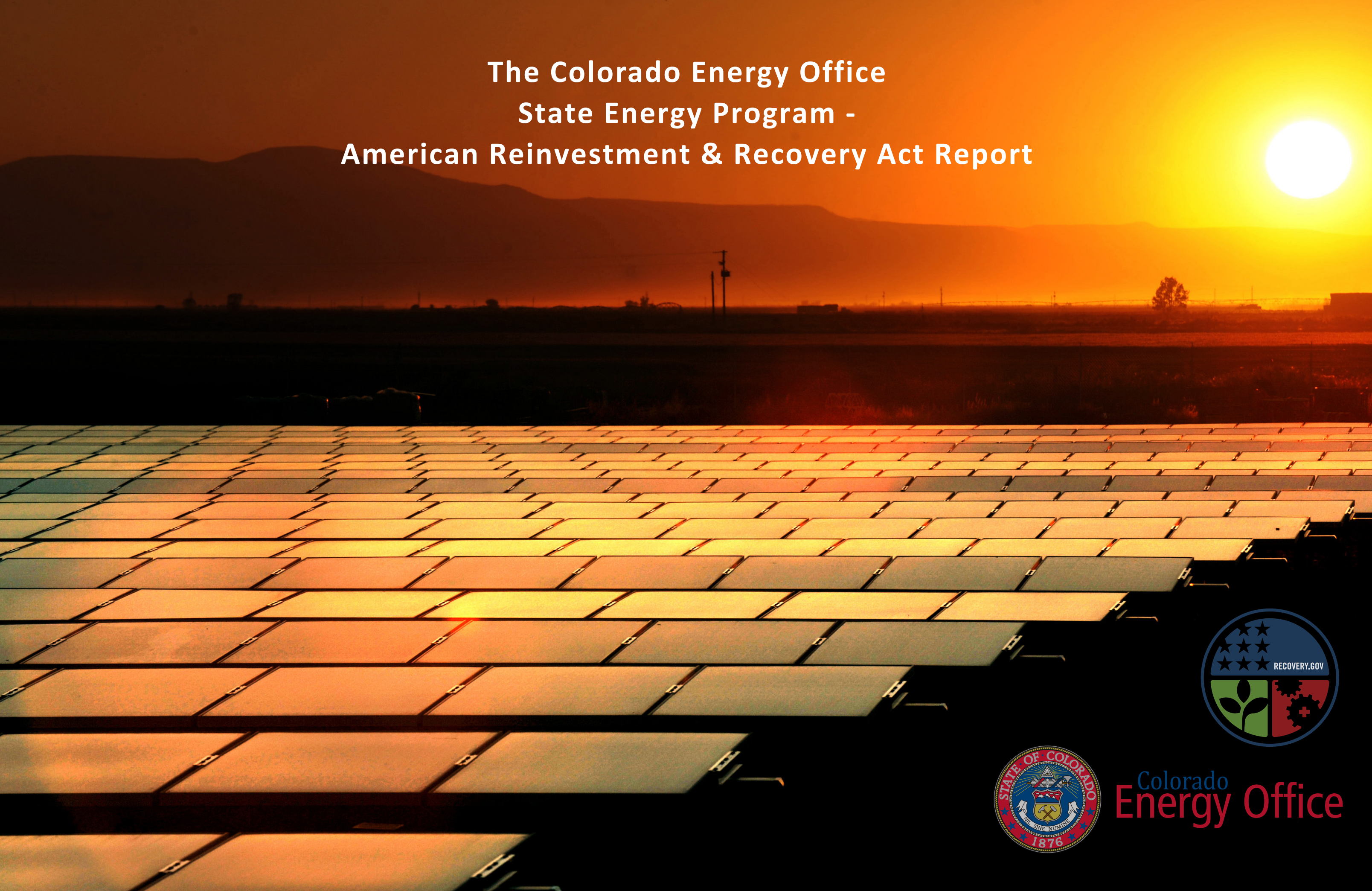


The Colorado Energy Office  
State Energy Program -  
American Reinvestment & Recovery Act Report



Colorado  
Energy Office





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# Executive Summary

## Overview

In 2009, The Governor's Energy Office (GEO)<sup>1</sup> received an American Reinvestment and Recovery Act (ARRA) allocation of \$49,222,000 through the U.S. Department of Energy's (DOE) State Energy Program (SEP). The DOE stated goals for the SEP-ARRA grant were: *to increase energy efficiency to reduce energy costs and consumption for consumers, businesses and government; reduce the U.S. reliance on imported energy; improve the reliability of electricity and fuel supply and the delivery of energy services; and reduce the impacts of energy production and use on the environment.*

The GEO viewed this allocation as an important one-time opportunity to remove market barriers to the development of energy efficiency and renewable energy resources statewide. The office also felt it was important to ensure that the momentum and impact of the allocation be sustained post-ARRA.

<sup>1</sup> Colorado State Legislation changed the name of the Governor's Energy Office to Colorado Energy Office on May 24, 2012.

# Building a Strategic Plan

Colorado was well positioned to effectively implement SEP ARRA. In 2007-08 GEO established partnerships with municipal and rural electric utilities, local non-profit organizations, and local governments to advance community-driven programs toward sustainable energy outcomes. The GEO staff was becoming increasingly knowledgeable about state resources (and the lack of them), and had deployed four regional representatives across the state to live and work in communities outside of Denver. Their role was to be a liaison to the Denver office, to identify barriers and energy issues unique to specific communities, and to help find solutions.

Upon notification of the SEP-ARRA distribution, the GEO created a strategic plan outlining a vision for the allocation with goals and objectives, resources required, and a timeline. It was determined early in the process that three core elements were key to design and implementation of Recovery Act dollars:

- the funds would be allocated statewide
- the funds would be used for programs to remove the primary barriers to a broad scale deployment of energy efficiency and renewable energy
- the funds would develop a sustainable infrastructure to ensure, where possible, the continuation of programs and projects developed after ARRA funds ran out

The result of this planning was a three-prong approach to provide:

- Access to Information
- Access to Capital
- Access to Services

All SEP-ARRA programs and projects would stem from at least one of these core principles. From this, eleven Market Titles were created, and programs and projects were developed under them. This streamlined approach provided organizational structure to facilitate the administration, reporting, and accountability of the funds.

It was also determined that the GEO would consider all of funds available comprehensively, in order to coordinate and support high-level goals, i.e. “leverage” additional funds received (including the State Energy Efficient Appliance Rebate Program (SEEARP), and the Energy Efficiency and Conservation Block Grant (EECBG)), and would use local incentives and utility rebates, and partner with local governments, utilities and NGOs to minimize overhead and maximize the amount of money and resources available to implement this robust plan.

The SEP-ARRA funds were distributed into each market title and assigned a program manager, who then developed a program outline which included projects, scope, and budget. Criteria were developed to guide the selection of projects: cost, funds leveraged, and energy saved. Each project, overseen by GEO leadership, was expected to have specific deliverables. The selection processes also included the validation of statewide deployment of funds.

| Date     | Milestones and Significant Procurements  | Implementation Partner(s)  |
|----------|--|--|
| 2009-Feb | ARRA legislation enacted   | Congress   |
| 2009-Mar | SEP-ARRA funding opportunity released  | DOE  |
| 2009-Mar | Colorado Economic Recovery Oversight Board created                             | Governor’s Office  |
| 2009-May | Strategic Plan developed, application submitted to DOE                         | Stakeholders, Governor’s Office                                  |
| 2009-Jun | DOE approves GEO SEP-ARRA plan and work begins                                 | DOE  |
| 2009-Jul | First round of NEED sub-grant application posted                               | Multiple   |
| 2009-Aug | Recharge Colorado RFP issued   | State Procurement Office   |
| 2009-Sep | Main Street Efficiency Initiative RFP issued                                   | State Procurement Office   |
| 2009-Nov | Rebate fulfillment firm RFP issued   | State Procurement Office   |
| 2010-Jan | First round of NEED sub-grants contracted                                      |  |
| 2010-Apr | Recharge Colorado website goes live and rebates become available to the public | Helgeson, Vladimir Jones, BBB, utilities, contractors, retailers |
| 2010-Jun | Renewable Energy Development Team RFP issued                                   | State Procurement Office   |
| 2010-Jul | Renewable Energy Development Team firm selected                                | SenTech (SRA International)                                      |
| 2010-Dec | Final round of grant awards issued by GEO                                      | State Procurement Office   |
| 2011-Dec | Rebate Program closed  | Helgeson, utilities, contractors                                 |
| 2012-Feb | Measurement and Verification work ends   | Nexant   |
| 2012-Mar | Recharge Colorado transferred to non-profit entity                             | www.RechargeColorado.org   |
| 2012-Apr | SEP-ARRA grant closed  |  |

# Market Titles

## Brief Overview

**Public Information:** As Colorado's signature SEP-ARRA program, and certainly the most visible, Recharge Colorado embodies GEO's attempt to capitalize on the unique nature of ARRA to promote consumer energy efficiency. The development and implementation of the Recharge Colorado website fell under the Public Information market title and was the conduit to distribute ARRA-funded energy efficiency and renewable energy rebates.

Recharge Colorado, a comprehensive website resource for Coloradans, was created to provide access to timely and accurate information about energy efficiency and renewable energy measures including practical tips to manage energy use, financial incentives and tax credits to help reduce the cost of installations, and a list of service providers. It became the primary statewide communication vehicle for SEP-ARRA funds. With the unprecedented success of Recharge Colorado, the GEO and DOE worked together to move the program outside of state government where it was formed into an independent nonprofit organization. The Recharge Colorado non-profit will continue to provide information and issue rebates in close coordination with utilities, including the development of new opportunities such as water efficiency programs.

**Capital Investment:** Recognizing that there are market barriers that inhibit the growth of innovation ecosystems, finance barriers in particular, the GEO used approximately \$16,245,080 in ARRA funding to establish a revolving loan fund (RLF). The RLF is designed to provide essential capital to early-stage companies and commercial projects utilizing innovative energy technologies that are incapable of accessing capital from traditional sources. The idea is to provide these companies and projects the funding required to deploy innovative, commercially-available technologies in an effort to create jobs and spur traditional lenders to fill these finance gaps in the future.

In the **Commercial Building - Existing** market title, SEP-ARRA funds allowed Colorado to expand the already successful Energy Performance Contracting (EPC) program, which allows organizations to pay for energy efficiency measures through the savings generated. The GEO also launched a new energy efficiency program – The Main Street Efficiency Initiative (MSEI) – specifically for small business owners, providing tools to analyze and manage utility bill information, assistance in identifying energy conservation measures, incentives to implement efficiency projects and access to available financing. A northern Colorado MSEI participant, the Platte River Power Authority, used a subsidized HVAC tune-up as a starting point for small building owners, and has reached over 40 buildings to date.

Under the **Commercial Building - High Performance** market title, the GEO expanded the High Performance Building (HPB) Program to provide technical design assistance, thereby removing a resource/capability barrier preventing schools and governments from including energy efficient measures in new construction. Ambient Energy, a contractor in the HPB program, provided third-party technical assistance to the Walking Mountains Science Center in Avon, Colorado. Ambient performed energy modeling and plan review during the design process, enhancing both the energy efficiency and renewable energy features of the project, which allowed the Center to attract private funds and apply for LEED Platinum status.

Under the **Greening Government** market title, GEO worked closely with state agencies to reduce their energy use by identifying technologies to lower energy costs and lessen the environmental impact of state government operations. A statewide energy inventory revealed that many state desktop computers are left running on full power when not in use. The GEO funded the purchase of the Big Fix Power Management Software, which was installed on 11,000 state-owned computers.

The software puts the computer into sleep mode after a period of inactivity and automatically saves all user data. While purchase and installation of the Big Fix Management Software cost around \$100,000, the state expects to save from \$15-\$45 a year for each of the 11,000 computers using it, with total savings in the hundreds of thousands of dollars, and a payback time of less than one year.

While renewable energy projects were spread across several market titles, three market titles were devoted to the field: Renewable Energy Program Consultants, Renewable Energy Education and Outreach, and Renewable Energy Rebates and Grants.

Most of the **Renewable Energy, Outreach and Education** funding went to the training of technicians who will provide the skilled labor necessary to install renewable energy technologies. Courses in solar installation and home energy auditing were organized and conducted by community colleges around the state, funded by SEP-ARRA Green Jobs grants.

**Renewable Energy Program Consultants:** GEO contracted with a private-sector firm to create the Renewable Energy Development Team (REDT). The REDT reviewed and guided potential renewable energy projects through the development process. The REDT most notably streamlined the Federal Energy Regulatory Commission's (FERC) small-hydro permitting process for the State which was complex and time consuming. The REDT created an avenue to make small-hydro permitting more economical and accessible. In July of 2011 the REDT successfully completed its first hydropower conduit exemption application to FERC in just two months, a significant reduction over a process that historically took up to three years. This opened the door for adding small hydro-power generation to existing ditches, canals, and dams, thereby creating a new revenue stream applicable to many rural areas in the State.

The programs assembled under the market title **Renewable Energy, Rebates and Grants**, funded renewable energy rebates offered through Recharge Colorado and provided sub-grants for the installation of wind turbines and photovoltaic arrays, biomass feasibility studies, assorted geothermal projects, and low emission transportation fuels projects.

Colorado has extensive geothermal resources, and the SEP-ARRA funding allowed the GEO to more fully develop these resources by supporting the growth of the industry.

The **Residential Energy Efficiency** market title provided resources to improve the access to energy efficiency information in the residential sector and provided rebates issued through Recharge Colorado. The Rebate program was the expansion of the GEO's previous incentives (Insulate Colorado) and offered rebates statewide in communities that previously had no access to these incentives. This was important to develop consumer interest in energy efficiency and to build a contractor network to support this activity.

While homeowners have long recognized the value of energy efficiency and renewable energy measures in lowering their monthly utility costs, those measures are not mentioned in the listing of the house attributes at the time of sale, nor considered in the market valuation. The GEO recognized this as a barrier to implementation of energy efficiency, and used SEP-ARRA funds to award a total of five sub-grants to address the issue: two went to improve the Multiple Listing Service (MLS) databases used for home sales, and three for training of those who would use the databases: real estate professionals, appraisers, and lenders.

Funding under the **Transmission** market title helped continue the exploration of Colorado's transmission development opportunities, and produced the Strategic Transmission and Renewables (STAR) report, a culmination of the electric power sector, renewables, and transmission analyses conducted by the office between 2007 and 2010.

