



ARIZONA DEPARTMENT
OF COMMERCE
ENERGY OFFICE

American Recovery and Reinvestment Act of 2009 State Energy Program

Kent Ennis, CFA, Interim Director
Jim Arwood, Energy Office Director
Arizona Department of Commerce

The 2009 American Recovery and Reinvestment Act
funding of the State Energy Program submitted
in Arizona's application to the U.S. Department of Energy.

May 12, 2009



OVERVIEW

The objective of the American Recovery and Reinvestment Act (ARRA) is to stimulate private investment, create jobs and speed economic recovery. As part of the ARRA, \$3.1 billion is dedicated to the State Energy Program (SEP) as an investment in energy solutions.

The State Energy Program is a 30-year-old program that operates in all 50 states, the District of Columbia and the territories. This program is a basic state-federal partnership in the energy efficiency and renewable energy area and over the years has successfully implemented real programs and policies that have increased energy efficiency and the use of renewable resources. In the process, the State Energy Programs have saved state governments, homeowners, schools, businesses, hospitals and communities, real dollars and real energy. Managed by the State Energy Offices, these programs symbolize the front lines of this country's goals to achieve energy independence, energy efficiency and the increased use of renewable energy.

The ability of state energy officials to effectively and efficiently make energy-related investments is proven. In previous years, the Arizona Department of Commerce Energy Office managed more than \$6 million of Arizonans' federal energy funds annually.

Since passage of the American Reinvestment and Recovery Act, the Energy Office has initiated a variety of outreach efforts to the public, utilities, state agencies and stakeholders to identify potential projects and programs that are good candidates for funding under ARRA. This document outlines the final projects that were submitted to DOE on May 12, 2009. These projects total \$55.447 million representing Arizona's share of the ARRA State Energy Program funds. We believe these projects represent the most significant way to create jobs and other economic benefits for Arizonans in the next six to 18 months.

It is also our belief that these projects are a reasonable down payment on what needs to be done longer term to evolve energy markets toward greater energy efficiency and renewable energy technologies.

With Governor Jan Brewer's leadership, the Energy Office staff looks forward to providing programmatic and administrative support to implement these programs and, in the process, doing our part to stimulate the Arizona economy, expand needed longer-term investments in Arizona's energy markets, and to do so in the responsible way for which we've long been recognized. We take seriously our responsibility to taxpayers to ensure that all funds are used effectively in the public interest.

Kent Ennis, CFA
Interim Director,
Arizona Department of Commerce

Jim Arwood
Energy Office Director
Arizona Department of Commerce

Transparency and Accountability

The first step toward market transformation of our energy systems begins with transparency and accountability in how we plan to invest and account for the State Energy Program dollars provided as part of the American Reinvestment and Recovery Act.

Since its passage on February 17, 2009, the ARRA has been promoted as being an open and transparent process. As part of this process, Arizona citizens have been invited to not only participate in how to utilize these funds but are also being provided the ability to track how the funds are eventually spent.

Even prior to the ARRA passage, citizen interest in this was extremely high. Since shortly after the first of the year, phone and email messages began to trickle into the Energy Office at the Arizona Department of Commerce. After ARRA passage, Energy Office staff was busy providing outreach and education to stakeholders across the entire State and in return we have listened to their recommendations for federal program funds. From rural electric co-ops, tribal governments and utilities to business owners and homeowners, suggestions inundated the Energy Office.

Meetings were held with state regulators, utilities, state agencies, business owners and consumers to discuss ideas for funding opportunities.

An open public meeting was held on April 21, 2009 to allow interested parties the opportunity to voice support for various concepts. (This meeting was held after a regional U.S. Department of Energy (DOE) workshop was held in Santa Fe, New Mexico which provided clarifying program guidance for the State Energy Program.)

The open meeting was promoted throughout Arizona and more than 90 people were in attendance representing a wide cross-section of energy interest groups. Each attendee was given the opportunity to speak and explain their recommendations for State Energy Program funding.

Public comments focused on many necessary and ideal projects for the State. Industry representatives called for investment in new and expanded programs related to renewable energy, and tried and true practices of energy efficiency – each with emphasis on a balance rewarding consumers and commercial applications. Some attendees encouraged investment in emerging technologies, such as biofuels and improved photovoltaic systems. School and public building efficiency projects were clearly important to attendees.

At the conclusion of the open meeting a follow-up opportunity was afforded those in attendance and those unable to attend to provide written comments and recommendations. The response to this call for comments was overwhelming as an additional 50 recommendations were submitted over the course of the next three days.

