

# ENERGY EFFICIENCY

USE THIS GUIDE AS YOUR TEAM WORKS TO IMPROVE ENERGY EFFICIENCY THROUGHOUT THE YEAR. FOR FURTHER ASSISTANCE, CONTACT YOUR YES! COORDINATOR.

## Best Practices:

- Build your team
  - Develop relationships and community allies
    - School: teacher, cook, custodian, waste hauler, utility provider, school board
    - Community: County solid waste facility, college, Farmer's Market, Chamber of Commerce, city government
    - Contact local utility. Tell them your vision/plan for your school. Ask for 1) list of programs available to the school, 2) an energy expert to visit the school, 3) energy saving devices to help the school measure energy use
    - Have an application process—like applying for a job
  - Establish a baseline: State of Minnesota's B3 Benchmarking
    - What it is: On line building energy management system for public buildings in Minnesota including schools. The B3 mission is to provide tools to help manage buildings, improve building portfolio efficiency, and monitor the improvements.
    - Useful for: Establishing school's baseline energy use, comparing one year's energy use to another year and identifying where improvements can be made
    - Here's how you do it: Ask facilities manager if school is on B3. If yes, ask to see data reports from past 3 years. If no, ask if school can participate.
- Identify Energy Wasters
  - What it is: A survey or list of ideas of what your school is doing well and where your school or community can improve
  - Useful for: Identifying "problems to be solved"
  - Here's how you do it: Brainstorm ideas. Walk around school and do a mini audit looking for outside doors that are left open, computers left on, shades left up, lights left on when no one is in the room, etc. (helpful to have the utility work with you on this)
- Create an energy plan
  - What it is: A plan identifying goals and actions
  - Useful for: A plan will keep you on track towards successfully completing your goals
  - Here's how you do it: Prioritize the list from step 2 and decide on 3 actions to take. Assign responsibilities to individuals. At monthly meeting, report on what was done and identify next steps to take.
- Track and Measure energy use at school
  - What it is: Online tool used by utility companies to track a building's energy use
  - Useful for: Daily/weekly/monthly tracking of energy use
  - Here's how you do it: Ask your school's utility how to best measure, monitor, and display your school's energy use. Make a poster of energy use.
- Celebrate Success
  - Use dollars saved to have a party, buy new sports, or playground equipment
  - Write an article to the local paper or write a public service announcement (PSA) for radio or TV. How about creating a YouTube video?
  - Create a scholarship fund to keep students involved
- Other Resources
  - Retiree Environmental Technical Assistance Program (RETAP)
    - What it is: Free, non-regulatory energy efficiency and waste assessments offered to Minnesota's small businesses and public and private institutions.
    - Useful for: On-site visit to your facility from a team of RETAP members with emphasis on finding opportunities to increase energy efficiency and water conservation, reduce waste, and reduce operating costs.
    - Here's how you do it: Contact Mike Vennewitz at 612-781-1307 or [mvennewitz@yahoo.com](mailto:mvennewitz@yahoo.com)
  - Minnesota Technical Assistance Program (MnTAP)



- What it is: An outreach and assistance program that helps Minnesota businesses (including schools) develop and implement industry-tailored solutions that prevent pollution at the source, maximize efficient use of resources, and reduce energy use and costs to improve public health and the environment.
    - Useful for: Assistance in guiding decisions for behavior changes as well as operational changes to save energy
    - Here's how you do it: Contact MnTap at 1-800-247-0015 or [mntap@umn.edu](mailto:mntap@umn.edu)
- Helpful tips
  - Lighting
    - Behavior change: turn it off if it's not in use. This includes energy efficient lights
    - Signs and stickers as reminders
    - Light switches in convenient locations
    - Wire lights so they can be controlled in banks
    - Remove unnecessary light fixtures near windows
    - Survey users for comfort at different lighting levels
    - Use a light meter to make sure users have enough light
  - Calculate outcomes
    - Collaborate with teachers in math and business classes to make spreadsheets that show energy consumption and potential savings
  - Heating and cooling
    - Remember, schools and classrooms are intended for learning and teaching—students and teachers need to be comfortable to concentrate.
      - Heat to 68 degrees and cool to 78 degrees is a common rule of thumb
      - Check that vents have proper airflow. If they have been deliberately blocked, find out why and try to address the issues properly
      - Install programmable thermostats in areas where occupancy varies dramatically through the day, such as gymnasiums and cafeterias
      - Keep heat in hallways reduced and keep doors to classrooms closed
      - Make sure equipment is tuned up with clean filters
      - Find drafts (students can investigate air movements with this lesson plan: <http://www.ase.org/resources/lesson-plan-draft-o-meter-k-3>)
      - Stop leaks with weather stripping, caulking, insulation, window quilts, insulation snakes, etc.
  - Computers
    - Set computers to go to “sleep” mode rather than screen savers
    - Monitors should be turned off when not in use
    - Computers should be shut down at the end of each day
    - Shop for Energy Star equipment when buying new
  - Appliances
    - Use watt-meters to study how much electricity devices use. Target appliances that use a large amount of energy and schedule their replacement with more efficient models.
    - Survey appliances in classrooms (refrigerators, space heaters, etc.) and have teachers remove unneeded ones
    - Make sure appliances are in good working order: e.g. clean refrigerator coils