Under the **Utilities** market title, GEO conducted a set of major education and outreach activities involving climate policy, electric generation, and general energy profile data for state utilities and was actively engaged in the promotion of energy efficiency and renewable energy at the Colorado Public Utilities Commission. Additionally, GEO partnered with Spirae Inc. and other clean energy organizations to develop a smart grid training center.

# Third-Party Verification

In a unique step toward transparency and accountability, the GEO selected Nexant, Inc. to conduct a Measurement and Verification project of the programs and projects funded by all ARRA allocations. Nexant, Inc. is an independent energy consulting and technology company that provides technical, economic, and planning services to large organizations, including energy companies, financial institutions, and government agencies at all levels.

Nexant surveyed programs from all three ARRA funding sources: the State Energy Program (SEP), the State Energy Efficient Appliance Rebate Program (SEEARP), and the Energy Efficiency and Conservation Block Grant (EECBG) Program. Due to the diverse nature and size of the many projects, Nexant used a sampling approach that followed the guidelines established for ARRA impact evaluations in the DOE SEP and EECBG Program Notices. The Project also sought to integrate and develop consistency of activities with the National Evaluation of ARRA funds, expected to take place in late 2012 – 2013.

Nexant and its sub-contractors, Group 14 Engineering and Research Into Action, evaluated six SEP market titles.

The Nexant group collected and analyzed data for projects completed through December 31, 2011, conducted interviews, and presented their findings in a report to the GEO dated April 11, 2012. Nexant noted “Based on this evaluation of these evaluated Colorado GEO ARRA funded energy efficiency activities, the following accomplishments were realized: Annual energy bills were reduced by \$16,215,000, and \$164,825,000 will be saved across the measure life in present dollar value. The rebate and grant programs leveraged at least \$8 of participant and other program funds for every GEO ARRA dollar spent.” The following table outlines Nexant’s evaluation of gross verified site energy savings through December 31, 2011. Site savings reflect consumer savings which may be higher at the utility level.

| Market Title                          | Gross Verified Electricity Savings (kWh) |                    | Gross Verified Gas Savings (MMBtus) |                  | Total Gross Verified Savings (MMBtus) |                  |
|---------------------------------------|--|--------------------|-------------------------------------|------------------|---------------------------------------|------------------|
|                                       | Annual                                   | Lifetime           | Annual                              | Lifetime         | Annual                                | Lifetime         |
| Capital Investments                   | 10,615,549                               | 184,153,278        | 110,142                             | 1,921,444        | 146,362                               | 2,549,775        |
| Commercial Buildings Existing         | 18,453,062                               | 268,369,134        | 97,037                              | 1,429,459        | 159,999                               | 2,345,135        |
| Commercial High Performance Buildings | 5,685,794                                | 85,286,911         | 23,334                              | 350,006          | 42,734                                | 641,005          |
| Greening Government                   | 4,046,103                                | 20,958,812         | 0                                   | 0                | 13,805                                | 71,511           |
| Renewable Energy Programs             | 3,478,858                                | 77,275,066         | 9,892                               | 162,126          | 21,762                                | 425,789          |
| Residential Buildings                 | 2,408,375                                | 40,294,998         | 98,199                              | 1,937,538        | 106,416                               | 2,075,025        |
| <b>Total</b>                          | <b>44,687,742</b>                        | <b>676,338,199</b> | <b>338,603</b>                      | <b>5,800,573</b> | <b>491,078</b>                        | <b>8,108,239</b> |

*The rebate and grant programs leveraged at least \$8 of participant and other program funds for every GEO ARRA dollar spent.*

The Revolving Loan Fund (RLF) provided funds to companies who were unable to acquire them commercially. Due to the nature of the loans provided, it was possible to calculate verified energy savings for only one of the five loans provided through the Capital Investments RLF. However, through Nexant’s interviews with RLF recipients, the following qualitative accomplishments were reported:

- The CEO of one company noted that the RLF loan “saved his company” enabling them to begin manufacturing to fulfill existing orders. 16 jobs were created and retained in Colorado.
- Another CEO noted that without the loan from the RLF, they would have been forced to move their operations from Colorado to Europe eliminating 113 jobs in Colorado.
- Another owner noted that without the RLF loan his company would have had to significantly cut back operations, lay off more than 13 employees and discontinue development of a new product.
- A CEO noted the loan enabled his company to purchase 60% of its manufacturing equipment and be first to market with a potential breakthrough technology.



# Outcomes

The GEO received \$49,222,000 in SEP-ARRA funds. The grant closed on April 30, 2012.

The GEO entered into 223 SEP-ARRA funded contracts and purchase orders. Rebates were distributed in every county in the state, and programs or projects were completed in 109 unique communities. In addition, 119 High Performance Building projects were completed in 50 communities around the state. GEO's diverse set of activities included: funding for utility modeling exercises in support of demand-side management and renewable energy; contractor training seminars, sponsorship of industry events; development of a regional green building code for the Denver Metro area; ENERGY STAR New Homes education; Smart Grid Task Force; collaborative meetings with rural electric co-ops and municipal utilities; biomass feasibility studies; compact fluorescent light bulb buy-downs; purchase of in-home energy measurement devices for circulation through libraries statewide; and funding Energy Managers available to small school districts through the Board of Cooperative Education Services. A complete list of the 223 contracts and purchase orders is available in the appendix to this report.

| Market Title                            | Total Lifetime Gross Verified Savings (MMBtu) | \$/MMBtu   | Effective Lifetime | Total Gross Verified Savings (MMBtu)- Annual |
|---|---|------------|--------------------|--|
| Capital Investment                      | 2,549,775                                     | \$8        | 17                 | 146,362                                      |
| Commercial Buildings - Existing         | 2,345,135                                     | \$1        | 15                 | 159,999                                      |
| Commercial Buildings - High Performance | 641,005                                       | \$4        | 15                 | 42,734                                       |
| Greening Government                     | 71,511  | \$10       | 5                  | 13,805                                       |
| Renewable Energy, Rebates & Grants      | 425,789                                       | \$13       | 20                 | 21,762                                       |
| Residential Programs                    | 2,075,025                                     | \$3        | 19                 | 106,416                                      |
| <b>Total</b>                            | <b>8,108,240</b>                              | <b>\$6</b> | <b>17</b>          | <b>491,078</b>                               |

# Dollars Leveraged

GEO maximized the SEP-ARRA funds by the strategic leveraging of federal, state, local, utility, and participant dollars. Due to economic conditions in 2009-2010, GEO did not require sub-recipients to contribute matching funds, although matching funds, leverage, or in-kind donations were considered as projects were selected through the competitive solicitation processes.

Rather than create separate systems to distribute rebates funded by various sources, GEO created the Recharge Colorado online platform to deliver information and rebates funded by SEP-ARRA, SEEARP, and EECBG as well as local government and utility partners.

SEP-ARRA funds were used to fund the expansion of the GEO's Energy Efficiency & Renewable Energy Rebates Program. SEP-ARRA funding provided over \$6,000,000 in rebates in roughly 7,500 individual rebate payments. Homeowners were motivated by this incentive to make the upgrades to their homes, and spent almost \$30,000,000 on installations. This provides a perfect example of SEP-ARRA money spent to boost spending improving the economy, creating jobs in the energy sector, and saving citizens' money through reduced utility costs.

Numbers do not include utility partners.

| Rebate Type                           | *Funds Leveraged       | Leverage Ratio | Estimated Energy Saved / Generated |
|---------------------------------------|------------------------|----------------|------------------------------------|
| Furnace                               | \$11,971,443.63        | 11.1           | 196,401 Therms                     |
| Energy Audit                          | \$151,994              | 2.6            | -                                  |
| Insulation and Air Sealing (Gas)      | \$2,120,449.80         | 2.2            | 98.8248 MMCF                       |
| Insulation and Air Sealing (Electric) | \$975,242.06           | 2.2            | 4,026.608 Mwh                      |
| Duct Sealing (Gas)                    | \$70,324.19            | 8.5            | 0.5980 MMCF                        |
| Duct Sealing (Electric)               | \$32,222.09            | 8.5            | 13.6076 MMCF                       |
| Energy Monitor                        | \$32,618.04            | 5.6            | Not Applicable                     |
| ENERGY STAR New Homes                 | -                      | -              | 1,436 Mwh                          |
| Solar Photovoltaic (PV) Residential   | \$7,703,880.77         | 5.6            | 2,433,428 kWh                      |
| PV Commercial                         | \$4,038,928.96         | 4.3            | 1,441,747 kWh                      |
| Solar Thermal Residential             | \$2,113,046.29         | 3.5            | 5,353,619,250 btu                  |
| Solar Thermal Commercial              | \$515,522.66           | 3.7            | 1,122,156,000 btu                  |
| Wind Residential                      | \$74,904               | 3.6            | 20,367 kWh                         |
| <b>*Total Rebate Programs</b>         | <b>\$29,800,576.49</b> | <b>5.2</b>     | <b>-</b>                           |

\*Funds leveraged is total product cost minus rebate amount.

# Challenges

**DOE Oversight.** While this unprecedented receipt of federal dollars had a positive impact on the State, there were a number of challenges encountered along the way. An immediate issue was the pressure to spend ARRA funds quickly, which was complicated by lagging and or conflicting direction given to the GEO by the DOE. Pressure to “get money out the door” created many concerns as the office struggled to stay on plan, develop tracking and accounting tools, and provide accurate reports to the DOE.

DOE needed to staff-up to handle the increased volume and wisely added a technical assistance team to provide guidance to grant recipients. However, technical assistance did not come from the DOE until months into the program, after GEO had already developed most of its programs and tracking systems.

**GEO staffing.** The three-year-term of the SEP-ARRA grant proved to be a challenge in terms of staff turnover. As mentioned above, a GEO program manager was assigned to each of the eleven market titles. None of those program managers were still involved with their respective market title at the end of the grant, and only one was still employed at GEO.

As part of the strategic plan to leverage funds, GEO created a rebate program with 18 different rebate types and multiple funding sources (SEEARP, EECBG, SEP-ARRA, state funds, and 23 local and utility partners). This added a level of complexity for GEO accounting and contracts staff that the program staff did not anticipate. Ultimately, GEO brought in a temporary program employee to assist with rebate administration and three temporary accounting employees to assist with payments.

**Communication.** Due to a great deal of interest in the ARRA funding, GEO staff spent a good deal of time fielding inquiries from the industry, public, and media.

**Federal requirements and reporting.** The ARRA funding came with detailed requirements for the collection, organization, and submission of many different forms of data. The complexity and volume of the reporting proved to be a significant burden for both the GEO and the sub-grantees. Some sub-grantees found the reporting requirements so onerous that they were unable to accept the funds.

**Davis-Bacon Act** reporting proved to be so complex that the GEO had to purchase a software package to manage it (\$23,000).

The **Buy American** provision was a challenge for many vendors who struggled to find U.S.-made materials at cost effective prices. One such example was Compact Fluorescent Light (CFL) bulbs. There are very few CFL manufacturers in the U.S., and those found were often two-and- three times the price of bulbs made outside of the U.S. This was also an issue in which GEO received conflicting guidance from DOE.

**Historic Preservation.** In February 2010, DOE announced that each state should enter into a programmatic agreement with the state energy office, the state historic preservation office, and the DOE. Due to a number of factors, Colorado’s agreement was not signed until July 2011, more than two years into the SEP-ARRA grant. Part of the complexity is the fact that each state is allowed just one programmatic agreement, which covers all federal energy grants, including Weatherization and local government EECBG.

*As part of the strategic plan to leverage funds, GEO created a rebate program with 18 different rebate types and multiple funding sources.*

# Lessons Learned

**Multiple micro-projects.** The GEO’s strategic plan was to maximize this already sizable allocation of funds to reach across the state, enhance all segments of the energy sector, and to empower the State’s communities to implement energy efficiency enhancements. This resulted in a large number of micro-projects (\$25,000 or less) being contracted and distributed. Although this was a sound idea and a unique way to make sure more citizens received the benefits of the SEP-ARRA distribution, the administrative burden of doing so many small projects became overwhelming. Often the time spent on a \$25,000 contract was the same as it would have been on a \$250,000 contract. Larger projects and/or grants would have ultimately been easier to manage.

**Rebate Program.** As mentioned previously, the multiple funding sources and rebate types added complexity to the program. Having never delivered a rebate program of this breadth, GEO solicited contractor and industry input and funded a statewide marketing survey to develop the program. Regardless, some rebate types sold out earlier than others. Due to the fact that the rebate partners’ funds were geographically limited to the utility or local government boundaries, rebates remained available in some areas of the state while they were sold out in other areas. This resulted in challenges communicating with contractors, rebate applicants, and the media.

To accept rebate funds from partners, GEO had to enter into a contract with each of the 23 partners. Many of the partners were utilities, who set their rebate budgets and launch programs on varied timelines. State procurement requirements made for a number of tight deadlines and “rush” orders for the contracting staff.

Fortunately, Colorado is well positioned to accept future rebate funds and administer those through Recharge Colorado. The new non-profit does not have the burden of government procurement rules when contracting with utilities, and will have more experience in managing rebate programs.

**Skilled Labor.** GEO found that smaller communities outside of the Colorado Front Range lacked trained contractors to perform the work associated with insulation and renewable energy rebates. GEO partnered with the Colorado Department of Labor and Employment, and industry trade associations to increase training and contractor availability.

**Sub-Grant solicitations.** GEO found that sub-grant applicants, especially those in the solar thermal industry, had difficulty completing the application. Because GEO evaluated applications based on the potential to save or generate energy, many non-profit applicants lacked the technical knowledge or contractor resources to provide this information. In the future, GEO would consider offering technical assistance to applicants prior to the application submission.

**“Shovel-ready”.** This term was used extensively by Congress and the media early in the SEP-ARRA implementation. Thus, an expectation was set that GEO would look to fund construction-type projects. While SEP-ARRA funds were applied to a number of building retrofit “construction-like” projects, GEO’s strategy was to build sustainable programs and remove barriers to information, capital, and services. In the future, the office may benefit from maintaining a list of shovel-ready energy projects (similar to transportation agencies) in addition to an overall policy and program strategy that can be communicated on a regular basis.



# Best Practices

Using EECBG funds, GEO developed the Community Energy Coordinators (CECs) program for Colorado's rural and mountain communities. CECs are local government or community non-profit employees who received personalized guidance from the GEO, have access to clean energy tools and programs, and participate in twice-monthly training and networking sessions. GEO created the CEC program to develop local capacity to ensure that all geographic areas of the state would benefit from ARRA. The CECs were instrumental in promoting ARRA grants and rebates, as well as the state's Weatherization program. CECs were supported by four GEO staff members, known as the Regional Representatives (RRs).

