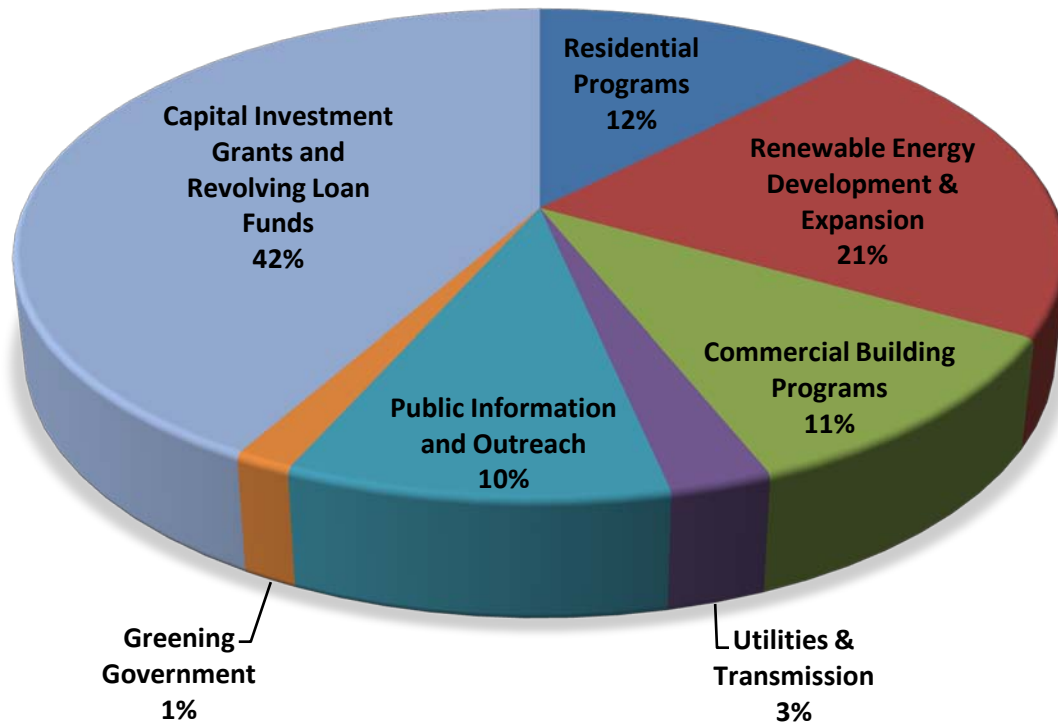


# Governor’s Energy Office Strategic Goals and Objectives for the American Recovery and Reinvestment Act funding of the State Energy Program

## State Energy Program Resource Distribution



### Overview

The Governor’s Energy Office has designed a strategic plan to implement the resources of the American Recovery and Reinvestment Act to maximize the objectives of job creation, job retention, energy resource development and greenhouse gas reduction. GEO is implementing the funds such that it creates the intended stimulative effect without creating a dependency.

We are doing this by addressing primary barriers to broad scale deployment of energy efficiency and renewable energy while developing a sustainable infrastructure to support the renewable and energy efficiency industries. Barriers addressed through the deployment of the ARRA funds include:

- Access to Services
- Access to Financing
- Access to Information

Within each of our programs we will tie back to the reduction of these three barriers, creating a long term, sustainable New Energy Economy Industry in Colorado that will continue after the ARRA funds have been depleted and the economy has recovered.

Programs funded with the state energy program funds under the American Recovery and Reinvestment Act include:

- Residential Programs
- Renewable Energy Programs
- Commercial Buildings Programs
- Public Information and Consumer Outreach
- Greening Government Programs
- Utility and Transmission Programs
- Financing and Capital Grants Programs

Programmatic funds will be leveraged using partnerships with local governments through through Energy Efficiency and Conservation Block Grant program as well as utilities and local non-profit community based organizations. Grants will further leverage private dollars to stretch the effectiveness of the federal investment throughout the state.

