

Financial Benefits

ADDRESSING THE FINANCIAL NEEDS OF SCHOOL FACILITY MANAGERS AND PLANTING SEEDS FOR A MORE SUSTAINABLE FUTURE

The nation's school districts spend more than \$8 billion a year on energy. As much as 30 percent of that energy is used either inefficiently or unnecessarily. By being conscious of energy usage and taking advantage of energy efficient technologies, schools have the potential to significantly cut their electricity use, save money and reduce their burden on the environment.

There are many ways for schools to address energy and water use efficiency that can range from simple, no or low-cost strategies to more complicated and expensive solutions.

Here's a few examples of how schools can save energy, improve the school environment, and cope with budgetary constraints.

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Perform an Energy Audit—Engage students, teachers, administrators and volunteers in helping you to perform a comprehensive energy audit. **This one step can save 5-35% of your energy costs.**
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Develop a Lighting Strategy — Lighting strategies such as installing occupancy sensors, bi-level or zone switching, exterior photocell installation or repair, selective delamping (where illumination is excessive), replacing all remaining incandescent with compact fluorescent bulbs, and strict nighttime and vacation shut-down **can save anywhere from 8% to 20% of lighting energy** by simply turning off lights in unoccupied rooms.
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Replace Computers and Office Equipment with Energy Star® Models — When it's time to replace computers, monitors, printers, and copiers — choose those models with an Energy Star rating. Energy Star monitors have a low-power sleep mode that only uses between 2-10 watts. Each Energy Star printers can save a school \$25 per year. Energy Star copiers can **achieve savings of 40%** compared to standard models.
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Develop Heating, Ventilation and Air Condition Strategies — HVAC uses more than half the energy consumed in school buildings, and therefore is a major target for significant energy savings. Proper boiler maintenance can lead to **energy savings of 10 to 20%**, and regular maintenance (cleaning burners and AC coils; replacing and cleaning air filters; checking ducts and pipe insulation for damage) maintains optimal cooling and heating performance and saves money and energy.
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Maintaining Controls — Maintaining temperature settings, ensuring windows are closed during heating season, and unblocking air flow could **save 10% of heating and cooling costs**. Programmable thermostats cost between \$50-\$200, and have a payback within three months of installation.
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Develop School Cafeteria / Kitchen Strategies — Kitchen energy use can be **reduced as much as 60%** by reducing the amount of operating time of the different appliances in your kitchen. Pre-heating ovens no more than 15 minutes before using, and using the fan hood only when cooking are great places to start. Equipment not utilized during vacation periods should be shut down, and always keep the refrigerator coils clean and free of obstructions.

“Our schools are doing their best to prepare our children for the future, and now they can help make sure that future includes a clean, safe environment. Taking the Energy Star Challenge will help participating districts cut down on their electricity bills. Money they would have spent on energy can go back into the classroom, where it really belongs.”

EPA Administrator Lisa P. Jackson
September 2009

<http://energystar.gov/challenge>



For a listing of energy efficiency resources, tips, and tools, please visit: www.eco-schoolsusa.org/energy

To download the “School Operations and Maintenance: Best Practices for Controlling Energy Costs, A Guidebook for K-12 System Business Officers and Facilities Managers,” please visit the Alliance to Save Energy’s website at <http://ase.org/content/article/detail/1806>

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