

Garfield Clean Energy 2nd Quarter 2014 Report

July 3, 2014 • Prepared by CLEER: Clean Energy Economy for the Region

1. Residential energy efficiency. Goal: 55 households making retrofits

Residential retrofits: 16	Measures: 19	Economic development
Rifle: 2	Insulation and air seal: 2	Total retrofit costs: \$36,298
Silt: 0	Furnace / boiler: 2	Utility rebates: \$920
New Castle: 0	Water heater: 2	GCE (SEP) rebates: \$1,200
Glenwood Springs: 13	Windows: 0	Glenwood Springs rebate: \$4,960
Carbondale: 0	Swamp cooler: 2	Rebate multiplier: 4.7
Parachute: 1	LED lighting: 8	
	Ground source heat pump: 1	New rebate apps pending Q2: 6
Total coaching clients: 87	Solar PV: 1	
Total emails/calls: 295	Programmable thermostat: 1	Est. savings: \$2,092/year

2. Residential Revolving Loan Fund

Total loans: 11, all current	Current loan balance: \$92,495	Portfolio yield: 2.32%
New loans this quarter: 2	Total available for loan: \$207,000	

3. Commercial energy efficiency. Goal: 50 businesses making retrofits

Commercial retrofits: 11	Measures: 14	Retrofit cost	Rebate
The Property Shop	High efficiency refrigerator	\$500	\$200/GWS
The Crystal Company	Lighting retrofit	\$905	\$413/GWS
Robo Chicken LLC	High efficiency boiler	\$10,186	
Good Shepherd Lutheran Church	New roof/ building insulation	\$6,624	
6 & 13 Quick Mart	Lighting retrofit/EC Motors	\$14,885	\$2,500/SEP
Ambiance Inn	Evaporative Cooling	\$2,810	
Bookcliff Car Wash	Lighting retrofit	\$8,560	\$1,880/SEP
Grease Monkey	Lighting retrofit	\$731	\$365/GWS
Parachute Grub N' Scrub	Lighting retrofit/EC Motors	\$21,353	\$2,500/SEP
Third Street Center	Lighting retrofit	\$5,243	
KDNK	Lighting retrofit	\$1,236	
2014 YTD totals		\$73,033	\$7,858

Commercial walk-throughs: 20	Zip code / town	Date
Springs Condominium Assoc.	81601- Glenwood Springs	1/1/2014
Roaring Fork Beer Company	81623 - Carbondale	2/4/2014
Sunsense Solar	81623 - Carbondale	1/7/2014
Artillum Dance Studio	81650 - Rifle	2/12/2014
Lawrence Family Investments	81652 - Silt	2/14/2014
St. Stephen Catholic Church	81601 - Glenwood Springs	3/25/2014
U.S. Forest Service	81601 - Glenwood Springs	2/19/2014

Grand Tamarac	81601 – Glenwood Springs	5/7/2014	
Red Mountain Inn	81601 – Glenwood Springs	4/17/2014	
Distinguished Boards and Beams	81623 – Carbondale	4/9/2014	
Starbright Laundromat	81601 – Glenwood Springs	4/18/2014	
Wood Nichols	81623 – Carbondale	4/21/2014	
Two Rivers Community School	81601 – Glenwood Springs	4/17/2014	
Action Auto Collision	81601 – Glenwood Springs	5/14/2014	
Grease Monkey	81601 – Glenwood Springs	5/21/2014	
Hospice of the Valley	81601 – Glenwood Springs	6/18/2014	
Executive Plaza	81601 – Glenwood Springs	6/25/2014	
Grand Valley Fire	81635 – Parachute	6/26/2014	
Alpine Bank Central Ops	81650 – Rifle	5/22/2014	
Grand Valley Methodist Church	81635 – Parachute	6/26/2014	
Total coaching clients: 72	Total emails/calls: 201		
New commercial enrollments received Q2: 22	Commercial enrollments received YTD: 30		

4. CLEAN ENERGY SERVICES BENEFITING ALL PARTNERS

Garfield Building Energy Navigator

Partner buildings on Navigator: 99

50 with live data, including 3 new additions in Q1

Installation and network connectivity is under way for activating Navigator live data for the solar parking lot canopy array at the Rifle City Hall parking structure

