

2006 INNOVATIONS AWARDS PROGRAM

APPLICATION

Deadline: March 4, 2006

INSTRUCTIONS: Complete and submit this document electronically if possible, preferably in Microsoft Word format (.doc or rtf). This application is also available at www.csg.org, in the Programs section. Determine the appropriate "Change Driver" from the enclosed matrix and indicate that in the appropriate space listed below. Keep in mind that the matrix is only meant to show potential relationships between change drivers, trends and issues, and is not exhaustive. **Be advised that CSG reserves the right to use or publish in other CSG products and services the information that you provide in this Innovations Awards Program Application. If you object to CSG potentially using or publishing the information contained in this application in other CSG products and services, please advise us in a separate attachment to your program's application.**

ID #: 06-E-10NY

Change Driver: Economic Transformation

State: New York

1. Program Name: Home Performance with ENERGY STAR®
2. Administering Agency: New York State Energy Research and Development Authority (NYSERDA)
3. Contact Person: Colleen Ryan, Assistant Director of Communications
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8. Web site Address: www.nyserda.org / www.GetEnergySmart.org
9. Please provide a two-sentence description of the program:
The Home Performance with ENERGY STAR Program is market-based and aims to build upon the capabilities of local private contractors and builders by expanding their knowledge base to deliver public benefits as a coincidental attribute of consumer demand. NYSERDA's aggressive marketing of the Program through print, radio, and TV advertising builds consumer demand and adds validity to the Program, while encouraging contractors and builders to participate.
10. How long has this program been operational (month and year)?

The Program was strategically rolled out, through a market by market approach, across the major population centers of upstate New York throughout the second quarter of 2001.

11. Why was the program created? What problem[s] or issue[s] was it designed to address?

New York's Home Performance with ENERGY STAR Program developed under the **New York Energy \$martSM** program, was designed to transform New York's residential contracting marketplace. Previously, the residential contracting market was dominated by businesses that specialized in one area of the home and operated without regard for the rest of the building, and what problems their work might be causing. NYSERDA realized this problem, saw a major opportunity to help the residents of New York, and designed a process to address it. Through a comprehensive "whole-house" training curriculum, required contractor certification and accreditation by the Building Performance Institute (BPI), utilization of a comprehensive consumer and contractor awareness/education campaign and incentives aimed at overcoming barriers to mid-stream market participants, NYSERDA feels it has a powerful approach to market and economic transformation.

The underlying principles of this innovative and performance-based initiative are:

- Facilitate the growth of the newly formed building performance industry and support an infrastructure in New York State.
- Increase the home energy efficiency, health, safety and comfort of the 1-4 family existing housing stock in New York State.
- Increase and bolster the knowledge base and expertise of the home performance contractors, while promoting and implementing the "house-as-a-system" philosophy.
- Maintain the high technical standards, guidelines and integrity of the Home Performance with ENERGY STAR initiative.
- Increase adoption and application of the technical "best practices" for home improvement to all parties that influence consumer decision regarding the improvements of homes in New York State.
- Incorporate a proven marketing template that increases consumer awareness and demand and encourages contractor participation.

Additionally, this initiative is designed to give New Yorkers a "one stop shopping" experience when implementing energy efficiency improvements in their homes. The same contractor, who completes a homeowner's energy assessment also schedules and completes the work. The Comprehensive Home Assessment (CHA) is designed to promote cooperation between trades, and ultimately deliver a comprehensive work plan, further integrating the "house-as-a-system" philosophy. Historically, HVAC and insulation contractors have not coordinated their efforts to offer greater value to

homeowners. This initiative rewards contractors who partner outside of their trade to deliver optimum energy efficiency value to homeowners.

The Home Performance with ENERGY STAR program and its purpose relate well with the change driver, Economic Transformation. As stated in *Trends in America, Charting the course ahead*, “Technological changes have given rise to new industries....the United States is shifting to a service-based economy focused on ideas and knowledge. One that involves different skill sets.....” This is true for residential contractors in New York State. New York Home Performance with ENERGY STAR is an innovative program, preparing contractors to deliver the next generation of energy efficiency services to existing 1-4 family homes, employing a ‘house-as-a-system’ philosophy. The Program was one-of-a-kind in the country for many reasons; however, the ‘performance testing’ of homes is what really sets it apart. Part of the next generation of energy efficiency that occurs in the Program is the use of state of the art diagnostic tools, such as: blower doors, infrared cameras, duct blasters, etc. to fully analyze the home. Previous to the Home Performance with ENERGY STAR program, no one did this. However, as soon as contractors realized how effective the equipment is, and customers realized the level of scientific precision and expertise involved, it quickly became apparent the old way of doing things was obsolete.

