



## ***Frederick County, Maryland Encourages Community Energy Efficiency through Residential Challenge***

### **Project Statistics**

County: Frederick County, MD

Project Scope: “Green Home” Challenge; Green Building Program

Project Cost: \$840,000 (\$24,000 EECBG funding, \$816,000 from donations and federal grants)

Completion Time: 4.5 years, October 2010-February 2014

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### **Overview**

Frederick County is engaging residents in a 3-part Green Homes Challenge, where residents can earn “certifications” for completed activities. The certification program reduces and tracks residential energy consumption and greenhouse gas emissions and provides an array of incentive and rebate programs to increase the number of energy efficient devices, retrofit projects, and renewable energy systems installed in the residential sector.

### **Details**

There are 3 separate certification programs, which will be launched at separate times, beginning with the Power Saver program:

#### Power Saver Certification:

#### Stop Losing Money, Start Saving Energy

Power Saver, which focuses on community education and engagement, home energy audits, and energy saving action and retrofits, is the first certification program to be launched.

To promote Power Saver, the county is working with community groups to co-host monthly PowerWare parties. The intent of the PowerWare Parties is to engage people in becoming “power-aware,” or more informed about and attentive to both power consumption and strategies for reduction. Participants will participate in quizzes, games, and discussions about energy and pledge to take one energy saving action or register for the Green Homes Challenge. Modeled after Tupperware parties, participants

### **County Benefits**

This project will result in:

- Over 15,024,504 lbs/CO2 total energy consumption
- Over 800 households engaged in energy reductions
- Renewable energy systems installed in 60 homes
- Increased knowledge of energy conservation and renewable energy among residents
- Green job training for 45 youth volunteers
- Work experiences to low-income residents receiving cash assistance
- 1 full-time and 1 part-time county staff positions

are encouraged to host their own parties after attending. Participants who wish to take an additional leadership role will be trained to share further resources and organize within their communities.

Frederick County has partnered with Allegheny Power's Watt Watchers program to provide home energy audits and preliminary energy and water saving devices (CFLs, low-flow showerheads, faucet aerators, etc.) to interested residents. Homeowners will be guided through a free comprehensive energy audit (a \$140 value), which includes blower door test and thermal imagine. Of the 175 total homeowners receiving this audit, 85 will be part of a first-time home-buyer program through Frederick County's Housing and Community Development Office. The certification program will be a requirement of the county's Homebuyer Assistance Program, since participants typically purchase older homes that require insulation and sealing. Homeowners will commit to 1 significant action or retrofit project within 12 months of the audit. Small grants will be available for retrofits.

#### Greening Your Lifestyle: Green Your Lifestyle, Enhance Your Health!

Residents will learn about the practices within a home that can reduce emissions, such as home, landscape, air quality, and water consumption changes.

#### Renewing Your Power: Renew Your Energy, Clean the Air!

Residents will learn about renewable energy, the installation of renewable energy systems, incentives for system installation, and the purchase of renewable energy credits (RECs). The goal is to have at least 60 households to purchase at least 50 percent of their energy from renewable sources or install on-site renewable energy systems.

Residents will earn points for each component of the certification requirements. (However, the educational, incentive, and cooperative purchasing components of the challenge are available to all, regardless of whether or not residents choose to register, or complete, the certifications.) A local ceremony will honor participants.

## **Promoting Residential Energy Efficiency**

Taking a community-wide approach to energy-efficiency offers the potential to double or even triple an entire communities' overall energy savings. Community-wide energy efficiency goals bring tangible financial, social, and environmental benefits to residents, businesses, academic institutions, transport services, developers and builders, banks, investors, energy suppliers, and even individual municipalities within counties.

Because community energy management is such a bold undertaking, it involves engagement of entire communities. If community-wide energy efficiency is going to work, counties need to engage as many community stakeholders in the process as possible. These stakeholders can provide leadership, serve as early adopters of new strategies, and promote efforts with their peers. Some common stakeholders include:

- Local Municipalities
- Local Residents
- Small businesses
- Industrial Manufacturers
- Civic Leaders
- Congregations
- Healthcare Communities
- Higher Education Communities
- Elementary and Secondary Schools

## **Additional Activities**

- County Energy Efficiency Retrofits
- Green Building Program

## **Financial Benefits**

Frederick County's Green Home Challenge will provide job skills training for youth volunteers and work experience for low-income residents.

Frederick County and non-profit group Volunteer Frederick, Inc.'s Summer Serve youth volunteer program will engage 45 youth volunteers to implement home energy audits and retrofit projects at 20 homes throughout summer 2011. The volunteers will target group homes and transitional housing for people with developmental and mental health disabilities, and at-risk families.

Frederick County will partner with the Department of Social Services' (DSS) Reaching Independence and Stability through Employment (RISE) program to engage people receiving temporary cash assistance in 30-hour work week experiences doing follow-up and handyman services. Work experiences, which are subsidized through the federal Temporary Assistance to Needy Families (TANF) program, may lead to paid internships and eventual employment. RISE participants will be utilized as "Green Action Trackers" and perform follow-up calls, provide support, tracking, and evaluation services, and perform handyman services for simple, low-end actions that could be challenging to the elderly, infirm, or technically-challenged, including swapping light-bulbs in hard-to-reach areas, hanging clotheslines and drying racks, and installing showerheads and weather-stripping.

## **Environmental Benefits**

By certifying 800 households at the Power Saver level, a minimum of 2,416,000 lbs/CO<sub>2</sub>/year will be avoided.

Certifying 600 households at the Green Living Leader level will result in a minimum reduction of 2,118,000 lbs/CO<sub>2</sub>/year.

Through new local grant incentives and a Solarize Frederick County cooperative purchasing initiative, a minimum of 60 households will install renewable energy systems and become certified at the Sustainable Star level. Through these renewable energy systems, 474,168 lbs/CO<sub>2</sub>/year will be avoided.

Residents will become more aware and more knowledgeable about their energy consumption.

## **On-going Measurement and Verification**

Data on energy and greenhouse gas reductions, including the number and type of energy saving actions undertaken, will be based on household utility bills and tracked through the county's EarthAid website.

EarthAid allows residents to:

- Plot household energy use and carbon emissions by month and billing period;
- Compare energy use to the previous year (or another baselines) and receive award points for reductions;
- Link to information on energy-saving actions, incentive and rebate program, and products;
- Access coupons for local and national business that can be redeemed with energy reduction points; and
- Participate in social networking features.

## **Lessons Learned**

Frederick County was able to perform such comprehensive outreach, because the county leveraged their EECBG funds with federal and state grants, as well as local partnerships.

## **Links**

<http://Sustainablefrederickcounty.org>  
[www.earthaid.net](http://www.earthaid.net)

EPA Green Power Partnership webinars were helpful in framing the Green Homes Challenge. Visit <http://www.epa.gov/greenpower/events/index.htm> for more information.