

U.S. Department of Agriculture
Rural Development

The Impact of the Rural Energy for America Program on Promoting Energy Efficiency and Renewable Energy

March 2012



Message from the Secretary

America needs and is developing a reliable, sustainable, fuel supply. If we are able to produce more of it here at home – rather than relying on foreign oil – we’ll generate good, middle-class jobs and strengthen our economy in the long run. That is why the U.S. Department of Agriculture (USDA) and the Obama administration are working with private industry to pursue an “all-of-the-above” energy strategy to promote American-produced renewable energy, coupled with domestic oil and gas production. The USDA Rural Energy for America Program is an important part of that strategy.



This Administration has helped bring our Nation’s reliance on foreign oil to a 13-year low, with domestic oil and gas production that has increased each year since 2009.

Since President Obama took office three years ago, the USDA REAP program has been active in every State:

- Supporting 5,733 renewable energy and energy efficiency projects nationwide;
- Generating or saving enough power to meet the annual needs of 600,000 households;
- Providing \$192 million in grants and \$165 million in loan guarantees to agricultural producers and rural small business owners for renewable energy systems and energy efficiency improvements.

One of the goals of REAP is to tap into the entrepreneurial spirit of rural America through renewable energy and energy efficiency programs. Through our efforts, these small businesses are creating good-paying, sustainable jobs that will improve the quality of life in rural communities.

I hope you find this report about all the innovative products Americans have developed - with USDA support useful. Through this work, REAP has also been fostering partnerships that have leveraged an estimated \$800 million from other sources for these energy projects. We know we can’t improve our energy security alone – it takes all of us working together, tackling the long-term problem of building an American energy economy that will ensure that families don’t fall victim to skyrocketing gas prices while creating jobs to strengthen the middle class.

Sincerely,

A handwritten signature in black ink that reads "Thomas J. Vilsack". The signature is written in a cursive, flowing style with a long horizontal line extending to the right.

Thomas J. Vilsack
Secretary

Message from the Under Secretary

Last year, President Obama released a comprehensive, long-term vision to build a clean energy economy that will move the Nation towards energy independence and create high-paying jobs in the United States. In response to the President's call, the U. S. Department of Agriculture (USDA) emerged as a leader in promoting the creation and expansion of renewable energy in rural areas.



Within USDA, the Rural Development's Rural Business-Cooperative program administers four programs specific to energy that promote a cleaner and more sustainable future through investments in advanced biofuels, renewable energy, and energy efficiency. Since 2009, USDA Rural Development has invested \$800 million in biorefineries, renewable energy and energy efficiency through the Rural Energy for America Program (REAP), the Biorefinery Assistance Program, the Repowering Assistance Program, and the Advanced Biofuel Payment Program.

REAP is Rural Development's renewable energy program with the most diversification – technologically as well as geographically. In 2011, grants and loan guarantees funded projects in all 50 States and territories for renewable energy systems, energy efficiency improvements, feasibility studies, energy audits, and renewable energy development assistance. The REAP program partners with agricultural producers and rural small businesses to facilitate access to renewable energy systems (such as solar panels or anaerobic digesters), make energy efficiency improvements (such as installing irrigation pumps or replacing ventilation systems), and conduct energy audits and feasibility studies.

At a time when every dollar counts, these investments enable farmers, ranchers and rural small businesses to adjust to fluctuations in energy prices. By doing so, it keeps their operations viable, as well as maintaining and creating jobs.

Rural Development employees work alongside farmers, ranchers, and businesses to strengthen local economies. They are members of the communities they serve and possess expert knowledge of the challenges and opportunities that exist in their regions. Through them, USDA remains committed to building on the progress we have made over the past three years to make rural America more energy secure moving forward.

Sincerely,

A handwritten signature in black ink that reads "Dallas Tonsager". The signature is fluid and cursive, with a long horizontal flourish extending from the end of the name.

Dallas Tonsager
Under Secretary for Rural Development

Message from the Administrator

As Administrator for USDA Rural Development's Rural Business and Cooperative Program, I am proud to present this report which highlights the accomplishments of the Rural Energy for America Program (REAP) and its contribution to the Administration's goal of increased energy independence and energy efficiency.



Since its inception in 2003, REAP and other USDA programs, have helped about 13,000 rural small businesses, farmers, and ranchers save energy and improve their bottom line by installing renewable energy systems and energy efficiency solutions that will save enough energy to power nearly 600,000 American homes for a year. Since 2003, REAP has funded more than 1,000 solar projects and over 560 wind projects. In addition, a first-of-its-kind rule from the Rural Utilities Program will soon be finalized and provide new opportunities for loan and loan guarantees in energy efficiency. This program will attract new businesses and create new jobs in rural areas, encourage the use of renewable energy fuels, and support residential and commercial energy audits.

These successes are possible thanks to the dedicated professionals at our 47 USDA Rural Development State Offices, along with our trained energy coordinators and program specialists who work with our federal, state and local governments, commercial lenders, and partnering organizations to deliver this important program.

Sincerely,

Judith Canales

Judith A. Canales
Administrator

Rural Energy for America (REAP) Overview

USDA contributes to the realization the President's vision for a new era in American energy, with an economy built to last and fueled by homegrown, alternative energy sources. Already, thanks in part to the Obama Administration's investments, the United States has nearly doubled renewable energy generation from wind, solar and geothermal sources since 2008.

For nearly a decade, USDA has focused on increasing access to energy for rural areas. As directed in Section 9006, Title IX, of the Farm Security and Rural Investment Act of 2002, USDA Rural Development established the Renewable Energy Systems and Energy Efficiency Improvements Program to help farmers, ranchers and rural small businesses purchase renewable energy systems and make energy efficiency improvements. In 2008, Congress amended Section 9006 by expanding the agency's authorities and renaming the program the Rural Energy for America Program (REAP).

USDA Rural Development has an important role in helping to build a cleaner, more secure and a more sustainable domestic energy sector for future generations. Through REAP and other programs, USDA has helped about 13,000 rural small businesses, farmers, and ranchers, save energy and improve their bottom line by installing renewable energy systems and energy efficiency solutions.

Specifically, REAP helps agricultural producers and rural small businesses build renewable energy systems and make energy efficiency improvements. At the same time, through other programs, USDA is encouraging a national advanced bio-based economy that creates or retains jobs in rural communities where economic opportunities can be limited.

Since Fiscal Year 2009, USDA Rural Development has funded 5,733 REAP projects in all 50 states, Puerto Rico and the Western Pacific. The financial assistance provided through the program helps improve access and diversity in rural energy and has created an additional 6.5 million MWh for consumers. REAP helps promote economic development and job growth by supporting a wide range of energy-related projects to reduce consumption and costs for agricultural producers and rural small businesses and increases access to local energy generated within the United States.

REAP provides grants, loan guarantees, and a combination of grants and loan guarantees to rural small businesses and agricultural producers to purchase renewable energy systems and to make energy efficiency improvements. REAP also provides grants for feasibility studies for renewable systems, energy audits, and renewable energy development assistance for agricultural producers and rural small businesses.

Components of REAP:

1. The Renewable Energy System and Energy Efficiency Improvement Guaranteed Loans and Grants provide financial assistance to agricultural producers and rural small businesses to purchase, install and construct renewable energy systems and make energy efficiency improvements.
2. Feasibility Grant Studies provide funds to applicants that need to complete a feasibility study, which are required in applications for many Department of Agriculture and other government energy programs.
3. Energy Audit and Renewable Energy Development Assistance Grants provide funds to entities that will assist agriculture producers and rural small businesses by conducting energy audits and providing information on renewable energy development assistance.

To get additional information or to apply for REAP funding, contact your Rural Development State Office or the State Rural Energy Coordinator. A list of the offices is located at the end of this report.

"We're not going to be able to just drill our way out of the problem of high gas prices...If we are going to control our energy future, then we've got to have an all-of-the-above strategy. We've got to develop every source of American energy—not just oil and gas, but wind power and solar power, nuclear power, biofuels."

- President Barack Obama, North Carolina, March 7, 2012

USDA Rural Development's REAP program is an important component of President Obama's Blueprint for Energy Strategy. With less than 2 percent of the world's proven oil reserves, the United States and its territories need to find new ways to produce energy.

In 2011, the United States relied less on foreign oil than in any of the last 16 years, in part because of the investments made by USDA Rural Development. REAP projects throughout rural America have made use of clean renewable energy and supported energy efficiencies and technologies.

