

Garfield New Energy Communities Initiative

Results Based on DOLA Contract Exhibit A

Summary

As of December 31, 2011 Garfield New Energy Communities Initiative has helped more than 95 businesses and over 132 homes cut energy costs; has over 80 public buildings currently tracking and cutting energy costs, with energy saving upgrades implemented on 31 buildings; installed 23 new renewable energy systems on public buildings throughout the county, provided technical assistance so that 6 new government buildings were built to be as energy efficient as budgets allowed, and reduced petroleum dependence of 6 government and private vehicle fleets. These efforts have generated \$6.7 million in work for contractors and clean energy-related businesses and suppliers while saving \$1 million in energy so far. Annual energy savings from these projects will, over the next 5 years, save an additional \$5.5 million for residents, businesses and governments. Over 140 energy efficiency and clean energy-related contractors (electricians, HVAC, insulation, lighting, plumbing, building, solar installers) are actively engaged in GNECI-initiated programs.

In addition, the effort has resulted in the formation of the Garfield Clean Energy Collaborative, an innovative partnership of 8 government entities using state legislation that allows governments to join together to provide a service or function that is most efficiently provided on a regional basis rather than by single governments. The Collaborative's formal members are the towns and cities of Rifle, Parachute, New Castle, Glenwood Springs, Carbondale; Garfield County; the Garfield Library District and the Roaring Fork Transportation Authority, with services and programs provided by the nonprofit CLEER, and ongoing partnerships with chambers of commerce, school districts, businesses and nonprofits. The GCE Collaborative will continue to deliver the economic and clean energy benefits of the original DOLA-funded initiative over the long term, and provide a longer-term vehicle to reach GCE adopted energy efficiency, petroleum independence, renewable energy and economic development goals.

	Annual Energy Savings (these savings can continue to be realized each year.)	Additional funding leveraged
Residential	\$35,000	\$192,000
Commercial	\$115,000	\$734,000
Greening Govt.	\$334,000	\$2,557,000
Schools	\$435,000	\$240,000

Total match provided from original local government partners: \$1,871,064

Total additional funding leveraged beyond the grant from additional sources: \$5,152,000

EXHIBIT A PROGRAM AREA DELIVERABLES

Residential Programs and Services:

The GNECI Residential program resulted in development of a successful one-stop shop program to assist residents in saving energy and money; to date 132 residential retrofits have been completed, 89 residential energy assessments; with 289 active participants and over 1000 pledges. Annual savings of \$35,000 in residential energy savings has been generated so far and over \$283,000 in contractor work in audits and efficiency retrofits. This one-stop program will continue through the Garfield Clean Energy Collaborative.

Here are the specific residential program deliverables listed in the DOLA grant contract:

One-stop web site with information on energy efficiency, renewable energy and related topics geared to households.	Completed. www.garfieldcleanenergy.org
Targeted information materials in English and Spanish.	Completed. http://www.garfieldcleanenergy.org/pdf/commercial/BizFlyerSpanish.pdf http://www.garfieldcleanenergy.org/pdf/SchoolFlyer-ScannedCopy.pdf
County-wide home energy efficiency campaign, emphasizing Insulate Colorado, Governor's Energy Office solar rebates, utility rebates, tax incentives, energy tracking, and promotion of existing Holy Cross Energy and Xcel Energy incentives.	Completed, and ongoing through countywide Garfield Clean Energy Challenge; http://www.garfieldcleanenergy.org/res-challenge-for-homes.html 305 households are actively participating; over 1000 households signed an initial pledge through a challenge publicized through the schools.
Processing of Governor's Energy Office rebates.	Completed. Over 250 rebates have been processed by the program, initially set up to first issue 18 Insulate Colorado GEO rebates, the program then expanded to process rebates for GEO solar; DOE energy efficiency and conservation block grant rebate; rebates made possible by a Supplemental Environmental Program grant awarded; local Glenwood Springs Utility rebates; and other GEO rebates. The GNECI grant made this rebate processing, and accompanying technical assistance and publicity structure possible.
Garfield 1 Megawatt Campaign encourages households to invest in solar energy.	Ongoing; included in Garfield Clean Energy Challenge for Homes and in Better Buildings program; also through additional incentive money CLEER secured from GEO; GWS solar home rebates. http://www.garfieldcleanenergy.org/gov-solar-installations.html
Audit and retrofit demonstration projects.	Completed. Retrofit of Sunnyside Senior Housing; Rifle Senior Housing. http://www.garfieldcleanenergy.org/images-content/pubs/CaseStudies/casestudySUNNYSIDE(GCE).pdf
Energy Star New Homes and HERS workshops, trainings and awareness	Completed: 6 trainings held; radio and print campaign Fall 09 and continuing support for prospective homeowners,

