

2007 USEPA Energy Star Award for Excellence in Affordable Housing

Overview: The New Jersey Department of Community Affairs (DCA), Green Homes Office (GHO) is a leader in creating energy-efficient affordable housing using Energy Star programs and policies. The Green Homes Office requires Energy Star qualification for all state financed affordable housing, including the federal Low-Income Housing Tax Credit program. The Green Homes Office, through its *New Jersey Affordable Green* program, is responsible for 3,364 of the 10,000 Energy Star qualified affordable housing units built in New Jersey since 2000. The Green Homes Office offers educational programs for design professionals, contractors, and homeowners. The office serves as an advocate for using Energy Star in a variety of rule making and market applications in New Jersey and other states. The Green Homes Office has worked collaboratively with other state agencies (BPU, DEP, and HMFA) and the NJ Energy Star implementers to ensure Energy Star programmatic and technical continuity. The Green Homes Office is the “go to” organization within NJ State Government for Energy Star information, policy development, and technical expertise. Energy Star benefits the Green Homes Office in many ways; Energy Star is a platform for achieving its green affordable housing goals, and Energy Star provides a set of cohesive guidelines and clear expectations for project design and construction teams. The New Jersey Green Homes created and administers the aforementioned *New Jersey Affordable Green* program, the only statewide affordable green program in the country, which offers unlimited technical assistance, training and financial benefits in the form of grants and very low interest loans. The New Jersey Green Homes office is creating energy-efficient housing, which is asset to the community and the environment.

The year 2006 was one of positive transition for the New Jersey Green Homes Office. After significant reflection, the office took a bold move from voluntary guidelines (what is currently known as the *New Jersey Affordable Green Program*) to green building requirements and introduced a new program, *New Jersey Affordable Green “Premium,”* to build advanced high-performance buildings. In September, the Department published new rules that require all low to moderate income affordable housing to integrate green / energy efficient systems and technologies. These rules will affect the majority of affordable housing funding sources in the state: the DCA Balanced Housing (BH) program, BH Special Need project funding, HUD HOME funding and the Home Express program, which finances Low Income Housing Tax Credits with Balanced Housing funds. The state will continue to offer one point for participating in the green Low Income Housing Tax Credits program developed by the Green Homes Office. Energy Star certification remains the baseline for energy efficiency in all projects; however, we have added additional requirements that only Energy Star appliances can be used. Moreover, in each occupied room, a Energy Star rated hardwired pin-based compact fluorescent lighting fixture must be installed. For closets and utility rooms, screw-in CFLs are permitted. The current voluntary *New Jersey Affordable Green Program* (NJAG), which offers \$7500 per unit for green, will no longer be offered beginning the spring of 2007. The costs for the new requirements will be covered by an increased per unit subsidy. During the 2006 Governors Conference on Affordable Housing (September), the new rules were introduced, as well as the new “Premium” program. With the new energy and green requirements, the office can focus more significantly on developing exceedingly high performance Energy Star certified buildings. Premium projects will be accepted on a proposals basis and have a six million dollar project cap of state funds, which represents an increase of two million from the original NJAG program. Premium projects will be required to exceed Energy Star certification by 5 to 10 points below the 85 point HERS scale threshold based on the construction type. We anticipate the program to progress 5 – 10 points further down the scale in each subsequent year of the program. We are working with the NJ Board of Public Utilities to offer additional incentives to reward projects below the HERS 85 point maximum. Additionally, each project will also be required to participate in the USEPA New Homes with ENERGY STAR Indoor Air Package. The Green Homes Office announced that we will sponsor a NJ pilot of the program and EPA representative Eric Werling presented on IAQ issues and the program criteria at the 2006 Governors Conference on Affordable Housing. A high-performance building envelop is required (R12 continuous exterior insulation for steel frame walls). Ductwork must be installed in conditioned space and the project team can choose a “signature feature,” which is a technology new to NJ, or other environmental components, such as Building Integrated Photovoltaic’s or capturing rain water for toilet flushing. We currently have four “Premium” proposals and expect the program to flourish in the 2007. Reducing utility and health-related costs for the citizens of NJ least able to afford such expense continues to be our driving goal, coupled with sound building science. We look forward to developing national models of high performance building with Energy Star tools and products as our starting point.