REAP – A Sound Investment in Clean Energy

REAP is not only a sound investment in clean energy and productivity, but the program also reduces demand for existing utilities by investing in energy efficiency. REAP invests mostly in projects that produce renewable energy for use on site – otherwise known as distributed generation. Although some projects do produce energy for the grid, most relieve utility congestion. REAP also helps utilities to manage their demand by lowering costs for everyone by deferring demand for additional power facilities. From 2003 through 2011, REAP invested an average of 11.3 cents for every kilowatt-hour of energy generated or saved by the program.

| Technology | 2009 – 2011 Investments \$/kWh |
|-------------------|-----------------------------------|
| SOLAR | \$0.405 |
| HYBRID | \$0.200 |
| GEOTHERMAL | \$0.092 |
| HYDROPOWER | \$0.083 |
| BIOMASS | \$0.080 |
| WIND | \$0.041 |
| ENERGY EFFICIENCY | \$0.029 |

REAP RES/EEI State Accomplishments (FY 2009 – FY 2011)

| States | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|----------------|--------------------|--------------|--------------|-------------|
| Alabama | 33 | \$2,065,255 | \$593,791 | 4,491 |
| Alaska | 44 | \$1,105,149 | - | 7,241 |
| Arizona | 31 | \$1,194,206 | - | 1,142 |
| Arkansas | 93 | \$1,895,894 | \$ 132,423 | 25,744 |
| California | 74 | \$ 3,122,218 | \$1,886,000 | 15,306 |
| Colorado | 41 | \$1,735,665 | \$695,000 | 6,876 |
| Connecticut | 13 | \$765,181 | \$454,810 | 3,527 |
| Delaware | 13 | \$282,716 | - | 794 |
| Florida | 14 | \$1,166,622 | - | 27,849 |
| Georgia | 217 | \$6,215,193 | \$2,902,073 | 124,779 |
| Hawaii | 20 | \$708,413 | \$422,200 | 3,073 |
| Idaho | 97 | \$3,164,592 | \$1,500,000 | 64,707 |
| Illinois | 287 | \$8,924,982 | \$5,438,034 | 124,237 |
| Indiana | 214 | \$6,640,226 | \$2,138,714 | 105,607 |
| Iowa | 1,128 | \$38,431,390 | \$46,358,749 | 871,286 |
| Kansas | 113 | \$2,649,590 | \$1,031,198 | 70,512 |
| Kentucky | 122 | \$ 3,431,112 | \$1,777,447 | 21,710 |
| Louisiana | 26 | \$1,566,755 | \$1,000,000 | 556,144 |
| Maine | 29 | \$1,215,064 | \$1,667,781 | 47,757 |
| Maryland | 30 | \$1,298,752 | - | 2,056 |
| Massachusetts | 44 | \$2,265,884 | \$4,109,251 | 4,033 |
| Michigan | 170 | \$5,918,164 | \$923,596 | 47,144 |
| Minnesota | 512 | \$12,548,264 | \$5,136,337 | 994,724 |
| Mississippi | 80 | \$2,035,805 | - | 32,168 |
| Missouri | 113 | \$3,523,055 | \$5,985,916 | 293,211 |
| Montana | 24 | \$951,281 | \$163,431 | 11,271 |
| Nebraska | 408 | \$6,693,800 | \$5,756,579 | 583,172 |
| Nevada | 11 | \$469,189 | - | 1,302 |
| New Hampshire | 21 | \$572,093 | \$509,497 | 3,742 |
| New Jersey | 39 | \$3,462,317 | \$1,883,937 | 2,097 |
| New Mexico | 26 | \$904,740 | \$850,000 | 117,971 |
| New York | 189 | \$4,061,747 | \$1,695,086 | 24,800 |
| North Carolina | 277 | \$6,136,221 | \$10,342,500 | 303,045 |
| North Dakota | 45 | \$1,616,242 | \$ 730,523 | 29,875 |
| Ohio | 169 | \$12,264,217 | \$24,446,326 | 392,397 |
| Oklahoma | 40 | \$1,313,785 | \$393,325 | 12,096 |
| Oregon | 119 | \$3,852,141 | \$13,158,233 | 73,331 |
| Pennsylvania | 79 | \$4,776,196 | \$867,065 | 136,119 |

| States | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|----------------------|---------------------------|----------------------|-----------------------|--------------------|
| Puerto Rico | 10 | \$602,436 | - | 103,173 |
| Rhode Island | 3 | \$55,615 | - | 268 |
| South Carolina | 53 | \$2,110,962 | \$963,521 | 27,845 |
| South Dakota | 97 | \$3,545,909 | \$2,758,772 | 26,716 |
| Tennessee | 98 | \$4,097,409 | \$2,500,383 | 633,936 |
| Texas | 94 | \$4,731,073 | - | 46,441 |
| Utah | 19 | \$1,952,275 | \$287,000 | 30,129 |
| Vermont | 97 | \$3,586,483 | \$5,422,749 | 28,857 |
| Virginia | 50 | \$2,603,960 | \$435,271 | 32,485 |
| Washington | 29 | \$2,051,796 | \$ 3,786,500 | 33,930 |
| West Virginia | 25 | \$802,492 | \$573,408 | 1,611 |
| Western Pacific (WP) | 2 | \$53,757 | - | 269 |
| Wisconsin | 142 | \$4,639,650 | \$2,852,923 | 392,932 |
| Wyoming | 9 | \$157,651 | - | 1,832 |
| Grand Total | 5,733 | \$191,935,584 | \$ 164,530,349 | 6,507,759 |

RES/EEI – Renewable Energy Systems/Energy Efficiency Improvements
1 kilowatt (kW) = 1 thousand watts
1 megawatt (MW) = 1 million watts

Renewable energy is a growing part of our energy sector through a variety of technologies. REAP has funded many projects, as follows:

Renewable Energy Technologies Funded through REAP

| Solar Energy Technology | | | | |
|--------------------------------|-----------------|---------------|-------------------------|---|
| | Projects | Grants | Loans Guarantees | Annual Energy Generation MWh (1,000) |
| FY 2011 | 477 | \$14,417,465 | \$6,077,500 | 31 |
| FY 2009-2011 | 937 | \$33,709,107 | \$17,832,930 | 162 |

| Wind Power | | | | |
|---------------------|-----------------|---------------|-------------------------|---|
| | Projects | Grants | Loans Guarantees | Annual Energy Generation MWh (1,000) |
| FY 2011 | 55 | \$2,988,644 | \$883,483 | 30 |
| FY 2009-2011 | 318 | \$21,252,628 | \$39,668,057 | 133 |

| Anaerobic Digester | | | | |
|---------------------------|-----------------|---------------|-------------------------|---|
| | Projects | Grants | Loans Guarantees | Annual Energy Generation MWh (1,000) |
| FY 2011 | 19 | \$7,798,189 | \$13,102,890 | 140 |
| FY 2009-2011 | 52 | \$17,958,233 | \$33,732,709 | 267 |

| Energy Efficiency Improvements | | | | |
|---------------------------------------|-----------------|---------------|--------------------|---|
| | Projects | Grant | Loan Amount | Annual Energy Generation MWh (1,000) |
| FY 2011 | 1,141 | \$ 21,842,568 | \$ 1,317,649 | 343 |
| FY 2009-2011 | 4,070 | \$ 97,393,055 | \$ 41,850,622 | 3,287 |

REAP also invested in the following Energy Efficiency Improvement technologies in 2011:

| Energy Efficiency Technology | | | | |
|-------------------------------------|---------------------------|---------------------|------------------------------|---|
| Technology | Number of Projects | Grant Amount | Loan Guarantee Amount | Annual Energy Generation MWh (1,000) |
| Poultry Operations | 193 | \$3,673,431 | \$134,110 | 8 |
| Grain Dryers | 488 | \$11,712,540 | \$748,986 | 13 |
| Lighting Efficiencies | 59 | 586,009 | \$0 | 6 |
| Reverse Osmosis Systems | 43 | \$300,811 | \$ 0 | 7 |
| Irrigation Systems | 217 | \$2,638,248 | \$0 | 9 |
| Building Efficiencies | 559 | \$21,609,252 | \$1,317,649 | 15 |

| Flexible Fuel | | | | |
|----------------------|-----------------|---------------|-----------------------------|---|
| | Projects | Grants | Loans Guarantees | Annual Energy Generation MWh (1,000) |
| FY 2011 | 66 | \$4,284,342 | 0 | 353 |

| Geothermal Heating and Cooling | | | | |
|---------------------------------------|-----------------|---------------|-----------------------------|---|
| | Projects | Grants | Loans Guarantees | Annual Energy Generation MWh (1,000) |
| FY 2011 | 59 | \$1,288,172 | \$124,388 | 31 |
| FY 2009-2011 | 146 | \$3,264,002 | \$645,987 | 41 |

| Biofuel and Biodiesel | | | | |
|------------------------------|-----------------|---------------|-----------------------------|---|
| | Projects | Grants | Loans Guarantees | Annual Energy Generation MWh (1,000) |
| FY 2011 | 10 | \$1,686,861 | \$ 0 | 665 |
| FY 2009-2011 | 24 | \$3,691,665 | \$4,826,692 | 1,161 |

State Success Stories

| Alabama | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 33 | \$2,023,009 | \$593,791 | 4,491 |
| Biomass | 6 | \$717,594 | - | 1,162 |
| Energy Efficiency | 26 | \$1,162,107 | \$593,791 | 3,329 |
| Solar | 1 | \$143,308 | - | - |

Southern Wholesale Fibers and Recycling

In June 2010, Southern Wholesale Fibers and Recycling of Bryant, Alabama, received a REAP energy efficiency grant and a loan guarantee to purchase and install energy efficiency equipment. The improvements helped the company save 335,000 kWh each year, a 22 percent energy reduction, and save 13 jobs.

Gary Griffin Poultry House

In June 2010, Gary E. Griffin, a poultry grower in Enterprise, Alabama, received a REAP energy efficiency grant to make improvements to six poultry houses. The improvements resulted in a projected annual energy savings of \$18,850, or 36.8 percent.

| Alaska | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 44 | \$1,105,149 | - | 7,241 |
| Biomass | 2 | \$485,316 | - | 6,332 |
| Energy Efficiency | 15 | \$174,380 | - | 629 |
| Geothermal | 1 | \$50,000 | - | 2 |
| Solar | 5 | \$62,920 | - | 31 |
| Wind | 21 | \$332,533 | - | 248 |

D.J. Subdivision

In June 2011, Dorwin Smith (D.J. Subdivision), in Wasilla, Alaska received a REAP grant to upgrade the lights on each of his commercial properties. The energy efficiency project resulted in a 67 percent annual electrical savings.

