



Utah's Application to the United States Department of Energy

State Energy Program Formula Grants
American Recovery and Reinvestment Act (ARRA) 2009
Funding Opportunity Number: DE-FOA-0000052

MAY 2009



SEP American Recovery and Reinvestment Act Formula Grant Information

The Utah State Energy Program (SEP) is eligible to receive up to \$35,362,000 of funding under the American Recovery and Reinvestment Act. The American Recovery and Reinvestment Act (ARRA) was enacted to preserve and create jobs and promote economic recovery; to assist those most impacted by the recession; to provide investments needed to increase economic efficiency by spurring technological advances in science and health; to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and, to stabilize state and local government budgets, in order to minimize and avoid reductions in essential services and to minimize and avoid counterproductive tax increases.

Consistent with the goals of the State Energy Program, Utah SEP seeks to contribute to the ARRA through the following:

1. increase energy efficiency to reduce energy cost and consumption for consumers, businesses and government,
2. reduce reliance on imported energy,
3. improve the reliability of electricity and fuel supply and the delivery of energy services, and
4. reduce the impacts of energy production and use on the environment.

Utah SEP performs activities in six market areas. The programs proposed to the United States Department of Energy (DOE) have been designed to reach across all six markets. These markets are Buildings, Electric Power and Renewable Energy, Energy Education, Industry, Policy Planning and Energy Security, and Transportation. (A breakdown of the funds across each market and within each individual program can be viewed in Appendix A.) DOE reporting categories include jobs created, energy saved, renewable energy installed/generated, greenhouse gas emissions reduced, energy costs saved, and funds leveraged. For the purpose of this application, projected estimates have been shown for annual energy savings and jobs created or retained. All programs will leverage funds to the maximum extent possible.

Per DOE requirements, all Utah SEP ARRA Formula Grant funds must be committed within eighteen (18) months of the effective date of the award (April 29, 2009), and all funds must be expended within thirty-six (36) months of the effective date. All proposed funding amounts shown reflect a three-year total. The Utah SEP ARRA program start date is April 29, 2009. The end date is projected to be April 30, 2012. An application was submitted to DOE on May 12, 2009. DOE review is expected to take 60 – 90 days. Upon DOE approval, Utah SEP can commence program activities. Requests for proposals will be issued and programs will be initiated on a rolling basis following DOE approval.

All information in this document is subject to DOE approval and subject to change by DOE or Utah SEP.

Residential and Commercial Energy Training

Proposed DOE Funding: **\$750,000**

Utah SEP currently provides free building codes trainings to builders, engineers, architects, and code officials in Utah. Utah SEP will continue to provide this service and will expand the program through the use of ARRA funding. The program will be expanded to include (but will not be limited to) trainings such as Energy Rater Trainings, Certified Energy Managers' Trainings, Photovoltaic and Solar Hot Water Trainings, Solar Codes Trainings, and Contractor Certification Trainings Related to Incentive Programs.

In the past, Utah SEP's Energy Codes Training Program had financial support from the major utility companies in the region, Questar Corporation and Rocky Mountain Power. Utah SEP may look for further partnerships and funding opportunities to leverage with the expansion of the Residential and Commercial Energy Training Program. These contributions will be determined in the coming months. Utah SEP is also in discussion with the Utah Department of Workforce Services to collaborate on the design of this program and to create the most effective program possible that targets the most appropriate trainees. Utah SEP will request proposals from professional trainers to conduct the sessions. Based upon responses, Utah SEP will hire the most qualified and appropriate professional trainers.

Estimated Annual Energy Savings: 424,078.36 MBtus
Jobs Created/Retained: 8
Leveraged Funds: amount unknown at this time

Advanced Energy Efficiency Strategies for Buildings

Proposed DOE Funding: **\$1,500,000**

The Advanced Energy Efficiency Strategies for Buildings Program will be a partnership with the Governor's Energy Advisor's Office. The program creates a best-practices formula to drive energy efficiency throughout the building sector. The program establishes a clear method for base-lining in state-owned buildings through the use of Energy Star Portfolio Manager. The program is founded on a principle of leading-by-example with state buildings, and then communicating these practices through partnerships and public education campaigns.