During the process of selecting the projects found herein, the Energy Office took into consideration all comments and recommendations voiced over the course of the past couple of months. Every effort has been taken to not only ensure our final project submittals abided by the program guidance and eligibility requirements set forth by DOE in its Funding Opportunity Announcement for the State Energy Programs, released on March 16, 2009, but also that these funds are spent wisely and leverage private investment that can be maintained in the future.

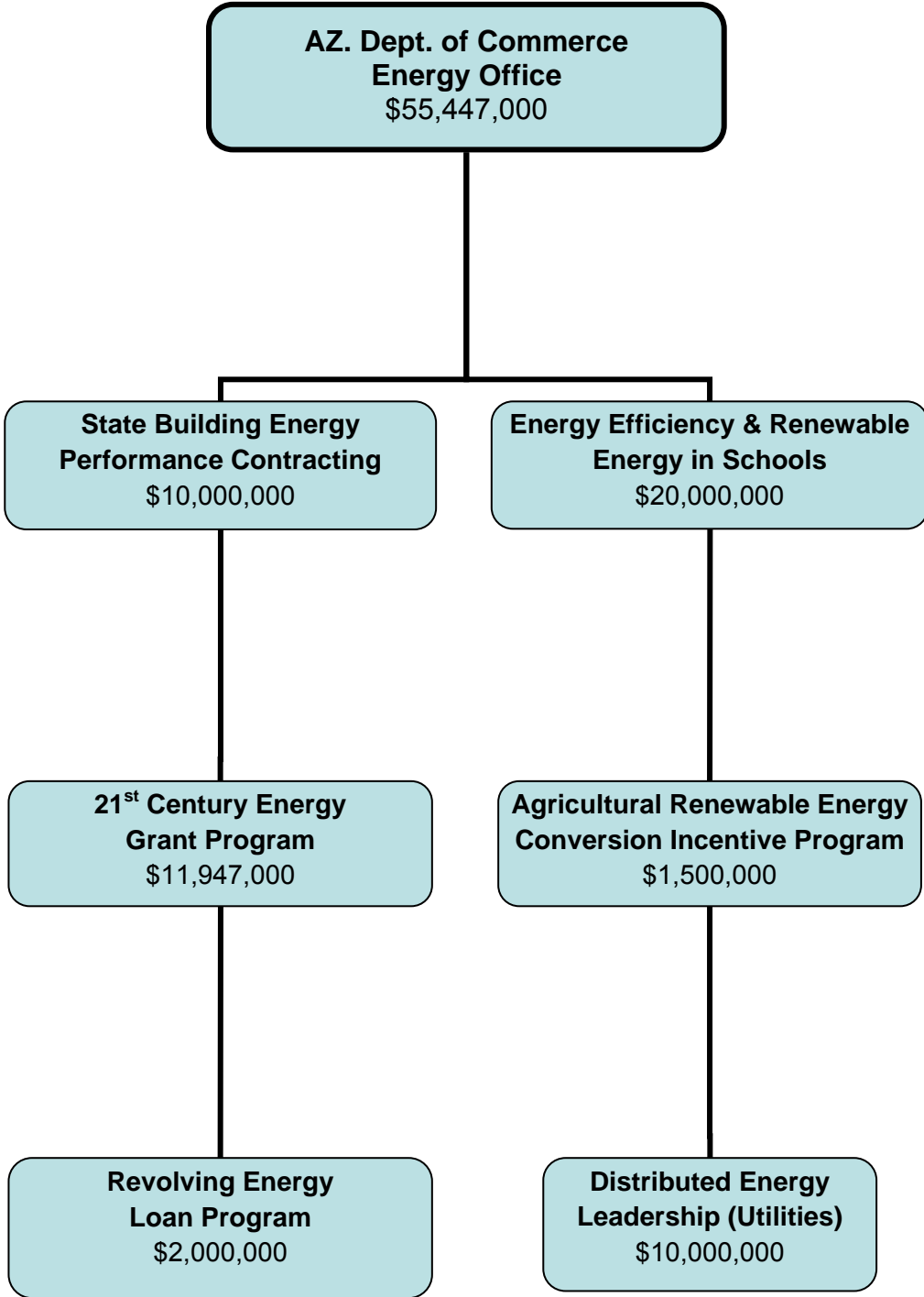
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State Energy Program Funding
American Recovery & Reinvestment Act (ARRA)



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PROPOSED ARIZONA STATE ENERGY PROGRAMS SUBMITTED TO THE U.S. DEPARTMENT OF ENERGY

American Reinvestment and Recovery Act
Submitted by the Arizona Department of Commerce
Energy Office

The following summaries represent the proposed programs and projects the State Energy Office submitted for funding for the American Reinvestment and Recovery Act State Energy Program funds. These projects are consistent with the program requirements issued by the U.S. Department of Energy for program/project eligibility.

