



How energy efficiency, clean transportation and local power create measurable economic benefits:

- Diversify the economy
- Create and expand new business opportunities
- Lower energy costs for families, businesses, and governments, freeing up funds for other priorities
- Grow the local economy
- Create new jobs
- Lower business operating expenses
- Create competitive advantages
- Stabilize energy costs
- Use Colorado-produced natural gas and electricity for alternative transportation fuels



Garfield Clean Energy Targets

Energy efficiency

- Achieve a 20 percent increase in energy efficiency over the 2015 baseline by 2030

Local power

- Obtain 35 to 50 percent of energy from renewable sources by 2030

Clean transportation

- Reduce petroleum consumption by 25 percent from the 2009 baseline by 2020

Energy efficiency and renewable energy targets adopted in 2017 through the Partners in Energy project, sponsored by Garfield Clean Energy, Xcel Energy and CLEER

KEYS TO SUCCESS

The benefits to Garfield County's economy from energy efficiency, local renewable energy and alternative transportation fuels have been made possible by:

- State-local partnerships
- Ongoing multiple sources of investment and funding, including state and federal funding
- Countywide collaborative framework
- Public sector/private sector partnerships
- Local, regional and state leadership and vision

PARTNERS INCLUDE:

Garfield Clean Energy Collaborative: Parachute, Rifle, Silt, New Castle, Glenwood Springs, Carbondale, Garfield County, Roaring Fork Transportation Authority, and Colorado Mountain College.

CLEER, Energy Outreach Colorado, Holy Cross Energy, Xcel Energy, Glenwood Springs Municipal Electric, Aspen Skiing Company Environment Foundation, CORE, Alpine Bank, Energy Smart Colorado, Roaring Fork School District, and all the many participating contractors and Garfield residents.

STATE AND FEDERAL FUNDING SOURCES:

Colorado Department of Local Affairs (2009-2011)

Colorado Energy Office

Department of Energy/Better Buildings Grants (through 2014)

FOR MORE INFORMATION

GCE: GarfieldCleanEnergy.org

CLEER: CleanEnergyEconomy.net

CLEER Offices: 970-704- 9200



Garfield Clean Energy

Economic growth through energy efficiency, alternative fuels and local power



resilience
 security
 family
 new jobs
 economy
 future
 opportunity
 savings
 innovation
 ENERGY
 partnerships
 BUSINESS
 independence
 diversification

ENERGY INNOVATIONS CREATE COUNTYWIDE ECONOMIC DEVELOPMENT

JUST A FEW EXAMPLES



PARACHUTE SOLAR FLOWERS

Unique array powers I-70 Rest Area. Others power Parachute's library, town hall and water plant.



ENERGY EFFICIENT BUSINESSES

277 businesses tapped incentives and technical advice to make energy upgrades, such as East Third Street Professional Building and Elder Trucking in Rifle.



SILT WATER PLANT SOLAR

Water treatment plants are major energy users. A 234-kW solar array powers 100% of Silt Water Treatment Plant annual electricity.



WASTEWATER TREATMENT EFFICIENCY

Fine-tuning operations at New Castle's wastewater treatment plant delivered cost savings.



LOCAL POWER FOR BUSINESS

Glenwood Springs Subaru replaced parking lot lights with dimmable LEDs and installed a 96 kW solar array, cutting electric bills by 44%.



CNG FLEETS AND FUELING

Compressed natural gas (CNG) is a locally-produced alternative fuel for truck fleets. Fueling stations in Glenwood Springs, Parachute and soon in Rifle meet new demand.

PARACHUTE



RIFLE

SILT

NEW CASTLE

GLENWOOD SPRINGS

Colorado River



CARBONDALE



BATTLEMENT MESA WATER PLANT

Mesa Metro District installed a 435-kW solar array for its water treatment plant, providing all its electricity.



RESIDENTIAL REVOLVING LOAN FUND

GCE Revolving Loan Fund has financed energy efficiency upgrades for 44 households since 2012. For most families, energy savings offset loan payments.



RIDE GARFIELD COUNTY

The multi-year Ride Garfield County campaign promotes bicycling, walking and riding transit. The effort helped Glenwood Springs reduce traffic congestion during the 95-day bridge detour in fall 2017.



BETTER BOTTOM LINE

Businesses achieve rapid payback from electrical savings by replacing old fluorescents with LEDs, such as Toad & Co. and Glenwood Adventure Co. in Glenwood Springs.



HELPING FAMILIES CUT ENERGY COSTS

In a partnership with Energy Outreach Colorado and utilities, GCE and CLEER have provided free home energy upgrades to over 1,000 households countywide since 2015.



PROJECTS SPUR BUSINESS DEVELOPMENT

Clean energy projects have stimulated demand for 292 contractors and suppliers since 2010, such as these two home energy assessment and insulation contractors.



ELECTRIC VEHICLE SALES EVENT

An innovative campaign in 2017 in Garfield, Pitkin and Eagle counties to promote electric vehicles led to sales of 42 EVs and an 85% increase in public EV charging stations.



BUILDING ENERGY NAVIGATOR

CLEER's Building Energy Navigator website displays energy data for 90 government buildings countywide. It's a valuable tool for facility managers. Kiosks, like this one at the Carbondale Recreation Center, provide easy public access to energy data.



100% SOLAR HIGH SCHOOL

Through student initiative, Roaring Fork High School in Carbondale invested in efficiency, then installed a 379-kW solar array to power 100% of annual electric use.



GARFIELD COUNTY COLORADO

x 64 counties = more resilient statewide economy and achieving statewide goals

BY THE NUMBERS

Energy efficiency, local power, and clean transportation add up to measurable economic and environmental benefits.

CUMULATIVE RESULTS 2010-2017:
(except where noted)

ENERGY EFFICIENCY

Households

1006 Household projects
\$330,200 Annual energy savings

Commercial

277 Businesses, churches, nonprofit projects
\$667,600 Annual energy savings

Government

34 Government facility energy efficiency upgrades
\$1.9 million Investment stimulated
90 buildings Using Navigator data to cut costs
\$798,326 Annual energy savings

LOCAL POWER

32 Government buildings, facilities, schools, and libraries powered by solar energy
8,400 megawatt-hrs Annual local power produced
Equal to power needed for 1,600 homes

3 Solar gardens in Garfield County

3.5 megawatts Total generating capacity

CLEAN TRANSPORTATION

26 (45 plugs) Public EV charging stations
2 Public compressed natural gas (CNG) fueling stations
32 (~ 23% of fleet) RFTA fleet CNG buses
49 Electric vehicles (EV) in Garfield County
300+ Ride Garfield County (countywide bike commuter program) participants 2015-2017
120,000 Bicycle miles ridden

ECONOMIC BENEFITS

292 Participating contractors and distributors
\$6,679,478 Cumulative energy savings
over \$32 million stimulated including all solar, CNG stations, and energy efficiency upgrades

ENVIRONMENTAL BENEFITS

69,204 metric tons of carbon avoided to date, just from the energy efficiency projects, equivalent to annual carbon from 7,473 homes or 14,819 vehicles