

Evaluation Prompts ENERGY STAR Program to Replace Web Tool, Saving 90 Percent of Annual Costs

- Home Energy Advisor is an online tool that recommends energy saving purchases to homeowners
- EPA program was paying \$100,000 each year to maintain the tool on the ENERGY STAR Web site
- A 2004 evaluation found that most users didn't use all of the web tool's sophisticated features
- Program managers determined the web tool was not cost-effective based on evaluation findings
- Home Energy Advisor was replaced with a simpler tool, saving the program \$90,000 per year

A program within the U.S. Environmental Protection Agency (EPA) is saving \$90,000 per year on its online energy audit tool after an evaluation prompted managers to scale back its features. The Home Energy Advisor collects information from homeowners and makes recommendations for energy saving products and renovations for the entire home. These recommendations can be as simple as installing compact fluorescent light bulbs or as expensive as replacing a furnace or air conditioning unit.

Home Energy Advisor had cost the ENERGY STAR Residential Program \$100,000 a year to maintain. After a 2004 evaluation found that most users were not taking advantage of all its features and implementing its recommendations, program managers decided to drop the web tool, eventually replacing it with a simpler version that cost only \$10,000 a year to maintain.

Program evaluation identifies how consumers use web tool recommendations

Home Energy Advisor had been featured on the ENERGY STAR Web site since 1999. By 2004, program managers were concerned about the cost of maintaining the Web site and whether the tool was duplicating the work of other sites. The Department of Energy (DOE) offered a similar tool, Home Energy Saver, which also collected detailed information from homeowners and offered recommendations for energy savings. This tool was originally thought to be temporary, but it ended up receiving enough funding to make it a permanent fixture on the DOE's Web site. Because of this, the ENERGY STAR Residential Program wanted to know whether its own web tool was still a worthwhile investment.

In 2004, the EPA contracted with the Alliance to Save Energy (ASE) to conduct an evaluation of online energy audit tools. ASE is one of a handful of private or non-profit organizations that also offer an online energy audit tool, and so it had a similar interest in learning how homeowners used its web tool (Figure 1). ASE conducted a study involving eight focus groups of potential web tool users. The overall goal was to identify ways to increase users' motivation to implement energy saving recommendations. During the course of the focus groups, Home Energy Advisor was presented to participants to get their opinions on how they would use it.

Figure 1. Examples of Online Energy Audit Tools

Environmental Protection Agency: *Home Energy Advisor*
(http://www.energystar.gov/index.cfm?fuseaction=home_energy_advisor.showGetInput)

Department of Energy: *Home Energy Saver*
(<http://hes.lbl.gov/>)

Alliance to Save Energy: *Home Energy Checkup*
(http://ase.org/section/_audience/consumers/homecheckup/)

ENERGYguide
(<http://www.energyguide.com>)

The study found that most users saw the web tool as an important early step—but not the final step—in a

homeowner's decision to purchase energy saving products. Many focus group participants said they would use the tool to get an idea of what *could* be done, but they would seek other opinions before making a final purchase (Table 1). This led evaluators to recommend that online energy audit tools offer "options to explore" rather than detailed product recommendations.

Table 1. Focus Group Findings and Comments on Value of Web Tool

Theme	Focus Group Comments
Web tools can serve as a valuable <u>starting point</u> to identify how best to save energy.	<ul style="list-style-type: none"> • "I've been in my house for 20 years and my stuff is old. I'd look [at a web tool] to compare if it is worthwhile to do something." • "It makes you think." • It's a good reminder of "common sense" things to do.
Web tools can be a valuable resource when looking to improve home energy efficiency.	<ul style="list-style-type: none"> • I'd want "tips—reminders of good things to do." • "I'd like recommendations for types of appliances to buy." • "I'd like advice on what to do and what not to do; like when do you need a contractor." • "I would have liked to use [a web tool] before I started my project."
Users will investigate other information resources before proceeding with the web tool recommendations.	<ul style="list-style-type: none"> • "I would get second and third opinions." • "I'd go to appliance stores to ask questions and comparison shop." • "I'd talk to neighbors and contractors I know." • "I wouldn't implement [the recommendations] unless I already wanted to do it... I might browse." • "It wouldn't compel me to action."

Program saves money by simplifying web tool

Based on the study's findings, program managers decided to remove Home Energy Advisor from the ENERGY STAR Web site in 2005. They concluded that it was not worth spending \$100,000 a year if very few of the web tool's detailed recommendations were actually being implemented. Furthermore, because the DOE had a similar elaborate online audit tool, the ENERGY STAR Residential Program decided to link web visitors to the DOE's tool rather than provide something with nearly the same information.

The ENERGY STAR program eventually developed a simplified audit tool in 2007 that asks homeowners for much less information and offers more general recommendations on ways to save energy. This tool currently costs the ENERGY STAR Residential Program only \$10,000 per year to maintain.

Thus, program evaluation helped the ENERGY STAR Residential Program save money by informing the program on how it could best serve online users. The evaluation revealed how web visitors are most likely to use the information provided by Home Energy Advisor, which turned out to require a much less elaborate web tool than originally designed. As a result, the program replaced the web tool with a simpler and cheaper version that fits more with how web visitors use the resource.



Sources: Interviews with ENERGY STAR Residential Program staff

Exploring Consumer Messaging in Web-Based Energy Efficiency Tools. Final report to Alliance to Save Energy, prepared by TIAX LLC. September 2004.

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