GEO hired a Minority Outreach Coordinator to work with minority communities statewide. Like the CECs, this position helped to inform and garner participation from populations that otherwise may not have participated in the ARRA activities.

GEO was fortunate to have a number of innovative energy efficiency and renewable energy policies in place in 2009, as well as a solid industry presence and momentum in the energy efficiency and renewable energy space. This foundation allowed GEO to develop a strategy to make the most of this funding.

EECBG, SEEARP, and SEP-ARRA funds were used for rebates, NEED grants, Recharge Colorado, the Main Street Efficiency Initiative, and outreach activities. This allowed GEO to maximize internal staff resources and processes and implementation partners.

A variety of activities focused on building capacity for the long term. Not only did the ARRA funding keep industry workers employed during a very difficult time, it helped to build momentum for continued progress to reduce energy consumption in the state.

# Appendix 1: SEP-ARRA Contracts Awarded



## Contracts Awarded by the Governor's Energy Office, 2009-12, Using SEP-ARRA Funding

| Market Title                    | Program or Grant Type                           | Vendor or Sub-recipient                                   | City              | County      | Contract Amount  | Scope of Work  |
|---------------------------------|---|---|-------------------|-------------|------------------|--|
| Capital Investment              | CO Center Renewable Energy Economic Development | National Renewable Energy Laboratory                      | Golden            | Jefferson   | \$ 615,413.00    | Develop multi-agency collaboration to develop Colorado's renewable energy industry               |
| Capital Investment              | GEO NEED Grant                                  | Astralux Environmental Solutions, LLC                     | Alamosa           | Alamosa     | \$ 59,940.00     | Installation of 19.74kW solar PV Array   |
| Capital Investment              | GEO NEED Grant                                  | Aurora Community Mental Health                            | Aurora            | Arapahoe    | \$ 29,739.00     | Lighting retrofit at five AuMHC facilities   |
| Capital Investment              | GEO NEED Grant                                  | Aurora Community Mental Health                            | Aurora            | Arapahoe    | \$ 23,100.00     | Replacement of old boilers with 99% efficient units  |
| Capital Investment              | GEO NEED Grant                                  | Big Agnes, Inc.   | Steamboat Springs | Routt       | \$ 12,064.00     | Installation of 5kW solar PV Array at camping gear business                                      |
| Capital Investment              | GEO NEED Grant                                  | Buena Vista SD R31  | Buena Vista       | Chaffee     | \$ 130,000.00    | Replacement of HVAC system and controls at P.E. facility   |
| Capital Investment              | GEO NEED Grant                                  | Calhan Public School District R-J T-1                     | Calhan            | El Paso     | \$ 305,000.00    | Replace 1970s propane boilers with ground source heat pump system                                |
| Capital Investment              | GEO NEED Grant                                  | City and County of Broomfield                             | Broomfield        | Broomfield  | \$ 12,500.00     | Replace 56 electric bollards in County Commons with solar LED luminaries                         |
| Capital Investment              | GEO NEED Grant                                  | City and County of Broomfield                             | Broomfield        | Broomfield  | \$ 7,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | City of Fort Collins Municipal Utility                    |                   |             | \$ 72,000.00     | Purchase of software to track resource usage and target efficiency program outreach              |
| Capital Investment              | GEO NEED Grant                                  | Community Health Clinic                                   | Dove Creek        | Dolores     | \$ 37,425.00     | Installation of a ground source heat pump  |
| Capital Investment              | GEO NEED Grant                                  | Costilla County   | San Luis          | Costilla    | \$ 28,050.00     | Equipment for solar thermal feedstock preheating system for biodiesel production                 |
| Capital Investment              | GEO NEED Grant                                  | Delta Montrose Electric Association                       | Montrose          | Montrose    | \$ 60,000.00     | Community Solar Array (20 kWh CSA) installation  |
| Capital Investment              | GEO NEED Grant                                  | Denver Regional Council of Governments                    |                   |             | \$ 189,120.00    | Funding for a web-based cost/benefit system for building owners considering solar PV systems.    |
| Capital Investment              | GEO NEED Grant                                  | Durango Discovery Museum                                  | Durango           | La Plata    | \$ 248,000.00    | Funding of equipment for a 10kW solar PV, Solar thermal, GeoExchange radiant floor,              |
| Capital Investment              | GEO NEED Grant                                  | Eagles' Nest Learning Center                              | Black Hawk        | Gilpin      | \$ 19,872.00     | Installation of 5kW solar PV system, and other EE work in the Eagle's Nest Pre-School            |
| Capital Investment              | GEO NEED Grant                                  | Etown   | Boulder           | Boulder     | \$ 295,000.00    | Installation of 53 kW PV Array on roof, HVAC, and other RE/EE systems                            |
| Capital Investment              | GEO NEED Grant                                  | Garfield County Public Library Foundation, Inc.           | Rifle             | Garfield    | \$ 40,000.00     | Installation of energy monitoring system in Rifle Public Library                                 |
| Capital Investment              | GEO NEED Grant                                  | Good Samaritan Society-Simla                              | Simla             | Elbert      | \$ 200,000.00    | Installation of geothermal hot water, HVAC, and lighting retrofit.                               |
| Capital Investment              | GEO NEED Grant                                  | Grand County Business & Economic Development Assoc.       | Grand             | Grand       | \$ 91,397.00     | Installation of high efficiency boilers and solar thermal in senior housing units                |
| Capital Investment              | GEO NEED Grant                                  | Grand County Business & Economic Development Assoc.       | Winter Park       | Grand       | \$ 4,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Gunnison County Electric Association, Inc.                | Gunnison          | Gunnison    | \$ 24,042.00     | Construction of a wind turbine to provide electricity to Gunnison, Saguache, & Hinsdale counties |
| Capital Investment              | GEO NEED Grant                                  | Gunnison County Electric Association, Inc.                | Gunnison          | Gunnison    | \$ 7,674.78      | Continuation of Doyleville Wind Project,#11-061  |
| Capital Investment              | GEO NEED Grant                                  | La Plata Electric Association, Inc.                       | Durango           | La Plata    | \$ 7,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Main Street Steamboat Springs, Inc.                       | Steamboat Springs | Routt       | \$ 7,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Mesa County School District 51                            | Grand Junction    | Mesa        | \$ 103,152.00    | Installation of Solatubes to reduce electricity use.   |
| Capital Investment              | GEO NEED Grant                                  | New Community Coalition                                   | Telluride         | San Miguel  | \$ 7,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Northeast Denver Housing Center, Inc.                     | Denver            | Denver      | \$ 107,500.00    | Install 20 solar PV systems in affordable housing totalling 54 kW.                               |
| Capital Investment              | GEO NEED Grant                                  | OptiMiser, LLC  |                   |             | \$ 50,000.00     | Development funds for software program to support home energy audits                             |
| Capital Investment              | GEO NEED Grant                                  | Painted Sky Resource Conservation & Development Council   | Delta             | Delta       | \$ 7,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Penikin, Inc.   | Englewood         | Arapahoe    | \$ 30,000.00     | Funding for the launch and operation of the Colorado Geothermal Heat Exchange Association        |
| Capital Investment              | GEO NEED Grant                                  | Prairie Lane Ranch  | Karval            | Lincoln     | \$ 11,529.00     | Installation of wind turbine   |
| Capital Investment              | GEO NEED Grant                                  | Rio Blanco County   | Meeker            | Rio Blanco  | \$ 298,412.00    | Multiple and varied improvements at Fairfield Senior Apartments                                  |
| Capital Investment              | GEO NEED Grant                                  | Routt County  | Steamboat Springs | Routt       | \$ 175,000.00    | Install of several EE measures in county buildings   |
| Capital Investment              | GEO NEED Grant                                  | South Central Council of Governments                      | Walsenburg        | Huerfano    | \$ 7,500.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Southwest Energy Efficiency Project (SWEEP)               |                   |             | \$ 65,800.00     | Development of a regional green building code for the Denver Metro area                          |
| Capital Investment              | GEO NEED Grant                                  | Sustainable Technology Institute                          | Idaho Springs     | Clear Creek | \$ 3,000.00      | Provide outreach for Small Business Efficiency Program   |
| Capital Investment              | GEO NEED Grant                                  | Town of Basalt  | Basalt            | Eagle       | \$ 119,025.00    | Installation of a 40kW Hydropower facility   |
| Capital Investment              | GEO NEED Grant                                  | Town of Telluride   | Telluride         | San Miguel  | \$ 150,000.00    | 100kW PV system at Telluride Wastewater Treatment Plant  |
| Capital Investment              | GEO NEED Grant                                  | Town of Windsor   | Windsor           | Weld        | \$ 196,422.00    | Installation of various RE and EE measures, including heat pump in Windsor Police Facility       |
| Capital Investment              | GEO NEED Grant                                  | Visiting Nurse Association                                | Denver            | Denver      | \$ 7,839.00      | Funding for lighting retrofit  |
| Capital Investment              | Revolving Loan Program                          | Colorado Housing and Finance Authority                    |                   |             | \$ 17,587,419.00 | Create revolving loan fund and loan loss reserve program   |
| Capital Investment              | Revolving Loan Program                          | Harcourt Brown, LLC                                       |                   |             | \$ 39,935.00     | Planning & consultation on the revolving loan fund   |
| Commercial Buildings – Existing | BOCES Energy Manager Grant                      | Mountain Board of Cooperative Educational Services        | Leadville         | Lake        | \$ 141,385.00    | Funding for an Energy Manager at ten school districts in Mountain BOCES                          |
| Commercial Buildings – Existing | BOCES Energy Manager Grant                      | San Luis Valley Board of Cooperative Educational Services | Alamosa           | Alamosa     | \$ 104,375.00    | Funding for an Energy Manager at fourteen school districts in San Luis Valley BOCES              |
| Commercial Buildings – Existing | Colorado Energy Strategy Group Scholarships     | BMC Consultants, LLC                                      |                   |             | \$ 30,000.00     | Scholarships for continuing education of public sector energy managers                           |
| Commercial Buildings – Existing | Community Recharge Colorado Innovation Grant    | Alamosa Presbyterian Church                               | Alamosa           | Alamosa     | \$ 10,038.00     | Outreach & education through 7 churches in San Luis valley                                       |
| Commercial Buildings – Existing | Community Recharge Colorado Innovation Grant    | Colorado Springs SD #11                                   | Colorado Springs  | El Paso     | \$ 23,261.00     | Provide training for Colorado Association of School District Energy Managers                     |
| Commercial Buildings – Existing | Community Recharge Colorado Innovation Grant    | Colorado State University                                 | Ft. Collins       | Larimer     | \$ 40,169.00     | Creation of EE & RE K-12 curriculum for use by 4H and CSU extension                              |
| Commercial Buildings – Existing | Community Recharge Colorado Innovation Grant    | Denver County SD #1                                       | Denver            | Denver      | \$ 28,360.00     | Funding for several DPS training and outreach programs   |
| Commercial Buildings – Existing | Community Recharge Colorado Innovation Grant    | Four Corners Office for Resource Efficiency               | Durango           | La Plata    | \$ 29,075.00     | Create a mobile energy science center, part of the Durango Discovery Museum                      |

