2009 On-Farm Renewable Energy Production Survey

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Background

The first survey conducted by USDA’s National Agricultural Statistics Service (NASS) to focus on the production of renewable energy on America’s farms and ranches.
At any time during 2007, did this operation generate energy or electricity on the farm using wind or solar technology, methane digester etc.?
Percent of U.S. Wind Turbines, Solar Panels, and Methane Digesters by Year of Installation

- **Wind Turbines**
  - Prior to 2000: 20%
  - 2000-2004: 30%
  - 2005-2009: 50%

- **Solar Panels**
  - Prior to 2000: 11%
  - 2000-2004: 26%
  - 2005-2009: 63%

- **Methane Digesters**
  - Prior to 2000: 9%
  - 2000-2004: 18%
  - 2005-2009: 72%
Wind Turbines

- **1,420 Operations in the United States**
  - 1,845 Turbines

- **1,406 Small Turbines (<100 kW)**
  - 1831 Wind Turbines
  - 6 kW Average Generating Capacity
  - $12,972 Average Installation Cost

- **14 Large Turbines (>100 kW)**
  - 14 Wind Turbines
  - 1035 kW Average Generating Capacity
  - $1,339,143 Average Installation Cost
Wind Turbines: Number of Farms Select States (2009)

- California: 134
- Texas: 102
- Minnesota: 101
- Colorado: 98
- Montana: 65
- Arizona: 63
Solar Panels

- 7,968 Farms Reporting Solar Panels
- Average Generating Capacity = 4,449 W
- Average Installation Cost = $31,947
Solar Panels: Number of Farms Top 5 States (2009)

- California: 1906
- Texas: 573
- Hawaii: 520
- Colorado: 504
- Oregon: 332
Methane Digesters

• 121 operations in the U.S. had methane digesters
• 140 methane digesters across the nation
• Average installation cost was $1,718,562
• Average digester produced 30.5 million cubic feet of methane
Questions