All investments from the State Energy Program are designed to address the primary objectives of the Recovery Act Funding Opportunity Announcement as articulated by the Department of Energy. Furthermore, investments will not include those elements specifically prohibited under the provisions of the DOE announcement. ARRA SEP money is prohibited:

- For construction, such as construction of mass transit systems and exclusive bus lanes, or for the construction or repair of buildings or structures,
- To purchase land, a building or structure or any interest therein,
- To subsidize fares for public transportation,
- To subsidize utility rate demonstrations or state tax credits for energy conservation or renewable energy measures, or
- To purchase equipment, conduct research, or engage in development or demonstration of energy efficiency or renewable energy techniques and technologies not commercially available.

## Residential Programs .....\$5,688,328

The Governor's Energy Office residential program will work in three primary areas in support of the SEP strategic plan goals:

- Promoting advanced energy codes;
- Energy Efficiency in new home construction; and
- Existing home energy efficiency upgrades and improvements.

### Energy Codes

In fiscal year 2008/2009 the GEO worked with all 64 counties in Colorado to help them adopt and enforce the latest energy codes by offering 12 trainings in different locations around the state. This code support will be increased in fiscal years 2010&2011, offering an additional 38 trainings throughout the state. A key additional component of the program in this grant period will provide ongoing energy code support to local jurisdictions through a third party contractor to ensure effective follow through of code implementation at the local level.

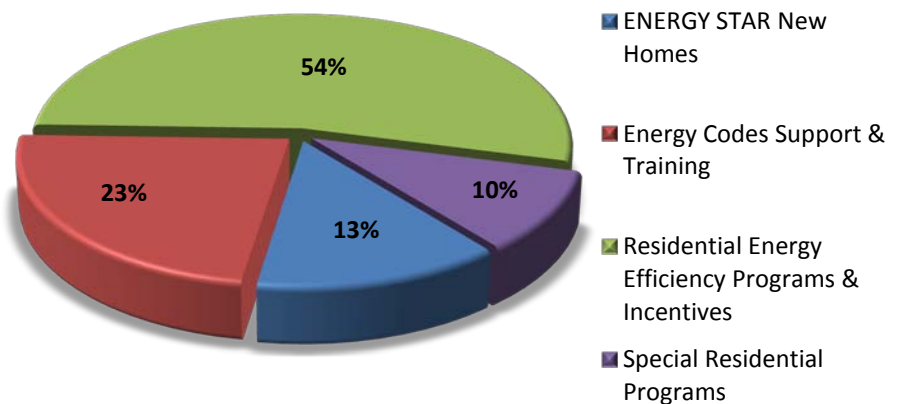
### New Home Construction

The New Home Construction program utilizes the Environmental Protection Agency's (EPA) ENERGY STAR platform while engaging local cities, counties, utilities, non-profits, home builders' associations and other community organizations. In fiscal year 2010 & 2011, the GEO will provide building science, sales, real estate professional, contractor and general ENERGY STAR trainings locally. The GEO also will provide marketing, homebuilder rebates, consumer incentives and education statewide to support this effort. GEO will expand its current Fort Collins based ENERGY STAR Mortgage Pilot program to five more financing partners to provide homeowners with financing incentives to purchase an ENERGY STAR home. There will be a parallel program to support high performing communities that wish to implement programs to achieve higher than ENERGY STAR energy savings for new home construction. The GEO will also contract with an outside firm to develop a model energy efficiency design book to provide potential new home buyers with an outlet for stamped approved plans for energy efficient homes.

### Existing Home Residential Energy Efficiency

The third area of work in which the GEO will apply funding is to advance energy efficiency in existing homes. The GEO will expand its current "Insulate Colorado" program to provide additional incentives available statewide. Furthermore, a new menu of incentives will be added to address duct sealing, furnace replacement, air sealing, lighting, appliance replacement and an energy audit subsidization program. The GEO will implement a new approach to bundle incentives for a "whole house tune-up" and accompany the full upgrade with vouchers toward the purchase of a Solar PV system for the home, supporting the principle of "efficiency first".

Residential Programs



GEO will also spearhead a statewide campaign in conjunction with libraries to allow residents to check out Kill-a-Watt energy meters, incentives for home energy monitors and a statewide campaign to raise awareness around energy consumption and measures homeowners can employ to reduce demand. The GEO will also host a conference each year of the grant period targeted at local government officials, homebuilders, realtors, the building industry, homeowners and small businesses to raise awareness around opportunities to increase efficiency in the residential housing markets.