campaign.	builders and HERS raters. Assisted with development of Energy Star & Net Zero homes in Rifle, Colorado. http://www.garfieldcleanenergy.org/energystar.html
Development of one-stop audit, finance, retrofit program. No state Impact Assistance funds can be used for actual residential energy conservation upgrades.	Completed , Garfield Clean Energy Challenge Program – Financing made available through Garfield Credit Reserve Program offered through Colorado Housing and Finance Authority and local banks, funded through a DOE grant. http://www.garfieldcleanenergy.org/res-challenge-for-homes.html

B. Commercial Programs and Services:

The proposed GNECI Commercial program resulted in development of a one-stop shop program to assist businesses in saving energy and money. To date 95 commercial businesses have enrolled, with over \$115,000 in annual energy savings produced to date, and many more underway. In addition, this has provided a much needed boost to the local construction trades with over \$685,000 in assessments and efficiency improvements. GNECI has also leveraged additional rebate and industry funding to expand program.

Here are the specific commercial program deliverables listed in the DOLA grant contract:

One-stop web site with information on energy efficiency, renewable energy, and related topics geared to businesses countywide. Targeted brochures.	Completed. www.garfieldcleanenergy.org
Downtown demonstration audit and retrofit projects.	Completed; original commercial audit pilot retrofit program in Glenwood Springs grew to county-wide one-stop program. http://www.garfieldcleanenergy.org/com-CARD.html
Campaigns on specific energy efficiency measures.	Completed: Campaigns and workshops on lighting, insulation, HVAC, energy improvements in the lodging industry. Over 10 trainings on various energy efficiency/clean energy topics held for contractors.
Online energy measurement and tracking system	Completed. We pursued GreenQuest, but found that it was not user-friendly and participants didn't use it very much. We have moved to in-house energy tracking and we send reports to participants.
Technical training in energy efficient building techniques and materials for building industry professionals.	Completed CMC has started a green building program. CLEER also been asked by GEO to participate and recruit insulation contractors in region for training, including local incentive information, December 2010. CLEER continues to develop and foster trade ally relationships which add effectiveness to the "one stop shop".

Develop design guidelines for commercial structures not currently covered by green building codes.	Completed. Also have worked with International Code Council and local code officials for the adoption of the International Green Construction Code.
Development of one-stop audit, finance, energy improvements program.	Completed, Garfield Clean Energy Challenge Program. http://www.garfieldcleanenergy.org/com-challenge-for-business.html Financing made available through Garfield Credit Reserve Program and local banks, funding through a DOE grant. 95 businesses are enrolled in Garfield Clean Energy Challenge.

C. Greening Government

The GNECI Greening Government program resulted in development of the Garfield Energy Navigator, which is tracking over 80 buildings energy costs and providing feedback to guide energy savings, as part of an overall “Active Energy Management” program. Through the combined efforts of active energy management, small retrofits to 15 buildings, and energy performance contracts in 16 buildings, the Greening Government program has resulted in over \$769,000 in annual energy savings. This includes an original ENERGY STAR pilot program for Schools that grew to involve 2 school districts and resulted in more than \$500,000 in avoided energy costs-to-date for school districts.

