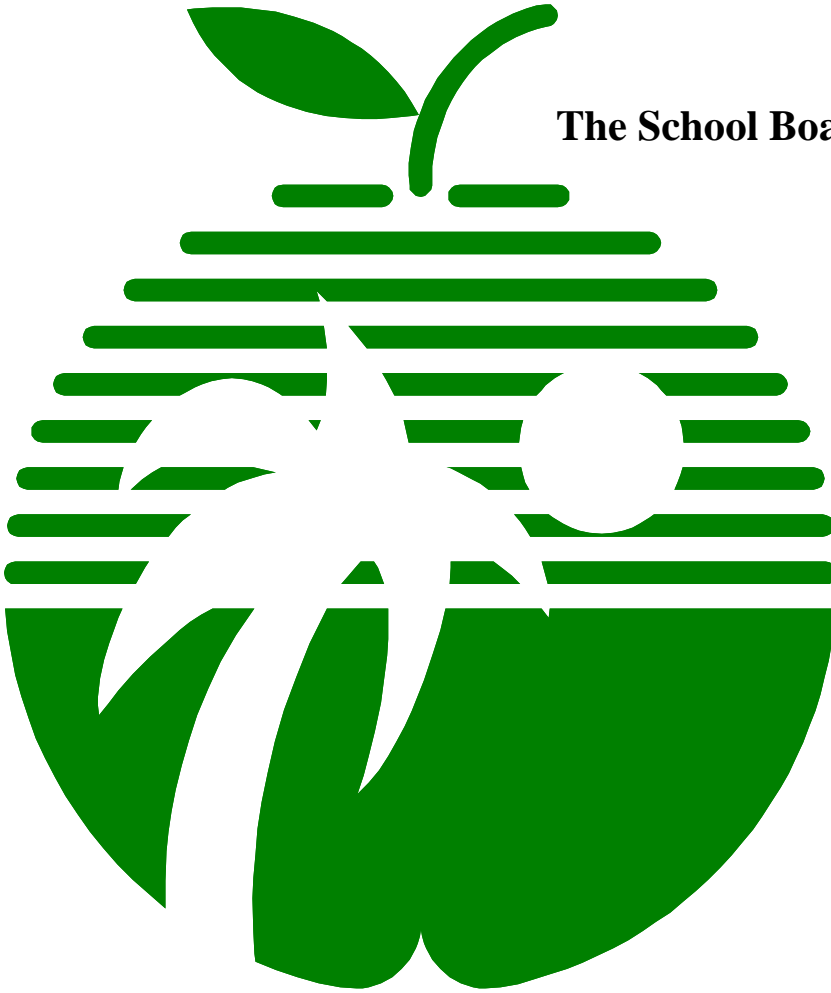


The School Board of Broward County, Florida



Energy Reduction Program

2015-2016

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Staff Procedures

I. Operations and Maintenance Standards

1. Heating and Cooling Set Points for the HVAC Systems.
 1. Classroom and office area: 68 degree heating, 74 degree cooling.
 2. Lunchrooms and auditoriums: 65 degree heating, 74 degree cooling.
 3. Turn the air conditioning off in unoccupied areas.

- B. Operating Schedule for the HVAC and Lighting Systems
 1. Monday-Friday: HVAC schedules are based on staff contract work times.
 2. After school and weekend: HVAC are provided for academic, rentals and church events only. Go to this link <http://www.browardschoolsconserve.com/docs.htm> to fill out the After Hours A/C Request Form. Hard copy also attached at the end of this document
 3. Heating and cooling systems will not be enabled during non-school hours except as scheduled.
 4. Professional development days, HVAC system will only be enabled in occupied areas to the minimum extent necessary.
 5. The HVAC system shall not operate during school breaks and holidays.
 6. The lights will be off in all areas that are not being occupied.
 7. Circulating pumps will be turned off evenings and weekends, and water heaters will be turned off over school breaks.

- C. Exceptions to the Operating Schedule for HVAC and Lighting Systems
 1. Summer school and before and after school activities will be concentrated to occupy the minimum number of buildings, building areas, and rooms.

- D. Operating Practices for Energy
 1. Staff and students are responsible for turning off lights, closing windows, doors, drawing the blinds or drapes at night.
 2. Unoccupied areas will not be heated, cooled, and all lights will be turned off.
 3. Outside lights should be turned off during daylight hours.
 4. All office and classroom electrical equipment (copy machines, printers, coffee pots, lamps, TVs, projectors, etc.,) shall be turned off each night.

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5. Computers shall be turned off after school unless required to run over night for District/school business and monitor sleep mode shall be enabled.
6. Personal electrical appliances are only permitted for school related purposes.
7. Vending machines will operate with lighting turned off. Vending machines shall be unplugged during school breaks of four days or more and/or operate with energy savings devices.
8. During summer breaks, food from District refrigerators and freezers shall be consolidated into the smallest space necessary. Refrigerators and freezers not being used shall be cleaned and turned off/unplugged.
9. School gardens, landscaped areas, lawns, and non-scheduled fields shall not be mechanically irrigated unless the area is being established. Landscaped areas shall be planted with drought tolerant species. School gardens, landscaped areas may be irrigated with drip systems or soaker hoses.
10. Scheduled fields shall be mechanically irrigated; watering systems shall only operate at night.