## Renewable Energy Development and Expansion..... \$9,775,334

Colorado’s Renewable Energy Incentive program expanded and established through the ARRA funds are designed to compliment existing utility incentives as well as creating partnership opportunities while stimulating the renewable energy market and reducing demand on the utility grid. GEO will also be spearheading a concerted effort to take advantage of our geothermal production potential and expand micro-hydro development opportunities.

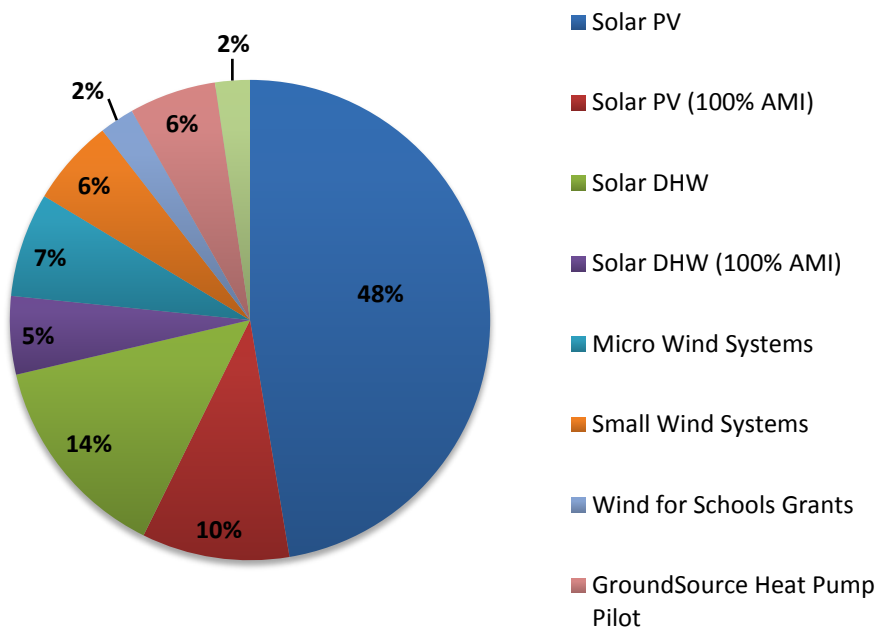
### Rebates and Grants

The change in the economic conditions of Colorado and the US has forced thousands of renewable energy projects to be tabled until the credit markets begin investing again. Understanding the ARRA SEP funds are to be used to overcome the present financial barriers to investments in renewable energy, the Governor’s Energy Office will be expanding its current Renewable Energy Rebates and Grants Program substantially.

The total amount to be distributed through the Renewable Energy Rebates and Grants Program is approximately \$7.8M, with an additional 10% set aside for program administration and monitoring and verification requirements. The goal of this rebate program is to design incentive levels at approximately one third of the total project cost after all currently available state and federal incentives. The GEO anticipates making approximately 700 project awards through this program.

Thanks to Amendment 37 and HB 07-1281, Colorado’s Investor Owned Utilities (IOUs - Xcel and Black Hills) have already established significant solar PV program rebates. Rather than layering GEO’s PV rebates on top of those existing rebates for all customers within the IOU regions, GEO will focus the additional incentive toward those earning less than 100% of the Adjusted Median Income (AMI) to expand access to ownership for a population for whom the costs are currently prohibitive.

**Renewable Energy Rebates**



## Renewable Energy Workforce Training

In order to ensure that all technologies can be deployed where best suited across the state, there is a need to provide training for those who want to design and install those technologies. As job retention and creation is an important aspect of the ARRA funding, GEO will partner with the appropriate institutions to ensure that trainings are held in geographic locations where the technologies can be deployed and jobs created and retained.

## Renewable Energy Development Team (REDT)

The State of Colorado will develop the capacity to review and shepherd potential renewable energy projects fully through development process. GEO will create a Renewable Energy Development Team (REDT) that has the potential to both address supply side congestion for project development, and realize the goals of the ARRA and New Energy Economy primarily in green collar job creation and greenhouse gas emissions reduction. The REDT will include experts from the woody biomass, small hydro, solar electric and thermal, community wind and geothermal industries as well as finance and project development experts.

REDT will be responsible to assist in the development of specific projects through an early stage development pipeline while working closely with GEO's team.