Estimated Annual Energy Savings: 35,000.00 MBtus
Jobs Created/Retained: 18
Leveraged Funds: amount unknown at this time

Whole Home Audit Program

Proposed DOE Funding: **\$3,000,000**

A Whole Home Audit Program may be adopted for the state of Utah. This may be modeled after Home Performance with Energy Star, or it may be a custom program designed for Utah. This program would address energy efficiency in Utah's existing residential infrastructure. It would provide participants with a home audit and a prioritized list of retrofits for energy efficiency improvements. Rebates may be provided for participation and/or implementation of recommended improvements. The program would build upon and leverage the existing utility rebates, while complementing existing demand-side management programs by providing customers with a whole-systems approach to gaining greater energy efficiency. This program would be conducted by a third-party provider, selected through a request for proposals.

Estimated Annual Energy Savings: 10,000.00 MBtus

Jobs Created/Retained: 60

Leveraged Funds: amount unknown at this time

Builder Rebates for High Performance Home Building

Proposed DOE Funding: **\$3,000,000**

This program will provide home builders with a rebate for high-performance new home construction. The goal of this program is to entice builders to strive for an aggressive energy efficiency standard in the new homes that they build. The homes should achieve a rating of HERS 70 or better and may also have additional requirements to be eligible for the rebate. This rebate is designed to complement other incentives that are offered in the area through demand-side management programs, and may be combined with these rebates in order to cover the builders incremental cost for taking these extra measures. The program would be conducted by a third-party provider, selected by Utah SEP through a request for proposals.

Estimated Annual Energy Savings: 21,075.00 MBtus

Jobs Created/Retained: 33

Leveraged Funds: amount unknown at this time

Direct Installation Insulation Program

Proposed DOE Funding: **\$1,500,000**

The Direct Installation Insulation Program will provide insulation installation in homes at no cost to the owner. This program would target low-income homeowners and renters that are not eligible for Utah's Weatherization Assistance Program. It would also screen for homes that would most benefit from the upgrade based upon the age of the home, the existing thermal envelope, and the quality and quantity of the insulation already

present. This program would launch off of the success of the current insulation rebates that have been well adopted and very popular with the public. The program would be conducted by a third-party provider, selected by Utah SEP through a request for proposals.

Estimated Annual Energy Savings: 2,500.00 MBtus
Jobs Created/Retained: 32
Leveraged Funds: amount unknown at this time

Energy Efficiency in State Buildings

Proposed DOE Funding: **\$6,000,000**

The Energy Efficiency in State Buildings Program would implement energy efficiency improvements throughout state-owned buildings. It is likely to be conducted in partnership with the Utah Department of Facilities Construction and Management (DFCM).

Within this program, the funds would most likely be used in three ways. Roughly \$1.5 million would be put to work in a revolving loan fund. Approximately \$400,000 would be used to expand professional energy modeling in order to maximize energy efficiency achievements. The remainder of the funds would be used to provide 5-10% incentive grants to entities, to entice them to engage in Performance Contracting projects.

Estimated Annual Energy Savings: 206,000.00 MBtus
Jobs Created/Retained: 72
Leveraged Funds: amount unknown at this time

Energy Efficiency Grants for Public Schools

Proposed DOE Funding: **\$2,500,000**

The Energy Efficiency Grants for Public Schools Program would provide Utah schools with financial assistance for implementing energy efficiency measures in their buildings. Utah SEP may provide up to 50% of the project cost in grant funding. The other 50% may either be met through the Utah SEP Public School Revolving Loan Fund, or it may be met through other funding that the school has available.

Estimated Annual Energy Savings: 86,087.15 MBtus
Jobs Created/Retained: 30
Leveraged Funds: amount unknown at this time

Utah SEP Public School Revolving Loan Fund

Proposed DOE Funding: **\$2,500,000**

Utah SEP has a revolving loan fund for public schools to enable them to implement energy efficiency projects. The Utah SEP Public School Revolving Loan Fund Program would fund the revolving loan, enabling schools to take out zero-interest loans with repayment schedules tied to energy savings paybacks (12 years or less). Schools may use this loan to meet the 50% match required for the Energy Efficiency Grants for Public Schools Program.

