



Colorado

CLEAN ENERGY FUND

EQUITABLE ACCESS TO A
SUSTAINABLE FUTURE

ANNUAL REPORT

2022



"A transition to clean energy is about making an investment in our future."

— Gloria Reuben





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Letter from the CEO

2022 was a momentous year for the clean energy industry, and climate action as a whole. The United States Congress passed the landmark Inflation Reduction Act and, in doing so, recaptured our nation's fleeting opportunity to address climate change and the associated social inequities that are being exacerbated for our nation's most vulnerable and disadvantaged communities.

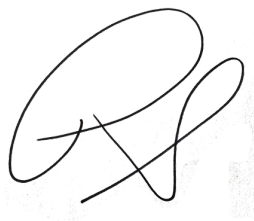
2022 was also a momentous year for our organization. We solidified our operational foundation, launched multiple clean energy loan programs and products, and supported many customers on their clean energy journeys. We demonstrated that the original thesis behind the formation of our organization was correct: that there are communities and clean energy projects that are underserved by traditional capital sources and need our capital and support services to equitably access a sustainable future. And we far surpassed our expectations and goals for the year.

I'm immensely proud of these results, but I'm most proud of the team and community that we formed along the way. Our team grew from 1 employees to 7 by the end of the year, and is comprised of talented and passionate professionals, and even better human beings. We established trusted partnerships that I am confident will stand the test of time, and we produced a very real and positive impact for our customers.

Looking ahead, we're eager to expand our partnerships and significantly increase our environmental and social impact. The challenges posed by climate change are vast and daunting, and we will not succeed in overcoming them without prioritizing our collective mission over our individual ambitions and self-interests. With this mindset, and the team that surrounds me, I am assured of this: while 2022 was a momentous year for our industry and organization, 2023 will be transformational.

Sincerely,

Paul Scharfenberger, CEO







MISSION & VISION

Colorado Clean Energy Fund (CCEF) is a mission-first, nonprofit investment fund that fills existing financing gaps to accelerate clean energy adoption—but we are not a typical depository financial institution. CCEF is a green bank with energy expertise and flexible capital.

Our vision is a just and equitable transition to a decarbonized economy, with CCEF serving as the North Star for clean energy projects and collaborators across Colorado.



Our products and programs address gaps between Coloradoans and loan availability or approval, giving everyone equal access to the funding they need to make clean energy improvements in their homes and businesses.

Our goals are to prioritize underserved and vulnerable communities, alleviate energy burden, maximize green energy, and reduce greenhouse gas emissions.

Our Team

Staff



Paul Scharfenberger
Chief Executive Officer



Dave Harris
Chief Operating Officer



Heather Braithwaite
Chief Investment Officer



Katharine Rushton
Commercial Business
Director



Jeff King
Senior Business
Development Manager



Emily Richardson
Program Manager



Allie Madden
Marketing & Community
Engagement Manager

Board of Directors



Eric Drummond
Innovation Corridor



Jennifer Gremmert
Energy Outreach
Colorado



Will Toor
Colorado Energy Office



Keirstin Beck
Kroenke Sports and
Entertainment

Key Partners



COLORADO
Energy Office



**Impact
Development
Fund**

Our Journey to Becoming Colorado's Green Bank



2022

CCEF formally launched operations in late 2021 and by January 2022 had already financed its first commercial project in rural Colorado. The organization and team grew steadily throughout the year, launching and managing nearly a dozen loan products and programs. This foundational year for CCEF was an impactful one!

Grew from 1 to 7 Team Members
13 Commercial Projects Financed
400+ Residential Projects Financed
\$5.78 Million Deployed¹
\$118.2 Million Mobilized²
22 Financial Partners Engaged³
1:14 Public-to-Private Leverage Ratio
36 Jobs Created in Colorado

¹ Commercial investment capital deployed (\$4.91M) + 7.5% of RENU program amount supported (\$705K) + RENU Loan Loss Reserve (LLR) deployed since program migration in June 2022 (\$150K) + CCEF Solar Equity Loan deployed (\$18.5K)

² Total project size from CCEF commercial projects + RENU program amount supported (June 2022–December 2022)

³ Commercial project capital partners (19) + RENU program credit union partners (3)



Commercial Products



Our commercial loans are designed to address finance gaps for clean energy and energy efficiency improvements that result in reduced utility costs, reduced greenhouse gas emissions, increased electrification or electrification readiness, and increased renewable energy generation.