Alpine Holdings

Alpine Holdings, in Chicken, Alaska, was in need of alternative ways to power its business. In June 2011, the owner used two REAP grants for energy efficiency and solar power improvements. The improvement will help the company save an estimated \$10,000 per year and allow the company to retain all of its employees.

| Arizona | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|---------|--------------------|--------------|-------------|-------------|
| Total | 31 | \$1,194,206 | - | 1,142 |
| Solar | 30 | \$1,140,706 | - | 993 |
| Wind | 1 | \$53,500 | - | 150 |

Allen's Well Service

In August 2010, Rural Development provided a REAP grant to Allen's Wells Service of Elfrida, Arizona, to install a photovoltaic water pumps at a ranch. The new solar water pumps helped the company cut its utilities costs in half.

Silver Creek Farms

In July 2011, with help from a REAP grant, the owners of Silver Creek Farms near Taylor, Arizona, installed a 155,000 kW wind turbine to power the pump for its irrigation well. The turbine provides all of the electricity needed for the pumping operation. In addition, the ranch owners have a contract with the local utility company to "net meter" or feed power into the utility grid during production months and use power as needed in the off-wind summer months.

| Arkansas | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 93 | \$1,895,894 | \$132,423 | 25,744 |
| Biomass | 3 | \$27,830 | - | 387 |
| Energy Efficiency | 84 | \$1,691,214 | \$132,423 | 16,695 |
| Flexible Fuel Pump | 1 | \$39,500 | - | 8,588 |
| Solar | 5 | \$137,350 | - | 74 |

Frost Oil Company

In June 2011, Frost Oil Company of Ozark, Arkansas, received a REAP grant to offset 25 percent of the equipment and installation cost for two flex-fuel pumps. The new gasoline station and convenience store will be located in a travel plaza near Interstate 40. Once the travel plaza is complete, an E85 dispenser and a biofuel dispenser will be available to the public. The plaza will provide 40 new jobs in a city with a population of less than 20,000.

Green Technologies, Inc.

In September 2009, Green Technologies, Inc., in West Fork, Arkansas received a REAP grant to offset the cost of the equipment and installation of a photovoltaic solar panel system. Green Technologies is an engineering and fabrication business specializing in wheelchair fabrication and general machine work.

| California | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 74 | \$3,122,218 | \$1,886,000 | 15,306 |
| Biomass | 1 | \$500,000 | - | 669 |
| Energy Efficiency | 3 | \$31,159 | - | 185 |
| Flexible Fuel Pump | 4 | \$135,000 | - | 10,720 |
| Geothermal | 1 | \$18,500 | - | 5 |
| Solar | 61 | \$2,317,545 | \$1,816,000 | 3,429 |
| Wind | 4 | \$120,014 | \$70,000 | 298 |

Lyall Enterprises, Inc.

In July 2010, Lyall Enterprises, Inc. of Pauma Valley, California, received a REAP loan guarantee and a REAP grant to purchase and install a 106.8 KW-AC solar energy system. The new solar system produces approximately 220,000 kWh which is eight percent above estimates. The 1,257,310 kWh of electricity generated from this project is sufficient to provide the annual electricity needs of the ranch's nine irrigation pumps.

Roberti Ranch

Roberti Ranch raises 400 head of beef cattle and produces hay on 5,800 acres in Sierra Valley, California. The company used REAP grant and guarantee loan to finance development of a solar PV system that will help the ranch reduce an electricity bill. The company has also entered into a Power Purchase Agreement with the local electrical cooperative to sell the extra electricity produced by the new solar system. The electricity generated from this project is sufficient to run the ranch's nine irrigation pumps, or enough electricity for 70 homes.

| Colorado | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 41 | \$1,735,665 | \$695,000 | 6,876 |
| Energy Efficiency | 10 | \$176,965 | - | 2,912 |
| Geothermal | 3 | \$350,875 | - | 344 |
| Hydropower | 3 | \$369,009 | \$600,000 | 2,973 |
| Solar | 23 | \$821,875 | \$95,000 | 633 |
| Wind | 2 | \$16,941 | - | 13 |

Wagon Wheel Associates, Inc. - Hydro Project

In 2011, this 310-kilowatt new hydropower production facility, near Monte Vista Colorado, used a REAP grant and a loan guarantee for a renewable energy project that incorporates the facility with an existing dam to provide power to the grid.

High Country Orchards

Ninety percent of High County Orchard's locally grown fruits and vegetables are sold in Colorado and can be in the consumer's hands within 24 hours of harvest. A big part of the credit for both the product quality and delivery speed goes to the Palisade orchard's state-of-the-art, digitized peach-packing system. In 2011, High Country Orchards used a REAP grant to purchase a solar energy system to power the packing facility.

The solar project will create 49,806 kilowatts annually and reduce the Orchard’s energy cost at their fruit packing facility.

| Connecticut | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 13 | \$765,181 | \$454,810 | 3,527 |
| Energy Efficiency | 3 | \$260,868 | \$391,310 | 2,793 |
| Hydroelectric | 1 | \$275,000 | - | 585 |
| Solar | 9 | \$229,313 | \$63,500 | 148 |

Grower Direct Farms

Grower Direct Farms, in Somers, Connecticut received a REAP grant and loan guarantee to install a biomass system to heat its green houses. The system reduces annual heating oil consumption by 450,000 gallons. The new system can heat up to 375,000 gallons of water. The company expects the system to pay for itself in five years. By switching to a biomass system fed by wood chips, the annual fuel costs dropped by nearly 70 percent.

| Delaware | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 13 | \$282,716 | - | 794 |
| Energy Efficiency | 5 | \$96,852 | - | 587 |
| Solar | 8 | \$185,864 | - | 207 |

Clothes 2 You Cleaners

In 2011, Clothes 2 You Cleaners, a minority/veteran owned small business in Rehoboth Beach, Delaware used a REAP grant to install an energy efficient wet cleaning system, washers and dryers that use state-of-the-art technology.

Gambler’s Choice Equestrian Center

Gambler’s Choice, on 55 acres west of Dover, Delaware, is a full service Equestrian Center and boarding facility. Rural Development provided a REAP grant which enables the business to offset electricity usage with the installation of a 28.52 kw solar array that was roof mounted on a barn in January 2012.

| Florida | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 14 | \$,166,622 | - | 27,849 |
| Biomass | 4 | \$716,668 | - | 24,181 |
| Energy Efficiency | 5 | \$109,354 | - | 1,354 |
| Flexible Fuel Pump | 1 | \$24,650 | - | 2,031 |
| Solar | 4 | \$315,950 | - | 283 |

Nanosonic Products, Inc. – Solar Energy System

Nanosonic Products, Inc., in Alachua, Florida, uses Cyclodextrin chemistries to research unique commercial applications for food, nutritional, environmental, and pharmaceuticals. In 2011, the company used a REAP grant to purchase and install a solar photovoltaic system that will generate 149 percent of the energy needed for the business. The surplus energy generated by the solar panel system will be sold to the City of Alachua. The project helped save seven jobs.

Wendell’s Hardware, Inc.

In July 2011, Wendell’s Hardware, in Brunson, Florida, used a REAP grant to purchase and install a solar photovoltaic system. This system will generate 106 percent of energy needs. The remaining energy produced will be sold to a local utility company. The store employs nine workers.

| Georgia | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|---------------------------|---------------------|--------------------|--------------------|
| Total | 217 | \$6,215,193 | \$2,902,073 | 124,779 |
| Biomass | 7 | \$512,157 | \$500,000 | 78,493 |
| Energy Efficiency | 166 | \$2,027,940 | - | 28,141 |
| Flexible Fuel Pump | 1 | \$189,416 | - | 16,059 |
| Geothermal | 1 | \$6,553 | - | 19 |
| Hybrid | 1 | \$227,500 | - | 211 |
| Hydropower | 1 | \$19,950 | - | 87 |
| Solar | 39 | \$3,200,068 | \$2,338,873 | 1,649 |
| Wind | 1 | \$31,609 | \$63,200 | 120 |

Cantsink Manufacturing Solar Energy Project

In September of 2010, Cantsink Manufacturing of Winder, Georgia received a REAP grant and a loan guarantee to install a solar pv system. The new system generates 58,033 kWh each year. The solar panels are expected to create 63,000 kWh of electricity yearly and create six jobs.

M&C Farms, Inc. - Diesel to Electric Irrigation Motor

In 2011, M&C Farms Inc., of Dodge County, Georgia used a REAP grant to install a 75 horsepower electric irrigation motor to replace a 20-year- old diesel motor that was used to water crops. The new motor generated a 90 percent savings and helped save one job.

| Hawaii | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|---------------------------|---------------------|--------------------|--------------------|
| Total | 20 | \$708,413 | \$422,200 | 3,073 |
| Energy Efficiency | 1 | \$ 5,448 | - | 18 |
| Flexible Fuel Pump | 1 | \$47,420 | - | 2,434 |
| Hybrid | 1 | \$19,500 | - | 7 |
| Solar | 17 | \$636,045 | \$422,200 | 614 |

Surfing Goat Dairy

Surfing Goat Dairy in Hawaii received a REAP grant to support building a 43 kW photovoltaic array. When completed, the system will provide 100 percent of dairy's energy needs. The photovoltaic system was installed on a barn and parking structure and is anticipated to generate 67,529 kWh or 104 percent of the energy needs.

Lalamilo Farm Partners

The Lalamilo Farm Partners of Hawaii received a REAP grant help offset the costs to install a photovoltaic system to reduce electricity costs in its ice cream operation. When complete, the system will provide 100 percent of its energy needs.

| Idaho | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 97 | \$3,164,592 | \$1,500,000 | 64,707 |
| Biomass | 7 | \$2,270,734 | \$1,500,000 | 60,457 |
| Energy Efficiency | 67 | \$565,406 | - | 3,635 |
| Flexible Fuel Pump | 1 | \$16,250 | - | 0 |
| Geothermal | 2 | \$51,018 | - | 120 |
| Hydropower | 2 | \$16,567 | - | 7 |
| Solar | 15 | \$199,427 | - | 449 |
| Wind | 3 | \$45,190 | - | 39 |

Whiteside Dairy

Whiteside Dairy's reliance on propane to heat the water required to clean milking barns and dairy cows not only contributed to greenhouse gas creation, but also was expensive and was subject to price spikes resulting from price fluctuations. Rural Development awarded the dairy a REAP grant for the installation of a 30 solar-thermal panel array.