Estimated Annual Energy Savings: 86,087.15 MBtus
Jobs Created/Retained: 30
Leveraged Funds: amount unknown at this time

Competitive Grants for Energy Efficiency in the Building Sector

Proposed DOE Funding: **\$632,544**

The Competitive Grants for Energy Efficiency in the Building Sector Program would be open to the public and would provide opportunity for funding highly innovative energy efficiency projects that fall within the scope of ARRA goals, but that may not fall under the umbrella of any of the more specific Utah SEP ARRA programs. Grants may be awarded as a maximum of a 50% match and they would be chosen based upon the number of jobs created or retained, the amount of energy saved, the renewable energy capacity installed, the quantity of greenhouse gases reduced, and the amount of funds leveraged within a project.

Estimated Annual Energy Savings: 26,546.35 MBtus
Jobs Created/Retained: 6
Leveraged Funds: amount unknown at this time

Market: ELECTRIC POWER AND RENEWABLE ENERGY

Renewable Energy Grants for State-owned Buildings

Proposed DOE Funding: **\$4,000,000**

The Renewable Energy Grants for State-owned Buildings Program would provide financial assistance for renewable energy projects that involve buildings owned by the state of Utah. A request for proposals for eligible projects would be issued by Utah SEP and grants would be awarded based on merit. Projects would be chosen based upon the number of jobs created or retained, the amount of energy saved, the renewable energy capacity installed, the quantity of greenhouse gases reduced, and the amount of funds leveraged within a project. Projects must demonstrate adequate energy efficiency in order to be eligible for a renewable energy grant. Projects would be implemented as either power purchase agreements or as matching grants for self builds.

Estimated Annual Energy Savings: 11,608.67 MBtus

Jobs Created/Retained: 44
Leveraged Funds: amount unknown at this time

Renewable Energy Grants for Public Schools and Institutions

Proposed DOE Funding: **\$3,000,000**

The Renewable Energy Grants for Public Schools and Institutions Program would provide financial assistance for renewable energy projects that involve public schools and institutions in the state of Utah. A request for proposals for eligible projects would be issued by Utah SEP and grants would be awarded based upon merit. Projects will be evaluated based upon the number of jobs created or retained, the amount of energy saved, the renewable energy capacity installed, the quantity of greenhouse gases reduced, and the amount of funds leveraged within a project. Projects must demonstrate adequate energy efficiency in order to be eligible for a renewable energy grant. Projects would be implemented as either power purchase agreements, matching grants, or as 100% funded pilot/demo projects such as solar or wind for schools programs.

Estimated Annual Energy Savings: 8,706.50 MBtus
Jobs Created/Retained: 33
Leveraged Funds: amount unknown at this time

Renewable Energy Rebate Program

Proposed DOE Funding: **\$3,000,000**

The Renewable Energy Rebate Program would provide rebates for the installation of small-scale renewable energy projects. This program is geared toward residential and small-commercial sectors. It may be administered in-house by Utah SEP or implemented by a third-party provider. Rebates would be made available for a variety of renewable energy options such as photovoltaic, solar thermal, and ground source heat pump projects. Rebates would be issued on a first come, first served basis until all funds have been expended.

Estimated Annual Energy Savings: 8,706.50 MBtus
Jobs Created/Retained: 33
Leveraged Funds: amount unknown at this time

Renewable Resource Assessment Program

Proposed DOE Funding: **\$90,000**

Utah SEP has operated an Anemometer Loan Program for several years. The Renewable Resource Assessment Program would expand and improve the services

currently provided. This expansion would also improve the quality of the data collected which would help the renewable energy industry to better understand the potential for wind energy production in Utah. In addition, Utah SEP could provide additional renewable energy resource assessment programs (e.g., solar resource and design assessment tools or services).

Estimated Annual Energy Savings: 0.00 MBtus
Jobs Created/Retained: 1
Leveraged Funds: amount unknown at this time

Competitive Grants for Renewable Energy

Proposed DOE Funding: **\$1,000,000**

The Competitive Grants for Renewable Energy Program would be open to the public and would provide opportunity for funding innovative renewable energy projects that fall within the scope of ARRA goals, but that may not fall under the umbrella of any of the more specific Utah SEP ARRA programs. Grants will be chosen based upon the number of jobs created or retained, the amount of energy saved, the renewable energy capacity installed, the quantity of greenhouse gases reduced, and the amount of funds leveraged within a project.