- Bridge Loan
- Energy Project Accelerator Loan (Energy PAL)
- Clean Energy C-PACE Loan
- Energy Service Agreement (ESA)
- Clean Conversion Loan
- HOA Loan
- Multifamily Affordable Housing Loan Suite



Residential Products



CCEF's residential products and programs are designed to help you, the Colorado homeowner, who is looking to have energy efficiency upgrades done on your home that will reduce utility costs, increase electrification and/or renewable energy generation, and more.

What Can You Finance?

- Solar PV & Solar Panel
- Space Heating & Cooling
- Battery Storage
- EV Charging
- Insulation & Air Sealing
- Water Heating
- Windows & Doors
- Energy Audit Costs
- Renewable Energy Feasibility Study Costs
- Engineering & Design Expenses
- Construction & Installation Costs
- Labor & Equipment
- Program, Permit & Closing Fees

RESIDENTIAL SPOTLIGHT



Colorado RENU Loan Program

The Colorado Residential Energy Upgrade (RENU) Loan is a statewide residential loan program sponsored by the Colorado Clean Energy Fund in partnership with Colorado-based credit unions. It makes home energy upgrades easy and affordable by offering low-cost, long-term financing for energy efficiency and renewable energy improvements.



\$9.4 million
Total Amount
Financed



2.4 MegaWatts
Installed Solar



444
Total Loans Closed
In 27 Counties



\$1 : \$13.3
Public \$ to Private \$
Leverage Ratio



Project Type
70% Solar, 30%
Energy Efficiency
Projects

RENU originated with the Colorado Energy Office in December 2017 to deliver affordable energy financing to homeowners. In June 2022, the program migrated to CCEF. Since the launch, RENU has provided:

- **2,328 loans closed**
- **\$43 million in financing**
- **46 counties served**

We're sincerely thankful for continued support of RENU!

