

COLORADO ENERGY RESEARCH AUTHORITY



FINANCIAL REPORT

Year Ended December 31, 2019





Independent Auditors' Report

Board of Directors
Colorado Energy Research Authority
Boulder, Colorado

We have audited the accompanying balance sheet/statement of net position, and the statement of revenues, expenditures and changes in fund balance/statement of activities of the governmental activities and the major fund and the budgetary comparison statement of the Colorado Energy Research Authority as of and for the year ended December 31, 2019, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the governmental activities and the major fund of the Colorado Energy Research Authority as of December 31, 2019, and the changes in its financial position and the budgetary comparison for the year then ended, in conformity with accounting principles generally accepted in the United States.

Other Matter

Accounting principles generally accepted in the United States require that management discussion and analysis be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Anderson & Whitney, P.C.

August 11, 2020

MANAGEMENT DISCUSSION AND ANALYSIS

This section of the report provides readers with a narrative overview and analysis of the financial activities of the Colorado Energy Research Authority (the Authority) for the year ended December 31, 2019. We encourage readers to consider the information presented here in conjunction with the basic financial statements to enhance their understanding of the Authority's financial performance.

FINANCIAL HIGHLIGHTS

- The Authority's net position was \$6,600 at December 31, 2019.
- Senate Bill 2014-011 was signed by Governor Hickenlooper in May 2014 and \$1 million was transferred on July 1, 2014 and July 1, 2015 to a cash fund held by the Colorado Office of Economic Development that the Authority can apply to use to pay matching grant expenses. After July 1, 2019, the State Treasurer shall transfer any unexpended and any unencumbered monies remaining in the cash fund to the State General Fund.
- Expenditures in the amount of \$1,152,454 were incurred on matching grants and other expenses in 2019.

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements. The basic financial statements contain three components: (1) government-wide financial statements, (2) fund financial statements, and (3) notes to the financial statements.

Government-wide Financial Statements. The *government-wide financial statements* are designed to provide readers with a broad overview of the Authority's finances in a manner similar to a private sector business.

The *statement of net position* presents information on all of the Authority's assets and liabilities, with the difference between the two reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the Authority's financial position is improving or deteriorating.

The *statement of activities* presents information showing how the Authority's net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, revenues and expenses are reported in the statement for some items that will only result in cash flows in future fiscal periods.

Fund Financial Statements. A *fund* is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The Authority, like other local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The Authority has one governmental fund, a General Fund.

The basic governmental fund financial statements can be found on pages 10 and 11 of this report.

Notes to the Financial Statements. The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the financial statements can be found on pages 13 through 17 of this report.

Budgetary Comparisons. The Authority adopts an annual appropriated budget for the General Fund. A budgetary comparison statement has been provided for the General Fund on page 12 of this report.

GOVERNMENT-WIDE FINANCIAL ANALYSIS

Net Position. As noted earlier, net position may serve over time as a useful indicator of the Authority’s financial position. As of December 31, 2019, assets exceeded liabilities by \$6,600.

The following table provides a summary of the Authority’s net position:

December 31	2019	2018
Assets:		
Cash and Investments	\$6,600	\$ 860,227
Total Assets	6,600	860,227
Liabilities:		
Current liabilities	--	--
Total Liabilities	--	--
Net Position:		
Restricted	6,600	860,227
Total Net Position	\$6,600	\$ 860,227

The Authority’s net position represents a restricted net position of \$6,600 which may only be used to meet the Authority’s authorized purposes.

The following table indicates the changes in net position:

Years Ended December 31	2019	2018
Revenues:		
General revenue:		
Grants	\$293,230	\$273,677
Investment earnings	5,597	14,711
Total Revenues	298,827	288,388
Total Expenses	1,152,454	831,303
Decrease in Net Position	\$ (853,627)	\$ (542,915)

GOVERNMENTAL ACTIVITIES

Grant and other expenses were \$1,152,454 in 2019 as compared to \$831,303 in 2018. The level of grant funding varies from year to year based on several factors.