- **State Building Energy Performance Contracting Program -- \$10,000,000**
This proposal is in support of ARS 34-451 and the existing efforts by the Department of Administration and the Energy Office to make state buildings more energy efficient. (See pgs. 2-3)
- **Energy Efficiency and Renewable Energy in Schools Grant Program -- \$20,000,000**
This proposal is in support of Session Law 2007, Chapter 266 and the existing efforts of the Schools Facilities Board and the Energy Office to reduce energy consumption in Arizona schools. (See pgs. 4-5)
- **21st Century Energy Grants Program -- \$11,947,000**
This proposal would use funds provided under ARRA of 2009, to establish a 21st Century Energy Grant Fund Program administered by the Energy Office. The program would fund studies to develop new, significant solar, wind or other renewable energy generation systems on public lands and to fund demonstrations of renewable energy systems on high profile public buildings and public spaces, and a biofuels infrastructure grant program. The renewable grant program will also be open to non-profit organizations to install solar water heating or solar PV on their buildings. Also included will be demonstrations of renewable energy products that are manufactured in Arizona. (See pg. 6)
- **Agricultural Renewable Energy Conversion Incentive Program -- \$1,500,000**
This proposal is for a competitive grant program to allow the State Land Department through the Arizona Natural Resource Conservation Districts to provide incentives to farmers and ranchers to reduce reliance on fossil fuels for agricultural production in rural Arizona. (See pg. 7)
- **Revolving Energy Loan Program -- \$2,000,000**
This proposed loan program administered by the Arizona Department of Commerce Finance Division will act as a long-term funding mechanism for energy efficiency and renewable energy improvements in commercial buildings in Arizona as well as provide loans to Arizona manufacturers of energy efficiency and renewable energy technologies to expand or upgrade their manufacturing operations. (See pgs. 8-9)
- **Distributed Energy Leadership (Utilities) Program -- \$10,000,000**
This proposed program would be implemented through partnerships with the state's utility companies and would increase or match incentives provided by the utilities for distributed energy including solar water heating, solar PV, wind, and combined heat and power projects. (See pg. 10)

Proposed State Building Energy Performance Contracting Program funded with Federal ARRA State Energy Program Funds

Proposed Amount of Funding: \$10 million

Proposal

Funding will be used for efficiency and renewable energy performance contracting projects in State Buildings. Energy efficiency is required by ARS 34-451. The Department of Commerce will enter an Interagency Service Agreement with Department of Administration (ADOA) to be project manager for energy performance contracts for state building retrofit projects.

The application proposes using ARRA funds to buy-down the cost of the energy performance contracts to achieve immediate utility cost savings. Dedicating ARRA funds in such a way is consistent with priorities of the Department of Energy in their program guidance:

- States are encouraged to use their ARRA funding not only to support current energy efficiency and renewable energy projects but also ***to seed sustainable programs and put in place long-term funding mechanisms such as revolving loans and energy savings performance contracting*** that will provide lasting benefits and lead to long-term market transformation. (Page 23, DE-FOA-0000052)
- To increase the impact of these stimulus funds, DOE encourages plans which achieve a high degree of leveraging, and/or projects that extend the impact of the funds. ***Examples of programs which provide high leverage are revolving loan programs and performance contracting.*** (Page 28, DE-FOA-0000052)
- States may wish to consider the following program areas for inclusion in their State Plans: ***programs for financing energy efficiency and renewable energy capital investments and programs which may include loan programs in performance contracting programs for leveraging additional public and private sector funds,*** in programs which allow rebates, grants, or other incentives for the purchase and installation of eligible energy efficiency and renewable measures in public or nonprofit buildings owned and operated by a state, a political subdivision of the state or agency or instrumentality of the state, or an organization exempt from taxation under 501(c)(3) of the Internal Revenue Code of 1986 including public and private nonprofit schools, hospitals, and local government buildings. (Page 34, DE-FOA-0000052)

By providing an incentive buy-down of energy performance contracts with a portion of the state's ARRA funds not to exceed 20 percent of the whole cost of the projects, these funds have the opportunity to deliver a 5:1 leverage. This may equate to as many as five times the jobs created and as much as five times the greenhouse gas reduction while creating more productive work environments, eliminating deferred maintenance concerns, lowering the annual operating costs and reducing maintenance costs for state facilities. Incentive funds will act as a catalyst leveraging the private sector and engage the financial industry in proven industry practices to maximize impact.

