

Go Green, Save Green with ENERGY STAR®

By Caterina Hatcher

Did you know that the nation's 17,450 K-12 school districts spend more on energy than on computers and textbooks combined? Energy costs represent a typical school district's second largest operating expense after salaries. Schools that have earned the ENERGY STAR – EPA's mark of superior energy performance – cost 40 cents per square foot less to operate than average performers.

Did you know that the nation's 17,450 K-12 school districts spend more on energy than on computers and textbooks combined? Energy costs represent a typical school district's second largest operating expense after salaries. Yet up to 30 percent of the energy used in schools and other commercial buildings is wasted—for example, when lights are left on or the heating and cooling system runs in an unoccupied building. The U.S. Environmental Protection Agency's (EPA's) ENERGY STAR program has a library of resources available at no cost to help K-12 school districts save energy and money.

By being more energy efficient, schools can save money and improve student learning environments. EPA has found that a 10-percent reduction in energy use is often possible with little or no cost to building owners and managers. Schools that have earned the ENERGY STAR—EPA's mark of superior energy performance—cost 40 cents per square foot less to operate than average performers. School districts can and have used the savings from improved energy performance to help pay for building improvements and other upgrades that enhance

the learning environment. Studies have found that a better physical environment that includes superior energy performance contributes to increased learning and productivity. This, in turn, affects performance and achievement.

Energy efficiency also helps prevent greenhouse gas emissions from the burning of fossil fuels to produce energy. In fact, the buildings where we work, play and educate our children are responsible for almost half of the national emissions that contribute to global climate change. By being more energy efficient, schools act as leaders in the fight against climate change and teach students the importance of stewardship in protecting the environment.

Leveraging ENERGY STAR Resources for K-12 Schools

The American Recovery and Reinvestment Act of 2009 is a great opportunity for schools to go green, and using ENERGY STAR resources is an effective strategy for energy efficiency improvements. ENERGY STAR is the nation's flagship energy efficiency program that helps us all save energy and money with tested and proven energy-efficient products and practices. Through ENERGY STAR, EPA provides the follow-

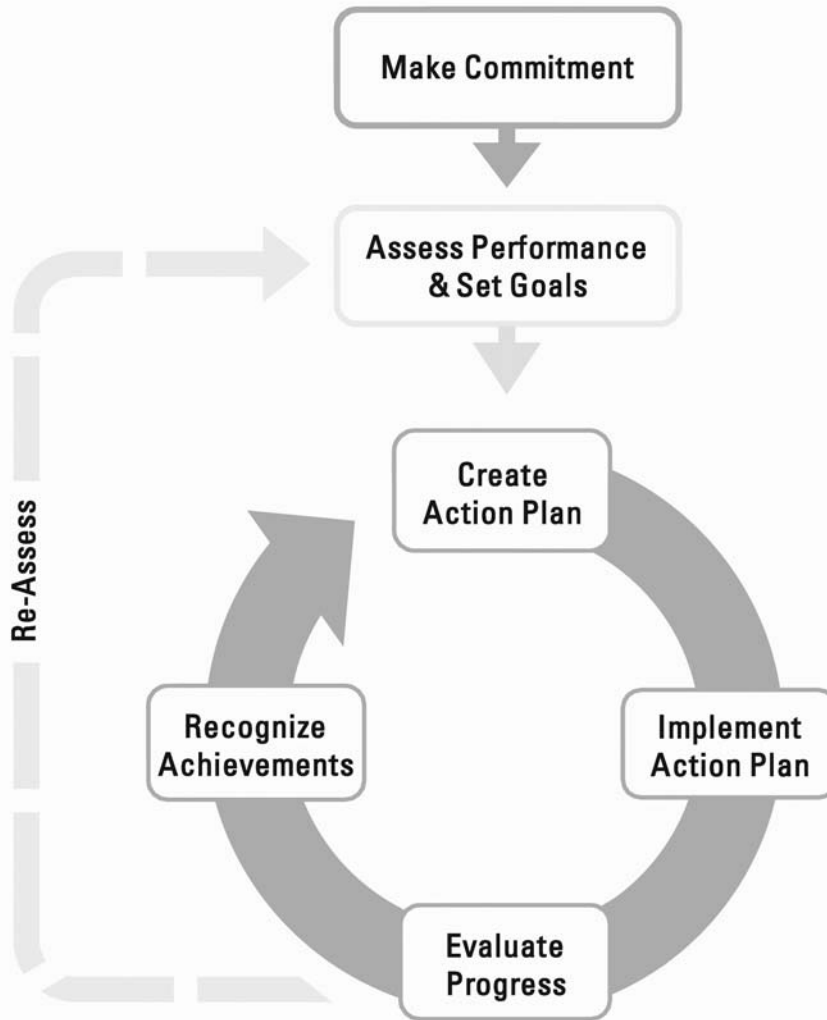
ing no-cost tools and resources to help you identify areas for improving energy efficiency and develop a strategic energy management plan.

ENERGY STAR Guidelines for Energy Management

First, get started by applying EPA's proven strategy to set performance goals, create and implement action plans, assess performance and progress and recognize your organization's achievements. The ENERGY STAR Guidelines for Energy Management represent a systematic approach to energy management. By distilling the common elements of successful partners, EPA created the Guidelines to help other organizations adopt best practices for superior energy management. (See Fig. 1). Visit www.energystar.gov/guidelines for detailed, step-by-step directions.

