

Bourbon County School District Energy Management Plan

Revised 6/16/2016

Objective

Bourbon County Schools will strive to reduce energy consumption by 5% each the school year.

We are taking a proactive approach to conserving energy and improving energy efficiency in our buildings, vehicles, equipment and in the goods and services we use. We will strive to use environmentally safe and sustainable energy sources as often as practical while achieving savings. We will strive to increase our use of energy from all available renewable sources.

We plan on modeling these principles by community leadership, collaborating and adopting best practices for energy management. We shall establish achievable goals, monitor our progress, and communicate regularly with the Bourbon County Schools system.

Responsibility

Our energy plan is the responsibility of every stakeholder... faculty, staff, parent, booster and student. Everyone must turn off lights, and office equipment when not in use. Spaces that are occupied will have their temperature set points maintained at temperatures set forth in this plan. Windows and exterior doors must be kept closed to prevent loss of conditioned air. It is the responsibility of every stakeholder to report inoperable equipment to Maintenance and wasteful practices to the Energy Manager so corrective actions can be taken. The energy manager shall monitor utility usage and initiate and implement the guidelines outlined in this plan.

The Energy manager will be responsible for monitoring current usage and trends. This process will be through school monitoring software and utility bills analysis. Schools through the use of Green and Healthy Schools and the National Energy Education Development project (NEED) will implement energy saving curriculum. The district has conducted energy audits at each site. These results will help district administrators make educated decisions about energy policies in the future. District personnel will seek out Energy Star labels on all equipment if applicable when making equipment purchases or leases.

General Guidelines

Temperature - To maintain reasonable comfort and lower energy expenditures, Bourbon County School District has established the following standards for heating and cooling temperatures. Summer thermostat settings (air conditioning) during occupied periods are to be 72 degrees Fahrenheit or higher. Winter settings (heating) should be maintained at 70 degrees Fahrenheit or lower. Exceptions to these guidelines should be discussed with Maintenance director and energy manager. To properly sense temperature in rooms, areas around thermostats must be clear of computers, televisions and other electric appliances that give off heat. Air intakes and vents should be kept free of equipment, banners, signs, bookshelves or other items that may impede airflow which in turn affects occupant comfort.

Occupied temperatures will be maintained for each school facility to allow for meetings, events after hours. Unoccupied temperatures set points: 60 degrees for heating and 80 degrees for cooling.

Building Resource Management - Windows and doors should be kept closed during the heating season and during the summer in those areas that have mechanical cooling. Gym exhaust fans are to be turned off when the heating or air conditioning unit serving that area is operating. Every member of the school district should assume the responsibility of closing windows, turning off equipment when not in use and shutting off the lights when leaving a room. Computer monitors should be turned off when not in use. Printers should be turned off at the end of the day. Computers should be turned off when school will be out for extended periods such as weekends, fall break, Christmas break, and spring break. Energy Management devices and strategies will continue to be added. Evening activities should be concentrated in the fewest areas possible and where appropriate, the areas used should be those that already have late night temperature setbacks.

Lighting - Interior lighting shall be the most efficient and cost effective possible generally LED whenever possible. New energy-saving fixtures lamps and ballast will be used to replace existing less efficient lighting whenever economically possible. Exterior lighting will meet minimum current lighting and safety requirements, and be controlled by photocells. Decorative lighting shall be kept to a minimum. Lighting levels recommended by the most recent edition of the IES lighting handbook shall be used as guidelines. Where it makes economic sense, occupancy/ motion sensors wired to area lighting will be installed to reduce and or turn lights off in unoccupied, vacant areas. Day lighting controls will be installed, if economically feasible, to automatically adjust lighting levels as appropriate. Task lighting such as desk lamps, is recommended to reduce overall ambient lighting levels. Compact florescent or LEDs should be used in desk lamps.

When lighting is used as a form of temperature control or to control humidity levels; or stop mold growth the maintenance department should be contacted to assist with the resolution of the problem.

Hallway lighting should be kept at the recommended lumens. Not to prohibit the operation of the security cameras.

Space heaters - No liquid fueled space heaters {e.g. Kerosene heaters} shall be used in any office or classroom. Two issues affect the use of space heaters in the building - fire safety and energy efficiency. Electric space heaters are a very costly means of heating. If a member of the school district feels that a space heater is necessary for adequate warmth, this may indicate that the central heating system needs repair. Excessive cooling of a space below the summertime temperature guidelines should be reported to Maintenance so that the air-conditioning levels can be adjusted.

Maintenance should be consulted if the central heating system is incapable of meeting comfort requirements.

Switch over from heating to cooling - Most systems installed in our schools have automatic changeover capability. Where manual changeover is necessary maintenance personnel perform required changeover from heating to air conditioning in the spring. Maintenance performs required changeover on the basis of priorities established to (1) provide comfort to the students, (2) maintain required temperatures to protect equipment, and (3) serve the greatest number of individuals and activities. Air conditioning may not begin until the outside temperature has reached 75 degrees Fahrenheit for three consecutive days, temperature projections are also considered.

The approximate dates for system changeover are April 15, and November 15 of each year. The energy conservation objective is not to have simultaneous heating and cooling systems working.

Filters - Filters shall be changed every four months, more often if necessary to attain maximum comfort.

Holiday Periods - A period of closure for the school district offers a great opportunity to save money on utilities that can be spent in other areas. Past history has shown that very few people occupy the buildings for any substantial time during the holidays. With this in mind, buildings shall be only minimally heated and cooled during the holiday periods. The exception to the policy will be buildings or areas that contain special collections or sensitive equipment, or buildings that are officially open during the holiday periods. Request for exceptions to this policy with justification should be addressed to the Assistant Superintendent of Operations.

New Construction - The school district shall seek to reduce future energy costs in new facility construction and renovation whenever feasible. All planning for major construction and equipment purchase/installation must include energy life cycle costing. New equipment purchased must carry the ENERGYSTAR label as often as practical. When applicable new construction should be LEED certified.

Water Conservation - Bourbon County Schools is committed to promoting the conservation of water in addition to energy. Faculty staff and students should report malfunctioning water faucets, toilets and urinals to maintenance so corrective action can be taken. Faculty and staff shall educate students on the importance of turning off water after using the restroom facilities. The school district shall implement deduct meters on cooling towers and irrigation usage.

Suggestions

The Bourbon County Schools District Energy Team encourages suggestions for additions and modifications to this energy plan as well as other energy or water conservation suggestions.