49 with monthly data

Navigator website usage, January 1 to June 30, 2014, according to Google Analytics

Total visits: 8,731	New visits: 4.3%
Unique visitors: 446	Returning visitors: 95.7%
Page views: 10,902	
Average time on site: 1.5 minutes	Tablet/smartphone visits: 60 / 1%

Training and workshops

- Q1: Utility Rebate Workshop and Trade Show held Feb. 13 in Glenwood Springs.
- Q2: Solar Energy Finance Workshop for Local Governments and Special Districts held April 7 in Rifle (*Details in Renewable Energy section, page 4*)
- Q2: Assist with planning and publicity for “Efficiency is Green,” two-day workshop for facility managers, July 17-18, hosted by CMC Rifle. GCE Energy Coaches will be among the presenters.
- Q3: Planning started for Electric Vehicles showcase event in September.

Garfield Clean Energy policies

- Energy Savings Reinvestment policy still awaiting board action.
- Affiliate Member proposal still awaiting board action.

State-level policies

- Sent letter to the Colorado Public Utilities Commission asking the PUC to hold Xcel Energy to its current goals for energy efficiency programs for the 2015 to 2020 period. On May 28, the PUC issued a ruling holding the goals to current levels.
- Sent letter to state legislators in support of House Bill 1326, expanding state tax credits for private-sector purchases of alternative fuel vehicles, including large trucks. The bill passed and was signed by the governor.
- Sent information on GCE experience with performance contracting to state legislative staff to inform development of SB 186 language.
- Kept GCE “State Legislature” webpage up to date. As of the session close on May 7, the page tracked 24 bills related to economic development, financing, alternative fuel vehicles, renewable energy, utilities and active transportation.

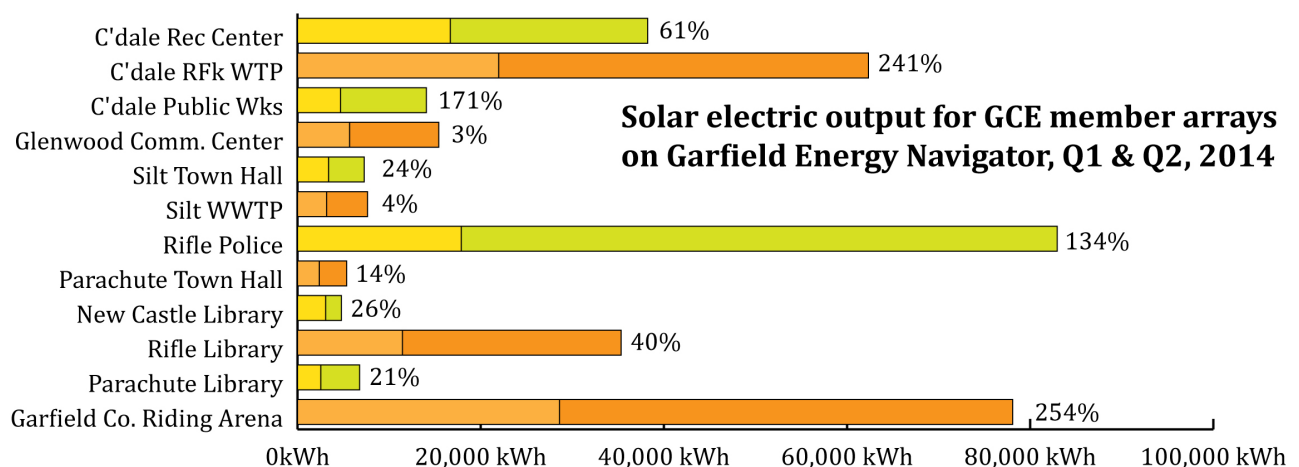
Rebate funding

- CLEER has obtained a second grant this year from the Colorado Department of Public Health and Environment’s Supplemental Environmental Program. This money will be used to benefit GCE constituents.
- The second grant, for \$44,500, will be used for energy efficiency upgrades for low-income homeowners. CLEER is working with Energy Outreach Colorado and Northwest COG Weatherization to identify recipients and leverage funding for measures.
- The year’s first grant, for \$40,000, will fund energy efficiency bonus rebates for households and businesses in western Garfield County, along with marketing and administration. Through June 30, CLEER issued \$8,080 in rebates from this fund.