Work with the Governor’s Energy Office to set up audits, energy tracking, performance contracting or self-financing for energy improvements in applicable partner government facilities	Completed: 81 government/school facilities are tracking energy usage and improvements on www.garfieldenergynavigator.org , which provides feedback to building users and improves energy performance; 46 facilities received energy audits, 16 facilities have undergone performance contracting. 15 buildings received smaller energy upgrades.
Develop green design guidelines, provide technical assistance for new public facilities	Completed; http://www.garfieldcleanenergy.org/pdf/government/GarfieldCountyEnergyEfficientBuildingGuidelinesDRAFT.pdf 4 new government facilities (Health and Human Services Annex, Garfield County Sheriff’s Annex; Parachute Library addition and the new Rifle Library) received technical assistance to ensure they were built to be as energy efficient as budgets allowed.
Conduct baseline county energy inventory.	Completed. http://www.garfieldcleanenergy.org/energy-inventory-09-home.html
Purchase and arrange training for energy tracking software.	Completed. The program started out with putting all buildings onto EnergyCap software and grew to the development of a special website combined with Utility Manager software to track the energy usage of 81 buildings. www.garfieldenergynavigator.org
Purchase PowerPod dwelling for Deerfield Park ; set up educational display	Amended to purchase electric vehicles; The City of Rifle purchased 4 EVs.
Retrofit approximately 30 streetlights in downtown Rifle with LED bulbs.	Completed. 23 streetlights retrofitted on 3 rd St. in Rifle achieving approximately a 60% reduction in energy consumption. http://www.garfieldcleanenergy.org/gov-LED-

	streetlights.html
Develop Energy Star pilot program in Roaring Fork School District	Completed , and also expanded to RE-2; with schools from both districts being entered into national building challenge. Program has resulted in over \$500,000 in avoided energy costs for the 2 school districts. http://www.garfieldcleanenergy.org/gov-school-energy-savings.html# http://netenergycenter.net/re2sd/
Assist partner governments in adopting Greening Government goals that meet or exceed state goals.	Completed , 7 governments adopted so far. http://www.garfieldcleanenergy.org/gov-energy-goals-resolution.html
Host 2+ workshops to learn about model sustainability codes.	Sustainability code education was woven into other topics/events: June 2009 Growing Cooler Symposium, Hotel Colorado, Glenwood Springs; Sonoran Institute ongoing education with planners.
Provide technical assistance to jurisdictions interested in adopting and implementing model codes.	Completed and ongoing. Worked with GEO to educate and encourage the adoption of the National Green Building Standard, and have worked to educate code officials in Garfield County and the towns of Parachute, Rifle, Silt, New Castle and Glenwood Springs about the International Green Construction Code. Worked with Towns of New Castle, Glenwood Springs, Rifle and Carbondale on adoption of International Energy Conservation Code, 2009 Version. This will save 15-30% on the heating, cooling and electricity bills for news homes and businesses built under this code.

D. Energy Efficient Transportation & Community Design:

The GNECI Transportation program has helped government fleets become more energy efficient and also resulted in establishing the Western Slope CNG Collaborative. The Transportation Program also involves 17 schools in an annual bike/walk/bus contest; and ongoing fleet efficiency assistance to save governments money on fuel costs. Transportation efficiency program will be saving \$320,000/yr if, combined with existing fleet savings, RFTA goes ahead with a GCE-guided plan to purchase 22 new buses to run on CNG instead of diesel. Also, if RFTA's CNG program goes ahead, our transportation will have spurred a total \$3.8 million in investment in petroleum saving transportation infrastructure

Provide information on Web site to advance energy efficient transportation options.	Completed. http://www.garfieldcleanenergy.org/trans-fleets-policies.html http://www.garfieldcleanenergy.org/trans-fleets.html http://www.garfieldcleanenergy.org/trans-trucks.html http://www.garfieldcleanenergy.org/trans-EV.html
---	---

	http://www.garfieldcleanenergy.org/trans-cars.html
Run Safe Routes to School programs in local school districts.	Completed. Over the last 3 years have organized ongoing programs involving 17 schools. http://www.garfieldcleanenergy.org/trans-2010-bike-to-school.html
Provide examples of ways communities can encourage transit-friendly community design and development in Roaring Fork Transportation Authority service territory	Completed. Held large symposium “Growing Cooler” June 2009; ongoing information provided on GCE website and through ongoing collaborations with RFTA staff. http://www.garfieldcleanenergy.org/trans-case-studies.html
Assist interested partner entities in adopting policies, design guidelines and standards that encourage transportation options and disseminate best practices that are already working for partners, such as biodiesel in fleets and engine retrofits.	Completed and ongoing. http://www.garfieldcleanenergy.org/trans-fleets.html http://www.garfieldcleanenergy.org/trans-fleets-policies.html
Coordinate group purchases of demonstration clean energy vehicles and other clean energy transportation technologies	Rifle purchased electric demonstration vehicles. Worked to encourage fleet conversions to natural gas; held fleet workshop.

