



COLORADO

Energy Office

Department Performance Plan - FY 15-16

Mission Statement

The Colorado Energy Office's mission is to improve the effective use of all of Colorado's energy resources and the efficient consumption of energy in all economic sectors, through providing technical guidance, financial support, policy advocacy and public communications.

Department Vision

The Colorado Energy Office's vision is to help Coloradans live more prosperous and healthy lives by promoting innovative energy production and efficient energy consumption practices that are beneficial to the economic and environmental health of the state.

According to industry and governmental market reports, Colorado is a leading state in electricity production from wind and solar technologies. At the same time, Colorado continues to be a leading state in the production of natural gas and coal. Colorado has established itself as a diverse energy economy. Fostering and maintaining a diverse energy portfolio contributes to Colorado's economic health by stimulating business development and keeping long-term consumer costs low.

Energy efficiency is also an integral part of the state's economic health. Inefficient energy usage is a drain on business and household resources, diminishing profitability and quality of life, particularly for the economically disadvantaged.

As lower-emission energy resource options enter the market, the air quality of the state improves, directly benefitting the health of Colorado's residents. For example, replacing petroleum-based vehicles with compressed natural gas or electric vehicles can yield significant environmental and economic benefits for the state.

As Colorado's population grows from 5 million to an expected 8.1 million by 2040, demand and consumption of energy will continue to grow. Preparing for such growth accentuates the need for continued innovation in energy production and efficiency in energy consumption in order to maintain and improve Colorado's economic and environmental health.



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Department Description

In 2012, the Colorado Energy Office was restructured under HB 12-1315 to enable the State's energy office to build on Colorado's national reputation as a leader in clean energy and energy innovation and to enhance the office's ability to support innovative energy production, not only in the renewable energy sector, but also in the state's traditional sectors like natural gas. The legislation changed the office name to the Colorado Energy Office (CEO), secured funding for five years, required CEO to report to the Legislature annually via the SMART Act, and established two funds:

The Innovative Energy Fund is funded from severance tax dollars and can be used for promotion, research, development, commercialization and education — attracting innovative industry investments to the state; providing market incentives for efficient innovative energy products; assisting in the implementation of innovative efficiency projects; and aiding government agencies in innovative energy efficiency initiatives, and innovative energy policy development. Innovative energy is defined as “existing, new, or emerging technology that enables the use of a local fuel source, establishes a more efficient or environmentally beneficial use of energy and helps to create energy independence and security for the state.”

The Clean & Renewable Energy Fund is funded from General Fund dollars and can be used for attracting renewable energy industry investment to the state — assisting technology transfer into the market place for newly developed energy efficiency and renewable energy technologies; providing market incentives for the purchase and distribution of energy efficient and renewable energy products; assisting in implementation of energy efficiency projects throughout the state; aiding government agencies in energy efficiency initiatives; implementing of renewable energy technologies; and advancing of energy efficiency and renewable energy throughout the state.

The Office also receives state (Severance Tax), federal and utility funds dedicated to delivering residential energy efficiency services to income-qualified households, as well as an annual State Energy Programs award from the U.S. Department of Energy that is dedicated to specific energy efficiency initiatives.



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The Colorado Energy Office is structured into the following major program areas and functions:



The *Programs/Initiatives* area initiates and manages programs in support of CEO's mission – improving the efficient consumption of energy in Colorado's economic sectors (i.e. residential, commercial, agricultural and governmental), and reducing market barriers to energy investment and the deployment of effective and innovative energy technologies.

The *Weatherization Assistance Program* provides comprehensive energy efficiency retrofits aimed at reducing energy consumption and lowering energy costs for low-income households throughout all 64 counties of Colorado. The program utilizes a combination of Federal, State and utility funding to provide these no-cost retrofit services to households meeting an annual income requirement of 200% or less of the federal poverty level. CEO delivers the program services through contracts with nine regional weatherization service providers that conduct the energy retrofits. CEO coordinates the funding sources, establishes the performance standards, conducts technical and administrative training and performs compliance reviews of the service provider agencies.

The *Policy and Research* area conducts legislative analysis, facilitates regulatory reform, and engages in research initiatives in support of CEO's mission. The *Policy and Research* area works closely with CEO's Programs/Initiatives' area by providing research and analysis to assess market impacts and barriers to Colorado's energy markets, continually balancing economic and environmental objectives.

The *Finance and Operations* area is responsible for the management of CEO Accounting functions, budget and fiscal responsibilities. The Operations function focuses on continual process improvement and the responsible management of taxpayer dollars in order to maintain the fiduciary integrity of CEO. The



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Finance area provides the State with a portfolio of financing tools that enable businesses and consumers access investment dollars for capital improvements.

The *Communications* area supports CEO's mission and its programs through strategic messaging by providing accurate and timely energy information to various audiences through media outputs.

Strategic Policy Initiatives

The Colorado Energy Office's strategic policy initiatives form the overarching goals of the Office to improve the effective use of Colorado's energy resources while benefiting the economic and environmental health of the state. The following outlines CEO's strategic policy initiatives and one-year outcome goals.

