

# Grayway



## PIECING TOGETHER THE ENERGY PUZZLE

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Energy efficiency has become a hot topic for Gray customers across all markets. While our government strives to reduce America's carbon footprint, business and industry increasingly face tougher energy restrictions. "Going green" is respectable and responsible, but it is not always affordable, especially to those businesses fighting for life in today's harsh economic climate.

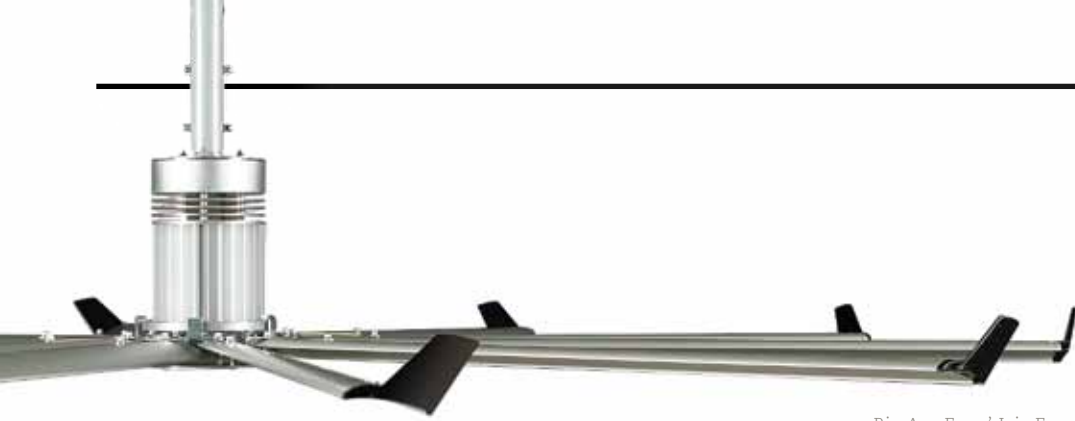
At Gray, we understand these challenges and work to alleviate the burden of meeting restrictions while maintaining a budget. Our team works to ensure long-term gains for our customers, so energy efficiency is more than a requirement, but a benefit ... to our precious earth, and to your bottom line.

A handwritten signature in black ink that reads 'Michael M. Rach'.

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ENERGY EFFICIENCY





Big Ass Fans' Isis Fan

# MAKING "CENTS" OF ENERGY EFFICIENCY

## How Some Companies are Doing It

“Going green” used to be a phrase used primarily by marketing departments to position their respective businesses as good corporate citizens. With increasingly strict energy regulations on the horizon, incorporating energy efficient technologies and systems into buildings is no longer just marketing propaganda, but also a good business decision.

While green technologies and systems are appealing from a public relations standpoint, the expense to purchase and install these items can appear, at first blush, cost-prohibitive. But, more and more, building owners see the value in increasing energy efficiency and have the energy and cost savings to prove it.



Big Ass Fans / Lexington, Ky.

Like Big Ass Fans, headquartered in Lexington, Ky., whose new 45,000 square-foot research and development facility—designed by Gray and built by WS Construction, a Gray company—has saved the company thousands of dollars in energy costs. What’s unique about this company’s approach to energy efficiency is that it used its own products and technologies creatively to reduce energy consumption.



“Essentially, we wanted to use our fans to the maximum extent that we could for the circulation within the building and we did some custom work for ventilation which isn’t a typical application for the fans,” said Paul Lauritzen, senior director of special projects for Big Ass Fans.

Paul Lauritzen

The company’s 40,000 square-foot testing area, where the fans were installed for ventilation and air flow, is not air-conditioned; but remains a comfortable temperature throughout the year, even on the hottest of days.

By using its own fan technology, combined with other energy reduction strategies, Big Ass Fans achieved LEED® Gold certification for its R&D facility. An outstanding achievement, yes, but the effect improved energy efficiency is having on its bottom line is just as impressive. Lauritzen says that, over a two-year period of time, Big Ass Fans has realized a 35 percent energy cost savings.

...Big Ass Fans has realized a 35 percent energy cost savings.



Another Gray customer that has quickly realized cost savings due to improved energy efficiency is Nestlé Waters North America, whose 519,720 square-foot drinking water bottling and distribution facility in Dallas, Texas was completed in January of 2008 and has since realized a 15.6 percent reduction in energy consumption per year. Twenty-five percent of the plant’s power is provided by a renewable energy source.



“We had a commitment from our management to spend additional money to make the building a high-energy efficient or a LEED-certified building,” said Nghia Tran, Nestlé Waters’ senior design manager

of facilities. “Initially, there is a premium for the design and construction of such a building. But over the lifetime of the building, the additional features and costs are paid back in energy savings that we realize for the project.”

The United States Postal Service (USPS) has a very aggressive energy efficiency program that is utilized throughout the organization and is arguably one of the best in the nation. A long-time Gray customer, the USPS has repeatedly exceeded federal energy regulations on its new construction projects and has a proven track-record of reducing energy consumption while saving money.