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Nature of Projects:

ADOA has already identified 16 state buildings for energy performance contracts. We anticipate that the performance contracts will mainly address lighting, lighting controls, HVAC and HVAC controls, motors, building automated controls, and insulation with ARRA funds being used to buy-down the cost of deeper infrastructure improvements such as boiler and chillers and solar equipment to achieve an energy performance contract with a 10 to 15 investment year paybacks, which are industry standards.

Timeline:

The Energy Office, in discussion with ADOA believes that ADOA can award a first round of projects by the late fall and winter of 2009. Construction of these projects could begin in late 2009.

Long-term Benefits:

The Energy Office estimates the following annual benefits (assumes a \$10 million state investment and \$36 million local investment).

- Annual utility cost savings: \$5 million
- kWh annual savings: 50 million kWh
- CO² annual reductions: 60 million pounds

In addition to the energy savings, this program will lay the foundation for an enhanced and successful performance contracting industry in the Arizona.

Job Creation:

For building retrofit projects, the Energy Office staff estimates if the State's \$10 million investment is leveraged into at least \$46 million in projects, the efficiency program would create approximately 543 jobs.

Implementation:

The Energy Office is working with ADOA and the federal National Renewable Energy Laboratory to develop template performance contracts. ADOA staff and Energy Office staff will analyze proposals and closely track performance that meets ARRA energy auditing standards. Administrative and programmatic costs are included in the total project budget proposed above. Staff members who implement or manage the overall strategy or programs are direct costs to the project.



Proposed Energy Efficiency and Renewable Energy in Schools Grant Program funded with Federal ARRA State Energy Program Funds

Proposed Amount of Funding: \$20 million

Proposal

Funding will be divided into two pools, 70 percent for school energy efficiency projects and 30 percent for solar projects. The School Facilities Board (SFB) will distribute the funds to local school districts through a competitive grant process. The energy efficiency program will be based on the framework of the successful FY 2007 SFB Energy Pilot program.

SFB staff recommends basing the solar program around smaller (less than 30,000 sq. feet) schools. Dedicating the solar funds to smaller schools will broaden the impact of the program. For example, if \$3 million was dedicated to a small school solar photovoltaic program, the program could provide 20 percent of the needed electricity for 15 schools.

Performance Contracting: In order to maximize the impact of the efficiency program, the SFB intends to leverage the funds through the use of performance contracting and the newly created Qualified School Construction Bonds (QSCB), a new low-cost financing tool under ARRA. In the competitive grant process, school districts will be required to augment the SFB grant with local funds raised through a performance contract. SFB staff estimates that the efficiency investment can be leverage five times or more through this process.

Qualified School Construction Bonds: The use of QSCB will augment the SFB ability to leverage the grant funds by allowing school districts to enter the performance contracts interest free. The federal government gives the QSCB bondholders a tax credit and therefore allows the bonds to be issued at 0 to 1% interest rate. Over the life of a performance contract, this will significantly reduce interest costs. SFB staff will assist school districts in developing a market for this type of bond financing.

Nature of Projects: SFB staff anticipates that these funds will mainly be used to replace and upgrade lighting and lighting controls, and replace and upgrade HVAC and HVAC controls, install solar photovoltaic (PV), solar water heating, and geothermal.

Timeline: SFB staff believes that the SFB can award projects by the end of 2009. School districts can start construction on these projects in early 2010.

Long-term Benefits: If the awarded funds can be leveraged at least five times, based on the results of the pilot program, SFB staff estimates the following annual benefits (assumes a \$20 million state investment and \$55 million local investment and a seven-year project payback, based on the pilot program).

- Annual utility cost savings: \$10 million
- kWh annual savings: 103 million kWh
- CO² annual reductions: 124 million lbs.

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In addition to the energy savings, this program can lay the foundation for a successful performance contracting industry in the Arizona K-12 school system. To date, very few school districts have attempted a performance contract because funds were not available. With the control of the funds in the efficiency program, the SFB can establish a performance contracting protocol that school districts can become comfortable with and use for future energy efficiency upgrades.

Long-Term Benefits:

The SFB estimates the following annual benefits for solar projects dependent on the mix of solar products installed and the type of financing used. Solar PV produces about \$25 of annual savings for every \$1,000 invested. Solar water heating produces about \$90 of annual savings for every \$1,000 invested. If \$6 million were invested in solar products split evenly between PV and water heating, the estimated impact would be:

- Annual utility cost savings: \$345,000
- kWh annual savings: 3.4 million kWh
- CO² annual reductions: 4 million lbs.

These savings could be further increased if the program could take advantage of utility rebate programs.

Job Creation:

For general school renovation projects including energy efficiency projects, SFB staff estimates if the State's \$20 million investment is leveraged into at least \$55 million in projects, the efficiency program would create approximately 826 jobs.