The farm's system will be converted from propane-heated water to a solar thermal water-heating system that uses vacuum tubes to produce about 1,000 gallons of 165-degree water per day. The system is expected to pay for itself within the first year, resulting in an estimated \$500,000 in energy cost savings.

AgPower Jerome, LLC

USDA Rural Development awarded AgPower Jerome, LLC, a REAP grant for the installation of a 4.5-megawatt anaerobic digester to use manure waste to generate electricity to be sold commercially to Idaho Power.

Converting from an expensive manual manure management system to a flush system where waste moves through a gravity flow system to the digester, creates substantial economic benefit. The new system recycles and reuses 100 percent of the previous waste, turning a liability into an asset. In addition to significantly reducing costs associated with fuel and wear and tear on the equipment, the dairy also saves money on fertilizer and bedding. When the digester separates the solids from the liquid, it provides a valuable fiber material which gets used for bedding. The remaining solid material is an excellent, organic fertilizer material. These benefits

pale in comparison to the primary economic benefit results from the liquid methane utilized in the production of electricity. The system recently went into operation so actual sales are not yet known, but is expected to be substantial.

| Illinois | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 287 | \$8,924,982 | \$5,438,034 | 124,237 |
| Biomass | 1 | \$375,000 | \$750,000 | 19 |
| Energy Efficiency | 277 | \$8,382,271 | 4,688,034 | 118,717 |
| Flexible Fuel Pump | 2 | \$48,388 | - | 4,565 |
| Geothermal | 4 | \$56,537 | - | 895 |
| Solar | 1 | \$18,439 | - | 14 |
| Wind | 2 | \$44,347 | - | 28 |

Jeff and Sheila Koester

Jeff and Sheila Koester’s family-owned, certified organic dairy farm in northern Illinois received a REAP grant in 2011 to install a 10.75 kW photovoltaic solar system. The power generated from these panels will be used for lighting the milking barn, powering the vacuum pump, milk cooler, and fans. It will offset about 49 percent of the annual farm energy consumption.

Pals Electric

Pals Electric is a small electrical contractor in rural Teutopolis, IL. Rural Development provided a REAP grant to install a 10 kW wind turbine to power the shop. This project will produce enough wind electricity to offset nearly 70 percent of the facility’s annual energy consumption.

| Indiana | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 214 | \$6,640,226 | \$2,138,714 | 105,607 |
| Biomass | 2 | \$25,047 | - | 50 |
| Energy Efficiency | 198 | \$6,350,212 | \$2,138,714 | 101,327 |
| Flexible Fuel Pump | 3 | \$104,851 | - | 3,718 |
| Geothermal | 1 | \$19,956 | - | 291 |
| Solar | 8 | \$108,656 | - | 174 |
| Wind | 2 | \$31,504 | - | 48 |

Pleasant Home Farm

In 2011, Pleasant Home Farm in Indiana received a REAP grant from USDA Rural Development to install a wind turbine to produce renewable energy to offset energy costs. The project should create an energy savings of 21,000 kWh.

Linneweber Brothers

Indiana’s Linneweber Brothers received a REAP grant to offset the equipment and installation costs for a GSI Top Dry System that allows grain filling, drying and dumping operations to be run automatically for efficiency, and reduce grain spoilage. This project saved four jobs and the new energy-efficient dryer will reduce the amount of energy used and emissions.

| Iowa | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|--------------|-------------|
| Total | 1,128 | \$38,431,390 | \$46,358,749 | 871,286 |
| Biomass | 8 | \$1,355,071 | \$763,250 | 16,674 |
| Energy Efficiency | 963 | \$25,427,223 | \$14,781,380 | 722,697 |
| Flexible Fuel Pump | 8 | \$350,477 | - | 41,701 |
| Geothermal | 48 | \$846,761 | \$97,388 | 2,824 |
| Hybrid | 2 | \$47,689 | - | 102 |
| Solar | 3 | \$72,279 | \$49,975 | 641 |
| Wind | 96 | \$10,331,890 | \$30,666,756 | 86,647 |

Country Kennels

Jim and Emily Robidoux, owners of Country Kennels near Polk City, Iowa, used a REAP grant to install a geothermal heating and cooling system when converting an existing outbuilding to dog kennels. In the first full year operating the geothermal system the business was able to save more than \$800 in heating and cooling costs.

City of Woodbine - 503 Walker LLC

Across Iowa, rural towns are renovating their downtown areas to keep communities vibrant. The City of Woodbine has recently undergone significant upgrades thanks, in part, to the Main Street Iowa program, and assistance of USDA Rural Development and local developers. After receiving a REAP grant, the developer installed an energy-saving geothermal heating and cooling system in the two Walker buildings. These buildings will now host a restaurant, renovated commercial and retail space and six apartments.

| Kansas | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 113 | \$2,649,590 | 1,031,198 | 70,512 |
| Biomass | 1 | \$20,358 | - | - |
| Energy Efficiency | 90 | \$1,498,146 | \$491,488 | 52,433 |
| Flexible Fuel Pump | 5 | \$190,525 | - | 9,265 |
| Geothermal | 4 | \$87,062 | - | 5,768 |
| Solar | 6 | \$146,684 | \$59,710 | 236 |
| Wind | 7 | \$706,815 | \$480,000 | 2,809 |

Kansas Hardwoods

Kansas Hardwoods sells local and domestic woods and wood products. The REAP grant funds were used to install a geothermal heat pump and wood-gasification unit to heat and cool the new Kansas Hardwoods building

in Belvue. The REAP program provided the small business with capital, which allowed it to increase production by building a climate controlled, energy efficient facility.

Fire Stables, LLC

Fire Stables, LLC used the REAP program to install solar panels on horse stables in Lenexa. The solar array is comprised of 504 panels that total 118 kilowatts, and will create yearly energy savings of about 160,000 kilowatt hours. Estimated energy savings for the business is \$16,000. Fire Stables has one of the largest solar arrays in Kansas.

| Kentucky | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 122 | \$3,431,112 | \$1,777,447 | 21,710 |
| Biomass | 1 | \$30,943 | - | 917 |
| Energy Efficiency | 108 | \$2,973,177 | \$1,777,447 | 20,574 |
| Hybrid | 1 | \$8,442 | - | 12 |
| Solar | 12 | \$418,550 | - | 207 |

Whitaker Food Stores

Whitakers Food Stores is a family-owned business located in a rural community in a persistent poverty county in far Eastern Kentucky. The store had an outdated lighting system and inefficient refrigeration and freezer equipment. REAP funds were used to increase energy efficiencies and will provide a total energy savings of 564,671 kWh per year, a 63 percent energy savings.

Inside-Out Design

Inside Out Design is a small family-owned landscape and hardscape design and building firm that works to create sustainable, individualized outdoor spaces. Owners Andrea and Michael Mueller provide services to both residential and small business commercial accounts and have a found a niche in creating outdoor rooms and specialty themed eco-ethical gardens. With Rural Development funding, Inside Out Design plans to build a facility and offices that feature several sustainable elements, including partial earth-berm construction, geothermal heating and cooling, geothermal domestic water heating, solar thermal radiant floor heating in shop, vegetative green roof and open cell foam insulation.

These elements will help significantly reduce the energy use in the building. This project will create jobs in the local community and the company's plans to add three full-time crews by 2012 and another designer or design assistant by 2013.

| Louisiana | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 26 | \$1,566,755 | \$1,000,000 | 556,144 |
| Biomass | 6 | \$931,213 | \$1,000,000 | 536,578 |
| Energy Efficiency | 15 | \$488,458 | - | 4,356 |
| Flexible Fuel Pump | 1 | \$41,250 | - | 13,090 |
| Solar | 4 | \$105,834 | - | 2,119 |

Durand Grocery

Durand Grocery Store has been in existence for at least 50 years. The equipment was old and in need of repair or replacement. The businesses received a REAP grant to install new refrigeration and cooling units for meat and produce cases, new energy efficient lighting, a tankless water heater, new heating, ventilation, and an air conditioning system. Since completion, Durand Grocery cut electrical consumption by about \$1,600 per month.

Durand Ponds and Farm, Inc.

Rural Development assisted Durand Ponds and Farm with retrofitting three irrigation power units. Durand Ponds will save money by converting from diesel to electric pumps. The project will result in a 69 percent reduction of energy use for an annual savings of \$16,000.

| Maine | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 29 | \$1,215,064 | \$1,667,781 | 47,757 |
| Biomass | 2 | \$520,000 | \$1,667,781 | 46,394 |
| Energy Efficiency | 6 | \$106,020 | - | 507 |
| Geothermal | 1 | \$ 9,675 | - | 70 |
| Solar | 19 | \$565,022 | - | 775 |
| Wind | 1 | \$4,347 | - | 10 |

Lamey-Wellehan

REAP funds were used to install a photovoltaic system for Lamey-Wellehan in Auburn, Maine. This project is providing 58 percent of electrical needs for the business at that location. The owner is pleased with the results and indicates interest in applying for additional funds for a large solar photovoltaic system at the business' Bangor, Maine location. This project helped save 105 jobs at Lamey-Wellehan.