First, industry membership and related dues paid to Collaboratory centers has declined in each year since the recession of 2009. Second, the Collaboratory's commitment to match industry dues ended after three years per center, a policy that encourages the centers to develop self-sustaining models. Third, another \$2 million was authorized through SB 14-011 that allowed \$1 million to be deposited in 2015 and \$1 million to be deposited in 2016 through the Governor's Office of Economic Development and International Trade. No other funding from the State of Colorado has been authorized due to recent state budget cuts; however, the Collaboratory board members are working on a strategy in which to ask for future cost share funding. Fourth, the availability of federal research funding opportunities that align with the Collaboratory's areas of expertise have declined due to the uncertainty of the federal energy agency's directives such as the Department of Energy. The combination of these factors impacts the matching funds disbursed to the Collaboratory centers from year to year.

OTHER MATTERS

The following factors are expected to have a significant effect on the Authority's financial position and results of operations:

In accordance with House Bill (H.B.) 06-1322, CRS 24-47.5-101 et seq., State matching funds may be allocated to attract and support funding from federal and other public and private sources. The allocation of matching funds is to be directed to support one or more proposals of a consortium consisting of the Colorado School of Mines (CSM), Colorado State University (CSU), University of Colorado Boulder (CU), and the National Renewable Energy Laboratory (NREL). The research consortium formed by these four entities is the Colorado Energy Research Collaboratory (the Collaboratory). This 2006 legislation also provided for appropriations in the amount of \$2 million per year for three fiscal years, ending in June 2009.

On May 16, 2014, Governor Hickenlooper signed Senate Bill (S.B.) 14-011, CRS 24-47.5-101 et seq., to increase funding available to the Authority. State matching funds of \$1 million per year for two fiscal years ending in June 2016 will be appropriated to further the mission of the Authority. S.B. 14-011 also changed the name of the Authority from the Colorado Renewable Energy Authority to the Colorado Energy Research Authority, effective July 1, 2014.

For the first several years after the Collaboratory was launched in 2007, the Collaboratory's research centers were the focus of the Collaboratory's activities, attracting more than 52 industry members and employing state and industry funding to support more than 134 research projects. Beginning in 2010, with the Collaboratory's first U.S. Department of Energy (DOE) sponsored research, federal funding became an increasingly important part of the Collaboratory's portfolio.

The great majority of research funding opportunities for which the Collaboratory institutions jointly compete are issued by the U.S. Department of Energy (DOE), and, under DOE rules, most proposals for federal funding opportunity announcements (FOA) must be supported by private, state or local matching funds as “cost share,” covering 5-50% of the total cost of the research project. (In general, the closer the defined research goal is to actual commercialization, the higher the required percentage of cost share.) For the past five years, the state funding that has been appropriated to the Authority for the use of the Collaboratory has been employed primarily as cost share on FOA proposals that include at least two of the Collaboratory institutions.

The FOA proposals receiving Collaboratory cost share have been selected by DOE for funding at an exceptionally high rate of success, greater than 40%. In fact, although NREL, CSM, CSU and CU each have a rate of success well above average, none of these four institutions, standing alone, can match the success rate of the collaborative proposals receiving Collaboratory cost share support. This is concrete evidence of the value of collaborative research among outstanding researchers, and evidence of the excellent rate of return on the State of Colorado’s investment in the Collaboratory.

Between 2008 and 2015, the [Colorado Energy Research Collaboratory](#)'s state investment of almost \$8 million was leveraged to attract more than \$95 million in externally sponsored research, with an associated impact on the local economy of \$194 million. The Collaboratory released an eight-year analysis in September 2016, spanning 2008-2015, of the state of Colorado's return on investment for this uniquely productive, multilayered partnership. According to the analysis conducted by Brian Lewandowski, an economist at CU Boulder's Leeds School of Business, the initial state investment of \$7.96 million led to another \$96.6 million from industry, the U.S. Department of Energy (DOE), the National Science Foundation and other sources in support of Collaboratory research in years 2008-2015. The total impact constituted a return of 24:1 on the state's original \$7.96 million investment. In short, the state's investment in the Collaboratory has been "extraordinarily productive: economically, scientifically and technologically," according to the report. The Collaboratory is primarily a research organization, dedicated to creating and commercializing technologies for sustainable energy. Its collaborative, university-based, industry-supported structure was commended as a model for technology transfer efforts by DOE laboratories in a 2014 Brookings Institution report, [Going Local: Connecting the National Labs to their Regions for Innovation and Growth](#).