Estimated Annual Energy Savings: 2,902.17
Jobs Created/Retained: 11
Leveraged Funds: amount unknown at this time

Market: ENERGY EDUCATION

Energy Outreach, Education and Marketing Campaigns

Proposed DOE Funding: **\$500,000**

The Energy Outreach, Education and Marketing Campaigns would serve to increase the adoption of energy efficient and renewable energy technologies, and to increase the participation in Utah SEP programs. This program could be carried out by third-party providers. A request for proposals would be issued by Utah SEP for the administration of programs. Selections would be based upon qualifications, ability to leverage funds, and ability to reach the targeted audience. Energy outreach and education would also take place directly through Utah SEP via meetings, working groups and public speaking events.

Estimated Annual Energy Savings: 546,563.01 MBtus
Jobs Created/Retained: 5
Leveraged Funds: amount unknown at this time

Utah Energy Statistics Data Education

Proposed DOE Funding: **\$110,000**

Utah SEP makes high-quality energy efficiency and renewable energy information and data available on its website as a public resource. This includes regularly updated state and national statistics. Funds would be used to improve the content and the media pertaining to Utah's energy production and consumption.

This would also help to communicate the state's progress on meeting the governor's energy goals that are in statute, including "20% renewable energy by 2025" and "a 20% reduction in energy use by 2015". Collaborative partners may include the Governor's Energy Advisor's Office and the Governor's Office of Planning and Budgeting. Dissemination would be through both web-based and high quality printed publications.

Estimated Annual Energy Savings: 120,243.86 MBtus

Jobs Created/Retained: 1

Leveraged Funds: amount unknown at this time

Market: INDUSTRY

Energy Education and Efficiency Consultation for Industry

Proposed DOE Funding: **\$300,000**

The Energy Education and Efficiency Consultation for Industry Program would provide the training and tools necessary for Utah's industry to implement energy-saving practices. The focus and goal of this program would be for participating industrial firms to implement efficiency measures that can pay for themselves within five years. The program would include:

- helping firms to access the resources offered by Save Energy Now (an initiative of DOE's Industrial Technologies Program),
- assisting firms in participating with the utilities' demand-side management programs,
- technical support and advice for potential projects including Combined Heat and Power,
- trainings and workshops,
- industrial process and facility energy auditing,
- recognition for committed industrial companies,
- case studies highlighting successful projects and programs, and
- tracking and measuring of progress.

Estimated Annual Energy Savings: 9400.00 MBtus

Jobs Created/Retained: 2

Leveraged Funds: amount unknown at this time

Market: POLICY, PLANNING & ENERGY SECURITY

Utah Renewable Energy Zone (UREZ) Incentive Program and Utah Generated Renewable Energy Electricity Network (UGREEN) Authority

Proposed DOE Funding: **\$390,000**

Governor Jon Huntsman Jr.'s Utah Renewable Energy Zone (UREZ) Task Force is made up of twenty members, appointed by Governor Huntsman. The members include utilities, renewable energy generation developers, environmental organizations, government representatives, and energy advocates. The purpose of the UREZ Incentive Program and UGREEN Authority is to promote the development of renewable energy resources to meet 20% of Utah's electricity by 2025.

UREZ would provide outreach and education on the incentive program in order to instigate renewable energy manufacturing and generation projects in Utah. Two full time equivalents (FTEs) would be funded. One FTE would be a liaison between Utah SEP and the Governor's Office of Economic Development. This person would also manage incentives, grant funding, and outreach and education. The second FTE would be an Energy Transmission Coordinator. This person would work directly with the Utah Generated Renewable Energy Electricity Network (UGREEN) Authority, which exists to facilitate the connection of renewable energy generation facilities to existing transmission lines.

Estimated Annual Energy Savings: 5,659,241.63 MBtus

Jobs Created/Retained: 2

Leveraged Funds: amount unknown at this time

Utah Renewable Energy Zone (UREZ) Task Force, Phase II

Proposed DOE Funding: **\$100,000**

The UREZ Task Force also identifies renewable energy zones (REZs), areas with cumulative potential for large amounts of renewable energy production. Information will be generated to identify renewable energy resource areas both inside and outside of renewable energy zones. In Phase II of the UREZ Task Force, policies or market mechanisms that would facilitate transmission planning and permitting for renewable energy projects would be identified, cost-effective generation potential would be quantified, and the necessary transmission would be defined in order to bring resources to market.

