

## Did you know?

The annual energy bill to operate America's primary and secondary schools totals nearly \$8 billion – more than is spent on textbooks and computers combined.



**WASTING ENERGY**

**SAVING MONEY™**

**Solutions that Reduce Energy and Save Schools Money**



**GUARDIAN**  
ENERGY MANAGEMENT SOLUTIONS™

[www.guardian-energy.com](http://www.guardian-energy.com)

## Energy Management Solutions for Educational Institutions

Guardian Energy Management Solutions™ offers educational institutions the ability to reduce their overall energy costs while meeting the growing demand for more efficient energy management products and services.

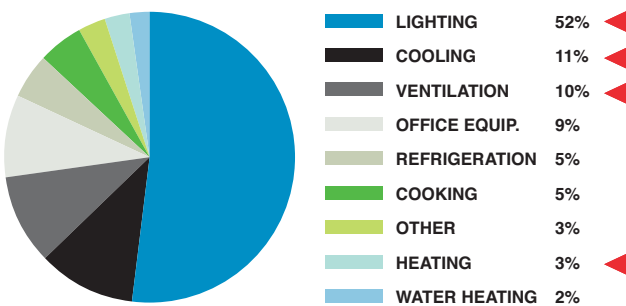
The result? Our customers experience a substantial reduction in utility costs while receiving a state-of-the-art lighting and/or heating, ventilation and cooling (HVAC) control system. Our solutions are designed to provide your organization with an immediate **return on investment**.



## The Best Business Decision You Will Ever Make

Studies have shown that lighting and HVAC account for **more than 75%** of a building's energy usage within an educational facility. Major incentives are currently available to implement energy efficient products and systems. Most utility companies offer a specialized energy efficiency rebate program for energy efficient system installations and upgrades.

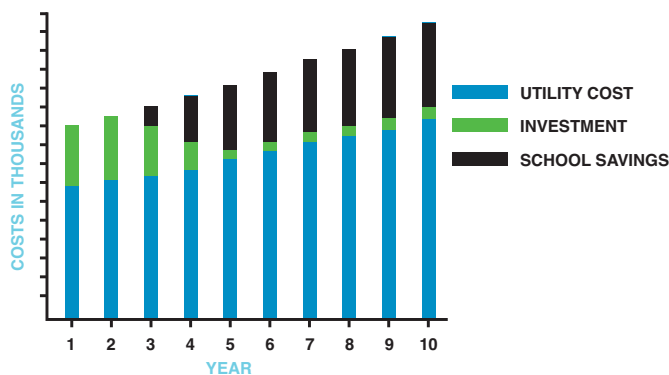
### Most Common Use of Energy in Schools



In fact, some utility companies will often provide up to a 70% rebate in project costs! Whether you are building a new facility or you are looking to retrofit an existing building, campus or district, you may qualify for this rebate.

Guardian Energy Management Solutions will assist with the documentation and information necessary for your organization to submit for the rebate qualification. The best methodology involves an Energy Assessment and detailed Energy Management Plan as the first step in the process. The Utility Company will require specific information that we can help detail and provide as part of our process.

### Energy Cost and Savings over a 10-Year Period



## Building Automation Solutions for Educational Facilities

What are automated energy solutions? There are several different 'energy demand' components that typically exist in the majority of educational facilities. The most expensive component revolves around the use of electricity, so lighting and HVAC are almost always the highest demand factors.



### Energy demand is found within the following areas:

- Interior and Exterior Lighting
- Building Heating, Ventilation and Cooling (HVAC)
- Water Cooling
- Equipment
- Water Heating
- Cooking and Refrigeration

An automated energy solution is designed to control the use of energy by strategically programming lighting and HVAC components throughout a building based upon factors such as: demand, necessity or occupancy. The most current technology provides the ability to control energy by setting specific energy usage parameters through a software program (often available through the web). Through our systems, energy usage can then be tracked and managed. Guardian provides you with the tools and resource you need to strategically manage your energy while reducing costs.



## Building Automation Integration Services

Some facilities may have already invested in existing building automation control systems, but they are struggling to manage these systems as they currently operate on separate systems and software. Guardian Energy Management Solutions provides the ability to consolidate multiple building automation systems and software packages into a singular software solution.

By consolidating these building automation software programs, our customers realize a saving in time, resources and money. A singular control interface also provides a clearer understanding of how energy is being utilized across the board throughout your organization.

## Lighting and HVAC Component Upgrades for Educational Facilities

Many educational facilities are suffering from outdated components that require replacement. Guardian Energy Management Solutions also works with educational institutions to upgrade specific components in the chain of energy use.

For example, lighting retrofits can save as much as 30 to 50 percent of lighting energy, plus 10 to 20 percent of cooling energy. By incorporating a design strategy that uses a mix of both natural and artificial light sources, you can increase visual comfort and further reduce energy costs. Combining new, energy efficient lamps or ballasts, with an automated lighting control system will maximize your overall return on investment.



## The Guardian Process

Because Guardian understands that every client comes with an extremely unique set of needs, our process was designed to be comprehensive but flexible. We begin with a commitment-free assessment that matches current energy usage and waste with specific opportunities for savings and upgrades. We proceed by creating a customized strategy that focuses on minimized implementation costs and guaranteed returns on investment. The complete process includes:

**Energy Assessment & Overview:** Guardian is onsite to document your existing systems, modeling your current energy usage. The result is a consolidated data report identifying overall findings, upgrade opportunities and a recommended course of action.

**Financial Assessment:** An overview of each recommended upgrade, along with a detailed cost estimate/projected savings comparison. Where there is a case for savings through upgrades - and client approval, we initiate the submission of utility rebate documentation.

**Project Review & Commitment:** An implementation plan that includes final cost and savings estimates. The client is also presented with a draft contract and low-impact payment plan that spans a set number of years. In most cases, the total cost does not exceed your current utility budget over the given time period.

**Project Implementation:** Once the contract is signed, Guardian will begin the process of implementing your new energy management solutions. We serve to manage the project from beginning to end and will minimize any disruptions. This phase includes installation, testing and training.

**Monitoring & Support Services:** Guardian offers the option to have an energy expert remotely monitor and manage your systems through the installed software solution. We offer several options from basic phone support to premium monitoring services. Guardian can also provide a periodic review of your system. Our services are designed to manage energy costs and help drive an ongoing strategy for energy reduction.