Haulks Maple

Haulks Maple, a small maple syrup producer in rural Maine, received a REAP grant to purchase and install a new evaporator for maple syrup production. During sap season, Haulks collects syrup from about 1,000 taps on maple trees. The new evaporator produces distilled hot water, which would normally have to be heated on a gas stove. The new evaporator uses less wood and less time, allowing the business to produce more syrup. Haulks estimates it can now make 46 gallons of maple syrup in six hours versus 24 hours.

| Maryland | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 30 | \$1,298,752 | - | 2,056 |
| Energy Efficiency | 11 | \$212,527 | - | 643 |
| Geothermal | 2 | \$332,500 | - | 168 |
| Solar | 14 | \$698,534 | - | 692 |
| Wind | 3 | \$55,191 | - | 553 |

Sunnyside Farms

Sunnyside Farms is an egg producer in Westminster, Maryland that gathers 29,000 dozen eggs each day. It received a REAP grant to purchase and install a 940,220-watt solar panel array that will supply an anticipated 25 percent of its energy needs. Sunnyside hopes their REAP projects produce 245,000 kWh of electricity.

Berrywine Plantations, Inc

Berrywine Plantations received REAP funds to offset the costs for the equipment and installation of a 5 kw ground mount solar array used by two electric vehicle charging stations for visitors at the winery. The new system is anticipated to save 6,000 kWh per year.

| Massachusetts | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 44 | \$2,265,884 | \$4,109,251 | 4,033 |
| Biomass | 3 | \$371,368 | \$1,451,638 | 2,303 |
| Energy Efficiency | 9 | \$211,027 | - | 96 |
| Solar | 31 | \$1,683,489 | \$1,069,000 | 1,268 |
| Wind | 1 | - | \$1,588,613 | 367 |

Morning Glory

Morning Glory Farm grows 55 acres of vegetables and fruits on the island of Martha's Vineyard. It produces organic foods, including strawberry jam and zucchini bread, spinach salads and seasonal homemade pies.

The company also provides employment opportunities to islanders. REAP funds supported the construction of a wind turbine that has so far produced 148,896 kWh. The wind turbine provides 100 percent of current operational needs.

Real Pickles

Real Pickles is a small, independent business producing pickled products that are raw, vinegar-free, and 100 percent organic. They have developed a green initiative approach to help sustain operations. The Rural Development REAP grant helped reduce energy cost by 31 percent at one facility.

| Michigan | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 170 | \$5,918,164 | \$923,596 | 47,144 |
| Biomass | 5 | \$1,229,716 | - | 9,647 |
| Energy Efficiency | 83 | \$2,333,417 | \$739,096 | 30,374 |
| Flexible Fuel Pump | 1 | \$500,000 | - | 5,214 |
| Geothermal | 11 | \$154,997 | - | 406 |
| Hybrid | 2 | \$55,724 | - | 31 |
| Solar | 59 | \$1,412,090 | \$184,500 | 1,298 |
| Wind | 9 | \$232,220 | - | 175 |

McDonald's Food and Family Center

McDonald's Food & Family Center LLC is a family-owned grocery store located in Huron County, Michigan. The company started operations in 1953 and has evolved into a one-stop shopping center offering groceries, catering, gardening, floral and pharmaceutical services.

The Center used its REAP grant to replace two natural gas-fired roof-top units to efficiently heat, cool and ventilate its store's central and meat areas. The old heating system ran 18 hours a day, 7 days a week because refrigerated cases lowered the ambient store temperature.

Through REAP, the Center financed a Heat Reclaim Coil System designed to receive waste heat from the stores' existing medium-temperature refrigeration system. The new cooling unit continues to operate on electricity as backup to the new system, but helps reduce store humidity and lower the load on existing refrigeration systems. Combined, this new system is expected to reduce energy usage by an equal or greater amount.

Their first year after installing the Heat Reclaim Coil System, the owners documented an annual savings of \$13,114.

Country Mill Farms, LLC

Country Mill Farms, LLC in Charlotte, Michigan received a REAP grant to purchase and install a biomass boiler gasification unit, heating system and canola press. The project replaces 95 percent of its propane consumption by using wood scraps as feed stock for the boiler gasification unit. This renewable energy project will allow Country Mill Farms to stay open longer, which will increase overall sales.

| Minnesota | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|---------------------------|---------------------|--------------------|--------------------|
| Projects | 512 | \$12,548,264 | \$5,136,337 | 994,724 |
| Biomass | 4 | \$54,917 | - | 1,587 |
| Energy Efficiency | 440 | \$11,194,646 | \$4,875,720 | 966,395 |
| Flexible Fuel Pump | 4 | \$105,781 | - | 23,640 |
| Geothermal | 29 | \$355,888 | - | 1,930 |
| Solar | 9 | \$163,807 | - | 154 |
| Wind | 26 | \$ 673,225 | \$260,617 | 1,019 |

Longmire Foods

In 2011, Longmire Foods used a REAP grant to install new, efficient doors on the store's coolers and freezers. The company now saves about \$500 per month on energy costs. The owner originally planned to replace all of the coolers and freezers in the store. However, when he learned about the REAP program, he decided to add doors to the existing coolers instead. The total cost of the replacement door is the same as the cost to replace one cooler.

Root River Hardwoods, Inc.

In 2009, Root River Hardwoods was looking for ways to operate more efficiently. The company used a REAP grant to purchase and install a furnace that burns hardwood scraps as its feed source and is the sole source of heat for a 2,000-square-foot pallet mill and 7,200-square-foot saw mill. The feedstock was already owned by

Root River, adding no additional cost to the project, which offsets \$14,500 in annual heating costs and saves 8,800 gallons of gas.

| Mississippi | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 80 | \$2,035,805 | \$8,479,858 | 32,168 |
| Energy Efficiency | 75 | 1,718,931 | \$6,963,579 | 31,808 |
| Flexible Fuel Pump | 1 | \$21,393 | \$85,573 | - |
| Solar | 4 | \$295,481 | \$1,430,706 | 360 |

Synergetics

Synergetics DCS, Inc., an IT company located in Starkville, Mississippi, encompass a wide range of technology solutions including hardware and software sales and service, structured cabling, IP telephone and security systems, network maintenance, and technology training. Synergetics currently has 67 employees at its headquarters. In August 2011, the company used its REAP grant to purchase and install a 200 KW solar array system, the largest solar array in the state. Project funds, which were leveraged by the local bank and Mississippi Development Authority Energy Division, would not have been available without the REAP grant.

The facility uses about 508,800 kWh of electricity per year. However, the new solar system will produce about 267,471 kWh annually, resulting in 52.9 percent of energy replaced and 109 percent of energy savings. The project helps the company increase profits, save and create jobs. Income from the system is projected to be \$63,000.

Tucker Poultry

For the past 14 years, Beverly Tucker has operated a poultry growing business in Bay Springs, Mississippi. The 80-acre operation consists of four poultry broiler houses and support facilities.

Tucker's poultry houses were in need of repair and upgrade to offset rising energy costs. She obtained a REAP grant that was leveraged with funds from a local bank. The improvements to the facility helped Tucker reduce her energy use by 223,000 kWh in 2011, or \$12,500 in savings. Without the REAP grant, Tucker probably would not have been able to obtain the funds necessary to complete the energy upgrades.

| Missouri | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 113 | \$3,523,055 | \$5,985,916 | 293,211 |
| Biomass | 6 | \$681,412 | \$5,502,000 | 178,105 |
| Energy Efficiency | 73 | \$2,036,337 | \$418,916 | 15,255 |
| Flexible Fuel Pump | 6 | \$290,591 | - | 99,357 |
| Geothermal | 5 | \$115,704 | \$65,000 | 121 |
| Hybrid | 2 | \$31,427 | - | 45 |
| Solar | 19 | \$337,984 | - | 297 |
| Wind | 2 | \$29,600 | - | 31 |

Town and Country Butcher Shop

Town and Country Butcher Shop in Missouri is a small, locally-owned butcher providing fresh meat to consumers in Palmyra, Missouri and the surrounding area. The existing freezer unit was inefficient, costly and needed to be replaced. In 2011, owner Ed Dent used REAP funds to offset costs associated with installing a new freezer unit. The new freezer reduced the business' energy consumption. The upgraded equipment reduced electricity use by about 30,000 kilowatts annually.

Hampton Feed Lot

The Hampton Feed Lot anaerobic digester project is expected to be fully operational later this year. The system uses biomass (cow manure) to generate electricity.

The electricity will be sold to Kansas City Power and Light to provide additional income for the feedlot operator. Environmental benefits include reduced odor and pathogen content in wastewater; less pollution by capturing and burning large amounts of methane; and helping the feed lot meet environmental compliance standards as it relates to animal waste.

| Montana | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 24 | \$951,281 | \$163,431 | 11,271 |
| Biomass | 3 | \$88,823 | - | 10,254 |
| Energy Efficiency | 7 | \$154,526 | \$78,525 | 599 |
| Geothermal | 4 | \$71,544 | - | 265 |
| Hybrid | 1 | \$39,945 | \$79,906 | 62 |
| Hydropower | 1 | \$500,000 | \$5,000 | 2 |
| Solar | 7 | \$81,443 | - | 72 |
| Wind | 1 | \$15,000 | - | 18 |

Turnbull Hydroelectric

Turnbull Hydroelectric, which provides hydroelectric generation on an irrigation drop, received a Business & Industry loan guarantee and a REAP grant in 2010. The project was built on the existing system of an irrigation district, which is selling the power to the electric utility.