Portfolio Manager

Next, use EPA's Portfolio Manager to measure and track the energy and water use of your buildings. Portfolio Manager is a no-cost online energy management tool that enables you to identify the best opportunities for energy efficiency improvements, track progress over time, and verify savings results.



Once you've entered your energy consumption data into your Portfolio Manager account, you can identify under-performing buildings to target for energy efficiency improvements, as well as establish baselines to set goals and measure progress over time. As you continue to track key consumption, performance, and cost information in Portfolio Manager, you'll be able to monitor energy efficiency improvements compared to your baseline, track reductions in greenhouse gas emissions, and view energy and water cost savings. Lastly, Portfolio Manager provides transparency and accountability to help demonstrate strategic use of capital improvement funding. Using Portfolio Manager,

you can quickly and accurately demonstrate savings in energy use, greenhouse gas emissions and costs for an individual building or entire portfolio.

For schools and certain other space types, you can also compare your building's energy performance against similar buildings nationwide using EPA's 1-to-100 Energy Performance Scale. Your building is not compared to the other buildings entered into Portfolio Manager to determine your ENERGY STAR score. Instead, statistically representative models are used to compare your building against similar buildings from a national survey conducted by the Department of Energy's Energy Information

Administration, known as the Commercial Building Energy Consumption Survey (CBECS). A score of 75 indicates that your building, from an energy consumption standpoint, performs better than 75 percent of all similar buildings nationwide. Buildings that score 75 or higher may be eligible to earn the ENERGY STAR.

Get started benchmarking your buildings today at www.energystar.gov/benchmark.

Building Upgrade Manual

Once you've identified under-performing buildings to target for energy efficiency improvements, use the Building Upgrade Manual to help plan and implement profitable energy saving building upgrades. The Building Upgrade Manual features a 5-stage approach for building upgrades to maximize energy savings, including retrocommissioning, lighting, supplemental load reductions, air distribution systems and heating and cooling upgrades. The staged approach recommended by ENERGY STAR accounts for the interactions among all the energy flows in a building. Each stage includes changes that will affect the upgrades performed in subsequent stages, thus setting up the overall process for the greatest energy and cost savings possible.

The manual also features a chapter dedicated to best practices for K-12 schools and the aspects of building performance that are fundamental to providing an environment that is conducive to learning. This section explores upgrade choices that can cut energy consumption while also improving security and safety; indoor air quality; and, thermal, visual, and acoustic comfort. See www.energystar.gov/bldgmanual for more information.

Target Finder

In addition to helping you improve the energy performance of your existing schools, you can use

Target Finder to help ensure your new schools are designed to be energy efficient. Target Finder is a no-cost online tool that enables architects and building owners to set energy targets and receive an EPA energy performance score for projects during the design process. Projects that earn a score of 75 or higher are eligible for Designed to Earn the ENERGY STAR certification. Learn more at www.energystar.gov/targetfinder.

Training

In addition to these tools, ENERGY STAR offers free online training to help you improve the energy performance of your buildings. No travel, no lost time out of the office, and no cost—EPA makes it easy to get the information you need. View pre-recorded webinars or an animated presentation or sign up for a live Webinar with subject matter experts. Visit www.energystar.gov/businesstraining to view available sessions.

Success Stories

Among the thousands of K-12 partner organizations saving energy and money with ENERGY STAR, four leaders stand out. By using ENERGY STAR tools and resources to improve their energy efficiency, these school districts are shaping future leaders in the fight against climate change by not only teaching about saving energy, but living it every day in the classroom.

This spring, two school districts received the ENERGY STAR Award for Sustained Excellence, the most prestigious ENERGY STAR award, for exhibiting outstanding leadership and achievements year after year. Council Rock School District, located in Newtown, PA, has saved more than \$2.4 million in energy costs in 2009 alone, for a total of more than \$7.1 million in the past 4 years. The district was the first organization recognized by EPA as an ENERGY STAR Leader for reducing energy use across its

building portfolio by more than 40 percent since 2005. Gresham-Barlow School District, located in Gresham, OR, has improved energy efficiency by more than 30 percent since 2003-2004 and has earned the ENERGY STAR label for all 19 of its schools.

Evergreen Public Schools, in Vancouver, WA, and Loudoun County Public Schools, in Ashburn, VA, have also been recognized as ENERGY STAR Partners of the Year for their exemplary energy management programs. Evergreen Public Schools reduced its energy use by 20 percent from a 2008-2009 baseline, saving energy costs equivalent to 14 teachers or almost 20 support staff members. Loudoun County Public Schools earned the ENERGY STAR for 24 of its buildings in 2009 and improved its portfolio-wide energy efficiency by 10 percent.

EPA provides recognition for all partners that demonstrate improvement in energy efficiency. Many K-12 school buildings are eligible to earn the ENERGY STAR for superior energy performance. Districts that increase their building portfolio's energy efficiency by 10 percent or more are eligible to receive ENERGY STAR Leaders recognition, and those that achieve a rating of 75 or more across their entire portfolio can earn Leaders Top Performer status. As previously discussed, the ENERGY STAR Partner of the Year Award is given to those districts that demonstrate exceptional achievement and commitment to increasing energy efficiency and fighting global climate change.

Get Started Today!

By using ENERGY STAR tools and resources, these schools are cutting energy use, saving taxpayer money and preventing greenhouse gas emissions that contribute to global climate change—and you can too! Get started today by visiting www.energystar.gov/k-12 and joining as an ENERGY STAR partner. ■

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