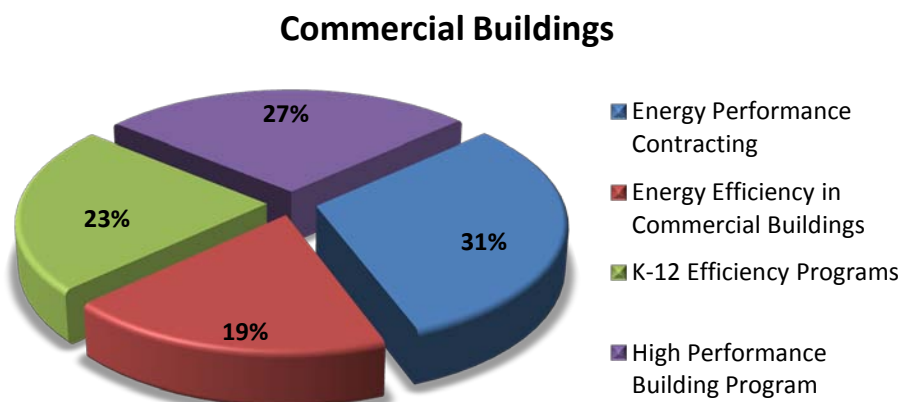
- **Phase 1 - Initial project development review.** Phase 1 essentially is a high level "go/no go" project screen that will determine the highest potential projects for development. For each of the technology areas, the REDT will develop a framework to screen projects.
- **Phase 2- Development assistance for a feasibility study.** Phase 2 is the beginning stages of a business plan for the project. It is anticipated that the REDT will review approximately 80 Phase 1 projects of which roughly 50% will move on to Phase 2.

## Commercial Buildings.....\$4,938,258

The Governor's Energy Office Commercial Buildings Program focuses on both existing buildings as well as the high performance design of new commercial buildings.

### Existing Buildings

The existing building program focuses on the effective use of a strong Energy Performance Contracting industry in Colorado. GEO has pre-approved 13 Energy Service Companies as bidders for public performance contracting projects. The Lawrence Berkeley Lab recently released a study showing that 25-30% of money invested by Energy Service Companies in a performance contract went directly to job operational costs. Performance Contracting will maximize the job creation objectives of the ARRA Funds.



The Energy Efficiency for Existing Buildings Program provides a host of sub programs to help state and local agencies reduce their energy and carbon emissions and participate in the New Energy Economy. These offerings include facilitating Energy Performance Contracts projects for public agencies throughout Colorado, providing energy management expertise to K-12 market, promoting and aiding in the wide spread installation of cost effective energy efficient technology, bringing innovative energy efficient technology into the market, bringing recognition to agencies on the forefront of energy efficiency and greenhouse gas emission reduction implementation.

The ARRA funds will further allow the GEO to provide an incentive for the private sector commercial facilities that can not currently participate in the performance contracting regime because their energy consumption is too low to attract private sector investment.

### **High Performance Buildings**

The GEO High Performance Building Program addresses long-term market transformation in the field of energy efficient and high performance, green buildings. High Performance Building drives the value of the built environment in communities through a collaborative process encompassing funding, planning, design, construction, maintenance and operation. The program will achieve its goals through a combination of technical assistance to public agency new construction and major renovation projects, workshops and trainings and dissemination /development of tools and best practices.

The HPD program also relies on close collaboration with state agencies, local governments and public school districts to implement energy efficiency and green building policies, particularly the state's stringent high performance certification requirements, develop voluntary programs that impact new design and create sustained demand for skilled jobs in the design and construction industry.

### **Public Information and Consumer Outreach**      **\$4,762,490**

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With 57 utilities in the state, 271 municipalities, and 64 counties, there are myriad incentives for both energy efficiency and renewable energy depending upon where a consumer resides. Combined with changing state and federal incentives, it is nearly impossible for an individual or business to ascertain what their best options are for efficiency and renewable products and make informed financial decisions.

The Governor's Energy Office will remove this information barrier by providing Colorado's residents and businesses with access to simple and accurate information about energy efficiency and renewable energy measures including, but not limited to, how they work, how they compare, what financial incentives exist to help pay for them and what service providers exist in the users' geographic location.