E. Maintenance Practices

1. Perform scheduled maintenance on HVAC units.
2. Failed outside lights photocells shall be assigned emergency work order status.
3. Condensate system and boiler loop leaks shall be assigned emergency work order status.
4. Maintain boilers monthly, and detail tune-up annually.

II. Facility Design, Products, and Equipment Procurement

- A. Buildings and grounds shall be designed and construction to minimize operational utility resources. Design decisions shall recognize the life cycle cost with the operation and maintenance budget identified prior to construction.
- B. All contracts, RFPs, or bid documents, etc., that involve the building envelop, HVAC system, or lighting system, shall be reviewed by the Environmental Conservation / Utility Management Department to assess energy conservation measures.
- C. The District shall evaluate the cost effectiveness of procuring high efficient products and equipment.

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III Shared Savings Program

- A. The District agrees to pass along part of the utility savings to the schools in a shared savings incentive program. The incentive dollars are intended to allow schools to invest in resource conservation through education materials, field trips, etc., to achieve additional and continued savings, and/or invest in other educational products and services as required.
- B. Shared Savings Awards are based on a reduction of current year electrical compared to electrical use in 2007-2008. Money will be awarded annually after all electrical invoices have been processed and is based on the following table:

Facility Type	For each 1% reduction in base year (below) electrical consumption	Maximum earnable per school for 08/09 (based on 10% reduction from 07/08 annual usage)	Maintaining 08/09 use in future years (awarded for each subsequent year in compliance)
Elementary	\$200	\$2000	\$1000
Middle	\$250	\$2500	\$1500
High	\$300	\$3000	\$2000
Centers	\$150	\$1500	\$750

IV. Education, Outreach, and Training

- A. Provide annual conservation training, for District staff members with responsibilities over the utility resources.
- B. Provide monthly utility data to senior staff, principals, and buildings custodians.
- C. Promote conservation programs in the schools.
- D. Model conservation and recycling in the classroom.

V. Monitoring and Updates

- A. Energy Reduction Tracking Data.
 - 1. Usage by school/administrative sites.
 - 2. Historical usage.
 - 3. Maintainable square footage by school/administrative sites.
 - 4. Quarterly reports by school/location on reduction status.

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VI. Program Oversight

- A. Select an Energy Lead Person at Schools/Administrative Sites.
 - 1. Coordinate distribution of program materials.
 - 2. Conduct periodic walk-through of schools/administrative sites for compliance (school and district administrators are encouraged to make periodic walk-throughs as well).
 - 3. Consult with the District Environmental Conservation / Utility Management Department for assistance as required.
 - 4. Act as liaison between schools/administrative sites and District Environmental Conservation / Utility Management Department.

VII. Energy Tools for Schools Document

- A. Develop an Executive Summary (utilize to tailor specific plans by schools/administrative sites).
- B. Energy Management Plan.
- C. Checklist by area.
- D. Checkpoint strategy.
- E. Energy Management Summary.

VIII. Schools/Administrative Sites Opening and Closing Checklists (Attached)

- A. Fall Start-up Checklist (for custodians).
- B. Winter Break Shutdown Checklist (for custodians).
- C. Spring Break Shutdown Checklist (for custodians).
- D. Summer Shutdown Checklist (for custodians).
- E. Shutdown Checklist for Breaks & Summer (for staff).

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FALL START-UP CHECKLIST (for Custodians)

HVAC SYSTEMS

- Turn on ventilation system when teachers return.
- Put boilers together and start up to test before school starts. Put in work order if any problems are found.
- If cooling towers are going to be used, check water level and float adjustments before school starts.
- Turn on portable classroom ventilation upon teachers return. If this was shut off at the breaker, time clocks will need to be re-set.
- Turn on exhaust fans and circ. pumps to test before schools start.

LIGHTING

- Keep unneeded lights off at all times.
- Do not turn on corridor and display light until students return.

OTHER

- Turn on icemakers a few days before school starts.
- Turn on kitchen freezers and coolers 3 weeks prior to the first day of school. Submit work orders immediately for any problems.
- Make sure to report any other malfunctions immediately by submitting a work order.

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WINTER BREAK SHUTDOWN CHECKLIST (for Custodians)

HVAC SYSTEMS

- Turn off all portable classrooms heating and cooling unless necessary to prevent the building from freezing.
- Turn ventilation and exhaust fans off unless they are necessary.
- Minimize boiler use (If you have control of your boiler).
- If ventilation is necessary, activate the smallest area necessary.

LIGHTING

- Turn off all exterior lights unless needed for safety issues.
- Turn off interior lights. Only use lighting where you are working. Remember to shut them off when moving to a different area.
- Keep hallway lights off unless you are working in the hallways.
- Turn off all display case lighting.