For the solar program, SFB staff does not have a good estimate for job creation. However, because of the high cost of solar equipment and materials, staff would assume that the number of jobs created per dollar spent is significantly less than job creation in the efficiency program.

Implementation:

SFB staff will work with school district procurement experts to develop template performance contracts. SFB staff and Energy office staff will analyze proposals and track performance. Administrative and programmatic costs are included in the total project budget proposed above. Staff members who implement or manage the overall strategy or programs are direct costs to the project.



Proposed 21st Century Energy Grant Program funded with Federal ARRA State Energy Program Funds

Proposed Amount of Funding: \$11.947 million

Proposal

The Energy Office believes this proposed program will encourage and expand the use of solar, wind or other renewable energy generation systems and biofuels infrastructure in Arizona.

Nature of Projects:

The program would fund studies to develop new, significant solar, wind or other renewable energy generation systems on public lands and to fund demonstrations of renewable energy systems on high profile public buildings and public spaces and a biofuels infrastructure grant program. Renewable energy projects could be at Arizona State Parks, rest stops, public museums or even public transit stations. The renewable grant program will also be open to non-profit organizations to install solar water heating or solar PV on their buildings. Also included will be demonstrations of renewable energy products that are manufactured in Arizona. A competitive grant program for biofuels infrastructure will be offered. The grant program criteria and funding levels have not been developed as of yet but the funding will be competitive and will be implemented in a series of funding and scoring rounds.

Additional State Actions: As part of the 21st Century Energy Grant Program, the State Energy Office plans to identify several shovel ready solar installations on public buildings or public spaces that could be initiated quickly and provide for immediate job creation.

Timeline:

The Energy Office believes a first round of funding opportunity could be announced by the end of summer with the first round of projects funded by the late fall and early winter of 2009. A second round of funding opportunities could be implemented in early 2010.

Long-term Benefits:

The Energy Office estimates this program will increase renewable energy activity and biofuels infrastructure throughout Arizona but we do not have an estimate for the amount of energy that will be reduced or the amount of fuel that would be dispensed as a result of this program.

Job Creation:

Energy staff estimates 136 jobs will be created.

Implementation:

The Energy Office has preliminary grant guidelines in place to implement this program. Administrative and programmatic costs are included in the total project budget proposed above. Staff members who implement or manage the overall strategy or programs are direct costs to the project.



Proposed Agricultural Renewable Energy Conversion Incentive Program funded with Federal ARRA State Energy Program Funds

Proposed Amount of Funding: \$1.5 million

Proposal

This proposed competitive grant program will use the Arizona Natural Resource Conservation Districts (AZNRCD) State Association to utilize this funding to deliver a Renewable Energy Conversion cost-share program through local Conservation Districts. The goals of the program are to reduce the reliance on fossil fuels for agricultural production in rural Arizona. Conversion from gas, oil, diesel, and in some cases, electric to the utilization of renewable energy will provide benefit in terms of energy savings, cost-savings, better air quality and the creation of jobs and businesses related to the solar and agricultural service industries.

The Energy Office will enter into an Interagency Service Agreement with AZNRCD to use ARRA funds as an incentive for on-the-ground projects in the agricultural sector with cost-sharing being required. AZNRCD will manage the grant program.

Nature of Projects:

To be eligible, a project must meet the goal of converting existing fossil energy dependent systems to solar systems. These include livestock watering systems, crop irrigation systems, and agricultural headquarters power systems. There is no limit on the number of systems that may be submitted from any entity but funding will be limited to a maximum of \$50,000 per applicant. The entire geographic area of Arizona is covered by Conservation Districts.

Timeline:

The AZNRCD will conduct two rounds of competitive grants and will subcontract with the Conservation Districts for individual project administration.

Long-term Benefits:

It is impossible to estimate the annual benefits without knowing the scope and size of the projects funded; however, the pollution avoided will be a major benefit as in most cases these projects will be replacing existing systems that impact our air quality.

Job Creation:

Energy Office staff projects the creation of 33 jobs per year as a result of this grant program but more significantly we anticipate the sustainable creation of businesses related to the solar and agricultural service industries in our rural areas to result from this program.

Implementation:

The Energy Office will enter into an Interagency Service Agreement with the State Land Department to implement this program. The Conservation Districts, with locally elected boards, have the ability to deliver this program in an efficient and timely manner. Administrative and programmatic costs are included in the total project budget proposed above. Staff members who implement or manage the overall strategy or programs are direct costs to the project.