For some contracts, the actual amount paid is less than the contracted amount



Appendix 1 | SEP-ARRA Contracts Awarded

|   |   |   |                  |           |    |              |   |
|---|---|---|------------------|-----------|----|--------------|---|
| Commercial Buildings – Existing                         | Community Recharge Colorado Innovation Grant    | Grand County Business & Economic Development Assoc. | Walden           | Jackson   | \$ | 1,200.00     | Provide a course in Building Science and energy auditing in North Park High School.       |
| Commercial Buildings – Existing                         | Database Management                             | Hostworks, Inc.                                     |                  |           | \$ | 1,349.35     | Provide a shared web hosting environment for EPC/HPB programs                             |
| Commercial Buildings – Existing                         | Database Management                             | Wyant Data Systems, Inc.                            |                  |           | \$ | 40,880.00    | EPC/HBD Database upgrade, phase 2   |
| Commercial Buildings – Existing                         | Database Management                             | Wyant Data Systems, Inc.                            |                  |           | \$ | 108,900.00   | Upgrade & Improvements for EPC/HBD database   |
| Commercial Buildings – Existing                         | Energy Efficiency in Historic Buildings         | Como Depot  | Como             | Park      | \$ | 81,500.00    | Install two wood biomass boilers and hydronic distribution system at Como Hotel           |
| Commercial Buildings – Existing                         | Energy Efficiency in Historic Buildings         | Engine House No. 5, LLC                             | Denver           | Denver    | \$ | 10,000.00    | Install a chilled beam system for overhead distribution of heating and cooling            |
| Commercial Buildings – Existing                         | Energy Efficiency in Historic Buildings         | Pioneer Historical Society of Bent County           | Las Animas       | Bent      | \$ | 23,996.00    | Install insulation and inspect doors in Rawlings Heritage Center                          |
| Commercial Buildings – Existing                         | Energy Efficiency in Historic Buildings         | Town of Crested Butte                               | Crested Butte    | Gunnison  | \$ | 31,130.00    | Install energy efficiency measures in Crested Butte Town Hall and Old Rock Library        |
| Commercial Buildings – Existing                         | Energy Performance in Commercial Buildings(EPC) | Nexant, Inc.  |                  |           | \$ | 803,673.00   | Technical assistance to public agencies: Energy Performance Contracting                   |
| Commercial Buildings – Existing                         | Energy Performance in Commercial Buildings(EPC) | Trident Energy                                      |                  |           | \$ | 787,008.00   | Technical assistance to public agencies: Energy Performance Contracting                   |
| Commercial Buildings – Existing                         | Greening Government                             | Nexant, Inc.  |                  |           | \$ | 59,348.85    | Implementation of Energy CAP at all state agencies operating in owned facilities.         |
| Commercial Buildings – Existing                         | LEED for Existing Buildings                     | Colorado State University                           | Ft. Collins      | Larimer   | \$ | 47,525.00    | LEED feasibility study for CSU campus   |
| Commercial Buildings – Existing                         | LEED for Existing Buildings                     | University of Northern Colorado                     | Greeley          | Weld      | \$ | 31,105.00    | LEED feasibility study for NCU campus   |
| Commercial Buildings – Existing                         | Main Street Efficiency Initiative               | Clean Energy Economy for the Region (CLEER)         | Carbondale       | Garfield  | \$ | 150,000.00   | Start-up funding for a 3-county Main Street program                                       |
| Commercial Buildings – Existing                         | Main Street Efficiency Initiative               | Colfax Green Partnership                            | Denver           | Denver    | \$ | 150,000.00   | A pilot project to bring EE services to 200 businesses along Colfax Ave.                  |
| Commercial Buildings – Existing                         | Main Street Efficiency Initiative               | Energy CAP, Inc.                                    |                  |           | \$ | 19,000.00    | Tool for Main Street participants to report data to GEO                                   |
| Commercial Buildings – Existing                         | Main Street Efficiency Initiative               | Platte River Power Authority                        | Ft. Collins      | Larimer   | \$ | 100,000.00   | An EE program for small and medium businesses in northeastern Colorado                    |
| Commercial Buildings – Existing                         | Main Street Efficiency Initiative               | Trident Energy                                      | Longmont         | Boulder   | \$ | 81,000.00    | MSEI program management   |
| Commercial Buildings – Existing                         | Nonprofit Energy Efficiency Program             | Energy Outreach Colorado                            | Denver           | Denver    | \$ | 250,000.00   | Implement Energy Conservation measures in rural non-profits.                              |
| Commercial Buildings – Existing                         | Recharge Colorado                               | Colorado State University                           | Ft. Collins      | Larimer   | \$ | 4,540.00     | Create a one-day EE program for elementary schools, to be delivered on-site               |
| Commercial Buildings – Existing                         | GEO NEED Grant                                  | City of Lamar                                       | Lamar            | Prowers   | \$ | 7,500.00     | ECM outreach & implementation   |
| Commercial Buildings – Existing/<br>Capital Investment  | GEO NEED Grant                                  | High Country Conservation Center                    | Leadville        | Lake      | \$ | 22,500.00    | Provide outreach for Small Business Efficiency Program                                    |
| Commercial Buildings – High<br>Performance Design (HPB) | Commercial Buildings                            | Town of Eads  | Eads             | Kiowa     | \$ | 48,900.00    | Funding to achieve LEED Gold at Crow Luther Events Center in Eads                         |
| Commercial Buildings – High<br>Performance Design (HPB) | ENERGY STAR, LEED                               | University of Colorado Real Estate Foundation       |                  |           | \$ | 105,000.00   | Valuation of high performance buildings   |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Building Program               | Ambient Energy, Inc.                                |                  |           | \$ | 949,719.00   | Education and advice for clients in the High Performance Commercial Building Program      |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Building Program               | Boulder Housing Partners                            | Boulder          | Boulder   | \$ | 25,000.00    | Energy analysis and design assistance for the High Mar Redevelopment Project              |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Building Program               | Gunnison County                                     | Gunnison         | Gunnison  | \$ | 50,000.00    | Commissioning of new Detention Center and Public Works facility                           |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Building Program               | Hutton Architecture Studio                          |                  |           | \$ | 1,117,124.25 | Education and advice for clients in the High Performance Commercial Building Program      |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Building Program               | Kiowa County  | Eads             | Kiowa     | \$ | 33,570.00    | Funding for energy renovation of historic Murdock building                                |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Building Program               | Walking Mountains Science Center                    | Avon             | Eagle     | \$ | 50,000.00    | Funding for multiple renewable energy components of campus buildings                      |
| Commercial Buildings – High<br>Performance Design (HPB) | High Performance Design                         | Housing Authority of the City and County of Denver  | Denver           | Denver    | \$ | 100,000.00   | Installation of a ground source heat pump   |
| Commercial Buildings – High<br>Performance Design (HPB) | Sustainability Management Systems               | Denver County SD #1                                 | Denver           | Denver    | \$ | 42,000.00    | Development of a Sustainability Management Plan for Denver Public Schools                 |
| Commercial Buildings – High<br>Performance Design (HPB) | Sustainability Management Systems               | Whitney Consulting                                  | Colorado Springs | El Paso   | \$ | 72,210.00    | Assist school districts to develop Sustainability Management Plans                        |
| Commercial Buildings – High<br>Performance Design (HPB) | Sustainability Management Systems               | Whitney Consulting                                  | Colorado Springs | El Paso   | \$ | 30,710.00    | Promote outreach and membership of both CSPMA and CASDEM                                  |
| Greening Government                                     | Big Fix Software                                | Governor's Office of Information Technology         |                  |           | \$ | 100,000.00   | Purchase of workstation power management program through OIT                              |
| Greening Government                                     | Energy & Water Conservation Improvements Grant  | Colorado State University                           | Ft. Collins      | Larimer   | \$ | 46,870.00    | Install 476 ultra low-flow showerheads in 3 residence halls                               |
| Greening Government                                     | Energy & Water Conservation Improvements Grant  | Colorado State University                           | Ft. Collins      | Larimer   | \$ | 37,390.00    | Replace 75 inefficient refrigerators on the CSU campus                                    |
| Greening Government                                     | Energy & Water Conservation Improvements Grant  | Department of Military & Veterans Affairs           | Denver           | Denver    | \$ | 37,610.00    | Funding for retrofits of interior lighting and control systems, at two separate locations |
| Greening Government                                     | Energy & Water Conservation Improvements Grant  | Regents of the University of Colorado, Boulder      | Boulder          | Boulder   | \$ | 40,080.00    | install aerators, flush meters, and dual-flush toilets on CU campus                       |
| Greening Government                                     | Energy and Water Conservation Grant             | Department of Human Services                        |                  |           | \$ | 23,400.00    | Replace 52 old and inefficient refrigerators in DHS facilities statewide.                 |
| Greening Government                                     | Energy and Water Conservation Grant             | Department of Personnel and Administration          | Denver           | Denver    | \$ | 14,650.00    | New controls for the Capitol Complex chilled water loop system                            |
| Greening Government                                     | Greening Government                             | Energy CAP, Inc.                                    |                  |           | \$ | 100,000.00   | Utility bill database and management for state government facilities                      |
| Greening Government                                     | Greening Government                             | Metro Appliances & More                             | Joplin           | Missouri  | \$ | 45,820.00    | Purchase of 116 energy efficient refrigerators for state agencies                         |
| Public Information                                      | Community Marketing Grant                       | Black Star Communications dba Colours TV            |                  |           | \$ | 6,000.00     | Planning and presentation of 2-hour event for 150 multicultural leaders                   |
| Public Information                                      | Community Marketing Grant                       | Colorado Interfaith Power & Light                   | Denver           | Denver    | \$ | 18,750.00    | EE/RE Outreach by Interfaith Power & Light  |
| Public Information                                      | Community Marketing Grant                       | Earth Force, Inc.                                   | Denver           | Denver    | \$ | 15,000.00    | Youth-led energy efficiency outreach programs using service learning                      |
| Public Information                                      | Community Marketing Grant                       | Evergreen Alliance for Sustainability               | Evergreen        | Jefferson | \$ | 11,680.00    | Year-long campaign to reduce energy use in Evergreen area.                                |
| Public Information                                      | Community Marketing Grant                       | Five Points Business District                       | Denver           | Denver    | \$ | 10,000.00    | Promote EE/RE in the Five Points community  |

For some contracts, the actual amount paid is less than the contracted amount



Appendix 1 | SEP-ARRA Contracts Awarded

|  |  |   |                |           |    |              |  |
|--|--|---|----------------|-----------|----|--------------|--|
| Public Information                     | Community Network Grant                      | City of Greeley                           | Greeley        | Weld      | \$ | 13,933.00    | gREeNEWAL program promotion  |
| Public Information                     | Community Network Grant                      | Urban League of Metro Denver, Inc.        | Denver         | Denver    | \$ | 25,000.00    | Outreach to low-income areas with affordable and accessible EE solutions                 |
| Public Information                     | Community Recharge Colorado Innovation Grant | Atmosphere Conservancy                    | Ft. Collins    | Larimer   | \$ | 50,000.00    | Energy efficiency outreach initiative  |
| Public Information                     | Community Recharge Colorado Innovation Grant | Fremont RE-2 SD 1150                      | Florence       | Fremont   | \$ | 20,000.00    | Installation of a solar PV system on a house built by students                           |
| Public Information                     | Energy Smart Loan Program                    | Community Office for Resource Efficiency  | Aspen          | Pitkin    | \$ | 9,968.00     | Technical support and outreach for Energy Smart Loan Program                             |
| Public Information                     | Energy Smart Loan Program                    | Eagle Valley Alliance for Sustainability  | Vail           | Eagle     | \$ | 9,987.50     | Develop a marketing program for the ESLP in Eagle County                                 |
| Public Information                     | Energy Smart Loan Program                    | Office for Resource Efficiency            | Gunnison       | Gunnison  | \$ | 9,993.50     | ENERGY SMART Loan Program outreach   |
| Public Information                     | GEO NEED Grant                               | National Renewable Energy Laboratory      |                |           |    | \$5,000.00   | Sponsorship of NREL's Industry Growth Forum  |
| Public Information                     | Public Information                           | Bolder Staffing                           | Denver         | Denver    | \$ | 68,280.46    | Temporary employee for Public Information Officer  |
| Public Information                     | Public Information                           | Bolder Staffing                           | Denver         | Denver    | \$ | 29,323.00    | Temporary employee for Public Information Officer  |
| Public Information                     | Public Information                           | Colorado Renewable Energy Society (CRES)  |                |           | \$ | 5,000.00     | Sponsorship funding for four CRES events   |
| Public Information                     | Public Information                           | Colorado Renewable Energy Society (CRES)  |                |           | \$ | 11,000.00    | Sponsorship of 23 CRES events  |
| Public Information                     | Public Information                           | CORE Foundation                           |                |           | \$ | 10,000.00    | Sponsorship funding for Cleantech Open   |
| Public Information                     | Public Information                           | Denver Area Better Business Bureau        |                |           | \$ | 5,500.00     | Purchase of BBB information for Wyoming and N. Colorado                                  |
| Public Information                     | Public Information                           | Denver Bike Sharing                       | Denver         | Denver    | \$ | 90,000.00    | 2-year sponsorship of two B-Cycle kiosks, plus 200 bike shrouds                          |
| Public Information                     | Public Information                           | Denver Metro BOMA                         | Denver         | Denver    | \$ | 5,000.00     | Sponsorship of Watts to Water, promoting EE in commercial buildings in Denver            |
| Public Information                     | Public Information                           | Statewide Internet Portal Authority       |                |           | \$ | 8,125.00     | Migrate GEO's website content from current site to Colorado Interactive CMS              |
| Public Information                     | Public Information                           | Vladimir Jones                            |                |           | \$ | 2,500,000.00 | Web-site and call center management, ongoing marketing and research functions            |
| Public Information                     | Rebate Program                               | Press-One Customer Care, Inc.             |                |           | \$ | 52,650.00    | Rebate processing  |
| Public Information                     | Recharge Colorado                            | Symbiotic Engineering, LLC                |                |           | \$ | 980,000.00   | Development of a stand-alone strategy for Recharge Colorado                              |
| Public Information                     | ReNew Our Schools                            | Center for Resource Conservation          | Boulder        | Boulder   | \$ | 75,266.00    | Renewable energy outreach & curricula for K-12 students                                  |
| Public Information                     | Residential Energy Efficiency Working Group  | Energy Efficiency Business Coalition      | Denver         | Denver    | \$ | 25,000.00    | Provide meeting administrative support   |
| Public Information                     | Utilities                                    | Navigant Consulting, Inc.                 |                |           | \$ | 46,962.00    | Collect utility data and present in 2009 Colorado Utilities Data Report                  |
| Renewable Energy, Education & Outreach | ARRA/WIA fund transfer                       | Colorado Department of Labor & Employment |                |           | \$ | 200,000.00   | Green energy employment and training   |
| Renewable Energy, Education & Outreach | Colorado Energy Planning                     | R.W.Beck                                  |                |           | \$ | 175,000.00   | A cost/benefit study of distributed solar PV and small hydro from a utility perspective. |
| Renewable Energy, Education & Outreach | FERC/Small Hydropower Projects               | Community Hydropower Consulting LLC       |                |           | \$ | 25,000.00    | Consulting services on the FERC/small hydropower project                                 |
| Renewable Energy, Education & Outreach | Geothermal Working Group                     | Penikin, Inc.                             | Englewood      | Arapahoe  | \$ | 19,555.00    | CO Geothermal Working Group Coordinator  |
| Renewable Energy, Education & Outreach | Wind Working Group                           | Meridian Institute                        |                |           | \$ | 13,665.10    | Legislative planning for "community-based" renewable energy projects,                    |
| Renewable Energy, Education & Outreach | Woody Biomass Program                        | CTA Architects Engineers                  |                |           | \$ | 11,132.00    | Evaluation of boilers as candidates for biomass supplementation                          |
| Renewable Energy, Education & Outreach | Woody Biomass Program                        | Donald Foss Smith Jr.                     | Fairplay       | Park      | \$ | 10,500.00    | Technical and general support for the Biomass Working Group                              |
| Renewable Energy, Program Consultants  | Anemometer Loan Program                      | Colorado State University                 |                |           | \$ | 99,100.00    | Management of the anemometer loan program  |
| Renewable Energy, Program Consultants  | CGS Geologist                                | Colorado Geological Survey                |                |           | \$ | 324,995.00   | Creation of a database of Colorado geothermal data, and other analysis and collection.   |
| Renewable Energy, Program Consultants  | Energy Smart Loan Program                    | Community Office for Resource Efficiency  | Aspen          | Pitkin    | \$ | 25,027.00    | Technical support and outreach for Energy Smart Loan Program                             |
| Renewable Energy, Program Consultants  | FERC/Small Hydropower Projects               | Community Hydropower Consulting LLC       |                |           | \$ | 25,000.00    | Consulting services on the FERC/small hydropower project                                 |
| Renewable Energy, Program Consultants  | Geothermal Professor                         | Colorado School of Mines                  | Golden         | Jefferson | \$ | 150,000.00   | Fund a professorship in geothermal engineering   |
| Renewable Energy, Program Consultants  | Public Utilities Commission                  | Keyes and Fox, LLP                        |                |           | \$ | 25,000.00    | Legal counsel regarding matters before the PUC   |
| Renewable Energy, Program Consultants  | Renewable Energy Development Team            | Sentech, Inc.                             |                |           | \$ | 1,174,605.00 | Renewable Energy Development Team (REDT) Management                                      |
| Renewable Energy, Rebates and Grants   | Alternative Fuels                            | City of Grand Junction                    | Grand Junction | Mesa      | \$ | 288,000.00   | Equipment for a CNG Fueling Station  |
| Renewable Energy, Rebates and Grants   | Colorado Ground Source Heat Pump Rebate      | Delta Montrose Electric Association       | Delta          | Delta     | \$ | 295,000.00   | Funding for DMEAs Ground Source Heat Pump Rebate Program                                 |
| Renewable Energy, Rebates and Grants   | Geothermal Power and Direct Use              | City of Aspen                             | Aspen          | Pitkin    | \$ | 50,000.00    | Drilling of a test well into the geothermal aquifer                                      |
| Renewable Energy, Rebates and Grants   | Geothermal Power and Direct Use              | City of Ouray                             | Ouray          | Ouray     | \$ | 20,000.00    | Installation of geothermal heating system in City Shop Building                          |
| Renewable Energy, Rebates and Grants   | Geothermal Power and Direct Use              | City of Salida                            | Poncha Springs | Chaffee   | \$ | 49,500.00    | Exploration and thermal gradient studies leading to commercial electricity production    |
| Renewable Energy, Rebates and Grants   | Geothermal Power and Direct Use              | Town of Rico                              | Rico           | Dolores   | \$ | 25,000.00    | Funding for a community outreach for a proposed geothermal development                   |

