



Decarbonization, Electrification & GHG Emission Reduction

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Colorado City and County Management Association 2023

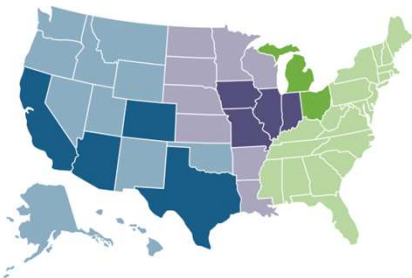
WHO BENEFITS

- ✓ **The State of Colorado** who will achieve its goals from 2019
- ✓ **Local Governments** wanting to reduce unnecessary spending and energy wastefulness, improve their community's building stock, and attract new businesses
- ✓ **Tenants** will save on monthly energy bills
- ✓ **Building owners** who can compare their building's energy use with similar properties, prioritize upgrades and improve the value of their property
- ✓ **Business and workers** skilled in energy efficiency retrofits, mechanical system upgrades, electrical work, engineering, recommissioning and more
- ✓ **Utilities** who want additional value for key accounts, data-informed targeting for efficiency programs and reduce peak demand
- ✓ **Environmental advocates** working to prevent climate breakdown, improve air quality and save energy and water.

Who is Veregy?

Veregy is an award winning, nationwide, Energy Services Company (ESCO) comprised of 9 regional brands with long and distinguished histories in the industry.

Veregy enhances environments and upgrades outdated and failing equipment with the best building technologies.



We provide innovative design, construction, and service solutions for decarbonization, facility optimization, and technology infrastructure challenges.

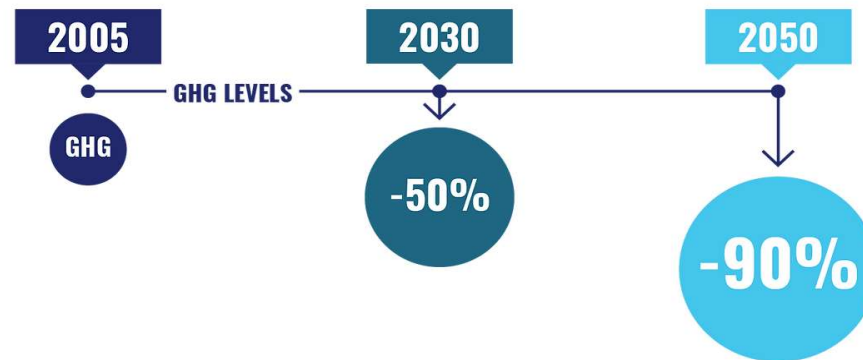


ENERGY OPTIMIZATIONS, DELIVERED.

Colorado Climate Action Plan to Reduce Pollution

TOGETHER, WE WILL MAKE A DIFFERENCE

Building Performance Colorado (BPC) was developed in response to [Colorado's Greenhouse Gas \(GHG\) Pollution Reduction Roadmap](#) to achieve the statutory goals of reducing GHG pollution economy-wide. Colorado's leadership in energy efficiency will deliver economic growth, increasing the market value of our buildings and profitability for our building owners.



Statutory goals for GHG level reduction



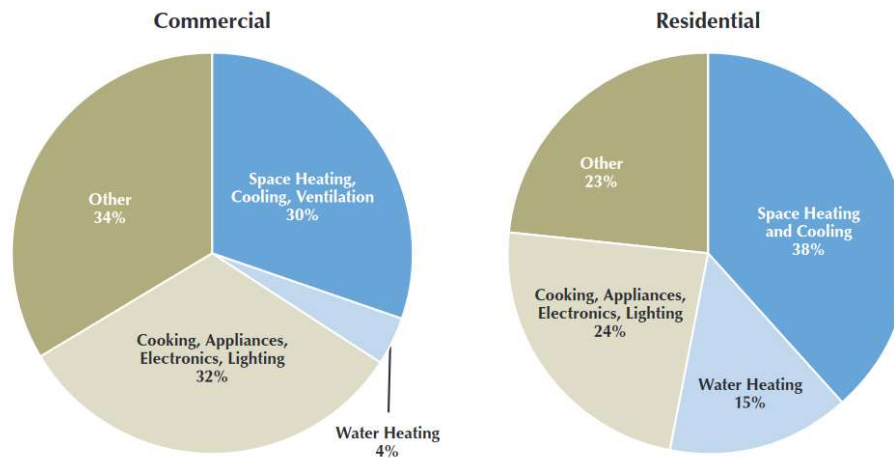
What's Important For Your Cities and Counties?