The names of the Collaboratory’s research centers reflected their areas of focus: the Colorado Center for Biorefining and Biofuels (C2B2), the Center for Revolutionary Solar Photoconversion (CRSP), the Center for Research and Education in Wind (CREW), and the Carbon Management Center (CMC). The federally funded research projects which have received Collaboratory cost share support emphasize these same research priorities: cellulosic biofuels; algal-derived biofuels; biorefining for industrial chemicals; developing “drop-in” biofuels that can be mixed and stored with petroleum based fuels; creating new, highly efficient photovoltaic cells; producing carbon fibers from biomass; studying the long term sequestration of carbon dioxide in deep geologic structures; and improving our ability to detect and reduce the emission of methane from natural gas operations.

Since the 2016 economic impact report, the Collaboratory has awarded an additional 41 projects involving the four Collaboratory entities. In 2019, the Collaboratory funded 15 projects totaling \$1,152,454. Progress reports are submitted by September 1 of each year to the Governor’s Office of Economic Development and International Trade. The funded projects were:

2019 projects awarded by Collaboratory

Identification	Category	Name of Project	PIs
Project #38-2018	Biofuels and Bioenergy	Food Waste to Bioplastics Precursors via Genetic Engineering of Waste Conversion Microbiomes	PI: Katherine J. Chou (NREL) Co-PIs: Susan De Long (CSU); Ken Reardon (CSU)
Project #40-2018	Efficient Buildings	Multi-Objective Deep Reinforcement Learning Control for Energy Efficient and Grid-Interactive Building Operation	PI: Andrey Bernstein (NREL) Co-PIs: Gregor Henze (CU); Emiliano Dall’Anese (CU); Peter Graf (NREL); Xin Jin (NREL)
Project #42-2018	Biofuels and Bioenergy	Integrating an Industrial Source and Commercial Algae Farm with Innovative CO ₂ Transfer Membrane and Improved Strain Technologies	PI: Ken Reardon (CSU) Co-PIs: Graham Peers (CSU); David Dandy (CSU); Travis Bailey (CSU); Lieve Laurens (NREL); Deanne Sammond (NREL); Ryan Davis (NREL)
Project #45-2018	New Materials and Fuel Cells	Electrolysis & Fuel Cells: Overall Research on Electrode Coating Processes	PI: Michael Ulsh (NREL) Co-PI: Svitlana Pylypenko (Mines)
Project #47-2019	Buildings	Commercializing Advanced Insulation Retrofits from Flexible Inexpensive Lucid Materials (AIR FILMs) for Window Applications	PI: Ivan Smalyukh (CU) Co-PIs: Robert Tenent (NREL)
Project #48-2019	Biofuels and bioproducts	Producing Algae for Co-Products and Energy (PACE)	PI: Anthony Marchese (CSU)
Project #49-2019	Natural gas	Computer Aided Design of a Spark Ignited Engine for Use in a High Efficiency SOFC-ICE Integrated Power Generation System	PIs: Bret Windom, Todd Bandhauer, Daniel Olsen – (CSU) Co-PIs: Robert J. Braun, Neal Sullivan, Tyrone Vincent - (Mines)
Project #50-2019	Solar	Enabling Industry Adoption of a High Reliability Low Cost Solar Module Technology	PI: Kurt Barth Co-PIs: Michael Kempe (NREL), W.S. Sampath (CSU)
Project #51-2019	Agriculture	Precision Agriculture using Networks of Degradable Analytical Sensors (PANDAS)	PI: Raj Khosla Co-PIs: Greg Whitting (CU); Ana Arias (UC-Berkeley)

GENERAL FUND BUDGETARY HIGHLIGHTS

The Authority's budget is prepared according to Colorado statutes.

Year Ended December 31, 2019	Original and Final Budget	Actual
Beginning Fund Balance	\$ 1,153,457	\$ 860,227
Revenue	298,230	298,827
Expenditures	(1,438,887)	(1,152,454)
Ending Fund Balance	\$ 12,800	\$ 6,600

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Authority's finances for all those with an interest in the Authority's finances. Questions concerning any of the information provided or for additional financial information should be addressed to the Authority, 3100 Marine Street, UCB 579, Boulder, CO 80309.