BUILDING ENVELOPE

- Close window blinds and close drapes to keep building temperature regulated.
- Tightly close all exterior doors and windows.

OTHER

- Turn off or unplug vending machines.
- Turn off any portable fans and heaters except for freeze protection. This includes personal staff fans and heaters.
- Unplug scanners and printers that will not be used.
- Turn off computers and computer monitors that will not be used, especially in computer labs.

DOUBLE-CHECKS

- Once finished, check electricity meters to make sure there is no usage or minimal usage.

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SPRING BREAK SHUTDOWN CHECKLIST (for Custodians)

HVAC SYSTEMS

- Turn off all portable classrooms heating and cooling unless necessary to prevent the building from freezing.
- Turn ventilation and exhaust fans off unless they are necessary.
- Minimize boiler use (If you have control of your boiler).
- If ventilation is necessary, activate the smallest area necessary.

LIGHTING

- Turn off all exterior lights unless needed for safety issues.
- Turn off interior lights. Only use lighting where you are working. Remember to shut them off when moving to a different area.
- Keep hallway lights off unless you are working in the hallways.
- Turn off all display case lighting.

BUILDING ENVELOPE

- Close window blinds and close drapes to keep building temperature regulated.
- Tightly close all exterior doors and windows.

OTHER

- Turn off or unplug vending machines.
- Turn off any portable fans and heaters. This includes personal staff fans and heaters.
- Unplug scanners and printers that will not be used.
- Turn off computers and computer monitors that will not be used, especially in computer labs.

DOUBLE-CHECKS

- Turn off computers and computer monitors that will not be used, especially in computer labs.
- Once finished, check electricity meters to make sure there is no usage or minimal usage.

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SUMMER SHUTDOWN CHECKLIST (for Custodians)

HVAC SYSTEMS

- Make sure all heating, cooling, and ventilation systems are off.
- Turn off all portable classrooms heating and cooling.
- Turn off all exhaust fans and circulation pumps.
- If ventilation is necessary, activate the smallest area necessary.

LIGHTING

- Turn off all exterior lights unless needed for safety issues.
- Turn off interior lights. Only use lighting where you are working. Remember to shut them off when moving to a different area.
- Keep hallway lights off unless you are working in the hallways.
- Turn off all display case lighting.

BUILDING ENVELOPE

- Turn window blinds so the underside of the blade faces in and close drapes to keep building cool.
- Check weather stripping on exterior doors. Submit work order if repairs are necessary.

OTHER

- Empty all refrigerators and freezers and shut off. Remember to keep the doors open.
- Turn off any ice machines.
- Turn off any portable fans and heaters. This includes personal staff fans and heaters.
- Unplug scanners and printers that will not be used.
- Turn off computers and computer monitors that will not be used, especially in computer labs.

DOUBLE-CHECKS

- Once finished, check electricity, gas and water meters to make sure there is no usage or minimal usage.
- Throughout the summer, pay attention. Turn off lights when they are not needed, listen for fan motors running, etc.

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SHUTDOWN CHECKLIST FOR BREAKS AND SUMMER (for Staff)

LIGHTING

- Turn off all lights in your area, including display and task lighting.
- Be sure that lights in closets, storage areas, and back rooms are off.
- If you work through summer break, only turn on lights in the area you are actively working in. Remember to turn off all lights when you leave space.

PERSONAL APPLIANCES

- Empty ALL food refrigerators, including those in classrooms, staff lounges, health centers, home economics rooms, etc. Be sure to unplug them and leave the doors open.
- Unplug any heaters, fans, printers, copiers, scanners, speakers, and other electronic devices.
- Turn off computers and monitors. If your computer turns on automatically, be sure that this feature is disabled during breaks.

BUILDING ENVELOPE

- Shut all windows and doors.
- Close all blinds and drapes to keep building temperature regulated.

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Electrical use information is available to each school through our web-based utility tracking software called Schooldude.com. This report shows electrical (KWH) usage for fiscal years 2007 through 2016 (current). On the web, type in address: <http://utilitydirect.schooldude.com/> and enter browardschools as User Name and broward as password to login. In the drop down box, select Utility Direct.

Once you login, you will see a section called Reports. Select Building Use Comparison from this section. Choose one of the selections in bold print:

1. Select report: leave as is
2. Saved Reports: leave as is
3. Building Types – **(all)**
4. Utility Type – **Electric**
5. Unit –**KWH**
6. Years – [multiple years can be selected by holding the “Ctrl” key while selecting years]
7. Building Report Criteria: leave as is
8. Building: select your building by clicking the binocular
9. Report format: your choice

After making these selections, you will need to click on the Print>button. This will run the report.

The electrical use data for each school is updated on the 20th of each month. The data that is posted is generally 2-3 months behind the current month. Now you have a way to track your school’s electrical usage. This will show if your efforts to reduce electrical usage, is working.