider leaving artificial lights OFF depending upon area use and Health Department Standards.
3. Have all outside lighting off during daylight hours. All unnecessary outside lighting shall be off on week nights between 11:30 pm and 6:00 am and all hours on weekends.
4. Ensure that gym and auditorium lights be turned off when is not being utilized.

HVAC

1. Ensure all exhaust fans are turned off every night as well as other unoccupied times.
2. Set occupied temperature settings not below 74°F for cooling, unless significant or unusual room conditions dictate a lower setting.
3. During unoccupied times, turn the air conditioning equipment off. The unoccupied period begins when the students leave the area at the end of the school day. It is anticipated that the temperature of the classroom will be maintained long enough to afford comfort for the period the teacher remains in the classroom after the students have left.
4. Not utilize air conditioning in classrooms during the summer months unless the classrooms are being used for summer school.
5. In all areas which have evaporative coolers such as shops, kitchens, and gymnasiums, keep doors leading to halls which have air conditioned classrooms or dining areas closed as much as possible.
6. Where cross-ventilation is available during periods of mild weather, shut down HVAC equipment and adjust the temperature with windows and doors. Cross ventilation is defined as having windows and/or doors to the outside on each side of a room.
7. Not set occupied temperature settings above 68°F for heating.
8. During unoccupied times, turn the heating equipment off. The unoccupied period begins when the students leave the area at the end of the school day. It is anticipated that the temperature of the classroom will be maintained long enough to afford comfort for the period the teacher remains in the classroom after the students have left.

Water

1. Ensure all domestic hot water systems are set no higher than 120°F or 140°F for cafeteria service (with dishwasher booster).
2. Ensure all domestic hot water re-circulating pumps are switched off during unoccupied times, as possible.

The Principals should:

1. Oversee overall building energy use, including tracking utility budgets.
2. Monitor staff and custodian adherence to guidelines and provide reminders or other assistance as necessary.
3. Encourage development of building energy teams to assist in implementation of the E2 Plan: Energy and Education.
4. Include building energy usage issues as part of regular staff meetings.
5. Oversee public education and outreach efforts associated with energy conservation and the overall E2 Plan: Energy and Education.
6. Schedule summer school classes in area of the building that would otherwise have air conditioning running or have dedicated air handlers.
7. Discourage the use of personal heaters and appliances, as energy wasters, and recommend alternatives. If personal items are necessary, use of Energy Star labeled equipment should be encouraged.
8. Reduce hallway lighting to the lowest levels possible and encourage the use of pass-through lighting.

The Teachers and Staff should:

1. Oversee energy use in their specific classrooms and strive to be an energy efficiency role model to students.
2. Ensure building and room doors remain closed to improve efficiency for heating and cooling.
3. Adjust window blinds when and where appropriate, to allow the sun to warm the building during the heating season or to block out the sun during the cooling season.
4. Close windows if the air conditioning or heating systems are in operation.
5. Not obstruct ventilation ducts or return grilles with books, charts, furniture or other items.
6. Not schedule small group activities in large areas such as auditoriums and gymnasiums. Use of such areas will be coordinated with the custodial staff to enable reduced lighting, heating, and cooling during periods of non-use.
7. Turn off classroom lights when the last person exits the room.
8. Turn off lighting when space is not in use or natural day lighting is adequate. Open blinds to allow the optimum amount of natural lighting when possible.
9. Turn off copiers, laminating machines, calculators, and other office machines at the end the day.
10. Turn off computers labs, monitors, printers, smart boards, LCD projectors and other peripheral equipment at the end of the day or when not in use for long periods of time – this includes all equipment used by the summer school program throughout the district.
11. Turn off staff computers at the end of the work week.
12. Limit the use of personal heaters and appliances, as energy wasters. If personal items are necessary, use of Energy Star labeled equipment should be used. For summer months, shut down/unplug personal appliances.
13. Enforce guidelines with students when necessary.
14. Ensure that thermostats should not be covered or blocked and set within guidelines.
15. Report any faulty thermostats and other malfunctioning equipment to Chief Engineer or Principal.
16. Set an example for students by wearing temperature appropriate clothing.
17. Encourage students to monitor energy usage, participate in auditing efforts, and contribute any thoughtful and innovative energy-saving ideas.
18. Inform the District Energy Committee of any particularly significant conservation ideas voiced by students.