COLORADO ENERGY RESEARCH AUTHORITY

GENERAL FUND BALANCE SHEET/ STATEMENT OF NET POSITION

<u>December 31, 2019</u>	<u>General Fund</u>	<u>Adjustments</u>	<u>Statement of Net Position</u>
<u>ASSETS</u>			
Cash	\$ 6,600	\$ -	\$ 6,600
Investments	-	-	-
TOTAL ASSETS	\$ 6,600	-	6,600
<u>LIABILITIES</u>			
Accounts Payable	\$ -	-	-
<u>FUND BALANCE/NET POSITION</u>			
Fund Balance:			
Restricted for Clean Energy	6,600	-	6,600
Total Fund Balance	6,600	-	6,600
TOTAL LIABILITIES AND FUND BALANCE	\$ 6,600		
Net Position:			
Restricted for Clean Energy		6,600	6,600
TOTAL NET POSITION		\$ 6,600	\$ 6,600

See Accompanying Notes to Financial Statements.

COLORADO ENERGY RESEARCH AUTHORITY

STATEMENT OF GENERAL FUND REVENUE, EXPENDITURES, AND CHANGES IN FUND BALANCE/ STATEMENT OF ACTIVITIES

Year Ended December 31, 2019	General Fund	Adjustments	Statement of Activities
Revenue:			
Grant revenue	\$ 293,230	\$ -	\$ 293,230
Investment earnings	5,597	-	5,597
Total Revenue	298,827	-	298,827
Expenditures/Expenses:			
Matching grants	1,111,071	-	1,111,071
Audit and other	41,383	-	41,383
Total Expenditures/Expenses	1,152,454	-	1,152,454
Change in Net Position	(853,627)	-	(853,627)
Fund Balance/Net Position, Beginning of Year	860,227	-	860,227
FUND BALANCE/NET POSITION, End of Year	\$ 6,600	\$ -	\$ 6,600

See Accompanying Notes to Financial Statements.

COLORADO ENERGY RESEARCH AUTHORITY

BUDGETARY COMPARISON STATEMENT - GENERAL FUND

Year Ended December 31, 2019	Actual	Original and Final Budget	Variance
Revenue:			
Grant revenue	\$ 293,230	\$ 293,230	\$ -
Investment earnings	5,597	5,000	597
Total Revenue	298,827	298,230	597
Expenditures:			
Matching grants	1,111,071	1,432,987	321,916
Audit and other	41,383	5,900	(35,483)
Total Expenditures	1,152,454	1,438,887	286,433
Change in Fund Balance	(853,627)	(1,140,657)	287,030
Fund Balance, Beginning of Year	860,227	1,153,457	(293,230)
FUND BALANCE, End of Year	\$ 6,600	\$ 12,800	\$ (6,200)

See Accompanying Notes to Financial Statements.

COLORADO ENERGY RESEARCH AUTHORITY

NOTES TO FINANCIAL STATEMENTS

NOTE 1 - Summary of Significant Accounting Policies:

The accounting and reporting policies of the Colorado Energy Research Authority (the Authority) conform to accounting principles generally accepted in the United States. The following summary of significant accounting policies is presented to assist the reader in evaluating the Authority's financial statements.

Reporting Entity:

Pursuant to Colorado Revised Statutes (CRS) 24-47.5-102, the State created the Colorado Renewable Energy Authority to direct and administer the allocation of state matching funds of the Colorado Renewable Energy Collaboratory (the Collaboratory). House Bill 2006-1322 was signed by Governor Owens that provided funding for a new Colorado renewable energy research collaboration. Members of the Collaboratory are the U.S. Department of Energy's National Renewable Energy Laboratory, the Colorado School of Mines, Colorado State University, and the University of Colorado, Boulder.

With Senate Bill 2014-11, the name was changed to the Colorado Energy Research Authority. Appropriated funds will be held in a separate cash account held by the Colorado Office of Economic Development. Monies will only be distributed to the Authority to use as state matching funds after a written confirmation from one of the Collaboratory institutions that federal or private funding has been received for the project in an amount equal to or greater than the amount of the matching funds to be distributed.

After July 1, 2019, the State Treasurer shall transfer any unexpended and unencumbered monies remaining in this cash fund to the State general fund.