For some contracts, the actual amount paid is less than the contracted amount

Appendix 1 | SEP-ARRA Contracts Awarded

|  |   |  |                   |           |                 |  |
|--|---|--|-------------------|-----------|-----------------|--|
| Renewable Energy, Rebates and Grants   | Global New Energy Summit                    | Global New Energy Summit                                   |                   |           | \$ 10,000.00    | Sponsorship of 2012 Global New Energy Summit   |
| Renewable Energy, Rebates and Grants   | Global New Energy Summit                    | Rocky Mountain Technology Alliance                         |                   |           | \$ 5,000.00     | Sponsorship of 2012 Global New Energy Summit   |
| Renewable Energy, Rebates and Grants   | Rebate Program                              | Helgeson Enterprises, Inc.                                 |                   |           | \$ 6,049,558.00 | Rebate Program   |
| Renewable Energy, Rebates and Grants   | Solar for Non-Profit Organizations Grant    | Arvada Community Food Bank, Inc.                           | Arvada            | Adams     | \$ 43,800.00    | Installation of a 40kW solar PV Array  |
| Renewable Energy, Rebates and Grants   | Solar for Non-Profit Organizations Grant    | Grand Valley Catholic Outreach                             | Grand Junction    | Mesa      | \$ 78,066.00    | Installation of a 54kW PV Array  |
| Renewable Energy, Rebates and Grants   | Solar for Non-Profit Organizations Grant    | Mi Casa Resource Center                                    | Denver            | Denver    | \$ 47,716.72    | installation of a 39.6 kW solar PV Array   |
| Renewable Energy, Rebates and Grants   | Solar for Non-Profit Organizations Grant    | Mile High Youth Corps                                      | Denver            | Denver    | \$ 10,507.00    | Installation of a PV array   |
| Renewable Energy, Rebates and Grants   | Wind for Schools                            | Boulder Valley RE2 dba Boulder County SD #2                | Nederland         | Boulder   | \$ 10,000.00    | Turbine for Nederland High School  |
| Renewable Energy, Rebates and Grants   | Wind for Schools                            | Colorado State University                                  | Ft. Collins       | Larimer   | \$ 180,000.00   | Distribute SEP ARRA funds to K-12 schools  |
| Renewable Energy, Rebates and Grants   | Wind for Schools                            | Douglas County Educational Foundation                      | Castle Rock       | Douglas   | \$ 10,000.00    | Installation of a small wind turbine at Ponderosa High School                          |
| Renewable Energy, Rebates and Grants   | Woody Biomass Education Grant               | Colorado State University, Colorado State Forest Service   | Durango           | La Plata  | \$ 35,000.00    | Conduct 5 biomass utilization workshops in 2011  |
| Renewable Energy, Rebates and Grants   | Woody Biomass Utilization Grant             | Clean Energy Collective, LLC                               | Carbondale        | Garfield  | \$ 15,000.00    | Feasibility study of proposed biomass-to-energy facility in central Colorado           |
| Renewable Energy, Rebates and Grants   | Woody Biomass Utilization Grant             | Park County  | Fairplay          | Park      | \$ 3,960.00     | Feasibility study of a biomass heating system for 4 Park County buildings              |
| Renewable Energy, Rebates and Grants   | Woody Biomass Utilization Program           | For the Forest   | Aspen             | Pitkin    | \$ 19,320.00    | Study of woody biomass as a fuel source in the Roaring Fork Valley                     |
| Renewable Energy, Rebates and Grants   | Woody Biomass Utilization Program           | Uncompahgre/Com, Inc.                                      | Delta             | Delta     | \$ 20,000.00    | Feasibility study for the Uncompahgre Plateau Biomass Project                          |
| Renewable Energy, Rebates and Grants/Residential/Commercial Buildings – Existing | Rebate Program                              | Helgeson Enterprises, Inc.                                 |                   |           | \$ 900,000.00   | Establish an online rebate platform and rebate support call center, and more           |
| Renewable Energy, Rebates and Grants/Utilities                                   | Public Utilities Commission                 | Keyes and Fox, LLP   |                   |           | \$ 24,871.00    | Legal counsel regarding matters before the PUC   |
| Residential  | Above Building Code                         | Clean Energy Economy for the Region (CLEER)                | Carbondale        | Garfield  | \$ 14,992.94    | Educate local building officials about existing EE programs.                           |
| Residential  | Above Building Code                         | Eagle Valley Alliance for Sustainability                   | Vail              | Eagle     | \$ 14,952.00    | Promotion of the National Green Building Standard in the Eagle Valley                  |
| Residential  | Above Building Code                         | US Green Building Council Colorado Chapter                 | Denver            | Denver    | \$ 8,250.00     | Continuing education for LEED homebuilders   |
| Residential  | Above Building Code                         | US Green Building Council Colorado Chapter                 | Denver            | Denver    | \$ 14,811.00    | One-day workshop on Implementing the LEED for Homes Rating system.                     |
| Residential  | CFL Buy Down                                | Arkansas River Power Authority                             | Lamar             | Prowers   | \$ 23,850.00    | CFL promotion & distribution at ARPA branches  |
| Residential  | CFL Buy Down                                | City of Delta  | Delta             | Delta     | \$ 23,000.00    | Compact fluorescent light buy-down   |
| Residential  | CFL Buy Down                                | City of Fountain   | Fountain          | El Paso   | \$ 30,000.00    | Fountain Utilities gave away 30,000 CFLs   |
| Residential  | Collaborative Retrofit Change Agent Pilot   | Assoc. of Energy & Environmental Real Estate Professionals |                   |           | \$ 8,000.00     | Funding for pilot project of Retrofit Change Agents                                    |
| Residential  | Colorado Codes Project                      | Department of Local Affairs                                |                   |           | \$ 950,000.00   | Statewide promotion of 2009 Intl. Energy Conservation Code(IECC) standards             |
| Residential  | Energy Assessment                           | Electronic Educational Devices, Inc.                       |                   |           | \$ 9,992.43     | Purchase of 76 current measurement devices for circulation through libraries statewide |
| Residential  | Energy Efficiency and Expansion in Training | Chinook Energy   | Haxtun            | Phillips  | \$ 13,000.00    | Funding to increase capacity to deliver energy audits.                                 |
| Residential  | Energy Efficiency and Expansion in Training | Colorado Housing, Inc.                                     | Pagosa Springs    | Archuleta | \$ 28,950.00    | Energy efficient upgrades to 13 homes  |
| Residential  | Energy Efficiency and Expansion in Training | Fritz 4 Architecture, LLC                                  | Carbondale        | Garfield  | \$ 12,000.00    | Education in sustainable practice in residential building                              |
| Residential  | Energy Efficiency and Expansion in Training | GB3 Energy Solutions, Inc.                                 | Denver            | Denver    | \$ 37,258.00    | Funding to increase capacity to deliver energy audits.                                 |
| Residential  | Energy Efficiency and Expansion in Training | GB3 Energy Solutions, Inc.                                 | Denver            | Denver    | \$ 19,618.00    | Increase field capacity for performing energy efficiency retrofits                     |
| Residential  | Energy Efficiency and Expansion in Training | High Country Conservation Center                           | Frisco            | Summit    | \$ 6,400.00     | Funding to increase capacity to deliver energy audits.                                 |
| Residential  | Energy Efficiency and Expansion in Training | This Efficient House                                       | Ft. Collins       | Larimer   | \$ 26,690.00    | Provide training and equipment for employees   |
| Residential  | Energy Efficiency and Expansion in Training | US Weatherizing, LLC                                       | Denver            | Denver    | \$ 5,500.00     | One day session in Air Sealing Technical training for 100 technicians                  |
| Residential  | Energy Efficiency and Expansion in Training | US Weatherizing, LLC                                       | Denver            | Denver    | \$ 5,000.00     | One day session in Air Sealing Technical training for 100 technicians                  |
| Residential  | ENERGY STAR                                 | Building Knowledge, Inc.                                   |                   |           | \$ 15,300.00    | Six half-day training sessions for ENERGY STAR Real Estate Professionals               |
| Residential  | ENERGY STAR                                 | Chaffee County   | Salida            | Chaffee   | \$ 20,800.00    | ENERGY STAR New Homes Education  |
| Residential  | ENERGY STAR                                 | City of Aspen  | Aspen             | Pitkin    | \$ 18,000.00    | ENERGY STAR New Homes Education  |
| Residential  | ENERGY STAR                                 | City of Colorado Springs, Colorado Springs Utilities       | Colorado Springs  | El Paso   | \$ 15,000.00    | ENERGY STAR New Homes Education  |
| Residential  | ENERGY STAR                                 | City of Fort Collins, Fort Collins Utilities               | Ft. Collins       | Larimer   | \$ 50,000.00    | ENERGY STAR New Homes Education  |
| Residential  | ENERGY STAR                                 | City of Steamboat Springs                                  | Steamboat Springs | Routt     | \$ 15,764.00    | ENERGY STAR New Homes Education  |
| Residential  | ENERGY STAR                                 | Clean Energy Economy for the Region (CLEER)                | Carbondale        | Garfield  | \$ 11,500.00    | ENERGY STAR New Homes Education  |
| Residential  | ENERGY STAR                                 | Delta Montrose Electric Association                        | Delta             | Delta     | \$ 7,000.00     | ENERGY STAR New Homes Education  |

For some contracts, the actual amount paid is less than the contracted amount



Appendix 1 | SEP-ARRA Contracts Awarded

|                |   |  |                |            |               |   |
|----------------|---|--|----------------|------------|---------------|---|
| Residential    | ENERGY STAR                                     | Eagle Valley Alliance for Sustainability                   | Vail           | Eagle      | \$ 11,059.00  | ENERGY STAR New Homes Education   |
| Residential    | ENERGY STAR                                     | Four Corners Office for Resource Efficiency                | Durango        | La Plata   | \$ 25,000.00  | ENERGY STAR New Homes Education   |
| Residential    | ENERGY STAR                                     | High Country Conservation Center                           | Frisco         | Summit     | \$ 25,000.00  | ENERGY STAR New Homes Education   |
| Residential    | ENERGY STAR                                     | Housing Resources of Western Colorado                      | Grand Junction | Mesa       | \$ 25,000.00  | ENERGY STAR New Homes Education   |
| Residential    | ENERGY STAR                                     | New Community Coalition                                    | Telluride      | San Miguel | \$ 22,320.00  | ENERGY STAR New Homes Education   |
| Residential    | ENERGY STAR                                     | Residential Science Resources, LLC                         |                |            | \$ 54,000.00  | Outreach and training for ENERGY STAR program   |
| Residential    | ENERGY STAR Energy Saving Mortgage              | Bank of Colorado   |                |            | \$ 257,660.00 | Funding to provide mortgage discount for purchasers of ENERGY STAR homes              |
| Residential    | ENERGY STAR Energy Saving Mortgage              | Wells Fargo Home Mortgage                                  |                |            | \$ 200,000.00 | Funding to provide mortgage discount for purchasers of ENERGY STAR homes              |
| Residential    | Green Jobs                                      | Colorado Department of Labor & Employment                  |                |            | \$ 200,000.00 | Increase the number of residential energy efficiency trainers                         |
| Residential    | Innovation Funding for Energy Efficiency        | All American Energy, LLC                                   | Denver         | Denver     | \$ 19,359.00  | EE/RE outreach and marketing to rural households through Energy Waistline program     |
| Residential    | Innovation Funding for Energy Efficiency        | Earth's Flame, Inc.  | Durango        | La Plata   | \$ 25,000.00  | Start-up funding for EE fireplace retrofit device                                     |
| Residential    | Innovation Funding for Energy Efficiency        | Snugg Home, LLC  | Boulder        | Boulder    | \$ 25,000.00  | Marketing funds for a web-based retrofit process using personal energy advisors       |
| Residential    | Innovation Funding for Energy Efficiency        | SpiroFlo Holdings, Inc.                                    | Englewood      | Arapahoe   | \$ 13,300.00  | Field test of Spiro-Flo device, which reduces water use                               |
| Residential    | Innovation Funding for Energy Efficiency        | Symbiotic Engineering, LLC                                 | Boulder        | Boulder    | \$ 13,275.00  | Funding to further develop the Teach For Sustainability curriculum                    |
| Residential    | Innovation Funding for Energy Efficiency        | Trilogy Technologies, Inc.                                 | Aspen          | Pitkin     | \$ 15,050.00  | Funding for the marketing of energy control technology for second homes               |
| Residential    | Insulate Colorado                               | Lightly Treading, Inc.                                     |                |            | \$ 4,500.00   | Funding for five Insulate Colorado training seminars                                  |
| Residential    | Insulate Colorado                               | Lightly Treading, Inc.                                     |                |            | \$ 1,500.00   | Funding for two Insulate Colorado training webinars                                   |
| Residential    | Multiple Listing Service Improvement & Training | Assoc. of Energy & Environmental Real Estate Professionals | Evergreen      | Jefferson  | \$ 19,150.00  | Multiple Listing Service Training   |
| Residential    | Multiple Listing Service Improvement & Training | Boulder Green Building Guild                               | Boulder        | Boulder    | \$ 9,960.00   | Multiple Listing Service Improvement  |
| Residential    | Multiple Listing Service Improvement & Training | Colorado Real Estate Network, Inc.                         | Montrose       | Montrose   | \$ 4,020.00   | Implementation of Green Features into regional MLS system                             |
| Residential    | Multiple Listing Service Improvement & Training | Grand County Board of Realtors, Inc.                       | Granby         | Grand      | \$ 2,700.00   | Multiple Listing Service Training in Grand and Jackson counties                       |
| Residential    | Multiple Listing Service Improvement & Training | US Green Building Council Colorado Chapter                 |                |            | \$ 7,315.00   | Funding for the production of a Colorado Green MLS informational video                |
| Residential    | Residential                                     | Bolder Staffing  | Denver         | Denver     | \$ 54,355.00  | Temporary employee for Residential & Rebate Program                                   |
| Residential    | Residential                                     | Bolder Staffing  | Denver         | Denver     | \$ 60,000.00  | Temporary employee for Residential & Rebate Program                                   |
| Residential    | Residential                                     | Office for Resource Efficiency                             | Crested Butte  | Gunnison   | \$ 1,025.00   | Pilot project to offer free audits to 25 homes  |
| Residential/ + | Measurement and Verification                    | Nexant, Inc.   |                |            | \$ 413,513.00 | Develop Measurement & Verification plan for ARRA funding sources.                     |
| Transmission   | STAR report                                     | ION Consulting, LLC  |                |            | \$ 124,600.00 | Consulting services on electric power generation and transmission, and related topics |
| Transmission   | Utilities Program                               | E2MG Energy & Environmental Management Group, LLC          |                |            | \$ 24,500.00  | Scenario analysis of Colorado generation portfolio in 2030 & 2050                     |
| Utilities      | Colorado Climate Action Plan                    | JM Designs, Inc.   |                |            | \$ 4,272.00   | Design and layout of Colorado Climate Action Plan report                              |
| Utilities      | GEO NEED Grant                                  | SPIRAE, Inc.   | Ft. Collins    | Larimer    | \$ 150,000.00 | Purchase of software and hardware for training of power-system engineers.             |
| Utilities      | Public Utilities Commission                     | Keyes & Fox LP   |                |            | \$ 25,000.00  | Legal counsel regarding matters before the PUC  |
| Utilities      | Smart Grid Task Force                           | Meridian Institute   |                |            | \$ 49,954.15  | Consulting on Smart Grid Task Force report  |
| Utilities      | Smart Grid Task Force                           | Regents of the University of Colorado, Boulder             |                |            | \$ 15,000.00  | Create a white paper on the development of Smart Grids in Colorado                    |
| Utilities      | Utilities                                       | Butterfly Pavilion & Insect Center                         | Westminster    | Jefferson  | \$ 1,195.00   | Meeting with rural electric co-ops and municipal utilities on the benefits of EE      |
| Utilities      | Utilities                                       | Montreux Energy, LLC                                       |                |            | \$ 5,000.00   | Sponsorship of The World Urban Infrastructure Roundtable 2010                         |
| Utilities      | Utilities                                       | Regents of the University of Colorado, Denver              |                |            | \$ 18,900.00  | Funding for utility modeling exercise in support of DSM and RE efforts by the GEO     |
| Utilities      | Utilities Program                               | E2MG Energy & Environmental Management Group, LLC          |                |            | \$ 44,000.00  | A cost/benefit study of alternative renewable resources to meet 30% RES requirements  |

