



One If By Land: Erie Ellington Leads the Way in Energy Efficient Lighting

ENERGY STAR®
Residential
Light Fixture
Showcase

by Ian L. Todreas, The Cadmus Group, Inc.



Erie Ellington's buildings were designed to be energy efficient and match the architectural style of neighboring homes.



The city of Boston has always prided itself on being a leader of revolutions. The Codman Square Neighborhood Development Corporation (CSNDC), GreenVillage Company, Sea Gull Lighting, and Westerfield Company are continuing this tradition by developing, designing, and lighting the Erie Ellington Homes Project. The project features some of the most energy-efficient homes in the Commonwealth.

Twenty buildings are being constructed on seven abandoned parcels of land. These buildings will provide 50 affordable rental units and a community center. While many developers have built new and remodeled existing housing for low-income families, CSNDC is among the first builders in the nation to construct super energy-efficient homes for this market. The energy conservation measures employed at Erie Ellington are expected to reduce overall energy use by 45 percent and cut annual operating expenses for water, electricity, and heat by 40 percent.

ENERGY STAR Features Save Energy

With their many environmentally friendly features, Erie Ellington's buildings have been awarded the ENERGY STAR® label. Siding is made from engineered, cementitious and cellulose materials—a new technology of cement and wood fiber that outlasts wood and requires far less maintenance. Because each unit has ENERGY STAR labeled thermostats and well-insulated walls, each building's heating needs is met by a single boiler. All pipes and ducts are enclosed in heated spaces, so heat isn't lost before it reaches the rooms.

The units at Erie Ellington are bright and cheery. "We worked hard to get this effect,

while keeping maintenance and energy costs low," said architect Bruce Hampton. He selected ENERGY STAR residential ceiling fixtures, manufactured by Westerfield and Sea Gull Lighting, to light the interiors of each home. Each fixture contains two 13-watt compact fluorescent light bulbs, which emit as much light as a 100-watt incandescent light bulb but use only one-quarter of the electricity.

"Sea Gull has been a strong supporter of ENERGY STAR since it started," says Anthony Ferri, Sea Gull's District Sales Manager. "We have always believed that attractive lighting that is also energy efficient is the way of the future. But as this project shows, the future is definitely here already."

ENERGY STAR Fixtures Cut Costs

The developer has installed 1,000 ENERGY STAR labeled fixtures. According to the United States Environmental Protection Agency (EPA), the ENERGY STAR labeled fixtures will cost about \$28,000 to



What are ENERGY STAR residential light fixtures?

ENERGY STAR residential light fixtures come with pin-based compact fluorescents and a 2-year manufacturer's warranty. They use 50–70 percent less energy than incandescent or halogen lamps but provide the same amount of light. Available in a wide variety of shapes, colors, and sizes, ENERGY STAR residential light fixtures are made by more than 50 of the top light fixture manufacturers in the country.

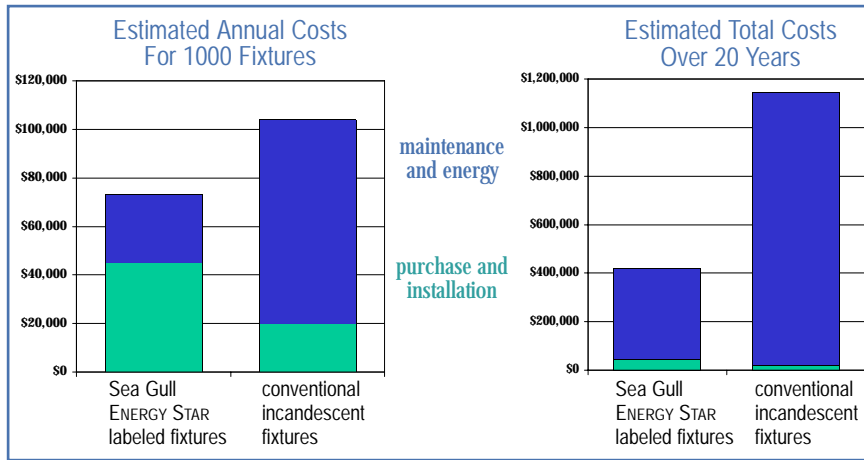


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Anthony Ferri, District Sales
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operate, \$56,000 less than if conventional fixtures with 60-watt incandescent bulbs had been installed. Although the ENERGY STAR fixtures cost about \$25,000 more up front, over their 20-year life span, CSNDC and its residents will save \$727,000 in lower electricity bills.

The environmental benefits of ENERGY STAR labeled fixtures are also significant. By using less electricity than conventional lighting, they will keep as much carbon emissions out of the atmosphere as 1,414 cars generate every year.



The building frames were assembled off-site in a warehouse, where unused construction materials were recycled, and weather did not affect the construction schedule. As a result, waste and delays were minimal.

Because these fixtures are so energy-efficient, Hampton could place more overhead fixtures in each unit and still save the residents money on their electric bills. "People will be astounded when they realize how long these light bulbs last before burning out," said Hampton. Residents can buy new bulbs at the property management office or a local hardware store.

Hampton also made generous use of day lighting in each unit. He specified ENERGY

STAR labeled windows, which keep heat in during the winter and cool air in during the summer. Because they are so efficient, the windows can be larger to let in more light without

increasing energy costs. As a result, the windows at Erie Ellington are nearly as large as those in neighboring Victorian houses, which made greater use of natural lighting than homes that were built later.

Project Completed Within Budget

With all of these state-of-the-art energy-efficient technologies, industry analysts might think that the buildings were more expensive to build. Not so. The project was competitively bid, and costs will be within the budget of standard low- and moderate-income housing. Additionally, all of the lighting fixtures, building materials, and appliances used are readily available, off-the-shelf technologies. "We wanted to prove that affordable housing can be designed with quality and durability, and that costs will be within the budget of standard low- and moderate-income housing development projects," said Mark Kelley, Energy and Environment Engineer for GreenVillage.

For More Information

If you would like to know more about ENERGY STAR residential light fixtures, call the toll-free hotline at 1-888-STAR-YES (1-888-782-7937); visit www.energystar.gov; or contact: Peter Banwell
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