Proposed Revolving Energy Loan Program funded with Federal ARRA State Energy Program Funds

Proposed Amount of Funding: \$2 million

Proposal

Funding will be used for a proposed Revolving Energy Loan fund for energy efficiency and renewable energy projects in commercial buildings in Arizona and also loans to manufacturers of renewable energy or energy efficiency equipment/technologies. The Department of Commerce Finance Division will administer the loan program.

This proposal uses ARRA funds to create a Revolving Energy Loan fund. Dedicating ARRA funds in such a way is consistent with priorities of the Department of Energy in their program guidance:

- States are encouraged to use their ARRA funding not only to support current energy efficiency and renewable energy projects but also **to seed sustainable programs and put in place long-term funding mechanisms such as revolving loans and energy savings performance contracting** that will provide lasting benefits and lead to long-term market transformation. (Page 23, DE-FOA-0000052)
- To increase the impact of these stimulus funds, DOE encourages plans which achieve a high degree of leveraging, and/or projects that extend the impact of the funds. **Examples of programs which provide high leverage are revolving loan programs and performance contracting.** (Page 28, DE-FOA-0000052)
- States may wish to consider the following program areas for inclusion in their State Plans: **programs for financing energy efficiency and renewable energy capital investments and programs which may include loan programs in performance contracting programs for leveraging additional public and private sector funds**, in programs which allow rebates, grants, or other incentives for the purchase and installation of eligible energy efficiency and renewable measures in public or nonprofit buildings owned and operated by a state, a political subdivision of the state or agency or instrumentality of the state, or an organization exempt from taxation under 501(c)(3) of the Internal Revenue Code of 1986 including public and private nonprofit schools, hospitals, and local government buildings. (Page 34, DE-FOA-0000052)

By providing a revolving loan fund, these funds have the opportunity to be used multiple times and are not subject to expiration after the current three-year ARRA timeframe. The only restriction is that the entire amount allocated to such a loan program must have been loaned out in the initial three-year time period but the repayment can be stretched over additional years. Money recaptured through loan payments must also be used for the same purpose unless an amendment is approved by the Department of Energy redirecting their use. Like other sustainable financing mechanism this may equate to more jobs and more greenhouse gas reduction while creating more productive work environments, eliminating deferred maintenance concerns, lowering the annual operating costs and reducing maintenance costs.

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Nature of Projects:

The Energy Office believes that applicants will be mainly small business owners applying for energy efficiency and solar projects located throughout the state. The cumulative incentives for solar installations that are available for commercial solar projects make great economic sense if the customer has the initial capital investment required. This would provide that large initial capital requirement. We also believe that we will see several applications from small renewable energy companies looking to buy additional equipment or expand to take advantage of ARRA funding that will create increased demand for their products.

Timeline:

The Energy Office believes a first round of funding opportunity could be announced by the end of summer with the first round of projects funded by the late fall and early winter of 2009. A second round of funding opportunities could be let in early 2010.

Long-term Benefits:

Energy Office estimates the following annual benefits (assumes one turnover of funding at \$2 million).

- Annual utility cost savings: \$200,000
- kWh annual savings: 2 million kWh
- CO² annual reductions: 2 million lbs.

In addition to the energy savings, this program has the potential to capitalize small commercial businesses. A similar program was operated by the Arizona Department of Commerce, Finance Division, from 1987 to 2003 and provided startup capital and expansion capital to several Arizona companies that are still in business today.

Job Creation:

Energy Office staff estimates if the State's \$2 million investment is turned over once in the first three years it will create approximately 40 jobs.

Implementation:

The Energy Office is working with the Department of Commerce, Finance Division, to re-implement this program. Administrative and programmatic costs are included in the total project budget proposed above. Staff members who implement or manage the overall strategy or programs are direct costs to the project.



Proposed Distributed Energy Leadership (Utilities) Program funded with Federal ARRA State Energy Program Funds

Proposed Amount of Funding: \$10 million

Proposal:

This proposed program would increase or match incentives provided by the state's public utilities for distributed energy including solar water heating, solar PV, wind, and combined heat and power projects.

The funds would leverage existing solar energy programs that are ratepayer financed. These funds would benefit consumers, small or big businesses, and homeowners, among others. These are pre-existing energy efficiency programs that have been proven to work, and as such have a track record of many years

Nature of Projects:

Each utility may choose to participate and emphasize a different mix of technologies and/or target customer segments but would include solar water heating, solar PV, wind and combined heat and power projects.

Timeline:

The partial funding would be available in late summer of 2009 with the remainder available by summer of 2010.

Long-term Benefits:

The utilities have estimated that the benefits from this program would result in long-term benefits that include renewable energy generation and reduced carbon. No actual number has been provided at this time.