KEY:

- BOCES - Board of Cooperative Education Services
- CNG - Compressed Natural Gas
- DSM - Demand Side Management
- ECM - Energy Conservation and Management
- EE - Energy Efficiency
- EPC - Energy Performance Contracting
- FERC - Federal Energy Regulatory Commission
- HPB - High Performance Building
- HVAC - Heating, Ventilation & Air Conditioning
- KW - Kilowatt
- LEED - Leadership in Energy and Environmental Design
- PV - Photovoltaic
- RE - Renewable Energy
- NEED Grant - New Energy Economic Development
- CASDEM - Colorado Association of School District Energy Managers
- CSPMA - Colorado School Plant Managers Association

For some contracts, the actual amount paid is less than the contracted amount

# Appendix 2: Market Titles, Budget and Projects





**SEP-ARRA Funds as Administered**

\*To see a complete list of projects, refer to appendix #1.

| <b>Market Title</b>   | <b>Grant Program</b>  |           |                   |
|---|---|-----------|-------------------|
| <b>Capital Investment</b>                                       |   | <b>\$</b> | <b>21,453,314</b> |
|   | Colorado Center for Renewable Energy Economic Development<br>New Energy Economy Development (NEED) Grants<br>Small Business Efficiency Program<br>Green Colorado Credit Reserve<br>Revolving Loan Program   |           |                   |
| <b>Commercial Buildings - Existing</b>                          |   | <b>\$</b> | <b>3,239,703</b>  |
|   | Energy Performance in Commercial Buildings(EPC)<br>Community Recharge Colorado Innovation Grant<br>Colorado Energy Strategy Group Scholarships<br>Energy Performance in Historic Buildings<br>Non-profit Energy Efficiency Program<br>Main Street Efficiency Initiative<br>BOCES Energy Manager Grant<br>LEED for Historic Buildings<br>Database Management |           |                   |
| <b>Commercial Buildings - High Performance New Construction</b> |   | <b>\$</b> | <b>2,367,081</b>  |
|   | Sustainability Management Systems<br>High Performance Building Program<br>High Performance Building Design<br>Commercial Buildings  |           |                   |
| <b>Greening Government</b>                                      |   | <b>\$</b> | <b>729,694</b>    |
|   | Energy & Water Conservation Improvements Grant<br>Greening Government<br>Big Fix Software   |           |                   |

Appendix 2 | Market Titles, Budget and Projects

|   |                     |
|---|---------------------|
| <b>Public Information</b>   | <b>\$ 4,483,610</b> |
| <ul style="list-style-type: none"> <li>Community Recharge Colorado Innovation Grant</li> <li>Community Marketing Grant</li> <li>Energy Smart Loan Program</li> <li>Community Network Grant</li> <li>ReNew Our Schools</li> <li>Recharge Colorado</li> <li>Public Information</li> <li>Rebate Program</li> <li>Utilities</li> </ul>                                    |                     |
| <b>Renewable Energy, Outreach &amp; Education</b>   | <b>\$ 378,399</b>   |
| <ul style="list-style-type: none"> <li>FERC/Small Hydropower Project</li> <li>Geothermal Working Group</li> <li>Woody Biomass Program</li> <li>Wind for Schools</li> <li>Green Jobs</li> </ul>  |                     |
| <b>Renewable Energy, Program Consultants</b>  | <b>\$ 1,710,541</b> |
| <ul style="list-style-type: none"> <li>Renewable Energy Development Team</li> <li>FERC/Small Hydropower Project</li> <li>Public Utilities Commission</li> <li>Anemometer Loan Program</li> <li>Energy Smart Loan Program</li> <li>Geothermal Professorship</li> <li>Geologic Database</li> </ul>  |                     |
| <b>Renewable Energy, Rebates &amp; Grants</b>   | <b>\$ 5,541,288</b> |
| <ul style="list-style-type: none"> <li>Colorado Ground Source Heat Pump Rebate</li> <li>Solar for Non-profit Organizations Grant</li> <li>Geothermal Power and Direct Use</li> <li>Industry event sponsorship</li> <li>Woody Biomass Program</li> <li>Alternative Fuels</li> <li>Wind for Schools</li> <li>Residential and Small Commercial Rebate Program</li> </ul> |                     |



Appendix 2 | Market Titles, Budget and Projects

|   |           |                   |
|---|-----------|-------------------|
| <b>Residential Programs</b>   | <b>\$</b> | <b>5,823,663</b>  |
| <ul style="list-style-type: none"> <li>Multiple Listing Service Improvement &amp; Training</li> <li>Energy Efficiency and Expansion in Training</li> <li>Collaborative Retrofit Change Agent Pilot</li> <li>Innovation Funding for Energy Efficiency</li> <li>Green Jobs - Energy Efficiency Trainers</li> <li>Energy Star Energy Saving Mortgage</li> <li>Measurement and Verification</li> <li>ENERGY STAR New Homes</li> <li>Colorado Codes Project</li> <li>Above Building Codes</li> <li>CFL Buy Downs</li> <li>Residential</li> </ul> |           |                   |
| <b>Transmission</b>   | <b>\$</b> | <b>347,226</b>    |
| <ul style="list-style-type: none"> <li>Strategic Transmission and Renewables (STAR) report</li> <li>Utilities Program</li> </ul>  |           |                   |
| <b>Utilities</b>  | <b>\$</b> | <b>689,844</b>    |
| <ul style="list-style-type: none"> <li>Public Utilities Commission</li> <li>Smart Grid Task Force</li> <li>Utilities Program</li> </ul>   |           |                   |
| <b>Administration</b>   | <b>\$</b> | <b>2,457,637</b>  |
|   | <b>\$</b> | <b>49,222,000</b> |

# Appendix 3: Market Title Case Studies







## Market Title: Public Information

### Recharge Colorado and Rebates

As part of its goal to provide all Coloradans with access to information, services, and capital, the GEO used SEP-ARRA dollars to fund the development and implementation of Recharge Colorado, a website designed to provide comprehensive consumer information about Colorado’s energy-savings opportunities in a single source.

The website launched in 2010, offering people in every corner of the state access to simple and accurate information about energy efficiency and renewable energy measures, a list of service providers, and financial incentives to help pay for installations. The site also served as the online platform to apply for the GEO’s SEP-ARRA-funded Rebate Program. To ensure participation, the GEO employed a marketing firm to implement a statewide branding campaign, reach out to contractors, and work with local Community Energy Coordinators and various organizations to promote the program.

The response was enthusiastic. In the first four months of existence the website registered more than 166,000 unique visitors, with over 12,000 people opening an energy action profile. The innovative and broadly inclusive Rebate Program captured the public interest and prompted widespread adoption of energy efficiency upgrades.

While SEP-ARRA funding was used to create and maintain the site during the three-year grant, the ultimate goal was to create a successful program that could be sustained after SEP-ARRA funding ended, ensuring that Coloradans would continue to have access to this unique resource. On October 1, 2011, Recharge Colorado was moved outside of state government to become an independent non-profit organization.

This separation allowed for continued collaboration with utilities and the development of new opportunities, such as the inclusion of water conservation information. Recharge Colorado continues to spur job creation, innovation, and economic development.

## Rebate Breakdown by Region

| Region        | Furnace | Energy audit | Insulation and Air Sealing | Duct Sealing | Energy Monitor | ENERGY STAR New Homes | PV Residential | PV Commercial | Solar Thermal Residential | Solar Thermal Commercial | Wind Commercial |
|---------------|---------|--------------|----------------------------|--------------|----------------|-----------------------|----------------|---------------|---------------------------|--------------------------|-----------------|
| Denver        | 635     | 166          | 482                        | 17           | 17             | 25                    | 32             | 2             | 29                        | 1                        | 0               |
| Front Range   | 1402    | 408          | 2679                       | 61           | 39             | 249                   | 132            | 23            | 88                        | 7                        | 3               |
| Northeast     | 3       | 18           | 2                          | 0            | 3              | 0                     | 5              | 0             | 2                         | 0                        | 1               |
| Northwest     | 27      | 106          | 30                         | 6            | 4              | 0                     | 63             | 29            | 32                        | 1                        | 0               |
| South Central | 73      | 162          | 32                         | 6            | 2              | 28                    | 45             | 6             | 32                        | 0                        | 0               |
| Southeast     | 14      | 25           | 30                         | 0            | 0              | 0                     | 6              | 0             | 3                         | 0                        | 1               |
| Southwest     | 2       | 96           | 12                         | 1            | 0              | 4                     | 46             | 19            | 20                        | 1                        | 0               |
| Total         | 2156    | 981          | 3267                       | 91           | 65             | 306                   | 329            | 79            | 206                       | 10                       | 5               |

## Market Title: Capital Investment

### Revolving Loan Fund

Start-up technology companies frequently find it difficult to raise capital when they need it most. To remove that barrier to success, the GEO established the Revolving Loan Fund, a financial vehicle that bridges the gap between venture capital and commercial lending.

Boulder Electric Vehicle (BEV) designs and builds an all-electric truck platform. It can be built up to a delivery van, a 15 passenger shuttle bus, a flat bed and a service body. The vehicles produce no emissions, achieve an equivalent of 50 mpg, and can save as much as \$5,000 a year in operating costs. In 2011 a prototype had been built and was performing well in field tests, and companies were ready to place orders. BEV, though, did not have the necessary production capacity, and a commercial loan was not available to a start-up such as this.

The GEO made a loan of \$1.3 million to BEV with SEP-ARRA funding through the Revolving Loan Fund that provided the capital to open two new production lines and hire additional employees. Since then, BEV has received orders for twenty-nine trucks, with more orders promised, and has created 25 jobs.

The Revolving Loan Fund has made seven loans to date, with more pending, and through those loans created or preserved 158 jobs.





## Market Title: Commercial Building - Existing

### Main Street Efficiency Initiative (MSEI)

Small commercial buildings offer many opportunities for energy efficiency measures. However, small business owners often do not have the time or expertise to undertake thorough assessments of their properties and follow through with recommended improvements.

The GEO's MSEI program was created to provide small businesses throughout the state with the financial and technical assistance necessary to install energy efficiency upgrades in their facilities. To date, the program has reached over 30 communities and 363 businesses, and resulted in projected annual energy savings of 1,693,567 kWh, 54,178 therms, and \$263,795 in reduced annual utility costs.

In northern Colorado, a SEP-ARRA-funded grant from the GEO was the impetus for the Platte River Power Authority (PRPA) to create the Efficiency Express program to reach small businesses in the communities of Ft. Collins, Loveland, and Estes Park. PRPA selected three HVAC contractors, each of which agreed to allocate considerable resources in staff training and on-site work. 54 facility owners were offered an HVAC tune-up, with the understanding that further efficiency steps might be taken as they were identified. To date 39 businesses have taken some action, with more expected to follow, a conversion rate of better than 78%.

The program required a 25% contribution from the participants, a levy intended not just to stretch program dollars but also to promote a greater level of commitment by the participants. The program return on investment has been very good – less than one year for funds invested by businesses, and less than two years for the funds invested by PPRA.

All goals for the program were achieved. PRPA had hoped to see energy savings of 3,071,700 BTUs, but actually achieved 7,639,200, an improvement of 150%. The annual cost savings goal was \$58,500, and \$68,400 was achieved, a 17% improvement.

3 cities

54 facilities selected

39 businesses have taken some action

78% conversion rate

150% increase in BTU's saved

17% increase in annual cost savings



## Market Title: Commercial Building - High Performance

### Walking Mountains Science Center

Many organizations, including schools and governments, would like to include energy efficient measures in their new buildings, but lack the time and/or money to bring in advisors with the necessary skills. To overcome that barrier, the GEO created the High Performance Building Program, funded by SEP-ARRA.