- *Over 50 bills under the Energy & Environment committee passed in the 2021/2022 Colorado legislative session.*
- *There are 27 Bills in the 2023 Energy & Environment committee advancing clean buildings, climate action, environmental justice, electrification, renewable energy, energy efficiency.*

Buildings Contribute Significantly to Climate Change

- Combustion of fossil fuels attributed to residential and commercial buildings accounts for ~29% of total U.S. greenhouse gas emissions

FIGURE 1: Total CO₂ Emissions from the Commercial and Residential Sectors (2016)



"Other" in both the commercial and residential sector includes items such as data servers, medical imaging equipment, ceiling fans, and pool pumps which are categorized as "miscellaneous electric loads" by EIA.

Source: Center for Climate and Energy Solutions, *DECARBONIZING U.S. BUILDINGS*, 2018
<https://www.c2es.org/wp-content/uploads/2018/06/innovation-buildings-background-brief-07-18.pdf>

HB21-1286 Energy Performance For Buildings

What does the new bill mean for you and your facilities?

- 1 You are required to show energy usage reduction and Green House Gas emissions reduction by certain deadlines.
- 2 Mitigate your risk of fines by being compliant.
- 3 Measure and report current energy usage and Green House Gas emissions annually according to benchmarking data.



HB21-1286 Energy Performance For Buildings

1 Improve energy efficiency overall to meet state goals in % reduction of Green House Gas (GHG) emissions.

- Show 7% reduction in GHG emissions by 2026
- Show 20% reduction in GHG emissions by 2030
- Net-Zero by 2050



HB21-1286 Energy Performance For Buildings

2 Requires compliance with rules regarding performance standards related to energy and greenhouse gas emissions.

Section 4 imposes penalties for violations of the benchmarking requirements in amounts up to \$500 for a first violation and up to \$2,000 for each subsequent violation. The commission is required to establish by rule civil penalties for a violation of the commission's performance standards in an amount not to exceed \$2,000 for a first violation and \$5,000 for a subsequent violation.

30 Facilities X \$500 = \$15,000

30 Facilities X \$2,000 = \$60,000



HB21-1286 Energy Performance For Buildings

3

Requirement to report energy-use benchmarking data annually based on the following:

- (A) THE ENERGY STAR SCORE, IF AVAILABLE;
- (B) MONTHLY ENERGY USE BY FUEL TYPE;
- (C) SITE AND SOURCE ENERGY-USE INTENSITY;
- (D) WEATHER-NORMALIZED SITE AND SOURCE ENERGY-USE INTENSITY;
- (E) CONFIRMATION THAT DATA QUALITY HAS BEEN CHECKED;
- (F) ANNUAL MAXIMUM ELECTRICITY DEMAND, IN KILOWATTS;
- (G) IF AVAILABLE FOR REPORTING THROUGH THE BENCHMARKING TOOL, MONTHLY PEAK ELECTRICITY DEMAND
- (H) **GREENHOUSE GAS EMISSIONS, INCLUDING TOTAL, INDIRECT, AND DIRECT EMISSIONS.**

2021 Colorado
Legislative Snapshot



COLORADO
Energy Office



UPCOMING FOR COLORADO:

The Commission will establish rules for Building Performance Standards (BPS) no later than June 1, 2023 in order to meet sector-wide greenhouse gas (GHG) reduction targets of 7% by 2026 and 20% by 2030 from a 2021 baseline.

At this time, Colorado building owners will need to report their building benchmark for the year 2022 by June 1st, 2023.