Job Creation:

Most of this funding would provide for job retention among Arizona companies currently designing and installing distributed generation. However, by increasing the incentive there will be additional demand for the incentives and thus the creation of an unknown number of jobs would result.

Implementation:

Administrative and programmatic costs are included in the total project budget proposed above. Staff members who implement or manage the overall strategy or programs are direct costs to the project.



State Energy Program Ramp Up

Submitted by the State Energy Office, Arizona Department of Commerce
State Energy Program, American Recovery and Reinvestment Act
Grant Application, May 12, 2009

The State Energy Office, at the Arizona Department of Commerce, offers the following information to address the Recipient's and the Sub-recipients' ability to stimulate the creation or retention of jobs; saving energy, increasing energy generation from renewable sources; and reducing greenhouse gas emissions with Recovery Act funds on an expedited schedule.

Arizona Department of Administration

The Arizona Department of Administration (ADOA) has a proven track record of successfully managing large fast-track projects, delivering them on time and under budget. ADOA has excellent project tracking procedures in place as evidenced by previous independent audits. The ADOA, through its General Services Division, Construction Services Section maintains a core staff of experienced professionals, funded by projects. Staff manages new construction projects as well as managing improvements to existing buildings. As an example of experience, ADOA is currently constructing a 4,000-bed prison addition for the Arizona Department of Corrections. This is a \$200 million project that is currently under budget and on schedule for completion in January of 2010. In 2002, ADOA also completed a public/private partnership project for two buildings with 485,000 square feet of office space with accompanying structured parking for 2,000 cars including a 100 kW photovoltaic installation. These buildings earned Energy Star Building labels and one building achieved LEED Silver designation.

ADOA Construction Services is poised to proceed on projects funded under the ARRA. They expect to leverage ARRA funds on a 5 to 1 basis with Energy Saving Performance Contracts (ESPC). ADOA has prequalified nine Energy Service Companies (ESCO's) and is ready to proceed. ADOA has already identified 16 state buildings for ESPC and will address lighting, lighting controls, HVAC and HVAC controls, motors, boilers and chiller. Applications to integrate solar energy will be included. The Energy Office and ADOA are working with the National Renewable Energy Lab for training in "best practices" for Energy Performance Contracts and will train all of ADOA project managers in early June 2009. ADOA is ready to dedicate staff to these projects as funding allows and is prepared to have projects completed as required under the ARRA.

Arizona School Facilities Board

In 1998, the Arizona School Facilities Board was established to dramatically reform the way new K-12 schools would be constructed and existing schools are maintained in Arizona. The next year, the Board adopted Building Adequacy Guidelines that now serve as the minimum standards for new and existing school facilities in Arizona. Armed with these new guidelines, the School Facilities Board distributes building renewal monies to school districts in two equal installments in November and May of each year. The School Facilities Board is responsible for

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reviewing and approving project requests and monitoring project completion. The Board's staff has the knowledge, skills and ability to advise and monitor a variety of building renovations including: major renovations and repairs of a building, for upgrades to building systems (e.g. lighting, heating, cooling, plumbing, roofing etc.) that will maintain or extend the useful life of a building and control operating costs. The Board's staff includes an AIA registered Architect, Certified Energy Manager and a LEED Accredited Professional.

The use of the ARRA funds would expand the School Facilities Board ability to make specific energy-efficiency upgrades in existing academic space. Many Arizona schools still have inefficient T12 lighting systems and few lighting or HVAC controls. This program using ARRA funding should allow very cost-effective projects with resulting high greenhouse gas reductions. Funds will be leveraged by asking local school districts to provide 80 percent of every project dollar. Local shares will be raised through the use of energy-saving performance contracting and bond program financing. By leveraging the ARRA funds, the program may equate to as many as five times the jobs created, five times the energy savings and as much as five times the greenhouse gas reduction while creating more productive school environments, lowering the annual operating costs and reducing maintenance costs for school facilities. The School Facilities Board will also dedicate a portion of the funds to renewable energy generation. The availability of ARRA funds will provide additional leveraging to take advantage of utility company rebate programs. As this grant will be available to schools statewide, it will allow for the creation of jobs and product sales statewide.

State Land Department

The Arizona State Land Department is distinctly qualified to administer the Agricultural Renewable Energy Conversion Incentive Program. Part of their mission is to manage and provide support for resource conservation programs for the well-being of the public and the State's natural environment. As such, the State Land Department established the Arizona Natural Resource Conservation Districts (Districts) which covers the entire geographic area of Arizona. The Districts are organized under State and Tribal law and governed by locally elected and appointed officials. They evaluate conservation needs of their respective areas and create unique partnerships between federal, state and local agencies to address natural resource concerns. In addition, the department has a proven track record of administering grants on a community level for the past seven years utilizing an application process with strict financial reporting requirements.

