



Newsletter

American Energy Management

Spring 2007

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Use your web enabled phone, PDA or PC to:

- View and reset detailed EMS system alarms.
- View temperature, humidity and control status of building systems.
- Send commands to start/stop HVAC and lighting.
- Monitor status of Fire and Security alarms.

AEM is an Energy Star Partner

AEM has recently been recognized as an Energy Star Partner, joining the US Environmental Protection Agency's Energy Star Service and Product Providers program. Energy Star helps businesses reduce energy consumption and protect the environment through superior energy efficiency. Energy Star programs saved an estimated \$12 Billion in US energy bills in 2005 alone.



The Energy Star Challenge

The EPA, in partnership with business and community leaders, is challenging building owners across the country to improve the efficiency of their buildings by 10% or more. EPA estimates that if each building owner took on this challenge, **by 2015 Americans would reduce greenhouse gas emissions by more than 20 MMTCE, equivalent to the emissions from 15 million vehicles, while saving about \$10 billion.** Leaders across the country already are showing that energy use in buildings can be reduced by 10%, 20%, 30% and even more with proven practices and technologies, including DDC controls, that pay off financially and for our environment. For more information, go to http://www.energystar.gov/index.cfm?c=leaders.bus_challenge

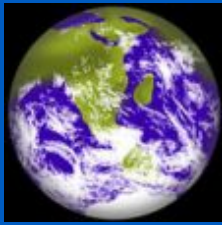
Cut the cord!

Wireless sensor technology reduces wiring costs.

Low cost wireless sensors are now available for a range of sensors and other status inputs. The wireless devices are easy to install, highly adaptable and have no limitations as to the building materials they can be mounted to. Furthermore, the technology allows for battery-less wireless devices, eliminating much of the need for maintenance.

Available wireless terminal devices

- Room temperature sensors with optional setpoint adjustment and override button
- Light switches
- Contact temperature sensors
- Window/door contact
- Duct temperature sensors
- Digital inputs



Earth Day is April 22

On April 22, 1970, 20 million people across America celebrated the first Earth Day. It was a time when cities were buried under their own smog and polluted rivers caught fire. Now Earth Day is celebrated annually around the globe. Through the combined efforts of the U.S. government, grassroots organizations, and everyday citizens, what started as a day of national environmental recognition has evolved into a world-wide campaign to protect our environment.

For more info, go to the EPA's Earth Day Website @ www.epa.gov/earthday

AEM's systems are
Web Accessible



Contact AEM

mailto:sales@aemsolutions.com
Contact AEM for a free survey and evaluation of your building. See what a WebView DDC system can do for you

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Blarin' of the Green

Lately, it seems like everyone is talking about environmental issues that threaten our lifestyle, our economy and even our planet's existence. Most of the talk centers around carbon dioxide emissions which primarily come from burning fossil fuels, and contribute significantly to global warming. Green proponents include celebrities and politicians like Leonardo DiCaprio and Al Gore as well as many individuals and grass roots organizations. Ideas on how to save the world from our self-induced destruction include alternative energy sources such as wind, solar and bio fuel, and energy saving technologies, such as fuel cells, hybrids, fluorescent and LED lighting, as well as energy management controls. While there may not be an easy quick-fix to the problem, it is clear that we all need to be aware of the problem and reduce our own energy use to the extent possible.

Cut Waste First!

Avoiding waste is the most significant thing we can do to reduce our overall energy use. Consider this. Replacing the 100 watt light bulb in your reading lamp with an equivalent compact fluorescent bulb will save about 77 watts, while delivering the same light output. Multiply this by 2 hours per day, every day of the year and you will save 56.2 KW per year (at an average rate of about \$0.10/KWH, about \$5.62 per year). With the cost of bulbs coming down, and the fact that these bulbs last much longer than traditional bulbs, there's no question that this is a great deal.