Estimated Annual Energy Savings: 7,074,052.03 MBtus

Jobs Created/Retained: 1

Leveraged Funds: amount unknown at this time

Market: TRANSPORTATION

Alternative Fuel Education and Outreach

Proposed DOE Funding: **\$346,937**

The Utah SEP promotes a reduction in petroleum use through the adoption of alternative fuels and vehicle efficiency. Currently, Utah SEP has a partnership with Utah Clean Cities to conduct these activities. Utah SEP hopes to expand this partnership for the purpose of reaching a broader audience and accessing a larger geographical area throughout the state. The Alternative Fuel Education and Outreach Program would fund an expansion of Utah Clean Cities' outreach staff so that they can accomplish this goal.

In addition to funding staff, anticipated activities may include fleet operator education, management of demonstration and deployment projects, and the facilitation of communication among alternative fuel stakeholders. Utah SEP is also interested in implementing the broader Utah Clean Cities goals of idle reduction, vehicle efficiency and hybrid vehicles. This broad approach will achieve greater energy savings than an emphasis only on Alternative Fuel Vehicles. Remaining funds may be used for other transportation related projects or programs.

Estimated Annual Energy Savings: 1,522,384.34 MBtus

Jobs Created/Retained: 2

Leveraged Funds: amount unknown at this time

ADMINISTRATION

Administrative Program Support

Proposed DOE Funding: **\$1,142,519**

The Administrative Program Support covers a wide variety of activities which include management of the Utah SEP ARRA Formula Grant, oversight of contracts for Utah SEP activities, tracking and reporting of performance metrics, and other activities broadly supporting the ARRA energy goals of SEP and DOE. These funds do not offset any existing positions in Utah SEP.

Estimated Annual Energy Savings: 0 MBtus

Jobs Created/Retained: 4

Appendix A

SEP ARRA Formula Grant - Proposed Budget to DOE		
	Funds	%
Administration (internal):		
Administrative Program Support	1,142,519	3.2%
Administration Total:	\$ 1,142,519	3.2%
Buildings		
Residential and Commercial Energy Training	750,000	2.1%
Advanced Energy Efficiency Strategies for Buildings	1,500,000	4.2%
Whole Home Audit Program	3,000,000	8.5%
Builder Rebates for High Performance Home Building	3,000,000	8.5%
Direct Installation Insulation Program	1,500,000	4.2%
Energy Efficiency in State Buildings	6,000,000	17.0%
Energy Efficiency Grants for Public Schools	2,500,000	7.1%
Utah SEP Public School Revolving Loan Fund	2,500,000	7.1%
Competitive Grants for Energy Efficiency in the Building Sector	632,544	1.8%
Buildings Total:	\$ 21,382,544	60.5%
Electric Power and Renewable Energy		
Renewable Energy Grants for State-owned Buildings	4,000,000	11.3%
Renewable Energy Grants for Public Schools and Institutions	3,000,000	8.5%
Renewable Energy Rebate Program	3,000,000	8.5%
Renewable Resource Assessment Programs	90,000	0.3%
Competitive Grants for Renewable Energy	1,000,000	2.8%
Electric Power and Renewable Energy Total:	\$ 11,090,000	31.4%
Energy Education		
Energy Outreach, Education and Marketing Campaigns	500,000	1.4%
Utah Energy Statistics Data Education	110,000	0.3%
Energy Education Total:	\$ 610,000	1.7%
Industry		
Energy Education and Efficiency Consultation for Industry	300,000	0.8%
Industry Total:	\$ 300,000	0.8%
Policy, Planning and Energy Security		
UREZ Incentive Program and UGREEN Authority	390,000	1.1%
UREZ Task Force, Phase II	100,000	0.3%
Policy, Planning and Energy Security Total:	\$ 490,000	1.4%
Transportation		
Alternative Fuel Education and Outreach	346,937	1.0%
Transportation Total:	\$ 346,937	1.0%
Total:	\$ 35,362,000	100.0%