Radon testing kits

- CLEER’s office serves as the Carbondale-area distribution point for home radon testing kits for Garfield County Environmental Health. Distributed 6 kits to residents in Q2; 23 year to date.

5. RENEWABLE ENERGY



Notes: (1) Percentage figures are the Q2 averages for percent of total building electrical energy use offset by solar PV. (2) City of Rifle Wastewater Treatment Plant solar array is not shown here because it is off the charts, producing 1.6 million kWh in Q1 and Q2 combined, which is 161% of the facility’s usage.

- Shirley Moore, Colorado projects manager for GRID Alternatives, presented to GCE Board about the group's efforts to install solar PV on low-income residential units in Garfield County. Her presentation was covered by *The Daily Sentinel* on June 24. <http://www.gjsentinel.com/news/articles/free-solar-panels-for-lowincome-families>
- Hosted the **Solar Energy Finance Workshop for Local Governments and Special Districts** on April 7 at the Rifle Library, in collaboration with SunSense Solar and Colorado Mountain College. Focus of workshop was on a narrow window of opportunity for power purchase agreement (PPA) financing for public-entity solar arrays in Xcel Energy service territory. Workshop drew 18 people from eight organizations:
 - Colorado River Fire Rescue and Grand Valley Fire District
 - Towns of Parachute, Silt and New Castle
 - Garfield School District Re-2
 - Battlement Mesa Metro District
 - White River National Forest
- **Solar PPA follow-up.** Energy Coach Matthew Shmigelsky initiated coaching services with Colorado River Fire Rescue, Town of Silt and Battlement Mesa Metro District. Matt made site visits to all three venues.
 - Colorado River Fire has potential for cost-effective efficiency upgrades, which should be pursued prior to a solar array.
 - Town of Silt developed a plan with SunSense for a 233-kW array for its water treatment plant.
 - Battlement Mesa Metro District developed a plan with SunSense for a 436-kW array for its water treatment plant.
 - Both Silt and Battlement Mesa's projects were accepted into the Xcel Solar*Rewards program to pay renewable energy credits. Next step is for these entities to negotiate power purchase agreement with SunSense's financial partner, California-based Sunforce Solutions International.
 - Also accepted into the Xcel program is a 379-kilowatt array at Roaring Fork High School in Carbondale.
 - **Together, these projects add up to more than 1 megawatt of new solar power.**
- **Hydropower.** Energy Coach Matthew Shmigelsky attended the Agricultural Hydropower Workshop on local hydropower opportunities and funding options, hosted by Holy Cross Energy, Colorado Small Hydro Association and the Colorado Dept. of Agriculture and held May 29. He produced a summary of funding options at the state and local level, posted to the GCE website. He also researched potential hydropower plans for Rifle Gap and Harvey Gap reservoirs, and met with staffers from the Colorado Dept. of Agriculture who are interested in working with the farm and ranch community on renewable energy and efficiency projects.

The Colorado Department of Agriculture is concluding a pilot energy efficiency project of audits and upgrades for dairy producers in eastern Colorado. The next phase would be to formalize a program to deploy across all ag sectors statewide. Matthew had a follow-up meeting June 24 with two Dept. of Ag staffers to brief them on the energy

coaching model and discuss how that might apply to the ag program. There's a strong potential for Garfield Clean Energy to play a role in that program deployment to benefit local ag producers.

- **Rifle net-zero status.** Matthew Shmigelsky and Heather McGregor researched City of Rifle solar production to determine how close the city government is to becoming net-zero for energy. This is a complex calculation to run. Research will continue.