Simms Fishing

REAP funds were used to place a solar array on a new manufacturing plant and headquarters for Simms Fishing, a fly fishing gear manufacturer in Bozeman, Montana, in 2011. The company makes waders, boots, vests, and other equipment for outdoor recreation. This manufacturing business is growing and adding jobs.

| Nebraska | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 408 | \$6,693,800 | \$5,756,579 | 583,172 |
| Biomass | 1 | \$3,957 | - | 95 |
| Energy Efficiency | 393 | \$5,612,729 | \$3,767,329 | 519,328 |
| Flexible Fuel Pump | 2 | \$428,632 | - | 62,500 |
| Geothermal | 5 | \$45,735 | - | 77 |

| | | | | |
|--------|---|-----------|-------------|-------|
| Hybrid | 1 | \$20,000 | - | 21 |
| Wind | 6 | \$582,747 | \$1,989,250 | 1,150 |

Main Street Floral, LLC

Main Street Floral, LLC is a floral and gift shop located in Superior, Nebraska. The flower shop needed energy efficient doors, windows, and lighting system. Rural Development provided a REAP grant to offset equipment and installation expenses. As a result, the store will reduce its original energy use by 48 percent and reduce its BTU consumption by 20 million units.

Y7, Inc.

REAP funds were used to help finance wind powered electricity for irrigation on the Y7, Inc. farming operation in western Nebraska. The turbines are validation that wind power can reduce rising electricity costs for irrigation and other farm operations.

| Nevada | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 11 | \$469,189 | - | 1,302 |
| Biomass | 1 | \$14,094 | - | 2 |
| Energy Efficiency | 2 | \$13,940 | - | 73 |
| Hydroelectric | 1 | \$19,700 | - | 276 |
| Hydropower | 3 | \$270,272 | - | 665 |
| Solar | 1 | \$17,575 | - | 13 |
| Wind | 3 | \$133,608 | - | 272 |

Young Brothers Ranch

Young Brothers Ranch, in Big Smoky Valley (a very remote area of Lander County in central Nevada) needed to reduce power costs to run an irrigation system. The owners farm 780 acres of alfalfa and small grain hay. The ranch had been one of the first in the valley to develop power back in the 1940s, and they wanted to look at using alternative energy.

REAP funding was used to purchase a 93 kW hydro-turbine generator that will replace 79 percent of the energy needed for hay production. Rural Development provided a second REAP grant to replace a portion of the pipeline to further increase efficiency. The electricity generated by the hydro turbine replaces some of the electricity that the farmer was purchasing.

The hydro-turbine generator will use existing water sources to produce electricity reducing their current energy costs by an estimated \$37,000 per year.

Van Norman Ranch

Rural Development provided a REAP grant for hydroelectric production on the Van Norman Ranch in the northeast corner of Nevada. The ranch grows hay and has a cow calf operation. Through the REAP program, the owners have acquired 35 kw and 17 kw turbines that were placed on spring-fed streams. The ranch accrues power credits and uses them during irrigation season to run the pumps for their pivot irrigation system.

| New Hampshire | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 21 | \$572,093 | \$509,497 | 3,742 |
| Energy Efficiency | 12 | \$249,330 | \$80,000 | 3,476 |
| Geothermal | 1 | \$13,059 | - | 6 |
| Solar | 8 | \$309,704 | \$429,497 | 260 |

Pleasant View Gardens

Pleasant View Gardens, in Pembroke, New Hampshire, was looking for ways to improve business efficiency and reduce dependence on foreign oil. It developed a plan to install a 400 kW biomass wood-fired boiler system to heat its commercial greenhouses.

Rural Development provided a REAP grant and a loan guarantee to First Pioneer Farm Credit to offset the costs to install the biomass boiler system. The project will help Pleasant View Gardens displace the use of about 242,000 gallons of heating oil - a savings of more than \$700,000 annually. The new biomass system will consume 4,200 tons of locally produced wood chips.

DS Cole Growers

DS Cole Growers of Loudon, New Hampshire is a 150,000-square-foot commercial greenhouse complex. It is a leading provider of wholesale annual plants to the nursery trade and supports 28 jobs in a rural area. Cole distributes throughout New England and the United States. It used the REAP program to reduce dependence on fossil fuel (natural gas) and to reduce heating costs. The REAP grant helped DS Cole purchase and install energy curtains on the grow houses. The project will save more than 2.2 million BTUs annually—or \$30,000.

| New Jersey | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 39 | \$3,462,317 | \$1,883,937 | 2,097 |
| Energy Efficiency | 1 | \$49,560 | - | 164 |
| Solar | 35 | \$3,324,056 | \$1,883,937 | 1,870 |
| Wind | 3 | \$88,701 | - | 63 |

Fulper Farms LLC

In 2010, Fulper Farms used a REAP grant and a loan guarantee to build a 134 kW ground-mounted solar energy system on the farm.

Plagido's Winery LLC

In 2011, Plagido Winery used a REAP grant to build a 11.96 kW roof-mounted solar energy system at the winery. The new system helped reduce the company's operating costs.

| New Mexico | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 26 | \$904,740 | \$850,000 | 117,971 |
| Energy Efficiency | 5 | \$72,074 | - | 556 |

| | | | | |
|--------------------|----|-----------|-----------|---------|
| Flexible Fuel Pump | 2 | \$17,183 | - | 2,493 |
| Solar | 18 | \$776,914 | \$850,000 | 114,879 |
| Wind | 1 | \$38,569 | - | 43 |

PFI, LLC

PFI, LLC owns and operates a 114-acre farm in Roswell, New Mexico. The farm grows cereal grains and corn silage, primarily for dairy cows. The owners received a grant and guaranteed loan through REAP for the purchase and installation of a 99.5 kW solar voltaic array to provide electricity to power the center pivot and irrigation well pump.

Southwest Technical Service, Inc.

In June 2011, Southwest Technical Service, Inc. received a REAP grant to offset the cost of developing a solar array for its business. Southwest Technical Service is a small rural business in the foothills of the Sandia Mountains in Placitas, New Mexico, 20 miles north of Albuquerque. The business, which supports the owner and two additional employees, produces machined parts on contract to national scientific laboratories and other private companies. The grant provided a fourth of the cost of purchasing and installing 7.1 kW solar voltaic array, which provides electricity for the business's administrative and manufacturing facility. The solar array covers about 2,750 square feet of the facility's roof and comprises 30 panels of 235 watts each. The electricity offsets about 50 percent of fossil fuel costs and saves approximately \$250 per month.

| New York | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|---------------------------|---------------------|--------------------|--------------------|
| Total | 189 | \$4,061,747 | \$1,695,086 | 24,800 |
| Biomass | 2 | \$235,091 | \$450,000 | 9,425 |
| Energy Efficiency | 90 | \$1,077,465 | \$769,487 | 13,133 |
| Flexible Fuel Pump | 1 | \$21,688 | - | 270 |
| Geothermal | 1 | \$203,700 | \$229,599 | 827 |
| Hybrid | 1 | \$19,860 | - | 6 |
| Solar | 68 | \$1,978,619 | \$246,000 | 890 |
| Wind | 26 | \$525,324 | - | 250 |

The Berry Farm

The Berry Farm in New York is a 22-acre fruit and vegetable farm, greenhouse, and market with bakery and fresh meat products. In 2011, The Berry Farm received a REAP grant to offset 25 percent of the equipment and installation costs for a 29 kW pole-mounted solar photovoltaic system. The system will produce an estimated 35,791 kWh of electricity, which will offset 88 percent of The Berry Farm's power usage.

Schwab Dairy

Schwab Dairy Farm, in Delevan, New York, is a 700-cow dairy which had been using sawdust for bedding of the dairy herd. The farm proposed changing to sand bedding to improve cow comfort and performance and to reduce the high cost of buying and disposing of sawdust bedding materials.

In June 2010, Schwab Dairy Farm LLC received a grant and a loan guarantee to install a bedding-sand recovery system. REAP funds were used to install a sand separator to recover sand from the manure slurry and reuse it. Over a five-year period, this project is expected to save 5,700 BTUs – the equivalent of 44,100 gallons of diesel fuel.

| North Carolina | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|---------------|-------------|
| Total | 277 | \$ 6,136,221 | \$ 10,342,500 | 303,045 |
| Biomass | 9 | \$574,047 | \$5,367,000 | 214,951 |
| Energy Efficiency | 241 | \$4,341,077 | \$49,500 | 54,418 |
| Flexible Fuel Pump | 1 | \$36,750 | - | 342 |
| Geothermal | 2 | \$53,670 | - | 26,472 |
| Hydroelectric | 1 | \$146,281 | - | 2,884 |
| Solar | 23 | \$984,396 | \$4,926,000 | 3,979 |

Metrolina Greenhouses

Metrolina is a large-scale greenhouse operation in Huntersville, North Carolina. The REAP-funded project consisted of construction of a wood boiler heating system that would supplement, and at times replace the use of natural gas and/or fuel oil at the facility. By using wood chips to heat their greenhouses they would be using a renewable source, providing an additional market for local lumber mills, and logging operations. The project also now saves up to 172,800 mmbtu per year of energy and uses about 35,000 tons of wood chips per year.

