

### 7461 ENERGY MANAGEMENT

#### 1. Energy Management Policy

**1.1. Purpose** – To establish guidelines and stress importance of the conservation of energy and natural resources to the South Brunswick School District while also fostering sound financial and facilities management practices.

**1.2. Authority** – The implementation of the policy is the joint responsibility of the administration, teachers, support personnel and all members of the community using district buildings. The success of the district’s energy management program depends on cooperation from all individuals. The Board has created the position of Energy Specialist to facilitate the implementation of this policy, among other responsibilities. The Business Administrator along with the Director of Building and Grounds will oversee and monitor the program.

#### 1.3. Responsibilities

- Building principals are responsible for energy management and implementation of this policy by all staff assigned to their buildings. Any discrepancies with the policy shall be reported to the Energy Specialist.
- The custodial staff, maintenance crew and all school employees will support and assist the building Principal in energy management.
- All employees, community members who use District facilities and contractors are responsible for implementing the guidelines.
- **Energy Specialist** – The Energy Specialist will maintain accurate records of energy consumption and costs of energy and will provide that information to the Board, administrators and staff on the goals and progress of the Energy Conservation Policy. (e.g. Publish or post energy information regularly on website, district communications, and morning news in schools). The Energy Specialist is responsible to ensure that energy efficient operation is maintained on a daily basis through the proper use of the various energy management systems at each facility.



### 1.4. General regulations/guidelines

- Periodic Energy Audits (under the direction of the Energy Specialist) shall be conducted to ensure that energy efficiency guidelines are being followed.
- Staff and students are expected to actively participate in energy conservation activities.
- A standard sequence of operations shall be established to control chillers, pumps, boilers, unit ventilators, fans, and other temperature or energy influencing devices.
- Custodians are responsible for verification of night time shut down routines; any issues should be reported to the Energy Specialist.
- The Energy Management Policy will follow the guidelines of the U. S. Environmental Protection Agency's "Tools for Schools" Indoor Air Quality program, OSHA, ASHRAE and other applicable codes, guidelines and regulations.
- The district shall actively participate in the U.S. Environmental Protection Agency's Energy Star Program; achieving an Energy Star rating of seventy five (75) or greater shall be a goal at each building, where reasonably possible.
- All new construction and equipment purchases shall comply with the Energy Star guidelines.
- To complement the district's energy management program, the district shall develop and implement a preventive maintenance and monitoring plan for its facilities and systems.
- The importance of benchmarking and monitoring consumption District-wide will be emphasized.

### 1.5. Energy Conservation Regulations

- **General: Building/Facility Management Regulations**
  - School and office buildings will generally be considered "open" at 7:30 AM and closed at 4:00 PM. Equipment and lighting will be schedule to have the indoor environment at standard operating temperatures for those hours. Special events will be scheduled as needed. Community



- Education and routine sessions or events after school hours will be prescheduled for equipment to operate.
- When any building is operating in Heating or Cooling mode, all windows and/or exterior doors should remain closed.
- For doors between conditioned space and non-conditioned space, the doors must remain closed at all times.
- Employ data gathering techniques: Monitoring equipment will be used to monitor humidity, temperature, light levels, CO2 and other indoor air quality conditions throughout the district's buildings to ensure compliance with energy guidelines.
- **Overall facility operational guidelines:**
  - Exhaust fans shall be turned off during unoccupied hours except where necessary to control temperature, humidity, odors or fumes in areas such as unconditioned gyms, locker rooms, kiln rooms.
  - All computers, copiers and other large equipment should be programmed for the energy saver mode using the power management feature. If network constraints restrict this for the PC, ensure the monitor sleeps after ten (10) minutes of inactivity.
  - Office equipment (copiers, typewriters, radios, laminators, etc.) shall be switched off each night and during unoccupied times. Fax machines may remain on.
  - All computers shall be turned off each night. This includes the monitor, local printer, LCD projectors and speakers. Network equipment is excluded.
- **Air Conditioning Equipment**
  - During unoccupied times, the air conditioning equipment shall be scheduled off, except as may be necessary to adequately prepare a room for later use or if space temperatures gets above the unoccupied set point.
  - When the outside air is below 60° F the cooling systems will not operate.
  - CO2 sensors should be used where applicable to prevent the unnecessary opening of outside air dampers.