The Walking Mountains Science Center in Avon, Colorado, offers year-round curriculum-based programs in natural science education to the 6,000 students of Eagle County, and provides additional programming for upwards of 23,000 residents and visitors annually.

When the Center began planning a new \$15 million campus they knew that the energy components of the new buildings could be an integral part of their teaching, but they recognized that to achieve that goal they would need help. A \$50,000 SEP-ARRA-funded sub-grant from the GEO allowed Ambient Energy, a contractor in the GEO's High Performance Building program, to provide third-party technical assistance (primarily energy modeling and plan review) during the design process, enhancing both the energy efficiency and renewable energy components of the project.

Particular attention was paid to the building envelope, with good results: compared to the original project design, which was already above code, the high performance design will save approximately 500 million BTUs per year. Other design elements include solar thermal, solar PV that supplies 60% of electricity needs, a 3.5 ton ground source heat pump, green roofs, and exterior siding from beetle-killed trees. All of these elements contributed to the energy efficiency of the building, to the extent the Center has applied for LEED Platinum certification.

According to the staff of Walking Mountains, the sub-grant and the third-party consulting added legitimacy to the project and greatly aided fund-raising efforts in the private sector, contributing substantially to the project's ultimate success.



500 million BTU's saved per year

60% of electricity needs supplied by solar

## Market Title: Greening Government

### The Big Fix

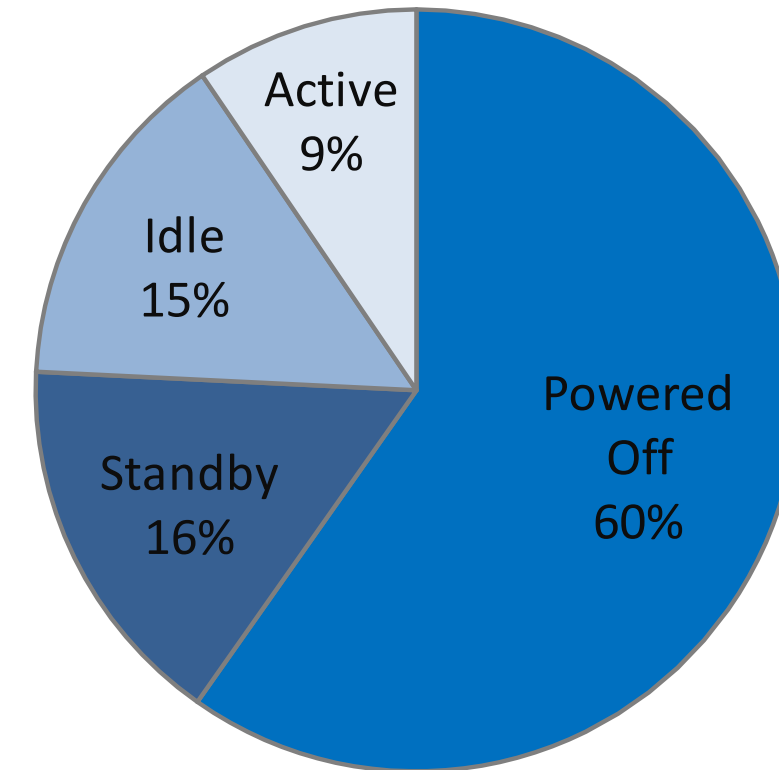
The Greening Government program works closely with state agencies to help them reduce their energy use by identifying energy efficient technologies that will help lower energy costs and lessen the environmental impact of state government operations.

Research conducted by the state’s Office of Information Technology (OIT) and the Governor’s Energy Office (GEO) found that many state desktop computers are left on full power even when they are not in use. With funding from the American Reinvestment and Recovery Act (ARRA), the state was able to purchase and install the Big Fix Power Management Software on 11,000 state-owned computers. This tool puts a desktop monitor into standby mode after fifteen minutes of inactivity, and will put an entire computer (CPU) into powered off mode after 45 minutes. The computer will awake when the mouse is moved, or when any key is tapped. Information will not be lost; the software automatically saves all user data before beginning any sleep or shut-down procedure. And users never notice it; it runs silently and invisibly.

This investment allowed the OIT to establish consistent settings for all desktops within each department and achieve state mandated energy savings goals. In addition, OIT is now able to more efficiently manage and update department software.

While purchase and installation of the Big Fix Management Software cost around \$100,000, the state expects to save from \$15-\$45 a year for each of the 11,000 computers using it, with total savings in the hundreds of thousands of dollars, and a payback time of less than a year.

### Average Day Breakdown Using Big Fix



| Big Fix Breakdown               |                  |
|---------------------------------|------------------|
| Cost of Project                 | \$100,000        |
| Savings per Computer (annually) | \$15 - \$45      |
| Number of Computers             | 11,000           |
| Payback Time                    | Less Than 1 Year |

\*One day in the Colorado Energy Office only.



## Market Title: Renewable Energy Outreach and Education

### Green Jobs

Legislation, policy, and local natural resources have driven a steady increase in employment and economic development in green industries in Colorado. To ensure that Coloradans have the necessary skills to take advantage of growing opportunities in these industries, the Colorado Legislature established the Green Jobs Training Pilot Program.

Funded jointly with a SEP-ARRA grant from the Governor's Energy Office and funds from the Colorado Department of Labor and Employment (CDLE), the purpose of the program was to:

- Develop training strategies and curricula in the renewable energy and energy efficiency industries
- Implement or expand existing energy training programs
- Complement existing green job training initiatives experiencing a shortfall in resources

In northern Colorado, the Larimer County Workforce Center, in conjunction with the Larimer County Youth Corp, provided training for entry-level energy efficiency auditors, including internship placements. Eight individuals received training in energy efficiency, with two gaining BPI certification. As part of their training they conducted 364 energy audits of homes in northern Colorado.

The Colorado E3 Jobs Partners, a joint effort of Red Rocks Community College and Pueblo Community College, sought to remove barriers of access and cost for established contractors seeking to expand their business through training and certification in renewable energy and energy efficiency technologies. E3 awarded 29 scholarships to the program, 100% of goal, and 14 received BPI certificates.

The Denver Office of Economic Development used their GEO grant to enhance the job training and placement efforts of the Mile High Youth Corps (MHYC) by providing a variety of green industry certifications, in the hope that these certifications will make the graduates more competitive when entering the work force. To date 26 individuals have completed the training program, and all are still employed by MHYC.





## Market Title: Renewable Energy Program Consultants

### Small Hydropower

While there are many sites in Colorado suitable for small hydropower projects, development of those sites has been hampered by the complex and expensive process involved in getting the necessary permits from the Federal Energy Regulatory Commission (FERC). In 35 years, only 26 federal permits for hydropower projects had been issued in Colorado.

Recognizing this, the Governor's Energy Office (GEO) in 2009 began a process with FERC and other federal agencies involved to streamline the process and eliminate that barrier. Those efforts led to the August 2010 Memorandum of Understanding between FERC and the GEO, detailing the new permitting process. Agency reviews that once took up to three years could now be accomplished in a matter of months.

The first project to be presented under the new process was sent to FERC in the spring of 2011, and electricity was being produced by the fall. A small turbine installed on a ranch in northwest Colorado will produce 100,000 kWh, as much electricity as the ranch uses in an entire year. Over the next 35 years the facility will save \$350,000 in utility costs and will provide a safe and secure energy source.

The GEO used SEP-ARRA funds to establish its Renewable Energy Development Team, which provided the technical assistance to this rancher and others. To date, the GEO has sent an additional six projects to FERC, and approval is expected for all. Once on line, they will contribute 1,219 kW to the Colorado energy grid.

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**\$350,000** savings over the life of one system

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**1,219 kW** contribution to energy grid

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## Market Title: Renewable Energy Rebates and Grants

### Wind for Schools Program

The Wind for Schools (WFS) program was launched in 2005 as a collaborative effort between the Governor's Energy Office (GEO), Colorado State University (CSU), the U.S. Department of Energy (DOE) and the National Renewable Energy Laboratory (NREL). The initial pilot project was located in Walsenburg Colorado. Since then, the Colorado Wind Application Center at CSU and the GEO has selected nine K-12 schools across the State to participate in this program.

The Governor's Energy Office facilitated the WFS program statewide by providing technical, financial, and managerial support. SEP-ARRA funding provided additional support to help expand the WFS program.

The Program is designed to engage school teachers and students in wind energy education. A wind turbine located at the school provides a physical hands-on example of wind energy and its applications. Students and community members learn about operating costs and maintenance while initiating discussion of its benefits and potentials for the economy and environment. This experience provides students with a background in wind energy as they move into college and higher education. Each school operates a Southwest Windpower Skystream 1.8 kW machine.

To date, 11 states have implemented the Wind for Schools program resulting in over 95 systems installed throughout the country. The program has continued its successes at the University level aiming to develop a strong workforce for the future.



## Market Title: Residential Energy Efficiency

### Energy Efficiency at Time of Sale

Homeowners have long recognized the benefits of energy efficiency and renewable energy features. Energy retrofits create comfortable homes with lower utility bills. When selling a home, though, it is hard to capitalize on these improvements if potential buyers are unaware of them.

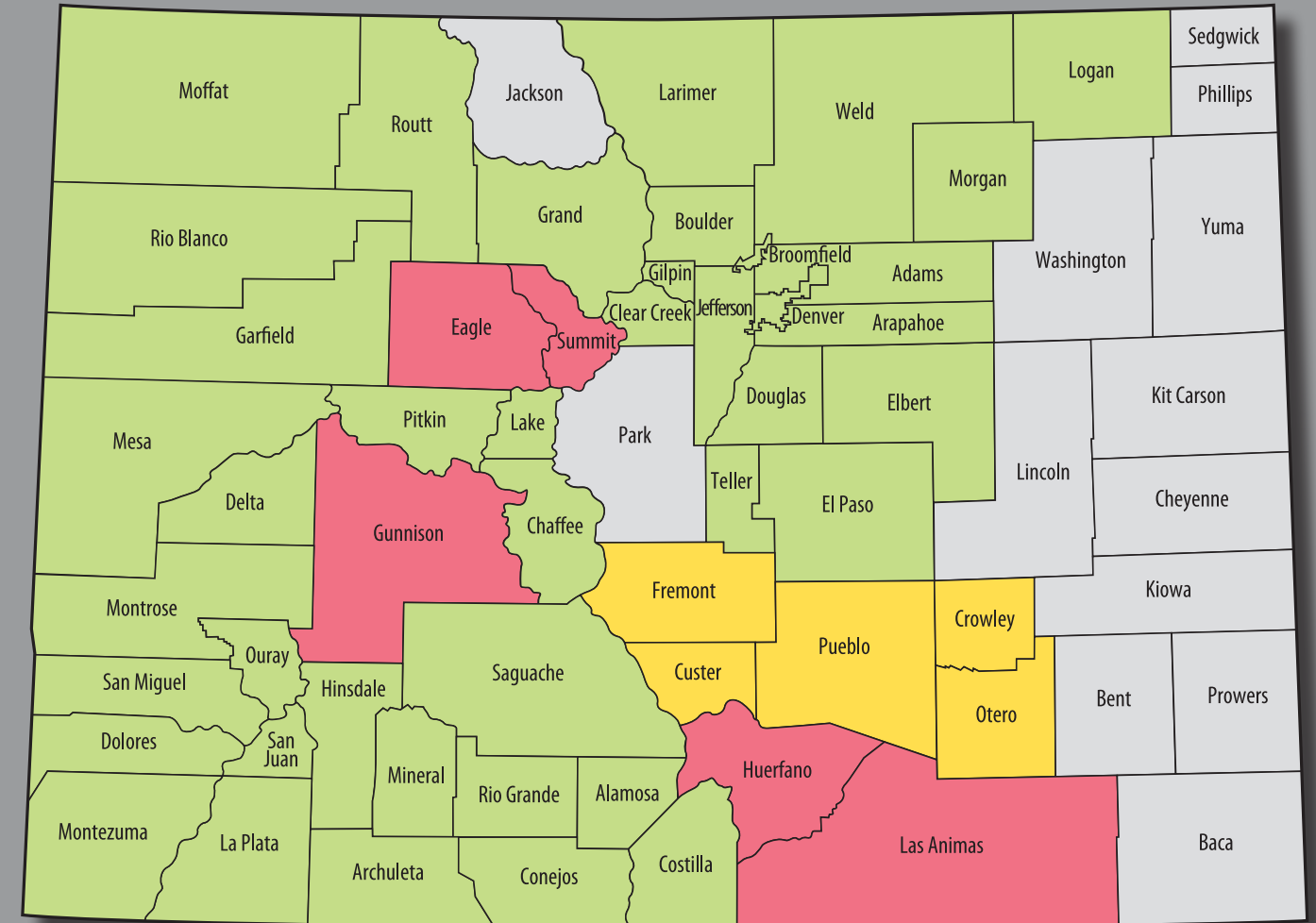
American Reinvestment and Recovery Act (ARRA) funding provided an opportunity to remove barriers that prevented the increase in information to both buyer and sellers. The Governor's Energy Office (GEO) formed a Residential Retrofit Working Group from which evolved the Multiple Listing Service (MLS) Grants.

The MLS is a broad database of real property listings as submitted by real estate brokers. This on-line catalog of properties for sale and recently sold contains detailed descriptions of a property's features. Until now, energy efficiency and renewable energy features were not included in the MLS listings.

Using ARRA funds, a total of five grants were awarded: three for training and two to enhance MLS databases. The GEO contracted with Metrolist Denver – the largest Colorado MLS, covering 40% of the state, to create "green fields" in their database.

On March 7 2012, Metrolist unveiled their enhanced MLS database. Realtors® can voluntarily enter energy efficiency and renewable energy upgrades as well as search for homes using the new fields. Currently, 90% of Colorado homes are in communities covered by a green MLS.

The green fields will not only help to inform buyers, sellers, and their brokers, they will also allow real estate appraisers to begin to analyze the market value of energy efficiency and renewable energy.



The above map represents counties participating in Green Fields (colored in green).

Counties colored in pink are pending.

90 %

of Colorado homes are in communities covered by a green MLS



50 %

increase in number of homes covered



## Market Title: Transmission

### The Strategic Transmission and Renewables (STAR) Report

Developments in technology, the economy, and population growth present Colorado's electricity sector with a multitude of challenges. As part of its mission, the GEO used SEP-ARRA funds to commission a report that would analyze those challenges and make recommendations to solve them.

The Strategic Transmission and Renewables (STAR) Report was delivered in December 2010, offering findings as to how Colorado could create a productive, reliable electric power sector that is economically and environmentally sustainable. The project included a 38-page modeling of Colorado's electricity sector out to the year 2050, modeling that assumed an 80% growth in the state's population by that year.