Mayberry Solar, LLC

Mayberry Solar, LLC used a land lease from the Town of Mount Airy, North Carolina to install the ground mounted solar system near a waste water treatment facility. The land used could not serve other purposes due to the proximity of the treatment spray fields. Thus, the town and community are able to benefit from the lease agreement and have a large solar project installed that will provide a source of renewable energy to the local power company. The 1.2 mW solar array will generate enough energy to power 200 homes a year.

| North Dakota | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 45 | \$1,616,242 | \$730,523 | 29,875 |
| Energy Efficiency | 28 | \$1,123,472 | \$630,523 | 13,426 |
| Flexible Fuel Pump | 4 | \$228,849 | - | 16,026 |
| Geothermal | 2 | \$23,194 | - | 113 |
| Hybrid | 1 | \$19,787 | - | 43 |
| Solar | 3 | \$74,297 | - | 51 |
| Wind | 7 | \$146,643 | \$100,000 | 216 |

Chad Brandt

Chad Brandt of Oakes, North Dakota, dries about 225,000 bushels of grain per season, using propane. He replaced his 30-year-old cross-flow screen dryer with a 10-tier mixed-flow dryer. An energy audit projected that new system would be 20 percent more efficient than his existing system. The moisture content in his corn had been ranging from 26-29 percent, driving the need to improve his grain-drying system. The REAP program provided grant and guaranteed loan funds to help offset the costs of the project.

| Ohio | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|--------------|-------------|
| Total | 169 | \$12,264,217 | \$24,446,326 | 392,397 |
| Biomass | 15 | \$5,483,476 | \$21,990,310 | 347,148 |
| Energy Efficiency | 111 | \$2,906,833 | \$1,306,243 | 34,187 |
| Flexible Fuel Pump | 3 | \$141,088 | - | 4,111 |
| Geothermal | 2 | \$40,000 | - | 160 |
| Solar | 17 | \$799,997 | \$95,922 | 636 |
| Wind | 21 | \$2,892,823 | \$1,053,851 | 6,156 |

First Choice Package

REAP funds were used to replace existing lighting in First Choice Package’s facility, in Fremont, Ohio, with high-efficiency lighting to improve energy efficiency and work-place lighting. The project has saved over 1,000,000 kWh of electricity since installation.

Webb Perennials

The Webb Perennials project involves the installation of a small wood-fired boiler system for a small greenhouse in southeastern Ohio that allowed the owner to offset nearly 100 percent of the propane use for the greenhouse. The project saves Webb Perennials about \$8,000 a year.

| Oklahoma | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 40 | \$1,313,785 | \$393,325 | 12,096 |
| Biomass | 6 | \$310,174 | - | 4,353 |
| Energy Efficiency | 16 | \$429,856 | \$268,575 | 5,638 |
| Flexible Fuel Pump | 1 | \$16,125 | - | 1,106 |
| Hybrid | 1 | \$19,650 | - | 4 |
| Solar | 5 | \$352,476 | - | 779 |
| Wind | 11 | \$185,504 | \$124,750 | 215 |

Jensen International, Inc.

Jensen International, Inc. used a combination of REAP grant and guaranteed loan funding to complete a furnace upgrade. In the first year after the upgrade was completed, the firm reduced its energy consumption by 1,038,000 kilowatt hours, saving about \$300,000 in energy cost.

Rollingstone Stables

REAP funding was used to purchase a 10 kilowatt wind turbine for Rollingstone Stables, a recreational guest ranch. The project will save the ranch about \$6,500 in annual energy costs.

| Oregon | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|---------|--------------------|--------------|--------------|-------------|
| Total | 119 | \$3,852,141 | \$13,158,233 | 73,331 |
| Biomass | 5 | \$ 658,794 | \$3,650,000 | 53,070 |

| | | | | |
|-------------------|----|-------------|-------------|--------|
| Energy Efficiency | 24 | \$728,493 | - | 3,833 |
| Hydroelectric | 2 | \$19,695 | \$7,200,000 | 13,688 |
| Solar | 74 | \$1,685,209 | \$81,093 | 1,107 |
| Wind | 14 | \$759,950 | \$2,227,140 | 1,633 |

SPS of Oregon, (Wallowa County)

SPS of Oregon received the state’s first micro hydro REAP grant. The project directs irrigation water through a dual-nozzle pelton wheel to power an 11 kW generator. It will produce about 75,000 kilowatt hours of power annually.

Tillamook, LLC (Farm Power Northwest)

REAP funds were used to construct an Anaerobic Digester that will use manure to generate about 7.4 megawatts of electricity annually that will be sold to the Tillamook People’s Utility District. That’s enough energy to heat about 1,500 homes.

The community digester, expected to go online this year, will capture methane gas from the manure from 1,800 dairy cows. Rather than being released into the atmosphere as greenhouse gas, the methane will be burned to generate electricity for the local utility district.

In addition to producing renewable energy and reducing greenhouse gas emissions by thousands of tons per year, the project will improve handling of animal waste, improve water quality, and reduce labor for dairy farmers. After it undergoes anaerobic digestion, the processed manure leaves the facility as a pathogen- and odor-free organic compost.

| Pennsylvania | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 79 | \$4,776,196 | \$867,065 | 136,119 |
| Biomass | 11 | \$2,721,594 | \$577,340 | 59,502 |
| Energy Efficiency | 23 | \$517,470 | \$100,000 | 63,894 |
| Flexible Fuel Pump | 1 | \$24,675 | - | 761 |
| Geothermal | 1 | \$20,000 | - | 116 |
| Solar | 43 | \$1,492,457 | \$189,725 | 11,847 |

Pennwood Farms

Pennwood Farms in Somerset County, Pennsylvania, is a 600-cow dairy farm. With the increasing cost of energy, small farmers are finding innovative ways to maintain viability and competitiveness. In April, the owners installed a digester by using a REAP loan and a grant. The digester produces biogas to power a 180-kilowatt engine-generator, which in turn produces enough electricity to meet the farm’s needs. In addition to electricity, the digester also produces fertilizer and cow bedding.

Molnar Farms

Molnar Farms received REAP funds to install computer-controlled radiant heaters and ceiling vents to modernize a 40,000 chicken house to keep the chickens from being exposed to temperature fluctuations.

| Puerto Rico | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|---------------------------|---------------------|--------------------|--------------------|
| Total | 10 | \$602,436 | - | 103,173 |
| Biomass | 1 | \$14,062 | - | 102,192 |
| Energy Efficiency | 1 | \$39,800 | - | 509 |
| Solar | 8 | \$548,574 | - | 472 |

Vaqueria La Maraton

Vaqueria La Maraton is a farm located in San Lorenzo, Puerto Rico, where an on-grid photovoltaic panel system was installed to produce clean, renewable and cost-effective energy for the dairy operation. Dealing with the high electricity costs became a main concern for the financial stability of the operation. In 2010, the owners received a Rural Energy for America Program grant from USDA Rural Development. The funds will offset 25 percent of the equipment and installation costs for 117 PV panels (120W). The dairy farm owners anticipate a reduction in over 50 percent of current energy needs, a savings of more than \$12,000 annually.

| Rhode Island | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|---------------------|---------------------------|---------------------|--------------------|--------------------|
| Total | 3 | \$55,615 | - | 268 |
| Biomass | 1 | \$20,000 | - | 232 |
| Solar | 2 | \$35,615 | - | 36 |

Rhode Island Resource Conservation and Development Area Council

The Rhode Island Resource Conservation and Development Area Council will use REAP funds to assist farmers, ranchers, and rural small businesses in developing renewable energy systems and in making energy-efficiency improvements.

| South Carolina | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-----------------------|---------------------------|---------------------|--------------------|--------------------|
| Total | 53 | \$2,110,962 | \$963,521 | 27,845 |
| Biomass | 4 | \$598,760 | \$838,521 | 2,624 |
| Energy Efficiency | 46 | \$1,152,016 | \$125,000 | 14,260 |
| Flexible Fuel Pump | 2 | \$97,686 | - | 10,897 |
| Solar | 1 | \$262,500 | - | 64 |

Champion Wood Pellet, LLCs

Champion Wood Pellets received REAP funds to produce approximately 10,400 tons of finished and palletized wood pellets per year which replace propane and other fuels, also creating seven new jobs. The project will help to meet the Federal and State objectives of providing more energy from renewable resources. The energy that is derived from biomass is considered carbon neutral and sustainable.

Carr Farms, Inc.

Carr Farms, Inc. received REAP funds to convert two diesel irrigation pumps to electric powered pumps to spray 308 acres of irrigated peach trees. In addition to the pump conversion, the project consisted of removing the

existing Freon hydro-cooler lines, converting them to use the existing ammonia compressors for the other hydro-cooler lines. This conversion allows the full use of the ammonia system, and helps to phase out the use of Freon, an ozone pollutant. The conversions allow for 33 percent energy savings.

| South Dakota | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 97 | \$3,545,909 | \$2,758,772 | 26,716 |
| Biomass | 1 | \$17,035 | - | 100 |
| Energy Efficiency | 79 | \$3,158,316 | \$2,448,772 | 19,601 |
| Flexible Fuel Pump | 3 | \$61,040 | - | 4,300 |
| Geothermal | 10 | \$137,171 | - | 530 |
| Hybrid | 1 | \$19,178 | - | 0 |
| Wind | 3 | \$153,169 | \$310,000 | 2,184 |

N-K Properties

John Keys, owner of N-K Properties in Yankton, South Dakota, used Rural Development grant funds to purchase and install a geothermal heating system, which has increased his revenue, and saved costs for his car wash operation.

Legend Seeds

Glen Davis, president of Legend Seeds, Inc. in Kingsbury, South Dakota, used Rural Development funds to help install a corn-burning boiler.

| Tennessee | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 98 | \$4,097,409 | \$2,500,383 | 633,936 |
| Biomass | 7 | \$1,102,854 | \$1,103,942 | 628,325 |
| Energy Efficiency | 20 | \$512,852 | \$165,856 | 3,334 |
| Geothermal | 1 | \$11,250 | - | 2 |
| Hybrid | 1 | \$19,999 | - | 28 |
| Solar | 69 | \$2,450,454 | \$1,230,585 | 2,247 |

Wampler's Farm Sausage

Wampler's Farm Sausage Company is a third-generation agriculture company that understands the importance of taking care of the environment. The business accomplishes this by making their sausage in the most sustainable way possible. In 2009, Wampler's received a REAP grant to install a 28 kW photovoltaic system on the roof. The company owner was very pleased with the success of this system and in 2010 decided to significantly increase the system capabilities by installing a 2,240-panel, 500 kW array. To assist in this the company received a REAP guaranteed loan and a REAP grant. This system should displace 12-15 percent of the company's electricity consumption.