Strategic Electrification & Energy Decarbonization

“SEED” Initiative Strategy



Enabling Legislation

HB 22-1362, Building Greenhouse Gas Emissions Act

Public Building Electrification Grant

BUDGET	\$10MM through FY26
ELIGIBLE APPLICANTS	Public Institutions: Higher Ed, Local Government, K-12, State Agencies, Special Districts
ELIGIBLE COSTS	Project scoping, high efficiency electric equipment, electrical upgrades, other innovative tech.
PROGRAM DESIGN	Planning grant: up to \$30K or 50% of cost; DI/LI/JT up to \$40K or 75%/ Implementation grant: TBD Applicant Match: General pool = 50% of cost; DI/LI/JT = 25% of cost or Training-In-Lieu of match

High Efficiency Electric Heating & Appliances

BUDGET	\$12MM through FY25
ELIGIBLE APPLICANTS	Higher Ed, Local Gov., Utilities, Private & Non-profit orgs, Businesses, Housing Complexes (HOAs), Developers of affordable housing
ELIGIBLE COSTS	Project scoping, high efficiency electric equipment, electrical upgrades, other innovative tech.
PROGRAM DESIGN	Planning Grant: TBD , Equipment Grade: TBD , DI/LI/JT Community Grant: TBD

Fiscal Note Detail: <https://docs.google.com/spreadsheets/d/18OavO5bYHv3JVIHITTAozpQriByFhIYu3HbeYFDhZM/edit#gid=0>

City of Fountain

City of Fountain's Green Power Initiative

Goal: Offset the energy used at ten City buildings and 2,869 streetlights

Project Benefits

- **Economic:** Stimulates local economy during construction.
- **Community:** Improving service reliability while diversifying the City's electric portfolio.
- **Health:** Incorporating clean energy reduces emission of hazardous air pollutants and greenhouse gases that contribute to adverse environmental and human health effects.
- **Natural Resources:** Reduces strain on water resources commonly used during the excavation process and cooling operations for non-renewables.

Alignment with Community Goals: Integrated Resource Plan, Climate Action Plan, Sustainable Action Plan.

Grant Details

HB21-1253 Renewable & Clean Energy Grant

DOLA Grant Funds: \$1,350,000
37% project cost

City Matching Funds: \$2,268,967
63% project cost

Project Scope

- Install a fixed tilt solar array estimated to produce 2,926,116 kWh annually.
- Approximately 215,000 square feet.
- Aggregated capacity of the solar array is 1.67 MW, estimated to produce 2,926,116 kWh annually.



The Numbers

- **1.67 Megawatts of Power Generation**
- **\$36,500 in Operations & Maintenance Savings Annually**
- **30 Year rated lifespan**
- **\$1,350,000 in Grand Funds**
- **Over 4000 solar panels Installed**
- **Thousands of Gallons of Annual Water Savings**
- **\$180,000 in Savings Annually**
- **2,400 Metric Tons of CO2 Reduced Annually**



Grants and Incentives

- Colorado Energy Office

- Charge Ahead Colorado

- ✓ EV Charging Station Funding

EV Charging Station Power Level	CEO Funding	Incentive
Level 2 - Dual Port	80%	\$9,000
*Level 2 - Dual Port, Income Qualified (IQ)	90%	\$11,500
19 - 49.9kW - Dual Port	80%	\$12,500
DCFC - 50 - 99kW	80%	\$35,000
DCFC - 100kW+	80%	\$50,000
**Enhanced Incentive for Qualifying Entities in Disproportionately Impacted (DI) Communities	90%	+\$1,000 (per station)

- ✓ Local Government Electric Vehicle Readiness Planning Grants

- Clean Energy Grants

- ✓ Public Building Electrification & High Efficiency Electric grant \$10M & \$12M more details May 2023
 - ✓ Microgrid communities (Municipal owned utilities)
 - ✓ Geothermal Energy Grant \$12M, will launch Mid-2023

Grants and Incentives Cont.

- DOLA
 - ✓ Numerous Funding Opportunities (Contact your Regional Manager)
- Inflation Reduction Act (ITC Direct Pay)
 - ✓ Solar/ Solar and Landfills- Take advantage of untapped land in your community
 - ✓ Battery Storage
 - ✓ Geothermal
 - ✓ EV and EV Charging
 - ✓ Wind
 - ✓ Fuel Cell
 - ✓ Combine Heat and Power
 - ✓ Biogas Conversion
 - ✓ Hydropower
- Solar and Landfills- Take advantage of untapped land in your community



Q & A