6. ACTIVE ENERGY MANAGEMENT services for partner buildings and facilities

All partners

- Monthly monitoring of Navigator data for all partner buildings to watch for unusual energy usage and other trends.
- Configured Navigator's "estimated savings" feature for weather-adjusted cost avoidance at facilities for each GCE partner. Set up building alarms feature
- Carried out monthly bill processing and uploading to the Navigator website. Reviewed 2013 energy data gaps.

Garfield County

- Reset the data logger at the Fairgrounds Riding Arena, and coordinated with county IT staff for reset following hardware upgrade.
- Conferred with FD International, the consultants conducting a facilities master plan for the county, to share findings from completed and recommended AEM upgrades, observations of building energy use, and to help incorporate EE recommendations into the master plan.
- CLEER staff began culling unnecessary bills from Garfield County's batch PDFs for accounts not being tracked on Navigator. This saves GCE \$7.50 for every culled bill, minus the time spent culling.

Carbondale

- Investigated and tested heating and cooling systems at Town Hall, including economizer and thermostat settings, relayed findings to town staff, and followed up to ensure proper operations.
- Fixed Rec Center Navigator kiosk to display up-to-date data.
- Reviewed project scope for submetering project at Third Street Center with electrical contractor. Resolved outage problem on Third Street datalogger.
- Worked to diagnose Navigator live data problems for Town Hall.

Glenwood Springs

- Conferred with contractors working on MOC and Community Center projects regarding EE aspects.
- Prepared updated AEM table with completed and recommended EE projects for presentation to Glenwood Springs City Council on June 19.
- Investigated billing anomalies at Red Mountain Water Treatment Plant, worked with plant operator Jerry Wade and IT director Bob Farmer, recalibrated meter settings to ensure proper display of data, and followed up to restore flow of data.

New Castle

- Prepared updated AEM table with completed and recommended EE projects for presentation to New Castle Town Council on June 17.
- Fixed problem on Navigator display of street lights electrical billing.

Silt

- Follow-up conversations with town staff on pending EE measures
- Review Town Hall retro-commissioning report, brief Public Works Director Gerry Pace on rooftop unit (RTU) technology recommendations
- Prepared updated AEM table with completed and recommended EE projects for presentation to Silt Board of Trustees on June 23.
- Conferred with electrical contractor on repair of blower control at wastewater treatment plant. Project still pending.

Rifle

- Phone call with contractor regarding automatic door operations at the Police Station.
- Work with Ken Egel to improve data management for Rifle sites on Navigator.
- Major project to redesign data monitoring system at Rifle City Hall to add solar production data from the new solar PV array at the City Hall Parking Structure. New system will also measure energy data from the parking structure. Scoped out hardware needs and placement, ordered needed equipment, installed new equipment, collaborated with Rifle IT staff and SoL Energy staff (system installer).
- Site visit to plan wire placement for installing Navigator hardware at Parks Maintenance Facility.
- Assisted Wastewater Treatment Plant operators in identifying new 3 a.m. demand spike.
- Assisted Finance Director Charles Kelty with questions on city's Xcel bills related to "interval meter" readings.
- Requested additional energy bills from new solar PPA installation sites.
- Prepared updated AEM table with completed and recommended EE projects for presentation to Rifle City Council on July 2.

Parachute

- Conferred with Town Administrator Stuart McArthur on AEM report recommendations.
- Prepared updated AEM table with completed and recommended EE projects for presentation to Parachute Board of Trustees on June 12.
- Provided information to Colorado Energy Office to expedite reimbursement for installation of EV charger funded by CEO Charge Ahead grant.
- Visited water plant to explore conversion from electric heat to gas heat.
- Diagnosed blown fuse problem associated with solar inverter at Rest Area's Solar Flowers and provided repair instructions to town staff in case of repeat break-downs.
- Worked with Ken Egel to resolve gap in bill data.

RFTA

- Reviewed contractor documents for exterior lighting upgrades, efficient motors and pumps at Aspen Maintenance Facility to determine Holy Cross Energy rebate potential;

calculated savings, rebate and return on investment. (This worked billed to CLEER's EE contract with Holy Cross Energy.)

- Assisted RFTA staff in planning EV signage for parking space and way-finding, and in creating the informational signage content to meet the requirements of the Green Key Grant award. Charging equipment to be installed this summer.
- Advised RFTA staff regarding proposed bus shelter radiant heat installations; recommended use of rider-activated 10-minute timers.