Transportation Sector: Alternative-Fuel Vehicles

Colorado is positioned well to increase the adoption of alternative fuel vehicles, including compressed natural gas and electric. With Colorado's rich abundance of natural gas and citizens who value the preservation of the environment, Coloradans want the opportunity to make choices that can benefit both the economic and environmental health of the state. CEO's strategy to remove market barriers to alternative fuel adoption is to increase the number of publicly accessible alternative fueling stations along Colorado's major transportation corridors. This will reduce Coloradans' concerns about the driving distance from one station to another and increase the likelihood of alternative fuel vehicle purchases. Through two grant programs, Colorado is incentivizing the market with infrastructure grants. CEO's strategic policy initiative in the transportation sector is to:

Strategic Policy Initiative: Increase the sales of CNG fuel by 500% from 2.5 million gasoline gallon equivalents (GGEs) per year in 2013 to 13 million GGEs per year by June 30, 2018, and increase the electric vehicle (EV) market share for new light duty vehicles sold in Colorado from 0.62% in 2013 to 3% by June 30, 2020, diversifying transportation fuel use for all Coloradans.

Lead Goal: Through the ALT Fuels Colorado grant program administered by the Colorado Energy Office in partnership with the Regional Air Quality Council, Colorado will make awards to increase the number of publicly accessible compressed natural gas (CNG) fueling stations along Colorado's major transportation corridors by 9 stations by June 30, 2016, raising the total number of statewide CNG stations from 16 (prior to program inception) to 36 (FY15 + FY16) upon completion.



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Lead Goal: Through the Charge Ahead Colorado grant program administered in partnership by the Colorado Energy Office and the Regional Air Quality Council, Colorado will increase the number of electric vehicle (EV) charging stations located outside of the Denver Metro Area by 35 stations, raising the total number of stations outside of metro Denver from 109 to 144 by June 30, 2016.

To achieve these goals, CEO will conduct grant opportunities that will attract a pool of qualified applicants. With specified federal and state dollars, CEO will award selected applicants to install new CNG and EV stations and monitor and evaluate progress through the state's contract standards.

Buildings/Facilities Sector: Energy Efficiency and On-Site Clean Generation

Energy efficiency is an integral part of the state's economic and environmental health. Inefficient energy usage affects overhead costs for businesses and consumers. It also has an impact on the quality of the air. Reducing energy use reduces the amount of fuel burned. When businesses and consumers invest dollars to save on energy usage, they not only see immediate utility savings, they can increase the comfort of their homes and the value of their properties. Colorado is focusing efforts in four distinct segments: 1) economically disadvantaged residents to give them access to cost-effective improvements that will reduce their energy usage and improve the comfort of their homes; 2) new and existing home owners and real estate industry to give them access to energy information and resources to compare the value of energy efficiency in each home; 3) public buildings administrators, including schools, to provide energy management information, energy audits and technical assistance to achieve measurable savings; and 4) agriculture dairy and irrigation producers to provide energy audits and technical support that will reduce energy use. CEO's strategic policy initiatives in the buildings and facilities sector are to:

Strategic Policy Initiative: (Wildly Important Goal): Increase energy savings resulting from CEO's direct energy efficiency projects by 12.6% from 273,253 MMBtu in FY16 to at least 307,878 MMBtu by June 30, 2018.

Strategic Policy Initiative: Decrease Colorado's average annual residential energy use by 5% from 91 MMBTU in 2012 to 86 MMBTU by June 30, 2018.

Strategic Policy Initiative: Reduce the amount of household income expended by low-income households on energy from a baseline reduction in 2013 of 1.0%, on average, to a reduction of 1.5% by June 30, 2018.



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Lead Goal: Through Colorado's Energy Performance Contracting and Energy Savings for Schools programs, deliver introductory presentations to 44 public jurisdictions and related organizations (20/EPC, 24/schools) by June 30, 2016.

Lead Goal: Through Colorado's Energy Performance Contracting and Energy Savings for Schools programs, execute a Memorandum of Understanding to 22 public jurisdictions (10/EPC, 12/schools) by June 30, 2016.

Lead Goal: Through the Colorado Dairy and Irrigation Efficiency Program, complete energy audits for 80 Colorado producers (approximately 40 dairy farmers and 40 powered irrigators), and provide project implementation support for 48 producers (approximately 24 dairy farmers and 24 powered irrigators) by June 30, 2016.

Lead Goal: Through Colorado's Home Energy Efficiency program, increase the number of Colorado Springs builders participating in a CEO-sponsored technical assistance or building science program from 9 in FY 2015 to 15 by June 30, 2016.

Lead Goal: Through Colorado's Home Energy Efficiency program, complete 2,000 Home Energy Scores by June 30, 2016.

Lead Goal: Through Colorado's Home Energy Efficiency program, complete 9,000 Home Energy Rating System Index ratings for new homes sold by June 30, 2016.