The modeling provided data that supported five key recommendations for Colorado's strategic electric power sector: greater emphasis on energy efficiency and moderation of load growth; more utility-scale generation from renewable sources; less coal-fired generation; more natural gas-fired generation; and development of new high-voltage transmission infrastructure to deliver the new power to market.

While those five may offer the biggest immediate impact, the STAR report addressed no fewer than eleven additional areas of concern, including legislative actions, the role of balancing authorities, the feasibility of exporting Colorado's renewable energy, and the potential for independent transmission companies.

The STAR report provided the GEO with a comprehensive overview of Colorado's electric power sector, and allowed the office to craft programs and initiatives that would promote a cleaner, more efficient, and more balanced energy portfolio that will benefit generations of Coloradans to come.

# STAR

## Strategic Transmission and Renewables



The STAR report contains information and recommendations to address a multitude of challenges facing Colorado's electricity sector. The report updates previous work produced by the Governor's Office and Governor's Energy Office, offering analysis of current issues and recommendations for actions to meet the long-term interest of Colorado citizens.

## Market Title: Utilities

### Spirae

Electric utilities and transmission companies are facing a shortage of workers with the appropriate skills required to manage the complexities of their industry, and are often ill-equipped to provide training because it is an expensive and time-consuming endeavor.

To address this growing need, Spirae, Inc. of Ft. Collins, CO, created the Center for Smart Grid Advancement to provide structured, professional training for power system technicians and engineers. In collaboration with Colorado State University, Front Range Community College, and other partners, Spirae has built one of the largest power system simulation laboratories in the world. The InteGrid Lab simulates electrical distribution systems with significant quantities of renewable and distributed energy using real generation, distribution, controls, and metering equipment.

Spirae used an SEP-ARRA grant of \$150,000 from the Governor's Energy Office (GEO) as leverage to obtain an additional \$1.17 million in funding for the purchase of much of this equipment.

Students are able to work with multiple power system configurations, including end-to-end (from distribution to end-user) simulation, and systematically study anomalies using technology found only in the most advanced smart grid networks. Their courses cover not just the fundamentals of power grid operation, but also the growing fields of cyber security and the integration of distributed energy from renewable sources.

The GEO grant has promoted both infrastructure development and workforce training in the energy sector, and allows the technicians and engineers that will study there to gain the high-level skills required for employment in the energy sector in the future.

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\$150,000 leveraged to obtain

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\$ 1.17 million

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# Appendix 4: Press Releases

**March 6, 2009** - New energy projects to play big role in recovery - The Governor's Energy Office said today it is establishing a competitive bid process to fund shovel-ready new energy economy projects with American Recovery and Reinvestment Act funds.

**May 13, 2009** - Gov. Ritter announces plan for recovery act investments in Colorado's new energy economy

**June 12, 2009** - Colorado wood-to-energy projects awarded \$1 million from recovery act

**July 20, 2009** - Colorado secures \$20m in recovery funds for new energy work

**July 29, 2009** - Governor's Energy Office kicks off High Performance Building Program

**September 30, 2009** - Gov. Ritter, Secretary Chu announce recovery act dollars approved for Colorado energy projects

**November 30, 2009** - Governor's Energy Office offers Coloradoans the opportunity to invest in energy efficiency with innovative new state-wide program

**December 11, 2009** - Gov. Ritter announces \$1.5m in new energy economic grants

**January 19, 2010** - Coloradans can save money, build jobs with upcoming recovery act new energy grants

**May 12, 2010** - GEO \$800k in recovery act funded new energy grants

**June 24, 2010** - GEO awards 19 community marketing grants

**August 25, 2010** - Gov. Ritter announces acceleration of small hydro projects in Colorado

**August 26, 2010** - Gov. Ritter announces \$2.2m in new energy economic grants

**September 9, 2010** - GEO leads new partnership to add energy and green features to real estate listings

**September 14, 2011** - GEO's Renewable Energy Development Team Leads First Project Through Streamlined FERC Review

**October 3, 2011** - Governor's Energy Office Unveils New Website: [www.colorado.gov/energy](http://www.colorado.gov/energy)

**March 7, 2012** - Metrolist Launches New Green Fields, GEO Sponsors Statewide Initiative

**April 12, 2012** - Roaring Fork Transit Authority Moves to CNG

*\*Press Releases issued by GEO only.*



# Appendix 5: Contract Vendors and Sub Recipients

## Appendix 5 | SEP-ARRA Vendors and Sub-recipients

| Vendor or Sub-recipient                                    | City              |
|--|-------------------|
| Alamosa Presbyterian Church                                | Alamosa           |
| All American Energy, LLC                                   | Denver            |
| Ambient Energy, Inc.                                       | Denver            |
| Arkansas River Power Authority                             | Lamar             |
| Arvada Community Food Bank, Inc.                           | Arvada            |
| Assoc. of Energy & Environmental Real Estate Professionals | Evergreen         |
| Astralux Environmental Solutions, LLC                      | Alamosa           |
| Atmosphere Conservancy                                     | Ft. Collins       |
| Aurora Community Mental Health                             | Aurora            |
| Aurora Community Mental Health                             | Aurora            |
| Bank of Colorado   | Denver            |
| Big Agnes, Inc.  | Steamboat Springs |
| Black Star Communications dba Colours TV                   | Denver            |
| BMC Consultants, LLC                                       | Parker            |
| Bolder Staffing  | Denver            |
| Boulder Green Building Guild                               | Boulder           |
| Boulder Housing Partners                                   | Boulder           |
| Boulder Valley RE2 dba Boulder County SD #2                | Nederland         |
| Buena Vista SD R31   | Buena Vista       |
| Building Knowledge, Inc.                                   | Minneapolis, MN   |
| Butterfly Pavilion & Insect Center                         | Westminster       |
| Calhan Public School District R-J T-1                      | Calhan            |
| Center for Resource Conservation                           | Boulder           |
| Chaffee County   | Salida            |
| Chinook Energy   | Haxtun            |
| City and County of Broomfield                              | Broomfield        |
| City of Aspen  | Aspen             |
| City of Colorado Springs, Colorado Springs Utilities       | Colorado Springs  |
| City of Delta  | Delta             |
| City of Fort Collins                                       | Ft. Collins       |
| City of Fort Collins, Fort Collins Utilities               | Ft. Collins       |
| City of Fountain   | Fountain          |
| City of Grand Junction                                     | Grand Junction    |
| City of Greeley  | Greeley           |
| City of Lamar  | Lamar             |
| City of Ouray  | Ouray             |
| City of Salida   | Poncha Springs    |
| City of Steamboat Springs                                  | Steamboat Springs |
| Clean Energy Collective, LLC                               | Carbondale        |
| Clean Energy Economy for the Region (CLEER)                | Carbondale        |
| Colfax Green Partnership                                   | Denver            |
| Colorado Department of Labor & Employment                  | Denver            |

Appendix 5 | SEP-ARRA Vendors and Sub-Recipients

|  |                   |
|--|-------------------|
| Colorado Geological Survey                               | Denver            |
| Colorado Housing and Finance Authority                   | Denver            |
| Colorado Housing, Inc.                                   | Pagosa Springs    |
| Colorado Interfaith Power & Light                        | Denver            |
| Colorado Real Estate Network, Inc.                       | Montrose          |
| Colorado Renewable Energy Society (CRES)                 | Denver            |
| Colorado School of Mines                                 | Golden            |
| Colorado Springs SD #11                                  | Colorado Springs  |
| Colorado State University                                | Ft. Collins       |
| Colorado State University, Colorado State Forest Service | Durango           |
| Community Health Clinic                                  | Dove Creek        |
| Community Hydropower Consulting LLC                      | Ft. Collins       |
| Community Office for Resource Efficiency                 | Aspen             |
| Como Depot   | Como              |
| CORE Foundation  | Denver            |
| Costilla County  | San Luis          |
| CTA Architects Engineers                                 | Denver            |
| Delta Montrose Electric Association                      | Delta             |
| Denver Area Better Business Bureau                       | Denver            |
| Denver Bike Sharing                                      | Denver            |
| Denver County SD #1                                      | Denver            |
| Denver Metro BOMA  | Denver            |
| Denver Regional Council of Governments                   | Denver            |
| Department of Human Services                             | Denver            |
| Department of Local Affairs                              | Denver            |
| Department of Military & Veterans Affairs                | Denver            |
| Department of Personnel and Administration               | Denver            |
| Donald Foss Smith Jr.                                    | Fairplay          |
| Douglas County Educational Foundation                    | Castle Rock       |
| Durango Discovery Museum                                 | Durango           |
| E2MG Energy & Environmental Management Group, LLC        | Centennial        |
| Eagle Valley Alliance for Sustainability                 | Vail              |
| Eagles' Nest Learning Center                             | Black Hawk        |
| Earth Force, Inc.  | Denver            |
| Earth's Flame, Inc.                                      | Durango           |
| Electronic Educational Devices, Inc.                     | Denver            |
| Energy CAP, Inc.   | State College, PA |
| Energy Efficiency Business Coalition                     | Denver            |
| Energy Outreach Colorado                                 | Denver            |
| Engine House No. 5, LLC                                  | Denver            |
| Etown  | Boulder           |
| Evergreen Alliance for Sustainability                    | Evergreen         |
| Five Points Business District                            | Denver            |
| For the Forest   | Aspen             |
| Four Corners Office for Resource Efficiency              | Durango           |
| Fremont RE-2 SD 1150                                     | Florence          |
| Fritz 4 Architecture, LLC                                | Carbondale        |



Appendix 5 | SEP-ARRA Vendors and Sub-Recipients

|   |                   |
|---|-------------------|
| Garfield County Public Library Foundation, Inc.         | Rifle             |
| GB3 Energy Solutions, Inc.                              | Denver            |
| Global New Energy Summit                                | Colorado Springs  |
| Good Samaritan Society-Simla                            | Simla             |
| Governor's Office of Information Technology             | Denver            |
| Grand County Board of Realtors, Inc.                    | Granby            |
| Grand County Business & Economic Development Assoc.     | Granby            |
| Grand County Business & Economic Development Assoc.     | Winter Park       |
| Grand County Business & Economic Development Assoc.     | Walden            |
| Grand Valley Catholic Outreach                          | Grand Junction    |
| Gunnison County   | Gunnison          |
| Gunnison County Electric Association, Inc.              | Gunnison          |
| Harcourt Brown, LLC                                     | Denver            |
| Helgeson Enterprises, Inc.                              | Minneapolis, MN   |
| High Country Conservation Center                        | Leadville         |
| High Country Conservation Center                        | Frisco            |
| Hostworks, Inc.   | Denver            |
| Housing Authority of the City and County of Denver      | Denver            |
| Housing Resources of Western Colorado                   | Grand Junction    |
| Hutton Architecture Studio                              | Denver            |
| ION Consulting, LLC                                     | Denver            |
| JM Designs, Inc.  | San Clemente, CA  |
| Keyes and Fox, LLP                                      | Denver            |
| Kiowa County  | Eads              |
| La Plata Electric Association, Inc.                     | Durango           |
| Lightly Treading, Inc.                                  | Denver            |
| Main Street Steamboat Springs, Inc.                     | Steamboat Springs |
| Meridian Institute                                      | Dillon            |
| Mesa County School District 51                          | Grand Junction    |
| Metro Appliances & More                                 | Joplin            |
| Mi Casa Resource Center                                 | Denver            |
| Mile High Youth Corps                                   | Denver            |
| Montreux Energy, LLC                                    | Denver            |
| Mountain Board of Cooperative Educational Services      | Leadville         |
| National Renewable Energy Laboratory                    | Golden            |
| Navigant Consulting, Inc.                               | Denver            |
| New Community Coalition                                 | Telluride         |
| Nexant, Inc.  | Boulder           |
| Northeast Denver Housing Center, Inc.                   | Denver            |
| Office for Resource Efficiency                          | Gunnison          |
| Office for Resource Efficiency                          | Crested Butte     |
| OptiMiser, LLC  | Denver            |
| Painted Sky Resource Conservation & Development Council | Delta             |
| Park County   | Fairplay          |
| Penikin, Inc.   | Englewood         |
| Pioneer Historical Society of Bent County               | Las Animas        |
| Platte River Power Authority                            | Ft. Collins       |

Appendix 5 | SEP-ARRA Vendors and Sub-Recipients

|   |                   |
|---|-------------------|
| Prairie Lane Ranch  | Karval            |
| Press-One Customer Care, Inc.                             | Grand Junction    |
| R.W.Beck  | Denver            |
| Regents of the University of Colorado, Boulder            | Boulder           |
| Regents of the University of Colorado, Denver             | Denver            |
| Residential Science Resources, LLC                        | Eagen, MN         |
| Rio Blanco County   | Meeker            |
| Rocky Mountain Technology Alliance                        | Colorado Springs  |
| Routt County  | Steamboat Springs |
| San Luis Valley Board of Cooperative Educational Services | Alamosa           |
| Sentech, Inc.   | Golden            |
| Snugg Home, LLC   | Boulder           |
| South Central Council of Governments                      | Walsenburg        |
| Southwest Energy Efficiency Project (SWEEP)               | Boulder           |
| Spirae, Inc.  | Ft. Collins       |
| SpiroFlo Holdings, Inc.                                   | Englewood         |
| Statewide Internet Portal Authority                       | Denver            |
| Sustainable Technology Institute                          | Idaho Springs     |
| Symbiotic Engineering, LLC                                | Boulder           |
| This Efficient House                                      | Ft. Collins       |
| Town of Basalt  | Basalt            |
| Town of Crested Butte                                     | Crested Butte     |
| Town of Eads  | Eads              |
| Town of Rico  | Rico              |
| Town of Telluride   | Telluride         |
| Town of Windsor   | Windsor           |
| Trident Energy / Canfield                                 | Longmont          |
| Trilogy Technologies, Inc.                                | Aspen             |
| Uncompahgre/Com, Inc.                                     | Delta             |
| University of Colorado Real Estate Foundation             | Boulder           |
| University of Northern Colorado                           | Greeley           |
| Urban League of Metro Denver, Inc.                        | Denver            |
| US Green Building Council Colorado Chapter                | Denver            |
| US Weatherizing, LLC                                      | Denver            |
| Visiting Nurse Association                                | Denver            |
| Vladimir Jones  | Denver            |
| Walking Mountains Science Center                          | Avon              |
| Wells Fargo Home Mortgage                                 | Denver            |
| Whitney Consulting  | Colorado Springs  |
| Wyant Data Systems, Inc.                                  | Louisville        |