This past year the Green Homes Office had the opportunity to make recommendations regarding public policy for energy efficiency and green building. A number of our recommendations were incorporated within a set of eleven bills introduced as potential legislation. The recommendations included requiring buildings to meet minimum energy efficiency standards (Energy Star / Home Performance with Energy Star) in order to receive state financing for renewables, adopting LEED silver standards for state buildings, requiring promulgation of a green building sub code under the State Uniform Construction Code, and, perhaps the most interesting, Senate Bill No. 2167 "...requiring an energy rating for each home inspected for a buyer in contemplation of purchase. The energy rating code shall incorporate aspects of the New Jersey Energy Star Program [Home Performance with Energy Star]". Our initial proposal was to require all homes to have an energy rating in order to be sold; we will continue to pursue this end in the future. Currently, we are working with the Division of Codes and Standards and NJ Energy Star implementers to determine who will actually perform the rating, and to which standard. The Green Homes Office is providing technical support to assure Residential Energy Services Network (RESNET) rating protocols and RESNET or Building Performance Institute raters will be adopted as part of the legislation. A final component to this piece is the development of an easily identifiable label, similar to the yellow Energy Star label on appliances, for NJ homes. We are currently drafting a proposal to this end and anticipate coordinating with USEPA and RESNET.

The Green Homes Office signed on 1,010 units to the Energy Star program in 2006 bringing our program total to 3364 units and the states over 10000. We continued to strive for excellence in affordable housing, as demonstrated by our commitment to have all units Energy Star certified. This commitment posed some unique challenges this past year in historic multi-family buildings. The prohibition to puncture the building envelope due to landmark regulations, disproportionate window glazing ratios, master metering, and wood frame non-reflective windows were a few of the impediments to certifying historic buildings. These hurdles tested our promise of unlimited technical assistance and forced us examine our policies in regard to exempting these building from our requirement. It was suggested that we write into our rules blanket clauses exempting master metered and historic buildings. However, we rejected these suggestions and intend to handle each project on a case by case basis and to continue requiring such buildings build towards certification. We'll continue to work in collaboration with the NJ Energy Star implementers, RESNET and USEPA to recommend creative solutions to Energy Star qualification. This year, we were also faced with how to treat projects that failed to gain Energy Star certification. We've come to some parameters, such as a per unit penalty (\$2500 per unit) or a penalty based on doubling the potential rebate amount and finally to penalizing based on projected energy savings. One project this year was given such penalties the penalty amount will be used to build affordable units.

Education has always been the backbone of our operations and was especially prominent this year in communicating to builders the Energy Star program changes, particularly the thermal by pass check. This was primarily done on a one-to-one basis in the context of project planning meetings. We are preparing to host a workshop in February to delve into the details of the program changes. Our office will also be providing NJ Energy Star Builder Guidelines and related support documents directly to the builder to ensure compliance and to assist in reinforcing the efforts of the state Energy Star implementers. Darren Port, the Green Homes Office director, spoke at many state and national conferences regarding green building and the relationship between Energy Star and affordable housing. The most recent presentation was the USEPA STATE CLEAN ENERGY - ENVIRONMENT TECHNICAL FORUM Call #19: Opportunities for Energy Efficiency in Low-Income Housing - December 14, 2006. Darren continues to serve as an appointed member of the NJ Board of Public Utilities Clean Energy Council; co-chair of the councils Energy Efficiency committee. On the Northeast Home Energy Raters Alliance, he is currently seeking reelection to the board in 2007. This year he was asked to serve on the Expert Advisory Board for the *Energy Sustainability Project* of the NJ Sustainable State Institute. The Green Homes Office was grateful to be asked to assist Global Green USA in updating their Greening Affordable Housing Manual, as well as contributing a case study to the publication. Global Green USA is the foremost advocacy and education organization for green and energy efficient affordable housing. In anticipation of our 25 unit affordable housing Zero Energy Pilot program launch (April 26, 2007) the Green Homes Office devoted substantial time this year educating housing staff for the cities of Camden, Newark and Trenton on energy efficiency, Energy Star, carbon neutral, and passive house design and construction, the cities are all enthusiastically bidding for the opportunity to host the pilot.

We conclude 2006 with optimism that we continued to fulfill our mission for sustained excellence in the promotion and integration of Energy Star programs and products into our policies and affordable housing financing. We remain committed to market transformation through Energy Star and look forward to continued collaboration to improve the economy and environment for all citizens of the State of New Jersey and mid-Atlantic region. Thank you for your consideration of our application.