Garfield Public Library District

- No individual projects.

Colorado Mountain College

- Technical research on comparative advantages of solar thermal or solar PV for domestic hot water heating.
- Researched Building Operator certification for Rachel Pokrandt.
- Attended, presented at CMC Sustainability Conference, Steamboat Springs, April 17-18
- Demonstrated Navigator to CMC's Steamboat Springs staff.
- Walk-through of Bristol Residence Hall at Alpine Campus.
- Collaborated with Rachel Pokrandt to help develop facility manager training (set for July 17-18)
- Set up Navigator automated alert for one site.
- Caught error in blocked data feed. Continued troubleshooting to diagnose data connectivity problems.

7. TRANSPORTATION

Active Transportation: 2014 Bike and Walk to School Challenge

- Put on the 5th annual Bike and Walk to School Challenge, involving eight schools from Battlement Mesa to Carbondale. Karen Wahrmund and Maisa Metcalf managed the event in partnership with Dana Wood, executive director of LiveWell Garfield County.

Work involved distributing posters and tally sheets to the schools, promoting the competition through earned media and social media, taking photos at participating schools, collecting tally sheets, calculating the winning classrooms at each school and the top three schools in the county, issuing media releases announcing the winners, posting the story and photos to the GCE website, and planning and hosting an awards assembly at Bea Underwood Elementary School.

Karen and Maisa also successfully applied for a \$1,000 grant from LiveWell Garfield County to help fund prizes for the 2015 competition.

CNG efforts

- Supported monthly West Slope CNG Collaborative conference calls. Sought out at a keynote presenter for each meeting on a current and relevant topic, sent e-blasts invitations, hosted the conference call, wrote up detailed meeting notes and posted agendas and meeting notes to the GCE website.

- Provided support and advocacy for public CNG fueling in Rifle as Swallow Oil continued to take large financial losses at its Rifle station and mothballed its CNG fueling island on June 1. CLEER reached out to Keith Gilstrap, another longtime local fuel provider, to gauge interest and potential for moving the CNG compressor from Swallow's station to Gilstrap's industrial fueling facility in West Rifle, or to bring in a third-party operator, GAIN Clean Fuels, to operate the CNG fueling at the existing site. CLEER worked with Kirk Swallow to discuss station costs, equipment value and develop a written summary. Talks and research are still under way to determine the best solution.
- Received announcement that the Garfield County FMLD has awarded the requested \$25,000 grant application to fund the Western Slope CNG project. Discussed FMLD's end-of-project payment policy, held special meeting with GCE Finance Committee to discuss the resulting budget problem. Drafted a letter signed by GCE board members, submitted to FMLD board, and attended FMLD board meeting on June 25 to make the case for interim payments.
- Communications with Garfield County and City of Glenwood Springs officials to confirm that their joint \$100,000 CNG station grant award is still available in 2014. Garfield County has conveyed its \$90,000 to the City of Glenwood Springs. The grant will be awarded once a station developer builds a fueling station in Glenwood Springs.

CLEER staff is in close communications with Trillium CNG, which remains the top candidate for the grant award and station development. CLEER's associated work with the Refuel Colorado Fleets program is aimed at delivering a sufficient number of CNG vehicle and fuel purchase commitments to make the Glenwood Springs station economically viable. Trillium is also expected to apply for the Colorado Energy Office's Alternative Fuels Colorado grant for CNG station funding.

- Conferred with Commissioner Tom Jankovsky about increasing CNG fueling by Garfield County staff driving bi-fuel vehicles. CNG fueling is at a low rate except for Kirby Wynn, Garfield County's oil and gas liaison.
- Conferred with Department of Local Affairs staff and with Garfield County officials on potential for applying for a countywide, multi-jurisdictional CNG vehicle buy-down grant. Met again with DOLA staff on June 30 for briefing on separate DOLA initiative for funding alternative fuel vehicles for local governments.