The Authority may:

- a. Promote the activities of the Collaboratory in order to increase the federal energy research funding and energy-related research funding;
- b. Promote rapid transfer of new technologies developed by the Collaboratory to the private sector to attract and promote clean energy businesses in Colorado;
- c. Develop educational and research programs for Colorado state colleges in collaboration with the Collaboratory that will translate into high-technology employment opportunities for Colorado students and residents;
- d. Become a regional resource and clearing house for clean energy information to be available to the general public and to engineering, architectural, and design professionals. The authority shall not construct a headquarters or building for its own use.

COLORADO ENERGY RESEARCH AUTHORITY

NOTES TO FINANCIAL STATEMENTS

NOTE 1 - Summary of Significant Accounting Policies – Continued:

Reporting Entity – Continued:

- e. Support development of the Collaboratory, including funding of any joint institute or other entity created by the Colorado School of Mines, Colorado State University, and University of Colorado, Boulder or the Collaboratory to jointly pursue clean energy research. A maximum of \$50,000 annually may be spent for this purpose.

The Authority is a body corporate and a political subdivision of the state. The powers and duties of the Authority are set forth in CRS 24-47.5-102 and the funding for the Authority is set forth in CRS 24-47.5-103. The Authority shall not be an agency of state government, nor shall it be subject to administrative direction by any department, commission, board, bureau, or agency of the state, except to the extent provided by the article.

The financial report of the Authority includes all of the integral parts of the Authority's operations. The Authority has determined that it has no financial accountability for any other agency which would require it to be in the reporting entity

Government-wide and Fund Financial Statements:

The Authority reports as a special purpose government engaged in a single governmental program. The government-wide financial statements (i.e., the statement of net position and the statement of activities) report information on all of the activities of the primary government. The effect of interfund activity has been removed from these statements. Governmental activities are supported by state appropriations.

Separate financial statements are provided for the General Fund. The General Fund is reported as a separate column in the financial statements.

Measurement Focus, Basis of Accounting, and Financial Statement Presentation:

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. State appropriations are recognized as revenues in the year for which they are received as a government-mandated nonexchange transaction. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

COLORADO ENERGY RESEARCH AUTHORITY

NOTES TO FINANCIAL STATEMENTS

NOTE 1 - Summary of Significant Accounting Policies - Continued:

Measurement Focus, Basis of Accounting, and Financial Statement Presentation - Continued:

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within a current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the government considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting.

State appropriations and interest associated with the current year are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when cash is received by the Authority.

The Authority reports the following major governmental fund:

The *General Fund* is the Authority's primary operating fund. It accounts for all financial resources of the Authority.

Net Position:

Net position represents the difference between assets and liabilities. Net position is reported as restricted when there are limitations imposed on its use either through the enabling legislation establishing the Authority or through external restrictions imposed by grantors, laws, or regulations of other governments.

The Authority first applies restricted resources when an expense is incurred for purposes for which both restricted and unrestricted net assets are available.

Capital Assets:

The Authority has no capital assets. Office space and equipment of the participating institutions is utilized by the Authority.

Investments:

Investments are stated at their fair value as of the financial statement date.

COLORADO ENERGY RESEARCH AUTHORITY

NOTES TO FINANCIAL STATEMENTS

NOTE 1 - Summary of Significant Accounting Policies - Continued:

Budget:

An annual budget for 2019 was adopted by the Authority's Board of Directors. The Budget is prepared on a basis consistent with accounting principles generally accepted in the United States. The fund level of classification is the level at which expenditures may not legally exceed appropriations. All annual appropriations lapse at year-end.

NOTE 2 – Contingencies and Commitments:

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries; and natural disasters. The Authority does not have specific insurance coverage beyond the insurance policies and risk management of the participating institutions.

In 1992, Colorado voters approved the Taxpayer's Bill of Rights (TABOR). The Authority believes that it is exempt from TABOR since it does not have the authority to levy taxes.

NOTE 3- Cash and Investments:

The Authority's bank accounts at year-end were entirely covered by federal depository insurance or by collateral held by the Authority's custodial banks under provisions of the Colorado Public Deposit Protection Act.

The Colorado Public Deposit Protection Act requires financial institutions to pledge collateral having a market value of at least 102% of the aggregate public deposits not insured by federal depository insurance. Eligible collateral includes municipal bonds, U.S. government securities, mortgages and deeds of trust.

State statutes authorize the Authority to invest in any banking institution within or outside the state.

The Authority's investment policy is not more restrictive than State statutes. The Authority's investments are concentrated in money market funds.

The Authority does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.