Not only will this investment provide ongoing support for consumers and businesses involved in energy efficiency and renewable energy projects, but it will also ensure the successful deployment of programs and incentives associated with ARRA funding resources.

GEO will create an innovative public outreach program that will:

- Present information in a simple and direct manner
- Push useful information to the forefront
- Avoid dense language
- Turn exploration & education moments into action moments
- Allow for stakeholders to participate by providing information about their efforts

With the above principles in mind, the GEO has identified the following strategies as part of its Access to Information efforts:

- Develop a Web strategy for residents and homeowners to receive information about EE and RE options, service providers and financing opportunities.
- Establish a telephone hotline for residents and homeowners to receive information about incentives, service providers and financing opportunities.
- Implement robust consumer outreach to publicize the methods of accessing the information and educational information to help consumers understand their choices.
- Engage local champions throughout the state to optimize and leverage outreach strategies and long term sustainability of efforts.

## Finance/Capital Investments \$19,248,127

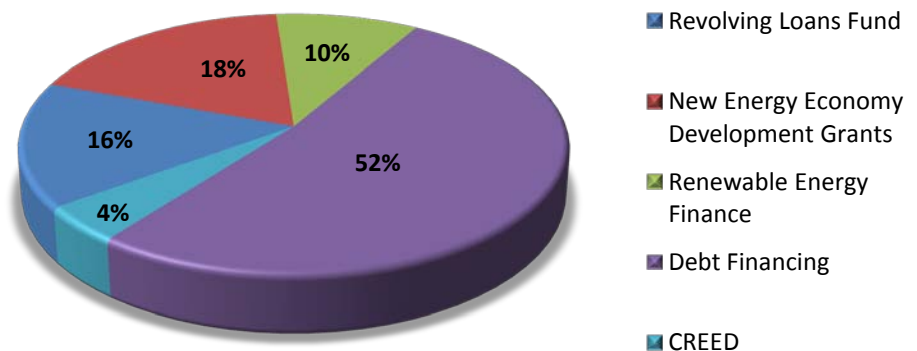
Upfront costs can keep an individual or a business from making cost effective investments in energy efficiency and renewable energy simply because of a lack of financing options. The Colorado Governor’s Energy Office will commit funds from the State Energy Program allocation for the purposes of providing a suite of products to reduce financial barriers to rapid deployment of renewable energy and energy efficiency in the State of Colorado.

Providing access to short term and intermediate low cost capital will address a significant market barrier within the State of Colorado for renewable energy and energy efficiency projects within the commercial and residential sectors. The purpose of the Capital Investment Program will be to provide a range of products that will provide a sustainable pool of capital, leverage further investment dollars, and accelerate the deployment of renewable energy and energy efficiency projects throughout the state. . The Capital Investment program will be subdivided into four major project categories.

### Debt Financing

The debt financing project will deploy funds for the purposes of easing credit conditions for direct investment in renewable energy and energy efficiency measures. The current state of the credit market has increased risk aversion and general market barriers to accessing capital for the upfront costs of projects. The debt-financing program will focus on a leveraged partnership that will provide gap financing for a variety of clean energy technology projects.

### Finance & Capital Investment Grants



### New Energy Economy Development (NEED)

This grants program will infuse ARRA SEP funds immediately into projects that are at their final stages of development. Applicants will be evaluated by a scoring committee based on: extent of development jobs created; energy saved; renewable energy installed capacity and generated, GHG emissions reduced; energy cost savings; and funds leveraged. Additional objectives will be met through targeted grant criteria.

## **Revolving Loan Fund**

A clean energy revolving loan fund will be administered by the Colorado Governor's Energy Office in conjunction with a select group of preferred lenders. The purpose of the revolving loan fund will be to provide low cost capital for banks to provide short and medium term loans for renewable energy and energy efficiency projects throughout the state.

## **Renewable Energy Financing Program**

The program will work with the following financial mechanisms: CREBs/QECBs, a Solar Investment Tax Credit (ITC) Grant in Lieu of Tax Credit Loan Program and the K-12 Renewable Energy Loan Program through the Colorado State Treasury, as well as other opportunities arising in the course of the next two years.