Jennifer Beiro-Réveillé

“The Postal Service is proud of our energy leadership in pushing the envelope of cost effective sustainable technologies — placing us at the forefront of green initiatives”, said Jennifer Beiro-Réveillé, manager of the Facilities Energy Program for the United States Postal Service.

Since 2007, energy conservation projects have reduced the Postal Service’s energy consumption by an astounding 1.6 trillion BTUs and have saved \$39.4 million in utility costs. “We have a vast portfolio of over 33,000 facilities and the bulk of our capital budget is dedicated, at this point, to repair and alterations projects,” said Beiro-Réveillé. “Our energy audits continue to identify significant opportunities to remove energy-inefficient lighting and HVAC technologies, and install cost effective, sustainable solutions. We have also been ‘cautiously aggressive’ in pursuing solar and wind alternative energy sources that provide cost effective opportunities for reducing the carbon footprint of the Postal Service.”

# ON THE RIGHT TRACK

Kentucky Eagle, Inc.

**Forward-thinking companies who strategically plan for the future of energy efficiency in their plants and facilities have got it right.**

Kentucky Eagle, Inc., a beer distributor for Anheuser-Bush, is one such customer whose LEED-certified distribution center in Lexington, Ky. serves as an example of good sustainable building. While there are no cookie-cutter solutions to energy efficiency, Kentucky Eagle, Inc. incorporated the right mix of green technologies and



Rick Murphy

systems to achieve energy reductions and cost savings for the life of the building.

Skylights provide natural daylight to the offices and lighting controls reduce unnecessary use of light, saving the company lighting costs. A computerized refrigeration system and heat-reducing roofing materials ensure the company's product remains at a constant temperature free of temperature fluctuations.

"We could have saved some money and installed cheaper things or some things that weren't as energy efficient," said Rick Murphy, delivery manager for Kentucky Eagle, Inc. "But looking at it in the long run, we're planning on being in this building for a long time. We've only been here a little over a year and we're already seeing savings on our electric and gas bills."

Kentucky Eagle, Inc. is projecting an 18% savings in energy performance.



Kentucky Eagle, Inc. utilizes skylights throughout its Lexington, Ky. facility.

# GRAY... WE'RE BUILDING

Siemens Energy, Inc. / Charlotte, N.C.

Siemens Energy, Inc., an electronics and electrical engineering leader headquartered in Germany, has selected Gray Construction to design and build its new 60-Hz gas turbine production plant adjacent to its existing steam turbine plant in Charlotte, N.C.

The 450,000 square-foot plant broke ground in October of this year and production is projected to begin in the fall of 2011. The facility is expected to generate some 825 new jobs over the next five years.

"The new plant will be the most advanced gas turbine production site in North America and set new benchmarks in terms of quality, productivity and competitiveness in what is, by far, the world's most important power market," said Wolfgang Dehen, CEO of Siemens Energy. "By producing all 60-Hz gas turbines in the U.S., we'll also reduce the distance products have to be shipped to most customers, thus reducing related CO2 emissions."

Siemens Energy, Inc. / Charlotte, N.C.



# ENERGY EFFICIENCY TODAY

## The Rise of the Energy Code Enforcement in America

**Long before energy efficiency ever became a priority in our country, there were two states embarking on a new approach to energy conservation.**

In 1978, California established its Title 24 energy code, placing energy consumption and emissions restrictions on commercial and industrial buildings located there. Around that same time, Florida had established its own restrictive energy code, leaving industrial consumers searching for cost-effective compliance solutions.

Flash forward to 2010. While California and Florida remain strict energy regulators, the rest of America is catching up with states placing more and more emphasis on code development and enforcement. The ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) 90.1 energy code model has been widely adopted by state and local governments, and code officials are enforcing these standards more than ever. A prime example is Dallas, Texas, a city that has implemented a particularly effective strategy for code enforcement.



Adam Ward

“They really don’t look at energy code compliance in the code review process,” explained Adam Ward, a senior electrical engineer for Gray. “But, they require a third party to evaluate each facility; you provide the data and submit it to the third party, they evaluate whether it’s truly in compliance with the energy codes. If it is not, the local power supplier is not allowed to connect power to the facility.”

Meanwhile, other states are taking great measures to make energy code compliance more attractive and simpler for commercial and industrial consumers.

“State by state, there are certain incentives for improving energy efficiency,” began Ward. “A good example is North Carolina. This state offers a lot of rebates and tax credits for conserving energy. In many of the southern and southwestern states, there are incentives either through the local or state governments, and even utility companies may offer incentives for improvements as well.”

Energy efficiency codes are only expected to get tougher. Right now, bills are being developed on Capitol Hill to ratchet down on maximum energy consumption by business and industry even more.

“Regardless of how the federal government addresses energy efficiency, or the new political scene that comes into place, this is something that’s not going to go away,” said Ward. “It’s not only good to comply with code because it’s the law, it’s also good because we can save our customers money in the long-run.”