One of the prerequisites to participation in the program is company accreditation by the Building Performance Institute (BPI). BPI is an organization dedicated to promoting excellence in building contracting using a trade-based certification process. BPI sets the standards and administers certification of technicians and accreditation of companies. BPI also requires professionalism and business validity such as insurance and a clearly defined customer resolution process to be present before certification or accreditation. By incorporating the third party certification and accreditation requirement to its Program, NYSERDA further solidified the expertise, quality, and validity to Participating Contractors and the Program as a whole. Builders, remodelers, inspectors, insulation contractors, and HVAC contractors are only a few of the trades that can benefit from building performance certification and accreditation. This certification helps home contractors generate more business, improve service to current customers, and includes them in a select group of contractors.

Indicate how the program applies to the “change driver” that you listed above.

12. Describe the specific activities and operations of the program in chronological order.

The Home Performance with ENERGY STAR Program is organized in the following manner:

- A customer learns of the Program and the financial and environmental benefits of participating in it through NYSERDA’s sophisticated consumer marketing, education and awareness campaign.
- Customer accesses our website or call center to obtain information, brochures, and educational materials or to locate a Participating Contractor in their area.

- Customer and Contractor arrange a meeting time to perform the Comprehensive Home Assessment (CHA).
- Contractor performs the CHA, ‘tests-in’ to make sure that there are no currently existing health hazards such as dangerous CO levels, asbestos, mold problems or other issues, and inputs the diagnostic equipment findings into an approved software tool.
- Contractor provides assessment findings and suggested work scope to customer.
- Contractor and Customer agree on work to be completed and which financial incentive option to utilize.
- Work is completed.
- Contractor ‘tests out’ making sure all combustion appliances are working and venting correctly and the work completed did not result in any unforeseen building science problems.
- The job is sent to our Program Implementer and inputted into the overarching database for incentive processing, evaluation and quality assurance purposes.

13. Why is the program a new and creative approach or method?

The Home Performance with ENERGY STAR Program is both new and creative in the way that it strives to achieve market and economic transformation. In other states, and in other programs, energy efficiency improvements are driven by end-user incentives (rebates). NYSERDA believes that in order to achieve last changes in the market place, this method is not effective. NYSERDA is proving, through its Home Performance with ENERGY STAR Program, that the most effective way to achieve economic transformation is through creative marketing and mid-stream incentives. The Program model that NYSERDA implements is designed to bolster demand for Home Performance work by educating of the customer, while at the same time escalating and maintaining the knowledge and expertise of Participating Contractors. NYSERDA firmly believes, and is proving, that the best way to produce lasting effects in the free market is to have a powerful “push” and “pull” on both sides of the market. Through our evaluation activities, NYSERDA is finding that market effects are not only occurring within our Program, but there is also significant spill-over into the traditional residential contracting market.

14. What were the program’s start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)

Due to the nature of the Program, and its goals of market and economic transformation, there were significant launching costs. The purchase and development of marketing materials, contractor education sessions and materials and administrative infrastructure contributed to the majority of those costs. However, as the Program has evolved and matured the benefit to cost ratios have consistently improved, and for the last few years have produced positive results.

15. What are the program’s annual operational costs?

In calendar year 2005 the Home Performance with ENERGY STAR Program ran on a budget of approximately \$7 million.

16. How is the program funded?

All **New York Energy \$martSM** programs are funded by a System Benefit Charge (SBC) paid by electric distribution customers of Central Hudson, Con Edison, NYSEG, Niagara Mohawk, Orange and Rockland, and Rochester Gas and Electric. NYSERDA, a public benefit corporation established by law in 1975, administers SBC funds and programs under an agreement with the NYS Public Service Commission.

17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.

NYSERDA is a public benefit corporation created in 1975 by the New York Legislature. However, the Home Performance with ENERGY STAR Program did not require any special legislation to begin.

18. What equipment, technology and software are used to operate and administer this program?

The Home Performance with ENERGY STAR Program is very large and comprehensive. From the unique training that is required to achieve certification, to the large databases needed to monitor progress and ensure incentives are paid, to the software utilized to estimate savings and verify success of the energy efficient upgrades, the whole process incorporates a large amount of specialized equipment, technology and software.

