



Quick Facts

Of the farmers polled:

- The average number of years dedicated to farming was 27
- The average age of the participants was 51
- 74% installed at least one of the energy efficient equipment recommendations from their audit
- 100% of the participants would recommend the program to other farmers

¹ Gardner, Gerald and Paul C. Stern. 2008. "The Short List: the Most Effective Actions U.S. Households Can Take to Curb Climate Change." *Environment* 50(5):12-24.

Laitner, John A. "Skip", Karen Ehrhardt-Martinez, and Vanessa McKinney. 2009. *Examining the Scale of the Behavior Energy Response Continuum*. Forthcoming. Washington, D.C: American Council for an Energy-Efficient Economy.

What Convinces a Farmer to Install Energy Efficient Equipment on their Farm?

There is a real need to change our current patterns of energy use, and the vast majority of people agree that it is the right thing to do. However, convincing them to do so is another matter. All too often, people know what they should be doing, but continue on with what they are doing, simply because it is easier.

It is this inefficient pattern of human behavior that represents an untapped reserve that has the potential to reduce current levels of energy consumption by 20–25%, and do so in ways that save money to the consumer¹.

EnSave has been providing farm energy audit programs since 1991, and has discovered through the years that the programs which offered incentives or other forms of financial assistance saw a greater rate of installation. It was hoped that this study would provide an empirical means of backing up their observations.

In order to find out what makes its clients adopt energy efficient measures and equipment, EnSave ran a project through Sustainable Agriculture Research and Education (SARE) that would record the reasoning behind farmer's installation (or non-installation) of energy efficient farm equipment.

The project ran from June 2007 to April 2009. Participants in the study were drawn from a farm energy audit program EnSave was running in Maryland. EnSave polled the 47 farmers who received farm energy audits pre-audit and post-audit to discover if they planned on installing any of the recommended equipment, what would influence their decision to install or not install, and why they want to increase energy efficiency on their farm.

The overall objectives were to understand why producers commit (or not) to installing energy efficient equipment and to analyze how and why behavior changes once a commitment to install equipment has been made.

The study determined that cash flow was a primary factor in determining when a farmer would install equipment, and saving money was a predominant reason why farmers wanted to increase energy efficiency on their farms.

Pre-Audit Attitudes

Participant Information

# Participants	# Installers	# Non-Installers	Identified as "Very Likely" to Install	"Somewhat Likely"	"Not Likely"
47	35	12	13	30	4

Reasons for Wanting to Increase Energy Efficiency

	Save Money	Available Rebates	Grant Funding	Replacing Anyway	Energy Efficiency
Installers	31	2	4	2	4
Non-Installers	10	4	0	0	1

Post-Audit Installations

Primary Factor Affecting Installation Schedule

	Cash Flow	Grant Funding	Season
Installers	26	11	1
Non-Installers	9	3	3

Criteria Determining Decision to Install

	Total Energy Savings	Favorable Payback	Financial Assistance	Acceptable Cost	Other
Installers	29	16	31	14	32
Non-Installers	9	6	8	5	1

Opportunities for Future Research

This study uncovered some possible influences on a producer's decision to install energy efficiency improvements on their farm. Clearly more and longer term research is needed to evaluate what motivates a producer to adopt sustainable behaviors for on-farm energy efficiency.

Additionally, more study is also needed to examine why a producer chooses to implement an energy audit recommendation. This study found that more non-installers self-identified as being the "first to adopt new technologies" as compared to those producers that actually installed audit recommendations. An interesting follow up study would be to examine energy efficiency behaviors among producers recognized in their communities as being innovative, risk-taking producers who have a track record of being among the first to adopt new technologies.

About the Maryland Project

The Maryland Farm Energy Audit Program (Phase II) offered farm energy audits to farmers in five of the state's western counties. Producers paid \$250 for the audit (actual value \$1,200) with the cost refunded if the producer installed any of the the energy efficient equipment recommended in the audit. Farmers could also access three sources of financial assistance to help with installations costs, provided they installed by April 1, 2009:

- EnSave provided incentives of \$0.06/kWh saved, to be capped at \$1,200.
- The Maryland Agriculture and Resource Based Industry Development Corporation (MARBIDCO) offered grants and loans to farmers who received audits.
- USDA Rural Development's Section 9006 of the Farm Bill.

These are highlights from the survey. For more information, please contact EnSave.

Some producers gave multiple responses to some questions, and some declined to answer others, so not all responses add up to 47.

In the last table, "Other" signifies the following options: Replacing Anyway (11/6), Ease of Installation (11/5), Availability of Equipment (8/1), and Other Farmers Doing It (2/1).