



Indianapolis-based ProLiance Energy partnered with the IMA to become the nation's first Energy Star art museum.

Finding the green in art

With works by Rembrandt, van Gogh, Monet and Picasso dotting the walls of the Indianapolis Museum of Art, the 152-acre facility is among the 10 largest encyclopedic art museums in the country. While boasting works from around the world, the IMA has not only become recognized for its remarkable gardens and precious art but also for its unique status as the nation's first Energy Star certified art museum.

In 2005, the IMA finished a \$74 million expansion project that added 164,000 square feet to the existing 90,000 square-foot museum. The development updated the existing facility and actualized a new mindset among IMA leaders. They realized now was the time to demonstrate the IMA corporate mission of connecting art and nature in a literal way.

The museum decided to show its commitment by becoming energy efficient and achieving Energy Star status. The budget conscious sustainability program coordinated an effort that realized greater results than anyone expected.

The IMA knew that obtaining Energy Star status was not going to be an overnight

task. Energy Star, a joint project between the Environmental Protection Agency and the U.S. Department of Energy, requires entities to continually reduce their carbon footprint, become more energy efficient and develop sustainable efficiency measures through best practice initiatives.

Certification manifests corporate environmental stewardship, and in early 2006, the IMA formally pledged a museum wide effort to achieve Energy Star status. However, museum officials required that the program be cost-effective and profitable.

"Developing an inexpensive but successful sustainability program was our ultimate goal," said Jack Leicht of Edward George & Associates, LLC and Chief Operations Officer of the IMA.

IMA operations staff was charged with developing a program that could adequately reduce carbon emissions and be cost-effective. A difficult initial challenge was managing energy consumption while following stringent humidity and temperature levels that preserve the sensitive art works.

"Our staff was committed to meeting the

stringent temperature and humidity requirements while at the same time, conserving energy to meet the Energy Star goal," said Leicht.

To reduce energy consumption and waste, the museum constructed a multifaceted, engineering-based program that evaluated efficiency in all areas. Operations staff commenced a recycling program, erected bike racks, developed horticulture waste composting for IMA gardens, installed a green roof above the museum garage, encouraged employees to print documents only when necessary and partnered with environmentally conscious vendors. It scrapped obsolete X-ray and chemical technology in the conservation lab for more eco-friendly solutions. By partnering with Indianapolis Power and Light, the IMA purchased Green Power, which is produced from renewable energy sources. Although the extensive efforts netted results, there was something missing.

Throughout the process, the operations team recognized the need for a monitoring system to verify the significant energy efficiencies achieved by the museum.

Despite in-house efforts to manually monitor consumption, the IMA called upon Indianapolis-based ProLiance Energy and its subsidiary for assistance in capturing the results of energy conservation and efficiencies. The Signature Metrenet product proved to be the missing link. Metrenet, an Energy-Star-compliant product, is a Web-based utility data measurement tool. The system tracks electricity, natural gas and water usage, weather patterns, outside humidity, and heating and cooling degree days.

Prior to employing Metrenet, IMA operations staff manually tracked energy usage from utility invoices. Metrenet now allows the IMA to retrieve immediate, real-time feedback on system changes and their associated impact on energy usage. With continuous data, the IMA can strategically change boiler operation settings.



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Maxwell L. Anderson
Director and CEO,
Indianapolis Museum of Art

“We needed a cost-effective tool that would track our energy use in real-time,” explained Leicht. “Being an Energy Star compliant product, Signature Metrenet was an obvious choice for us to professionally monitor our progress and develop strategies for energy conservation.”

The Signature Metrenet product offers a complete CO₂ emissions report that calculates a carbon footprint and monitors progress. Metrenet’s carbon report was the final tool needed to verify the museum’s successful efforts.

John Talley, President of ProLiance Energy, said, “Because of ProLiance’s active community involvement, we are excited to assist one of the region’s finest museums in their sustainability efforts. ProLiance congratulates the IMA in obtaining their Energy Star goal.”

As a result of the Energy Star approval process, the IMA became a member of the U.S. Green Building Council and obtained Gold level membership with the Central Indiana Clean Air Partnership. By early 2008, the museum lowered electrical and natural gas demand by 30 percent and reduced greenhouse CO₂ gas emissions by 3,200 tons.

“By developing preventative maintenance procedures, reviewing operating sequences and experimenting to see what works with our company, we were able to reach our goal; all while we met our very stringent humidity and temperature requirements for fine art conservation,” said Leicht.

In the future, the IMA may partner again with ProLiance to assist in monetizing its conservation efforts through the sale of earned carbon credits on the Chicago Carbon Exchange, North America’s only voluntary carbon trading platform.

Because coordinated efforts improved efficiency in all areas of operation, the IMA achieved results far greater than expected. After achieving Energy Star status, the museum cut energy consumption by nearly one-third and became a model for energy efficiency among its peers.

The IMA has committed to continue its efforts, and in 2009, the museum hopes to earn LEED (Leadership in Energy and

Environmental Design) certification for its new Virginia B. Fairbanks Art & Nature Park from the U.S. Green Building Council. The nature park symbolizes the Energy Star idea of continued energy conservation after certification.



Indianapolis Museum of Art Atrium

“We are proud that our campus has been certified as an Energy Star member since good environmental stewardship is part of the IMA’s mission to integrate art, design and nature,” said Anderson. “We have taken significant steps to reduce our energy consumption ... and we hope that our efforts, however modest, are emblematic of our commitment to sustainable practices.”

The Indianapolis Museum of Art is achieving both energy efficiency and profitability from its sustainability efforts. By instituting energy conservation measures, the museum has realized significant energy cost savings.

For the IMA — in uniting corporate sustainability with appreciation for art and nature — the future looks green.

About ProLiance Energy

Founded in 1996, ProLiance Energy is one of the largest U.S. natural gas marketers with customers in 15 states and offices in Indiana, Illinois and Ohio. ProLiance is jointly owned by affiliates of Vectren Corporation and Citizens Energy Group. For more information regarding ProLiance, Signature Metrenet or the other sustainability products, please visit www.ProLiance.com.