**“While California and Florida remain strict energy regulators, the rest of America is catching up.”**



## ENERGY EFFICIENCY TIPS

- Evaluate any potential energy-saving method with a life cycle cost analysis that considers how the facility will operate. An energy-saving method for one facility may not be for another.
- Consider the use of skylights for a “daylighting” effect. While this method of lighting can be effective, remember to weigh in the sun’s heating effect on HVAC systems.
- Consider smaller transformers, and more of them, for the most efficient electrical distribution.
- Maintain electrical systems. Equipment in good condition tends to be more energy efficient.
- Weigh the pros and cons of increasing insulation of the building envelope. More insulation does not always have a big impact on heating a building.
- Control the amount of outside air brought into the building. This saves energy by only cooling the amount of outside air necessary for ventilation.
- Re-evaluate energy efficiency strategies once operations have commenced. Changes may be necessary to optimize the design in a real-world situation.

### To learn more, please visit:

U.S. Department of Energy  
[www.energy.gov/energyefficiency/index.htm](http://www.energy.gov/energyefficiency/index.htm)

Database of State Incentives for Renewables  
and Efficiency  
[www.dsireusa.org](http://www.dsireusa.org)

## GRAY MATTER

### The Brilliance of Energy Efficiency



Sage glass, being installed at the Siemens - US Nacelle Facility in Hutchinson, Kan., is designed for energy efficiency.

**“If you close your eyes, it won’t go away.” Most of us have heard this saying at one point in our lives as we face the challenges life throws our way.**

The same goes for business. In our quest to become a greener planet, businesses have been forced to open their eyes and face the challenges of a more environmentally-conscious marketplace. “Going green” sounds good in theory, but to our customers who are trying to stay afloat in a harsh economy, the costs associated with reducing energy consumption and lowering emissions can be frightening.

But if there’s one thing we know about American business and industry, we know that it’s adaptable and we are seeing more and more customers making energy efficiency work for them. Across all market segments, our customers are incorporating energy efficiency into their strategic plans and capital projects. They are building facilities that not only meet today’s strict energy codes but will be in compliance for years to come. And, they are doing all of this while cutting operating costs. Brilliant? We think so.

At Gray, our designers and engineers have been working and adapting to increasingly strict energy codes for decades and we are proud to say we know a little something about making it work for our customers. We want a greener planet as much as anyone, but we also want our customers to compete and thrive in the ever-changing global marketplace.

Jim Gray  
Chairman and  
Chief Executive Officer

Stephen Gray  
President and  
Chief Operating Officer



Jim Gray and Stephen Gray

# GRAY-I.C.E. BUILDERS OFFERS ENERGY EFFICIENCY SOLUTIONS TO CALIFORNIA CUSTOMERS



Bob Moore  
President  
Gray-I.C.E. Builders

### To say that energy efficiency regulation in California is significant is an understatement.

While our customers strive to be good corporate citizens, the strict regulatory environment in our fair state creates challenges for businesses to remain competitive in the midst of increasingly stringent regulations and energy codes. Staying up to speed on these changes is a daunting, and often expensive, task. Muddying the water even more is the ongoing battle between industry and California's Air Resource Board, whose past actions have created potholes for businesses on the bumpy road to energy efficiency and lower emissions.

That being said, these challenges are not new and having served this market for almost 25 years, Gray-I.C.E. Builders has amassed the experience and knowledge necessary to help our customers not only successfully locate in California, but thrive here as well. Our team looks at customers' short-term goals, like meeting existing regulations, but goes a step further to recommend sustainable and renewable energy design strategies for long-term gains over the life of a facility. The goal is to make energy efficiency work, not only for our environment but for our customers' bottom lines as well.

Beyond typical improvements like upgrading to energy efficient lighting systems, our innovative designers and engineers consider renewable energy options, such as photovoltaic solar power panels for energy production. Renewable energy, at an efficient price and aided by government incentives, is imperative for the future of California. Photovoltaic solar arrays and micro wind turbine generators have lots of potential in helping businesses survive and thrive, while facing the regulatory changes of tomorrow.

## MAINTENANCE TIPS

**The Gray team's goal is for you to enjoy your building long after we've left the job site.** In this issue of the GrayWay, our Service Team Manager Steve Higgins offers maintenance tips to help you avoid costly repairs often associated with fall and winter weather.

- Check and clean your roof drains, gutters and downspouts for leaves and other debris that may have collected during the fall season to prevent blockages in the roof drainage system.
- Cover or provide temporary heat to pipes that could be exposed to freezing temperatures in the coming winter months.
- Perform a general inspection of the HVAC system and, most importantly, change out dirty filters.



Steve Higgins  
Service Team Manager  
Gray Construction

**“These maintenance tips... help you avoid costly repairs often associated with fall and winter weather.”**



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### Is your building 10, 20 or even 30 years old?

If so, there is no doubt changes in energy codes have required changes in your building's energy outputs. Developing ways to maximize a building's energy efficiency is not easy and if those efforts prove ineffective, the result can be disastrous.

That is why Gray is now offering energy audits to customers through our GrayGuard preventative maintenance service. Our GrayGuard Team will analyze your lighting, HVAC and other systems that consume energy, and offer the best and most cost effective solutions for increased efficiency. The goal is to ensure your building not only meets existing codes, but also realizes energy and cost savings over the life of the building. Don't wait—ask for a GrayGuard energy audit today.



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Service Team Manager  
Gray Construction

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