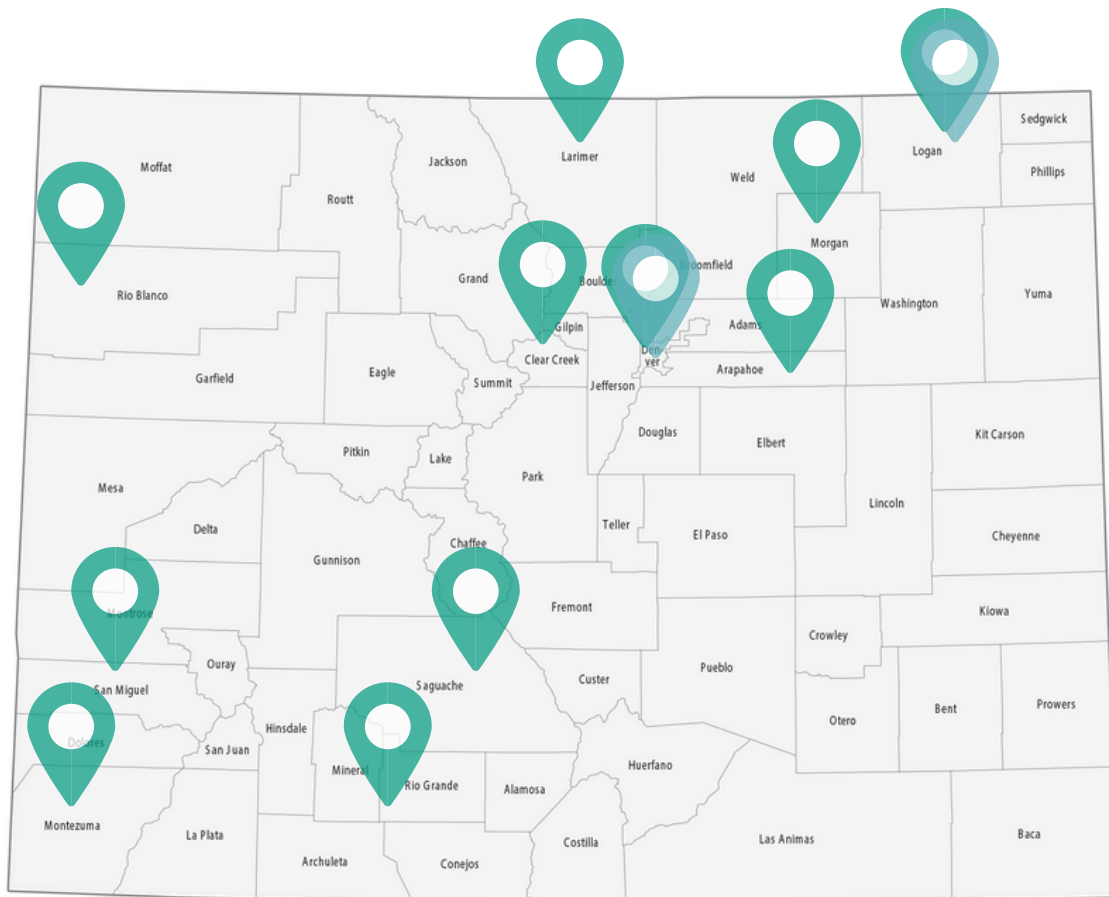
**2022 MARKED
5 YEARS OF
RENU!**

COMMERCIAL SPOTLIGHT



PROJECT MAP

CCEF's commercial projects spanned across the state in 2022. Eleven Colorado counties were served, with five projects based in Just Transition communities.⁴ In addition to geographic diversity, the organization's 2022 projects saw a mix of project types and measures financed. These included short-term bridge loans for energy efficient equipment upgrades, renewably powered micro-hydro power systems for farms, long-term loans for EV charging infrastructure expenses, and renewable energy and electrification of historic commercial buildings, to name a few.



⁴ https://cdle.colorado.gov/sites/cdle/files/documents/FINAL_OJT_Community_Funding_Guidance_11-21.pdf

PROJECT SPOTLIGHT

Ute Mountain Micro- Hydro Power Plant

Investment: \$366,000

Location: Towaoc, CO

Environmental Highlights

Agricultural Irrigation

Renewable energy-producing
micro-hydro technology

The Story

The Ute Mountain Ute Farm & Ranch Enterprise is a 7,700 acre irrigated farm owned and operated by the Ute Mountain Ute Tribe. They've been operating the Bow & Arrow Brand via the farm since the early 1960s, producing alfalfa, non-GMO corn, and cattle while practicing sustainable farming and using state of the art technology to grow and mill their crops.

CCEF funded an agricultural irrigation project utilizing renewable energy-producing, micro-hydro technology that will offset a material amount of operating costs for the tribe. This community experienced heavy shortfalls in its water supply over the last 2 years, which led to a major reduction in crop production, forcing 50% of employees to be let go (half of which were tribal members).

COVID severely affected the supply chain, and the Enterprise is still dealing with that in 2022. Since receiving funding in the summer of 2022, phase one—which includes two pivots—has been completed. These pivots have been installed and are operable, and the farm has been able to get a crop in and get it watered efficiently.

“It was nice to be able to put the turbines in, which meant making modifications to the water delivery box and the construction of a power house building,” says Simon Martinez, General Manager of the Ute Mountain Ute Tribe Farm and Ranch Enterprise and Bow & Arrow Brand, LLC. “We reinstalled the hydroelectric components and were able to finish up the engineering and commissioning components on these first two pivots.”

The enhancements from this project have allowed the farm to use their water more efficiently, and will produce cost savings in the long run. This hydropower project has decreased their electric bill and usage in addition to what they're saving through installed solar.

The project is in a rural area with limited access to capital. Indigenous, sovereign communities, such as the Ute Mountain Ute Tribe, are often presented with challenges to traditional/commercial lending practices. For CCEF, this was a perfect opportunity to fill a pressing gap in the market.



100 MT CO₂e

GHG Emissions
Avoided



140 MWh

Renewable Electricity
Generated



\$1,269

Public Health
Savings⁵



87 lbs.

Nitrogen Oxides (NO_x)
avoided

4 lbs.

Fine Particulate Matter
(PM 2.5) avoided

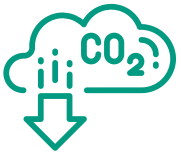
⁵ Public health savings calculated using the EPA COBRA tool using the weight of avoided air pollutants expected from each CCEF financed project.