- Ceiling fans should be operated as appropriate in all areas that have them. Fans need to be shut off when space is not occupied.
- For any 24-hour period of time, relative humidity levels shall not average greater than the sixty percent (60%) where controls are available.
- For each school building used in the summer months the scheduling and use of rooms should be coordinated as to group rooms together in order to operate the least amount of HVAC equipment.
- **Heating Equipment**
  - During unoccupied times, the heating equipment shall be scheduled off, except as may be necessary to adequately prepare a room for later use or its space temperature falls below the unoccupied set point.
  - When the outside air is above 55° F heating systems will not operate.
  - CO2 sensors should be used where applicable to prevent the unnecessary opening of outside air dampers.
  - The use of portable electric heaters is a serious fire hazard and thus they are prohibited from use in any district building. Personal refrigerators, coffee pots and dehumidifiers are only allowed with written permission from the Superintendent of Schools or his designee.
- **Lighting**
  - Building employees will turn on key controlled lighting or schedule computer controlled lighting panels to turn on hallway or gym lighting no more than 15 minutes prior to building scheduled open times.
  - Occupancy/motion sensors shall be installed where applicable.
  - All unnecessary lighting in unoccupied areas will be turned off. Building employees will shut off key controlled lighting.
  - All employees are responsible for turning lights and fans off when leaving a room.
  - All employees shall make certain that lights are turned off, computers/monitors/printers/copiers/ are powered off, fans are off, windows are closed / latched and shades are drawn closed when leaving their classroom, office or work area at the end of their work day.



- Natural lighting shall be used where appropriate. Shades shall be used to filter excessive sunlight/prevent excessive heating during the cooling season.
- South Brunswick School District will no longer purchase incandescent light bulbs.
- All outside lighting shall be turned off during daylight hours, unless severe weather circumstances would dictate otherwise.
- Gym lights shall not be on unless the gym is being utilized.
- Custodians will turn on lights only in the areas in which they are working.
- Refrain from turning lights on unless definitely needed.
  
- **Water**
  - Ensure all plumbing leaks are reported and repaired immediately.
  - Athletic turf irrigation systems should be operated only when necessary as determined by the Grounds staff. Field irrigation will be performed after 8 PM and complete before 5:30 AM.
  - Ensure all domestic hot water systems are set no higher than 120 ° F. For cafeteria service (with dishwasher booster) will be set not higher than 140 ° F.
  - Ensure all domestic hot water recirculating pumps are switched off during unoccupied times.
  - Garden hoses with manual shut off valves are not to be left connected to slop sink faucets.
  
- **Space Temperatures**
  - Space temperature will be maintained at the following set points:
    - Heating season – occupied:
      - Classrooms, Auditoriums, IT spaces and Offices [70 ° F]
      - Mechanical/Electrical [85 ° F]
      - Shower Rooms [72 ° F]
      - Halls & Stairs [68 ° F]



- Gymsnasiums [68 ° F]
- Heating season – unoccupied:
  - All spaces [55 ° F]
- Cooling Season - occupied:
  - Classrooms, Auditoriums, IT spaces and Offices [74 ° F]
  - Mechanical/Electrical [85 ° F]
  - Shower Rooms [74 ° F]
  - Halls & Stairs [76 ° F]
  - Gymsnasiums [74 ° F]
- Cooling season – unoccupied:
  - All spaces [85 ° F]
- **Thermostats**
  - Thermostats will be programmed to operate as per the above guidelines.

## 2. Energy Implementation costs and Savings

2.1. The Energy Specialist along with the Business Administrator will seek the most cost efficient means to implement the Energy Management Policy, to include grants and other financial incentives as a means for support with respect to energy systems projects. Likewise, the Board will support and encourage the use of any financial savings to be applied towards projects which will promote energy efficiency.

Adopted: September 24, 2012