Lead Goal: Through Colorado's Weatherization Assistance Program, install energy efficiency measures in 2,600 homes, yielding, on average, at least \$208 in annual savings per household (1.2% of income, on average), by June 30, 2016.

To achieve these goals, CEO will contract with external vendors or agencies to perform energy audits, energy ratings, trainings and energy retrofits. CEO will monitor and evaluate progress through the state's contract standards. CEO will conduct presentations and trainings to educate stakeholders and build partnerships. CEO will educate consumers through identified communication channels. CEO will perform quality assurance through the Colorado's Weatherization Assistance Program.



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Innovative Energy Production: Commercialization and Market Transformation of Emerging Energy Technologies

Colorado's diverse portfolio of electricity generation includes both traditional fossil fuel and a wide range of renewable energy resources. Through the Renewable Energy Standard, the state is a leader in the cost-effective transition to an electric generating portfolio, relying less on carbon-emitting resources. Over the past decade, Colorado has experienced the economic benefits of fostering clean energy technologies, as reflected by increased employment and capital investment, and other local economic benefits. CEO is focusing on the continued advancement of clean energy electric generation in the state, aiding in the commercialization of near-market-ready emerging technologies.

Strategic Policy Initiative: Increase generation from emerging clean technologies by 100% from 130,000 MWh in 2013 to 260,000 MWh by June 30, 2018, diversifying electricity generation for all Coloradans.

Lead Goal: Conduct a market assessment of micro-hydro potential for municipal water districts and commission a pilot project, demonstrating the potential and identifying barriers to the adoption of municipal micro-hydro by June 30, 2016.

Lead Goal: Conduct two studies to assess the market potential or to analyze market barriers for emerging clean technologies, identifying policies and next steps to enable project development by June 30, 2016.

Lead Goal: Complete a geothermal resource assessment and feasibility study for Rico, Colorado, enabling Rico to approach project developers and investigate financing options by June 30, 2016.

Lead Goal: Assist Clear Creek County in accessing technical and financial resources for a geothermal project, enabling Clear Creek in conduct drilling and additional testing by June 30, 2016.

Market assessments represent a means to commercialization/market transformation goals. As such, they will be designed and executed by working closely with key stakeholders to assure that the analysis is properly targeted and of greatest value to investors and other market movers. Further, a survey will be sent to targeted stakeholders to gather feedback on the value of the studies and assessments, and the feedback will be incorporated into strategies and future assessments, reflecting CEO's commitment to continuous improvement.



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CEO FY14-15 Performance Evaluation

The Colorado Energy Office was able to achieve the majority its goals. There are four areas that CEO was unable to attain due to factors beyond its control. CEO exceeded its goals in three areas:

- CEO awarded 20 more electric vehicle stations than targeted for the fiscal year. CEO was able to award these stations due to the flexibility in funding over the program's three-year period.
- CEO installed weatherization measures in 3,050 low-income homes versus 2,200 due to additional funding through the Department of Human Services for 400 units. The multi-family units are estimated at the beginning of the year and are not incorporated into the goal. The multi-family segment accounts for an additional 450 units.
- CEO completed 8,385 homes sold with a HERS index, exceeding the goal by 385.

CEO awarded 11 compressed natural gas stations instead of 14 stations. This was due to a smaller number of qualified applicants during the second funding round. (The response was relatively strong for the first round. The drop-off between rounds could be a reflection of temporarily low foreign oil prices combined with limited developer bandwidth while still constructing stations awarded during the first round.) CEO has revised its approach and projects that it will be able to award these three stations in FY15-16 along with the 6 it has already committed to award in FY15-16, totaling 9 as indicated in the program's lead goal.

The Home Energy Rating System (HERS) Index did not meet CEO's expectations. There are many factors in the market that can influence the pace at which the rating changes. The CEO goal was to improve the average HERS score on new homes by 5% from 59 to 56. The HERS score currently stands at 57. For the next fiscal year, CEO will continue its efforts to increase the number of new homes sold with a HERS rating through builder education and CEO's Mortgage Incentive program. In addition, CEO is initiating the use of the Home Energy Score, developed by the Department of Energy, for use in the existing housing market. This energy-scoring tool is part of a comprehensive home energy audit, which looks at the home's health, safety and durability issues. This score is easy for consumers to obtain, and it's economical; thus, CEO anticipates relatively quick adoption into the market.

The launch of the Colorado Commercial Property Assessed Clean Energy (CoPACE) program will now occur in the first part of FY15-16, with several counties formally on board day one. Colorado is slated to be the third statewide C-PACE program in the nation and will be uniquely structured. Due to this unique structure and complexity of legal and operational documents, the target launch date was delayed.



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Due to project financing challenges, CEO was not able to attain a commitment for the development of a pyrolysis-based, waste-to-energy project. Financing projects of this nature are contingent on many variables. While CEO was able to provide networking and technical assistance, the challenges with the project financing prevented the project from moving forward.