ENVIRONMENTAL IMPACT



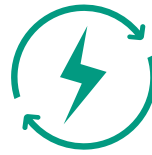
2022

YEAR IN REVIEW



4,595 MT CO2e

GHG Emissions
Avoided⁶



733 MWh

Renewable Electricity
Generated



7,597 MMBtu

Reduction in
Energy Use⁷



8,129 lbs.

Carbon Monoxide
(CO) avoided

770 lbs.

Nitrogen Oxides (NOx)
avoided

141 lbs.

Fine Particulate Matter
(PM 2.5) avoided

⁶ Includes CCEF 2022 commercial projects + Colorado RENU program solar projects from June 2022–December 2022. CO2e is calculated using global warming potential (GWP) values for CH4 and N2O. GWP values are taken from the IPCC AR-6 report.

⁷ Electricity Savings (kWh) = (Building SF * End use EUI) - ((Building SF * End use EUI) / (baseline efficiency / upgrade efficiency)).

PROJECT SPOTLIGHT

HiON Public Electric Vehicle Universal Fast Charging

Idaho Springs | Greenwood Village | Denver

Project Investment: \$1,483,595

The HiON EV projects were a set of three EV charging infrastructure projects across Idaho Springs, Greenwood Village, and Denver. These represented CCEF's first entry into supporting transportation electrification. HiON will be installing a total of 12 Level 3 (direct current or DC Fast Chargers), dual-port electric vehicle charging stations across the three sites. The stations will provide public and universal access for electric vehicle drivers across three high-traffic areas in Colorado.

The Colorado Energy Office, KeyBank, and Xcel Energy all collaborated with CCEF to provide a mix of direct funding, grants, and rebates to the HiON Group to get the three sites developed and installed.



7,927 lbs.

Carbon Monoxide
(CO) avoided

5 lbs.

Nitrogen Oxides (NOx)
avoided

92 lbs.

Fine Particulate Matter
(PM 2.5) avoided



259 MT CO₂e

GHG Emissions
Avoided



4,957 MMBtu

Reduction in
Energy Use



\$23,480

Public Health
Savings⁸

⁸ Public health savings calculated using the EPA COBRA tool using the weight of avoided air pollutants expected from each CCEF financed project.



SOCIAL IMPACT



2022

YEAR IN REVIEW



\$32,800
Public Health Savings⁹



258
Affordable Housing Units Upgraded with Energy Efficiency Measures



62%
Projects Financed in Priority Communities¹⁰



\$102,125,206
Capital Mobilized Towards Disproportionately Impacted Communities



⁹ Public health savings calculated using the EPA COBRA tool using the weight of avoided air pollutants expected from each CCEF financed project.

¹⁰ Priority Communities defined as Colorado regions that are low income, environmentally health burdened, and/or disproportionately impacted communities.

PROJECT SPOTLIGHT

Globeville Redevelopment Project

Project Investment: \$1,000,000

Globeville has a long history of environmental challenges, once recognized as the most polluted zip code in the U.S. The predevelopment funds provided by CCEF will create energy efficiency for a 200-unit affordable housing building and two inward-focused oases from the area's legacy of environmental burdens. To ensure viability for low and moderate income households, these units will be available at 30-80% Area Median Income (AMI).

The site will build upon a mixed-use theme, incorporating community facilities with affordable housing and offering neighborhood-facing community service spaces, including an early childhood center with a protected interior play area, a retail store focused on fresh, locally-sourced food (Globeville's first grocery store), and a new branch of the Denver Public Library.



219

Affordable Housing Units Upgraded with Energy Efficiency Measures



SHIL
ERS



ON THE HORIZON

2023



In 2023, CCEF aims to expand its geographic reach and support more projects for Coloradoans in underserved areas. Across residential, commercial, and transportation electrification, CCEF sets out to engage Disproportionately Impact Communities and Environmental Health Burdened Communities and to work with more financial partners to mobilize capital towards these areas in need. CCEF will be launching a number of programs and products that will help to address energy inequity for Colorado residents, in addition to playing a role in supporting initiatives being led by CCEF's strategic partners across the state. 2023 will be a year of expansion for CCEF and we look forward to working with collaborators throughout Colorado to address and mitigate climate change.

KEEP IN TOUCH

We want to hear from you!

Follow us on social media to get the latest from the Colorado Clean Energy Fund



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