

A. Project Title and Applicant Name:

"A School Building Energy Action Plan for **Wattville Middle School** - **Wattville** School District

B. Statement of Need

1. *Target Audience:* An Energy Action Plan Task Force (EAPTF) consisting of **five district staff members and one energy professional** will draft the school building energy action plan. The plan will be reviewed by the **school Energy Committee** and the entire **Wattville Middle School staff (60 individuals)**. The plan will be presented to the school board (**9 individuals**) for adoption.
2. *Need:* **Wattville Middle School** needs to manage its energy use more effectively, improve operational productivity, reduce costs, and educate students, faculty, and staff about proper energy use in their building. In order to accomplish all of these needs, faculty and staff need proper energy management/education training and the school needs an energy action plan that:
 - provides an energy policy defining energy management protocol for energy systems such as lighting, temperature control, and personal appliances;
 - provides connections to the classroom curriculum and state education standards;
 - provides direction for involving all building occupants in energy initiatives;
 - and provides direction for reporting energy initiative results to all building occupants;The plan will have two main themes, energy management and energy education. By providing a framework upon which energy management protocols will be defined, the school will reduce their energy consumption and lower their utility bills. Perhaps, more importantly, providing a framework for implementing energy education school-wide will improve the energy literacy of all building occupants and thereby promote continued long-term energy management.
3. *Goal Addressed:* The ultimate goal of energy education is to enhance students' environmental literacy. This project supports EE 2010 Goal III by enhancing environmental education in the district.
4. *Evidence of Need:* Results from an energy audit conducted by Focus on Energy in 2006 showed the school's electricity use was 9.2 kWh/sq. ft. and Heating BTUs per Heating Degree Day were 7.5 BTU/sq. ft./HDD, both above the Wisconsin average for similar school types for that year. Currently, only 4 teachers (8% of entire teaching staff) have had any formal energy education training, having participated in a KEEP course in 2002, and none of the administration or facilities personnel have ever had formal energy management training. Thus, the staff is ill equipped to provide energy education opportunities to our students.
5. *Previous Efforts:* Since the energy audit in 2006, the lighting throughout the building has been retrofitted, the boilers upgraded, and all exit lamps are now LED lamps. The four teachers that participated in a KEEP course have integrated some energy activities into their classroom, such as 'Classroom Energy Flow' and 'The Cost of Using Energy'.

C. Goal: Enhance **Wattville Middle School faculty, staff, and students' environmental literacy via energy education and school-wide energy conservation initiatives.**

Objective: By October 2010 the **Wattville School Board** will have adopted an energy action plan for **Wattville Middle School** that meets conforms to the WEEB energy education action plan template and that will guide teachers as they implement a holistic approach to energy education for **Wattville** students.

Activity 1: **The Wattville School Board will establish an Energy Committee. An Energy Action Plan Task Force (EAPTF) will be created out of the Energy Committee to draft an energy action plan. (July, 2009)**

- The Energy Committee will consist of eleven individuals: an Energy Advisor, a utility representative, the District Facilities Manager, the Principal, the District Administrator, the School Business Official, a school board member, three teachers, and the Curriculum Coordinator.
- The EAPTF will consist of **five district staff members and one energy professional from the Energy Committee.**
- Support/consultation services to the Energy Committee will be provided by **the Wisconsin K-12 Energy Education Program Outreach Specialist.**

Activity 2: By October 31, 2009 EAPTF members will have begun or completed the following energy management/education trainings which are designed to provide the knowledge and skills considered necessary for drafting an energy education action plan that conforms to the WEEB template.

- Teachers – NR 734: School Building Energy Efficiency Education course (*KEEP*)
- District Administrator & Facilities Manager – Practical Energy Management (*Focus on Energy*)
- Facilities Manager – Building Operator Certification (*Focus on Energy*)

Activity 3: The project director will create and distribute a bi-annual newsletter (Dec 09 & June 10) with updates on the EAPTF activities, status, action items, etc. to the entire school staff & Energy Committee.

Activity 4: By November 2010, the EAPTF will draft an energy action plan that conforms to the WEEB's energy education action plan template.

The Energy Committee will meet to review existing documents (e.g., energy management policies, district curricula, WI model academic standards, district strategic plan) and participate in a school energy audit to become familiar with building energy systems in an effort to identify education connections [Note: KEEP Outreach Specialist to accompany Committee]. (July 27, 2009)

The EAPTF will meet at least 5 times between July 2009 and March 2010. **Members must present a draft to WEEB by December 15, 2009.** Meeting dates and task completion schedule shall include:

Draft each section of the plan (e.g., energy management policy, classroom connections, school-wide energy education, monitoring/reporting results) incorporating/referencing existing resource materials. Committee will collect data via surveys, public hearings, and interviews to provide support for each section.					July to March 2009/10
First drafting session July 28, 2009	Data collection for missing materials Aug-Nov 2009	Second drafting session Dec 7, 2009	Second data collection session Jan 2010	Final drafting session Feb 8, 2010	Final read through and edits By March 3, 2010

Activity 5: The Energy Committee will validate the energy action plan. The project director, in coordination with the other EAPTF members, will plan (March 10, 2010) and conduct (April 12, 2010) an in-service/feedback workshop for all school staff, including office, kitchen, and custodian staff. The in-service portion (1 hour) will provide an overview of energy resource management and education and the draft energy action plan. The feedback portion (1 hour) will have staff work in small groups, led by a committee member to review the plan and provide written feedback to the Committee. The project director will update the draft plan to reflect staff feedback (April-June, 2010). Energy Committee members (August 2010) and school board members (September 2010) will consider and adopt the energy action plan.

D. Dissemination

Upon the awarding of the grant, an article for the district newsletter that explains the project and acknowledges the WEEB will be written. The draft and final plans will be posted on the district's website and distributed to all school staff, school board members, and Energy Committee members. The plan and process of development of the plan will be presented at the State Education Convention in 2011.

E. Project Evaluation

A number of formative assessments are built into the proposed development of the plan. The completion of the energy action plan utilizing input from school staff will indicate success of the project. The plan will be submitted to the WEEB for official approval (summative assessment).

F. Staff Qualifications

Bill McSavings, Technology Education Teacher (7 years) and School Board member (14 months). B.A. in Education and an M.S. in Environmental Education.

The 3 teachers selected for the Energy Committee/EAPTF will represent the various grade levels and subjects within the school. They will also have an interest in energy education.

G. Continuation

The energy action plan will be the foundation for integrating energy education and proper energy management into the culture of Wattville Middle School. Wattville Middle School will act as a role model for the five other schools in the district as they develop their action plans. The Energy Committee will oversee the implementation of the plan and make updates at 3-5 year intervals or whenever changes are required.