The specialized equipment used by contractors to make effective upgrades on the house and to complete the CHA include: carbon monoxide detectors, blower doors, duct blasters, specialized flue gas thermometers, digital manometers, smoke sticks, thermal and infrared cameras and other specialized diagnostic equipment.

Some of the unique technology that is utilized in the Program include many of the specialized equipment products mentioned above, as well as, specialized databases to monitor and evaluate the Program as it operates.

The Home Performance with ENERGY STAR Program uses very specialized software to model customers' homes and to calculate the cost effectiveness of the upgrades suggested. This software is called the Targeted Residential Energy Analysis Tool or TREAT, which recently won the prestigious 2005 R&D 100 award.

19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address, telephone number and e-mail address.

The Home Performance with ENERGY STAR Program did, in fact, originate in New York State. It was the result of innovative thinking on the part of Rick Gerardi and

Andrew Fisk. Both are still employed at NYSERDA and can be reached by calling 518-862-1090. Their email addresses are as follows: reg@nyserda.org and ajf@nyserda.org.

20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?

NYSERDA was the first state to approach the EPA to request the use of the ENERGY STAR label for use in this Program. In 1992 the US Environmental Protection Agency (EPA) introduced ENERGY STAR as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Computers and monitors were the first labeled products. Through 1995, EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In late 1999 and into 2000 NYSERDA proposed the idea and worked with the EPA to use label for residential contracting and new home construction.

The Home Performance with ENERGY STAR Program is currently exists, at varying levels, in the following states: Georgia, Texas, Colorado, New Jersey, Idaho, Wisconsin, Missouri, Minnesota, Massachusetts, Kansas, and California. Each of the programs operates on the same basic premise; however, New York's program is the largest and most mature.

21. Has the program been fully implemented? If NO, what actions remain to be taken?

The Program has been fully implemented and operating in upstate NY since 2002, and will expand into the New York City/ Metro region in 2006. However, as with any large market-based public benefit program, it is in a constant state of change and upgrading. We are currently in the process of experimenting with ways to increase the comprehensiveness of the work completed on the homes, stressing the 'house as a system' philosophy. NYSERDA is also in the process of upgrading its database of completions and measures installed, and bolstering its quality assurance processes. The ongoing process of consumer education and marketing is also at the forefront of the Home Performance with ENERGY STAR Program activities.

22. Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

NYSERDA's Home Performance with ENERGY STAR Program has found great success in addressing and fixing the problems identified in question 11. Tangible figures related to this include: 139 accredited BPI Firms, over 10,000 homes upgraded through the Program and over \$6 million a year in energy savings state wide.

Homeowners have also really bought into the Program. Homeowners have invested over \$75 million since inception. In 2006, the Program anticipates \$35 - \$40 million in consumer investment.

23. How has the program grown and/or changed since its inception?

The Program has changed quite dramatically since it began. For a market-based and economic transformation program, such as the Home Performance with ENERGY STAR Program, to succeed, it must be flexible. The free market and its various actors are constantly changing and evolving. As the Home Performance with ENERGY STAR has grown and evolved, a lot of thought was put into capitalizing on opportunities. Built into the Program are well defined and successful feedback loops from both the Participating Contractors, and the customers. The feedback has proven to be invaluable in sensing changes and evolving the Program to ensure its overall success. Some of the largest changes have come in the areas of contractor training delivery, incentive processing and tracking, the quality control process, and the overall requirements of the Program. NYSERDA is also constantly in the process of making small, strategic changes to the Program that facilitate the demand for its services from all parts of the state, not just the population centers.

24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

As with any market transformation program, there is initial resistance to change. The residential contracting industry is composed of varying and unique individuals with varying, trade specific, business models. To achieve the level of success that NYSERDA has obtained, it took a lot of effort and training to convince contractors that this was a viable, profitable and beneficial business model. Customers were less apprehensive regarding the change to a 'house as a system' model and the whole house building science idea. Once customers were educated and made aware of the expertise of Participating Contractors and the numerous common problems found in homes just like theirs, the demand has been on a constant increase. Some of the largest obstacles encountered by NYSERDA included bringing together the diverse members of the residential contracting industry and getting them all to agree on the Home Performance with ENERGY STAR model.

Add space as appropriate to this form.

Return a completed application electronically to innovations@csg.org or mail the paper copy to:

CSG Innovations Awards 2006
The Council of State Governments
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Lexington, KY 40578-1910

Deadline: All original applications must be received by March 4, 2006 to be considered for a 2006 Innovations Award.