E. Renewable Energy:

The proposed GNECI Renewable Energy has resulted in highly visible renewable energy systems on key public facilities, more than doubled the number of solar systems in Glenwood Springs and increased availability of renewable energy funding and incentives. Total investment equaled \$1,575,935 (Grant+local dollars +PPA) in total renewables investment.

Arrange financing and coordinate installation of at least 10 small solar PV systems (5 to 10 kW) and 2 mid-size solar PV systems (30 to 50 kW) on public facilities, including at least 2 installations at public library facilities.	Completed, exceeded goal. 23 solar systems installed at 16 highly visible public facilities throughout Garfield County. The finished systems add up to 365 kW of solar electric generating capacity on public buildings, plus a seven-panel solar hot water system estimated to generate 26 million BTU's per year. http://www.garfieldcleanenergy.org/gov-solar-installations.html
Purchase and install off-grid solar lights for Deerfield Park.	Amended – A total of 11 Off-grid Solar LED lighting purchased and installed for Centennial Park (partially funded by GNECI grant).
Implement Garfield 1 Megawatt Campaign.	Ongoing. Systems installed to date directly through GNECI both public installations and developing additional funding sources to offer rebates has resulted in 460 kW; GNECI also helped with and supported Clean Energy Collective efforts, which during DOLA grant period added up to more than 800 kW, to bring total to more than 1 MW. http://www.easycleanenergy.com/

Track energy production from solar installations.	Completed -- Energy Navigator tracks solar production, developed specifically for GNECI. garfieldenergynavigator.org
Train K-12 teachers in Re-1, Re-2 and D-16 through the “Solar in the Schools” program.	2 scholarships were awarded for summer 2010; funding was amended for broader energy education efforts – energy clubs were started at 7 schools.
Link 1 Megawatt Campaign with residential and commercial energy programs	Completed and will be ongoing. Establishment of financing program connects residential and commercial programs with renewables; developed additional funding sources to provide solar rebates through Glenwood Municipal Utility.

Sustainability Team and Clean Energy Financing:

Develop a Clean Energy Investment Fund as a near-term financing mechanism for efficiency upgrades and solar installs.	Completed through credit enhancement fund; GNECI grant led to successful DOE Better Buildings grant program to create financing solution; credit reserve program created with the Colorado Housing and Finance Authority. http://www.garfieldcleanenergy.org/financing.html
Research feasibility of a voluntary opt-in clean energy financing district for the county or sub-areas of the county including individual municipalities as provided in state statutes.	Completed. Financing district model put on hold after Fannie Mae/Freddie Mac concerns on national level; GCE and Garfield Board of County Commissioners also opted not to pursue this approach.
Coordinate with state-level efforts to address energy efficiency and clean energy financing	Completed and ongoing; pursued Better Buildings grant to accomplish this. Created Garfield Clean Energy Credit Reserve fund through Colorado Housing and Finance Authority. http://www.garfieldcleanenergy.org/financing.html
Create a sustainability team composed of representatives of the contractor and partner local governments to provide policy and budgetary guidance for the Garfield New Energy Communities Initiative and procure professional services as necessary.	Completed – GNECI advisory board and team of staff, contractors that are implementing programs.
Develop technical advisory committees as needed.	Completed through ongoing staff and resource experts ongoing involvement.
State Impact Assistance funds and local funds will be used to support staffing and professional consulting services for management functions to the team and overall initiative, and assist in the implementation and oversight of each Project area including project and program design, budget, time schedule and expense documentation and reporting.	Completed.

<p>Publish annual progress report.</p>	<p>2009 status report issued. 2010 full status list and 4 page summary published. Depending on funding, this final report will be turned into a report along with accompanying photos to illustrate outcomes and breadth of results, including comprehensive economic benefits.</p>
<p>Host annual event to recognize participation and performance in all sectors.</p>	<p>Report issued in place of event; multiple smaller educational events and updates during many public meetings of partner governments.</p>
<p>Build organizational structure and explore financing options for a long-term clean energy organization tied to reaching significant clean energy economy goals.</p>	<p>Garfield Clean Energy Authority/Collaborative established through using Colorado State Statute, 29-1-203 allowing for intergovernmental cooperation to provide a service most efficiently provided on a regional basis rather than by a single government. Intergovernmental Agreements have been signed by 8 governments, and the first official meeting of the new authority was held January 11 2012.</p>