The Information Technology Staff should:

1. Ensure that all district computer power settings are controlled with an enterprise system management application.
2. Eliminate ink jet printers for individuals (staff/teachers) and provide a shared network printer option. Power save should be set to 30 minutes of inactivity for each network printer.
3. Dispose of District desktop computers, laptops, monitors, printers, scanners, fax machines, telephone equipment, televisions and radio equipment properly by a vendor that ensures the equipment is reused or recycled in accordance with PA DEP and US EPA guidelines which helps to prevent transfer of electronic waste to underdeveloped countries.
4. Consolidate the use of technology throughout the district by using a virtual solution at one location.
5. Consolidate multiple data storage servers by utilizing a SAN (Storage Area Network) device.
6. Contribute to the education of district personnel and students on the efficient usage of technology in the District.

The Food Service staff should:

1. Keep run time of ovens and stoves at minimum levels.
2. Run exhaust fans only when absolutely necessary.
3. Identify energy saving devices and/or practices.
4. Report inadequate or ineffective equipment immediately to supervisory personnel.
4. Ensure Energy Star equipment is utilized wherever possible.
5. Ensure that energy efficiency efforts should not in any way jeopardize food quality and/or student safety.
6. Develop and participate in a preventative maintenance program that maximizes energy efficiency.
7. Develop a consolidation program to minimize off site refrigeration and maximize use of the centralized kitchen facilities.

The Students should:

1. Abide by the guidelines as appropriate to them, especially in wearing temperature appropriate clothing.
2. Report any classroom energy wasting practices to the appropriate teacher.
3. Be a “watchdog” for inefficient practices during off hours or at events and report such activities to the appropriate teacher.
4. Consider participating in any voluntary E2 Plan: Energy and Education activities.
5. Strive to implement any energy efficiency practices learned at school also at home.
6. Contribute energy conservation ideas to teachers and District Energy Committee.

The District Energy Committee should:

1. Oversee guideline implementation, including energy tracking, and report to Board periodically.
2. Develop overall energy management plan for district within one year.
3. Develop a plan that will include recommendations on operational and building improvements.
4. Ensure that the District considers energy efficiency in all new equipment purchases, giving priority to Energy Star labeled products.
5. Oversee District compliance with Energy Star Challenge and ensure progress is made in attaining Energy Star Certification for District buildings.

The District Energy Education Committee should:

1. Oversee the overall education of district staff and students on the E2 Plan: Energy and Education and related guidelines.
2. Integrate the E2 Plan: Energy and Education and guidelines into district curriculum, where feasible.

Motivational Tips

Providing a healthful environment for all school-related personnel is the primary focus of a coordinated energy plan. A healthful environment improves student learning and performance, creates an appealing work environment, reduces the human impact on the environment, and saves money.

For Staff

1. Staff cooperation in support of energy management practices starts with effective communication. Most school-based personnel are not aware of energy costs in the operation of their school. One obvious way to develop staff awareness of energy waste is to regularly communicate energy costs.

2. How these costs are communicated can make a big difference between staff being mildly interested in saving energy or highly motivated to take an active role in the conservation of energy. The impact of energy waste becomes real when energy costs are expressed in terms of numbers of teaching positions or textbooks instead of just dollars. If a conservation program is to work, the staff at each school site must understand and support it. Here are some suggestions for communicating the high price of energy to staff in order to interest school people in changing wasteful habits.

- At school staff meetings, discuss energy costs and practical ways to reduce waste.
- Advertise the use of energy in visible places, such as bulletin boards, front lobbies, newsletters, etc.
- Conduct periodic energy contests on school energy use.
- Involve School Advisory Councils, PTO's and other community groups in an effort to gain support for energy conservation.

3. When staff is made aware of the impact that energy costs have on the school's budget and are motivated to reduce energy consumption, there are several opportunities that can be used to make them a part of the solution. These are some suggested strategies:

- Turn off lights and air-conditioning when they are not needed.
- Be sure classroom doors and windows are kept closed when heaters or air conditioners are operating.
- Cooperate with the energy audit team to see that the ideas suggested are followed.
- Organize a student energy patrol (elementary or middle school) or a student energy commission (middle or high school) to help monitor school energy use.

For Students

1. Students can become a strong force in helping schools realize energy savings. Many young people today subscribe to programs designed to preserve our natural resources. The importance of conserving these resources and being a part of the "team" to actually save energy around the school is an important start in a successful program. This can be realized in part by the following:

- Giving students an opportunity to learn energy savings skills they can use at school and at home.
- Ask students to chart and organize school energy data that in turn can support the overall effort.
- Students can feel pride in their school when they work to make it a better place.
- Since there are more students than staff, involving students creates more energy savers.
- Staff will be more likely to save energy if reminded by students.

2. In order to foster enthusiasm and involvement in energy savings activities, teachers should:

- Give students a challenge to let them know they can make a difference in energy costs.
- Provide opportunities for recognition and sponsor awareness contests that are available through energy conservation programs.
- Use civic activities and ideas provided through the Energy and Education Committees.