Electric vehicles

- Prepared and updated regional map of EV charging stations, share with GCE partners and county residents on request.
- Assisted Town of Parachute with reimbursement for EV charging station grant. (*See Parachute section, page 6.*)

Marketing, Outreach, Workshops & Training

- Created new training materials and updated older materials in preparation for presentation, and then gave presentation at the Rocky Mountain Fleet Management Association annual conference on June 20 in Glenwood Springs.

- Conferred with SourceGas staffer about how the company could support regional development of CNG through a proposed company policy.
- Began planning an electric vehicles event to be held in September. Ideas include an electric vehicles tour or road rally.

8. Case studies, fact sheets, outreach and website

Case studies and fact sheets

1st Quarter

- Residential: Pink Palace, multi-family apartment house in Glenwood Springs
- Commercial: Professional Auto Body

2nd Quarter

- Homeowners use Revolving Loan Fund to cover upfront costs of energy upgrades
- Four Smart Steps to a Cool Home

Community outreach

- Collaborated with Xcel Energy and Franklin Energy to promote Franklin’s three-day outreach blitz, May 13-15, on refrigeration and lighting to businesses in western Garfield County.

Website usage, January 1 to June 30, 2014, according to Google Analytics

Total visits: 8,826	Top 5 pages (based on unique-user page views)
Unique visitors: 7,128	Residential heat tape: 28%
Tablet/smartphone visits: 2,196 / 25%	Home page: 15%
Page views: 14,806	Electric vehicles: 5%
New visits: 80%	Residential rebates landing page: 4%
Returning visitors: 20%	Residential audits: 2%

Forms: CLEER has subscribed to Formstack, and online form-creating and hosting service. The GCE website now has online forms for residential rebate applications, business enrollments in the Clean Energy Challenge for Business, and statements of interest for fleets interested in alternative fuels.

New pages: Farm and ranch energy, home cooling info.

9. Administration

Ongoing coordination, management of all services, programs

- Organized and prepared materials for April, May and June GCE board meetings, took notes and wrote up meeting minutes, posted board documents to GCE website and stored hard copies in GCE binders.
- Relocated May board meeting and condensed agenda to accommodate board members attending energy industry conference in Rifle.
- Gathered data and prepared 1st Quarter report.

- Met with board leaders Allyn Harvey, Leo McKinney and Tomjankovsky to get feedback on GCE direction, strategy.
- Scheduled annual energy presentations for member boards, prepared advance packets for boards. Presentations made June 12 in Parachute, June 17 in New Castle, June 19 in Glenwood Springs and June 23 in Silt. Additional presentations scheduled for July.
- Prepared draft 2015 budget.

Strategic Planning

- Provided administrative support for the annual Strategic Planning retreat for the board, held April 9 in New Castle. Mike Ogburn and Erica Sparhawk presented on GCE accomplishments of the past year. After the retreat, CLEER wrote a draft 2015 Strategic Plan based on comments at the retreat, and met again with board member Keith Lambert to discuss the plan. The plan was finalized in June and board approval is requested for the July 9 meeting.

10. Credit Reserve

Reporting to DOE and Boulder County

- Gathered information on loans through the Residential Revolving Loan Fund and submitted 1st Quarter 2014 report to DOE.
- Entered and updated loan information in Salesforce.
- Participated in quarterly check-in call with DOE, Boulder and Denver.
- Coordinated with Energy Smart Colorado team about eligibility of cooling systems for loans.

Marketing of Residential Revolving Loan Fund

- Hosted a table at Lowe's Contractor Appreciation Days, May 7-8, to promote loan fund.
- Interviews, photos, editing and layout of case study / news article about loan fund borrowers.
Homeowners use Revolving Loan Fund to cover upfront costs of energy upgrades
- Reached out directly to HVAC contractors to brief them on the loan fund and encourage their technicians to inform customers about this financing option. Reprinted loan fund info cards for contractors to have in their trucks. Also distributed loan fund info cards at various locations in Parachute and Battlement Mesa on trip there for Bike & Walk Challenge school awards assembly.
- Worked with Funding Partners to add cooling measures to loan-eligible list and clarify eligibility of related health and safety upgrades, such as radon or asbestos mitigation.