The GEO will develop multiple solicitations for the projects outlined above. The content of these solicitations will align SEP dollars spent with key metrics including energy savings, job creation, and carbon emission reductions. The GEO will develop formal structures preserving state energy office control over project criteria and eligibility guidelines. The Public Private Partnership (PPP) will be determined through a formal bid process under the guidelines set within the SEP and in accordance with procurement rules as defined by the State of Colorado.

## **Colorado Center for Renewable Energy and Economic Development (CREED)**

CREED is a cooperative program between Colorado and the National Renewable Energy Lab. The first of its kind in the nation, CREED will provide a crossroads facility for technology commercialization, where NREL scientists, engineers and researchers can meet, conference and discuss important technical, business market and policy issues with entrepreneurs, venture capital firms, angel investors, analysts and policymakers. It will be a home for state and regional initiatives that foster the creation of new businesses and will emphasize the commercial deployment of renewable energy and energy efficient technologies that emerge from NREL's technology transfer and commercialization programs. Funding will go toward operational expenses for a facility in which the activities of CREED will be initiated and capital financing for a permanent structure will be sought.

## **Greening Government .....\$723,348**

Colorado's "Lead-by-Example" Program was established by the Greening Government Executive Orders signed by Governor Ritter during the first three months of his tenure as Governor. The Executive Orders call for state employees to take a position of leadership to reduce the environmental impact of state government operations. GEO works closely with state agencies, colleges, and university to help them achieve the greening government goals by 2012:

- 25% petroleum reduction
- 20% energy reduction
- 20% paper reduction
- 10% water reduction
- 75% waste diversion

Program offerings include facilitating Energy Performance Contracts projects and aiding in the wide spread installation of cost effective energy efficient and water-reduction technology, providing strategies and removing barriers to improve the efficiency of the state fleet, developing materials management programs, including an environmentally preferable purchasing policy.



## Utilities & Transmission .....\$1,281,863

The Governor's Energy Office will be conducting a set of major education and outreach activities involving climate policy, electric generation, and general energy profile data on state utilities. The Governor has issued the Colorado Climate Action Plan (CAP) which outlines a 2020 goal of reducing CO2 emission by 20% from the electric, transportation and industrial sector. The Electric and Gas Utilities Program will be developing a suite of products which will create a strong vision for accomplishing the emission reduction goals within the CAP for utility customers, electric utilities and the Colorado legislature. In addition to these outreach activities, the GEO will be actively engaged in promoting Governor Ritter's New Energy Economy goals at the Colorado Public Utilities Commission. The coming years will present a significant opportunity to explore changes in rate structure which are in alignment with the objectives articulated in the Colorado Climate Action Plan. In addition to the rate case, there are future dockets on electric resource planning for both Black Hills Corporation and Public Service Company of Colorado. Effective intervention within these and other dockets can affect the size and scope of decision made by the Colorado Public Utilities Commission. Decisions made through these rulemaking exercises will have a large impact on the energy savings and renewable energy deployment goals of the state of Colorado. Through advocacy in support of expanded DSM and renewable energy objectives, this project area supports SEP Strategic Plan goals.

The primary activities which the Utilities Program will be conducting its work will be within the following categories:

- Public education to promote energy conservation
- Developing strategic plans for long term resource planning that optimize energy efficiency and renewable energy into the aggregate electrical load for the state
- Introducing energy saving technologies in the industry, buildings, transportation and utility sectors and encourage state and industry partnerships that develop and demonstrate advance in energy efficiency and clean technologies
- Modify patterns of energy consumption to reduce peak demands for energy and improve the efficiency supply systems
- Feasibility studies for the utilization of renewable energy and energy efficiency resource technologies
- Collaborative programs for energy efficiency and renewable energy technologies that link a state's energy and environment objectives
- Partnering with utilities on supply side management technologies and approaches

GEO's 2008 Report entitled "Connecting Colorado's Renewable Energy Resources to the Markets" provides evidence that there are high-value wind and solar resources in Colorado which exceed Colorado's renewable energy standard and to serve a resource for export to the Southwest and other national markets. The Transmission Program is researching and writing a detailed transmission report (the Renewable Energy Development Infrastructure [REDI] Project) under a grant from the DOE's Office of Electricity, to be completed by August 1, 2009.

The transmission program will maintain momentum from the REDI report by forming an implementation team of subject matter experts to follow through on the key recommendations that will stem from the REDI Report.