

**DRAFT Energy Management Plan
For Maryland School Districts**

Energy Management Plan DRAFT
[School District Name]

I. Purpose

The purpose of this energy management plan (EMP) is to implement the [School District Name] energy policy to reduce energy consumption in the school district and improve the learning and teaching environment for our students and teachers. This EMP will guide the operations of the school district to achieve the highest standards in energy efficiency, water conservation, and environmental stewardship without sacrificing the comfort or economic security of the learning environment.

II. Goals and Objectives

Goals of this EMP are:

1. Establish an energy performance baseline during the 2005-2006 school year.
2. **Reduce energy consumption in the [School District Name] by at least [enter percentage] by the end of the 2010-2011 school year** (targeting at least [enter percentage] improvement each year) and maintain and/or continue to reduce the achieved level of consumption for five years.
3. Provide resources and training for all teachers, staff, and students on ways they can help improve the energy performance of their schools.

Objectives to achieve EMP goals:

1. Identify capital improvement projects and prioritize based on payback by the end of the 2005-2006 school year.
2. Develop a technology improvement plan for each school including recommendations on retrofits that should be pursued and technology changes that should be made through equipment replacement.
3. Achieve at least a [enter percentage] reduction in energy consumption from the established baseline in at least [enter percentage] of the district's schools by the end of each school year.
4. Identify and evaluate existing energy education material (for use by teachers) during the 2005-2006 school year.
5. Request at least three teacher volunteers at each grade level to use and evaluate energy education materials during the 2005-2006 school year.

III. Energy Management Planning

1. Establish and fund a District Energy Manager position. This position will be responsible for implementation of the EMP, energy purchasing, and other efforts related to energy use in district schools.
2. Establish a District Energy Committee as directed in the [School District Name] policy on energy management.

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3. Gather 2004-2005 energy consumption data for all schools and use it to benchmark school energy performance in ENERGY STAR's Portfolio Manager. This will establish baseline energy performance scores.
4. Create a simple database of building technology for each building identifying the major components of the building envelope, HVAC, and lighting.
5. Perform first order energy audits on at least [enter percentage] of the buildings in 2005-2006 SY; at least [enter percentage] by 2006-2007; and [enter percentage] by 2007-2008. Use ENERGY STAR benchmarking scores to prioritize which buildings should be audited first.
6. Develop and implement a series of operational guidelines for schools. This Implementation Plan will include direction on:
 - Thermostat temperature settings
 - HVAC start and stop policies (understanding that each building may have different needs)
 - Electrical appliance policies
 - Preventative maintenance policies
 - Lighting policies
 - Checklists mentioned in Section V
7. Adopt a set of high performance/green design guidelines for use in the design and construction of new schools and the renovation of existing school facilities.
8. Utilize free resources and assistance provided by third party organizations in order to minimize the cost of energy performance efforts to the [School District Name]. These third party organizations include but are not limited to:
 - Maryland Energy Administration
 - Maryland Department of Education
 - Maryland Department of General Services
 - U.S. Department of Energy
 - U.S. Environmental Protection Agency
 - U.S. Green Buildings Council
 - National Energy Education Development Project

IV. Capital Upgrades

1. Pursue all equipment retrofits with payback of **three years** or less.
2. Create an equipment replacement plan template for schools. Drawing on information stored in the building technology database, complete this plan for each school to ensure that all future equipment purchases are energy efficient and cost effective.
3. Investigate performance contracting opportunities on an as-needed basis to address retrofit opportunities when school district funding is not available.
4. Evaluate the opportunity for purchasing or upgrading an energy management system for district schools.

V. Checklists

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1. Develop energy saving checklists for all segments of the school community for use on daily energy conservation actions
 - a) Classroom
 - b) Custodial
 - c) Staff Offices
 - d) Outside Activities
2. Develop checklists for special circumstances to control energy usage
 - a) Holidays
 - b) Summer
 - c) Weather Closings
 - d) Athletic and Special Event Activities

VI. New Construction

1. Work with architects and new school construction staff to ensure that energy efficient design and equipment is incorporated into every new facility.
2. At least two district new school construction staff will attend the “Applying LEED-NC in Practice” one-day workshop offered by the U.S. Green Buildings Council.
3. Complete LEED (Leadership in Energy and Environmental Design) certification checklists for all new facilities.
4. Obtain LEED certification in **at least one in every three** new buildings constructed.
5. Perform a full building commissioning process upon the completion of any new building, major addition, or major renovation.

VII. Evaluation/Re-evaluation of Plan and Measurement of Success

1. Re-benchmark all schools in ENERGY STAR’s Portfolio Manager **once a quarter** and evaluate results.
2. Prepare an **annual** report on energy performance improvement efforts and energy savings numbers achieved. After review and comment by the District Energy Committee, this report will be presented to the school board and copies will be provided to the Superintendent and all school principals.
3. Following comments from the school board on the annual energy management report, the District Energy Manager will make changes to this Energy Management Plan. All changes must be reviewed and approved by the District Energy Committee.

VIII. Recognition

1. The District Energy Manager will work with school district communication staff in order to publicize energy savings and innovative energy projects.
2. The District Energy Manager’s contact information will be included in a series of flyers encouraging staff to save energy and identify areas of energy or water waste. On a regular basis (to be determined) the District Energy Manager will

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- identify a district staff member for their outstanding energy saving suggestion. This staff member will be congratulated publicly and given a small gift (method of congratulations and gift to be determined).
3. Establish an incentive program for facility managers and new construction staff that rewards effective energy management and innovative energy efficient design.