Now, consider the 100 watt bulb that was left on and forgotten in the attic. This bulb burns 24 hours a day from Christmas until spring cleaning (120 days), wasting about 288 KW and \$28.80. Scale this up to a large regional shopping mall where the attic light equivalent is actually 1400 linear feet of cove lighting, left on an additional 12 hours per day when it is not needed or even noticed. Retrofitting these lights to the most efficient fluorescent lights could cost between \$25,000 and \$30,000, and would save about \$8,280 per year (82,800 KWH), for a simple payback of 36 to 44 months. Controlling these lights with energy management controls might cost \$7,000 to \$10,000 and would save about \$8,738 per year (87,380 KWH), for a simple payback of only 10 to 14 months.

If you install the energy management controls after you do the retrofit you still save an additional \$4,600 per year (18 to 26 month payback), while doing the retrofit after the controls saves \$4,140 per year (72 to 86 month payback). Both measures are smart, responsible energy saving techniques, but clearly the EMS controls deliver the biggest bang for the buck.

Check out our new website

www.aemsolutions.com

AEM has a new website. Our updated site features a new look as well as current information on our product and service offerings. Company information, sample projects and helpful links and downloads are just a click away.



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- How Much Can I Save?

Contact AEM

<mailto:sales@aem-online.com>
Contact AEM for a free survey and evaluation of your building. See what a ViewPort DDC system can do for you

Links

NFL.com - Official Site of the National Football League
Check the scores of your favorite teams

www.tailgating.com
Check out these tailgate tips and recipes

Controlling rising energy costs

Skyrocketing energy costs threaten to cut into profits by increasing the cost for heating, cooling and lighting commercial buildings. These costs directly affect bottom line profits, and gas, oil and electricity costs are expected to increase by as much as 30% this winter. Controlling the equipment that uses energy and effectively managing its use can help you hold the line on rising energy costs and maintain a competitive edge.

Install Energy Management Controls

If you don't have a computerized energy management control system, you should. Many buildings still use outdated control methods such as time clocks, thermostats, manual setback controls and overlaid zone control systems. These methods simply don't perform as well as a comprehensive Direct Digital Control (DDC) energy management system. The installation of a ViewPort DDC system usually pays for itself within two years in energy savings alone when compared to conventional or manual controls.

If you do have a system, make sure it's controlling all your energy users and that it is set up properly. AEM can perform on-site system check-ups to be sure that all energy saving measures are implemented and working. We will survey the building to identify additional savings opportunities, and propose cost-justified measures to help tame your energy beast.

Are you ready for some Football?

As the temperature cools down and the football season heats up, we all look forward to time spent with friends watching the game. But who's watching your building to be sure it's ready for business on Monday morning?

If you're responsible for building operations, this could leave you tied down, worrying about building checks, employee performance, staffing, etc.

Your EMS can watch the conditions within your building and alert you if conditions start to degrade. This could free you up for more important things, like spending quality time with family and friends.



Thanks to advances in networking and access technologies, from any web enabled phone, PDA or PC you can now:

- View and reset detailed EMS system alarms.
- View temperature, humidity and control status of building systems.
- Send commands to start/stop HVAC and lighting.
- Monitor status of Fire and Security alarms.

So sit back, relax, and enjoy the game.

How Much Can I Save?



The installation of a ViewPort energy management system typically results in a simple payback of one to five years, depending on building occupancy, type of use and condition of existing equipment and controls. Determining the savings involves cataloging the equipment and loads, evaluating the current operation and cost and predicting the future operation.

The following example summarizes a recent audit of a 50,000 square foot office building in Massachusetts. The HVAC equipment is currently controlled with conventional controls and overlaid time clocks. In this example, the energy savings pay for the system in just 19.73 months. Utility company rebates considerably shorten the payback period.

50,000 sq. ft. building



Description	\$ Saved
AC compressor setback, optimum start and improved economizer.	\$7,600
Fan setback, optimum start, 7 day holiday scheduling.	\$11,400
Photo, 7 day and holiday scheduling for interior and exterior lights	\$2,280
Total	\$21,280

Cost = \$34,980 Payback = < 20 months

With Rebate Payback = < 12 months

Contact AEM for savings analysis, control system cost estimates and utility company rebate applications.

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