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# Introduction

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## BACKGROUND

The 2009 On-Farm Renewable Energy Production Survey (OREPS) is a follow-on survey to the 2007 Census of Agriculture. It is the first on-farm renewable energy production survey conducted on the national level by the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS).

The 2009 OREPS provides additional information on energy produced by wind turbines, solar panels, and methane digesters that were in operation on farms in 2009. Wind turbines located on farm operations under a wind rights lease agreement are considered commercial and were excluded from this survey. Methane digesters not owned and operated by the farm operation were not included in the survey.

This energy survey provides an inventory of farm-generated energy practices with detailed data relating to the category or type of energy produced (wind, solar, and manure/methane digester), installation cost, percent of cost from outside funding, year installed, and total amount of utility savings from the use of on-farm renewable energy production.

## USES OF SURVEY DATA

Producers, universities, legislators, utility providers, farm businesses, etc. are in need of renewable energy production and economic data in order to assess the growth and viability of new energy sources and make important marketing, business, and policy decisions. The production of on-farm renewable energy can provide cost saving alternatives for America's farmers and ranchers. The information gathered will help in the continued development of this expanding agricultural industry.

## AUTHORITY

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2009 On-Farm Renewable Energy Production Survey was conducted under the provisions of this section.

## RENEWABLE ENERGY DEFINITION

Renewable energy is energy that comes from natural sources (sun, wind, water, biomass, and geothermal) and is renewable or naturally replenished. Renewable energy differs not only from fossil energy sources such as petroleum, gas, and coal, but also from nuclear energy.

## REFERENCE PERIOD

Energy production and savings were measured for the 2009 calendar year. Installation costs and outside funding were as of time of installation.

## TABLES AND APPENDICES

**Tables.** Tables 1 through 4 provide data from the survey at the U.S. and State level.

**Appendix A.** Provides information about data collection and data processing activities and discusses the statistical methodology used in conducting and evaluating the survey. Tables A and B provide statistical precision estimates for selected survey items.

**Appendix B.** Includes definitions of specific terms

and phrases used in this publication. It also provides facsimiles of the report form and instruction sheet used to collect data.

## RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about an individual operation. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent's data to be closely estimated or derived is suppressed and coded with a 'D'. The number of operations reporting an item is not considered confidential information and is provided even though other information may be withheld.

## DATA PRODUCTS AND CUSTOM TABULATIONS

The 2009 On-Farm Renewable Energy Production Survey data, as well as the 2007 Census of Agriculture Volume 1 Geographic Area Series and related reports, are available on the NASS website at [www.nass.usda.gov/](http://www.nass.usda.gov/).

Custom-designed tabulations may be developed when data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. The census Volume 1 on a downloadable desktop query tool and the census

*Quick Stats* are alternative data sources that should be investigated before requesting a custom tabulation.

All custom tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Requests for custom tabulations can be submitted via the internet from the NASS home page, by mail, or by e-mail to:

DataLab  
National Agricultural Statistics Service  
Room 6436A, Stop 2054  
1400 Independence Ave, S.W.  
Washington, D.C. 20250-2054  
or  
[Datalab@nass.usda.gov](mailto:Datalab@nass.usda.gov)

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual farms.
- (Z) Less than half of the unit shown.
- (NA) Not available.
- (X) Not applicable.
- W Watt.
- kW Kilowatt.