Greater Growth, LLC

Greater Growth, LLC, in Lenoir City, Tennessee, received REAP funds to support solar power production. The facility relies on solar power and filtered rain water for a production concept called Aquaponics, which combines traditional aquaculture, where fish are raised in tanks, with hydroponics, where plants are cultivated in water. This business is one of the first commercial aquaponics businesses in east Tennessee.

| Texas | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 94 | \$4,731,073 | - | 46,441 |
| Biomass | 1 | \$461,625 | - | 13,201 |
| Energy Efficiency | 48 | \$1,795,581 | - | 11,189 |
| Flexible Fuel Pump | 1 | \$11,829 | - | 1,020 |
| Hybrid | 2 | \$30,827 | - | 28 |
| Solar | 32 | \$800,464 | - | 970 |
| Wind | 10 | \$1,630,747 | - | 20,032 |

X Bar Ranch, LTD

In 2009, X Bar Ranch, LTD of Eldorado, Texas used a REAP grant to install new insulation, a 3.5 ton heat pump, water heater, blackout curtain, and energy-efficient windows. The improvements will save the ranch an estimated \$1,000 each year in energy costs.

Red Caboose, LLC

In 2009, Red Caboose, LLC, a winery in Meridan, Texas, used a REAP grant to make energy efficiency improvements. Once completed, the project will save the winery \$2,000 annually in energy costs.

| Utah | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 19 | \$1,952,275 | \$287,000 | 30,129 |
| Biomass | 1 | \$496,750 | - | 20,652 |
| Energy Efficiency | 5 | \$247,660 | - | 4,458 |
| Flexible Fuel Pump | 1 | \$500,000 | - | 0 |
| Hydroelectric | 1 | \$500,000 | \$287,000 | 4,709 |
| Solar | 9 | \$176,164 | - | 298 |
| Wind | 2 | \$31,701 | - | 13 |

Hell's LLC - Hell's Backbone Grill

Hell's Backbone Grill is a locally owned and operated restaurant in Boulder, Utah. The restaurant grows much of its own produce in a greenhouse. In 2010, the company used a REAP grant to install a system of solar panels that produced power for their greenhouse. The new system allowed the company to extend the useful growing season for the restaurant's produce. Boulder has a population of 190 and Hell's Backbone Grill provides 30 full and part-time positions.

Washakie Renewable Energy, LLC

Located in rural Plymouth, Utah, Washakie Renewable Energy, LLC is the only large-scale advanced biofuel producer in the state and provides the community of about 300 with 65 jobs. The plant produces 10 million gallons of biodiesel and converts grease, animal fat and wastewater into clean biofuel. Their REAP grant will help reduce America's dependence on foreign oil by financing the construction and installation of a pretreatment of biofuels and advanced biofuel production plant with two blender pumps.

| Vermont | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 97 | \$3,586,483 | \$5,422,749 | 28,857 |
| Biomass | 7 | \$2,285,861 | \$3,252,703 | 12,828 |
| Energy Efficiency | 73 | \$884,236 | \$403,633 | 14,657 |
| Hydroelectric | 1 | \$49,325 | - | 346 |
| Solar | 15 | \$351,061 | \$1,766,413 | 1,016 |
| Wind | 1 | \$16,000 | - | 11 |

Addison Solar, LLC

Rural Development provided a loan guarantee for Addison Solar, LLC to install a 1-megawatt solar energy project. The project will consist of 3,800 solar panels on a 16-acre tract of land.

Trackside Depot LLC

Owners of the historic Middlebury, Vermont train depot used REAP funds to change their building into a modern, energy-efficient space suitable for business offices. The owners wanted to maintain the historic character of the 1891 structure while updating the lighting, building, and mechanical systems to modern standards.

| Virginia | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 50 | \$2,603,960 | \$435,271 | 32,485 |
| Biomass | 6 | \$1,347,556 | \$435,271 | 17,713 |
| Energy Efficiency | 26 | \$803,274 | - | 10,274 |
| Flexible Fuel Pump | 1 | \$49,605 | - | 2,278 |
| Geothermal | 1 | \$43,343 | - | 103 |
| Hybrid | 1 | \$64,675 | - | 14 |
| Solar | 15 | \$295,507 | - | 2,104 |

UNAKA Forest Products, Inc.

In 2009, UNAKA Forest Products, Inc. used a REAP loan and grant to purchase machinery and equipment so the owners could establish a chip mill capable of producing a renewable biomass fuel (wood pellets) for sale to area industries.

Cooper Vineyards

In 2009, Cooper Vineyards in Louisa, Virginia, wanted to expand a wine-tasting room. Rural Development was able to assist the business with a REAP grant to help with installation of four renewable energy systems.

| Washington | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 29 | \$2,051,796 | \$3,786,500 | 33,930 |
| Biomass | 3 | \$1,200,000 | \$3,786,500 | 23,979 |
| Energy Efficiency | 8 | \$265,508 | - | 2,390 |
| Flexible Fuel Pump | 1 | \$66,218 | - | 6,807 |
| Solar | 13 | \$254,935 | - | 651 |
| Wind | 4 | \$265,135 | - | 103 |

The Farmers Market

The Farmers Market in Olympia, Washington attracts about 500,000 visitors during its nine-month season and generates about \$5 million in sales. The Farmers Market Community Solar Project LLC, received a REAP grant to help purchase solar roof panels to be installed on the market.

In June 2011, 192 solar panels, manufactured in the state, were installed at the Farmers Market. The panels are capable of producing 30 to 50 percent of the market's electricity needs and reduce the electrical costs of the individual vendors. Investors in the LLC are also eligible for a 30 percent federal tax credit on their contribution to the project.

Montesano Thriftway

The Montesano Thriftway in Grays Harbor County wanted to replace 50-year-old store lighting. The owners were looking for a newer and more energy efficient lighting system.

Rural Development provided a REAP grant to offset the costs associated with replacing the inefficient lighting in the grocery store. The Thriftway Store will save \$4,600 annually on energy and maintenance costs. In addition, about 95,000 kilowatt hours are now saved annually, which is enough electricity to power seven homes for one year.

| West Virginia | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 25 | \$802,492 | \$ 573,408 | 1,611 |
| Biomass | 1 | \$130,592 | \$319,408 | 3 |
| Energy Efficiency | 9 | \$232,100 | - | 1,188 |
| Geothermal | 3 | \$145,310 | \$ 254,000 | 155 |
| Solar | 12 | \$294,490 | - | 265 |

Caperton FurnitureWorks, LLC

In 2009, Caperton FurnitureWorks, LLC., a hardwood furniture manufacturer located in Morgan County, West Virginia, used a REAP grant to reduce energy costs and solve wood waste problems. The company installed a new, wood-fired, closed-loop boiler heating system and a 4,415-cubic-foot storage silo with transfer system. The new system will reduce energy consumption by 90 percent, reduce operating costs, and help maintain a workforce of 125 employees.

B&B Mart, Inc.

B&B Mart, Inc. is a small, family-owned grocery store in Rock Cave, West Virginia, that needed to be more energy efficient to remain competitive. The market is a trading center for rural communities in Webster, Lewis, Braxton and Randolph counties. The facility is a full-service grocery store, which sells locally grown produce and numerous regional brands of groceries in their product line. In 2010, B&B Mart, Inc. used a REAP grant to replace the heating and cooling system, coolers, freezers, produce cases, water heaters, improved lighting, and signage at the store. The energy efficiency renovations resulted in a savings of 121,000 kWh, or \$8,500 annually.

| Wisconsin | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|--------------------|--------------------|--------------|-------------|-------------|
| Total | 142 | \$4,639,650 | \$2,852,923 | 392,932 |
| Biomass | 3 | \$525,246 | \$1,321,187 | 18,072 |
| Energy Efficiency | 64 | \$1,694,951 | \$628,860 | 366,262 |
| Flexible Fuel Pump | 2 | \$477,482 | - | - |
| Hybrid | 1 | \$77,063 | \$133,996 | 159 |
| Solar | 49 | \$823,604 | \$35,000 | 675 |
| Wind | 23 | \$1,041,304 | \$733,880 | 7,764 |

Helene's Hilltop Orchard

Helene's Hilltop Orchard, LLC, of Merrill, Wisconsin, a REAP grant to purchase and install a 13.3 kW photovoltaic solar power system that will produce 16,226 kWh annually, providing 40 percent of the company energy needs.

Pagel's Ponderosa Dairy, LLC

Pagel's Ponderosa Dairy, LLC has 4,200 head of cattle. The company used a REAP grant to build an anaerobic digester that generates about 1,050 kilowatts per hour, enough energy to power more than 800 homes. In 2011, the system generated over 5,700,000 kWh.

| Wyoming | Number of Projects | Grant Amount | Loan Amount | kWh (1,000) |
|-------------------|--------------------|--------------|-------------|-------------|
| Total | 9 | \$157,651 | | 1,832 |
| Energy Efficiency | 5 | \$53,605 | - | 995 |
| Hybrid | 1 | \$9,650 | - | 8 |
| Solar | 2 | \$67,619 | - | 782 |
| Wind | 1 | \$ 26,777 | - | 47 |

Powder River Energy Corporation

Ranches in northeastern Wyoming needed a cost-effective way to deliver water to livestock pasturing in remote locations. The ranchers worked with Powder River Energy Corporation, the local electric provider, to identify ways to provide electricity to the remote locations. Powder River Energy received a REAP grant, which it used to purchase solar-powered stock pump units and tanks. Thanks to REAP, 47 ranchers can now provide water to their livestock year-round.

Woods Landing, LLC

In 2011, Wood Landing, LLC used a REAP grant to make thermal insulation improvements to the roofing system of a rustic log building that is on the National Register of Historic Places.. The facility is located in an extremely rural area and used as the local gathering place.

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