The use of ARRA funds for this particular grant program would expand the Districts' grant efforts to include renewable energy projects to reduce fossil fuels for agricultural production in rural Arizona. This is in complete alignment with the intent of SEP funds in the ARRA and supports market transformation of renewable energy technologies in rural areas and the agriculture sector. This grant program administered through the Districts will not only create jobs and economic stimulus in rural communities but also will convert existing operations from gas, oil, diesel, and in some cases, electric to the utilization of abundant renewable energy available which will provide benefits in terms of energy savings, cost savings, better air quality and the creation of jobs and businesses related to the renewable energy and agricultural service industries.

Arizona Department of Commerce, Finance Division

The Arizona Department of Commerce, Finance Division, is specifically qualified to administer

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the Revolving Energy Loan Program. The staff of this division, with its financial expertise, manages several bonding, finance and tax incentive programs, which encourage private capital investment, create quality jobs and promote business growth. Its mission is to provide resources and develop information to support timely finance and investment decisions that will enhance economic, business and community development opportunities in Arizona. The Finance Division has a 20-year history of successfully administering a variety of financial programs. In particular, this division administered a Revolving Energy Loan Program from 1987-2003: processing loans for a total of \$4.2 million; leveraging \$1.4 million; and resulting in reduced energy savings of \$5.8 million.

The use of ARRA funds for this particular loan program would fund energy efficiency and renewable energy projects in commercial buildings and loans to manufacturers of renewable energy or energy efficiency equipment or technologies. By providing low-interest revolving loan funds, these funds have the opportunity to be used multiple times. Like other sustainable financing mechanisms, this may equate to more jobs and more greenhouse gas reduction while creating more productive work environments, eliminating deferred maintenance concerns, lowering the annual operating costs and reducing maintenance costs.

Arizona Department of Commerce, Energy Office

The Arizona Department of Commerce, Energy Office is particularly qualified to administer the 21st Century Energy Grants Program. The Office has a technical staff with 14 to 28 years of experience to provide analysis and oversight of solar, wind and other renewable energy demonstration projects in Arizona. In addition, the Energy Office has a proven track record of administering U.S. Department of Energy funding for a variety of energy-related programs and projects in Arizona for the past 30 years.

The use of ARRA funds for this competitive grant program would fund: biofuel infrastructure projects; feasibility studies for renewable energy resources that could include such items as transmission siting, energy storage options and issues surrounding the placement of renewable energy generation facilities on public lands; installation of renewable energy systems on high-profile public buildings and public spaces; non-profit organization buildings; and pilot projects for renewable energy and energy efficiency products manufactured in Arizona. This will reduce energy use, reduce greenhouse gases, increase public awareness of renewable energy applications and create 21st Century jobs and businesses in Arizona on a statewide basis.

Arizona Utilities

Arizona Utilities have a long history of successful energy-saving programs in their customer service areas. The Distributed Energy Leadership Program is a coordinated effort by Arizona Utilities to use funding to expand established utility incentive programs by leveraging existing renewable energy and energy efficiency programs. The utilities have identified programs that meet the needs of most types of customers, including businesses and residential customers. Each Utility possesses existing reporting and administrative systems that will enable timely and cost-effective administration, reporting and transparency required by ARRA.

The use of ARRA funds for this program would increase or match incentives for distributed energy including solar water heating, solar photovoltaic systems, wind and combined heat/power projects. The combination of this activity on a statewide basis would result in proven renewable energy and energy efficiency applications. This will reduce energy use, CO² emissions, increase businesses and consumers awareness on renewable energy technologies and energy efficiency strategies, and create jobs and businesses in urban and rural areas throughout the state.

Energy Office Estimated Ratings based on per ARRA dollar invested

Project Categories	Funding Recommendation	Jobs	Energy Saved	Renewable Energy Generated	CO ² Reduced	Leveraged Funds
State Building Energy Performance Contracting	\$10,000,000	High	High	High	High	High
Energy Efficiency & Renewable Energy in Schools	\$20,000,000	High	High	High	High	High
Agricultural Renewable Energy Conversion Incentive Program	\$1,500,000	Medium	Low	High	High	High
21 st Century Energy Grant Program	\$11,947,000	Medium	Medium	High	High	High
Revolving Energy Loan	\$2,000,000	High	Medium	Medium	Medium	High
Distributed Energy Leadership (Utilities) Program	\$10,000,000	High	High	High	High	High



FOR MORE INFORMATION:



1700 W. Washington, Suite 220

Phoenix, Arizona 85007

www.azcommerce.com/Energy

(602) 771-1112