

Colorado Energy Office Q3 FY2018 Performance Evaluation (April 2018)

Strategic Policy Initiatives: The Colorado Energy Office (CEO) identified several strategic policy initiatives for FY2018 and beyond. For this performance evaluation, the Department has updated progress on the initiatives identified in its FY2018 Performance Plan that capture the Department's strategic and operational priorities, and reflect the overall direction as identified by Department leadership. The updates reflect data as of April 1, 2018. Additional detail for these and other strategic policy initiatives is available in the Department's Performance Plan, which may be accessed [here](#).

Transportation Sector: Alternative-Fuel Vehicles

Colorado plans to increase the adoption of alternative fuel vehicles including compressed natural gas and electric vehicles. 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.

SPI 1: Increase the sales of compressed natural gas (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 2.3% by June 30, 2018, diversifying transportation fuel use for all Coloradans.

Progress Outcome:

CNG: CNG fuel sales in Colorado increased from 5,815,863 GGEs in 2015 to 8,221,186 GGEs in 2016 to 9,664,149 GGEs in 2017 (Data source: DOR).

EV: Colorado had an estimated 8,138 EVs in the state in 2016, increasing new light duty vehicles sold in Colorado from 0.9% in 2015 to 1.2% in 2016 (Data source: DOR and Polk). In 2017, 4,156 EVs were sold in Colorado (up from 2,711 in 2016, representing a 53% increase in annual sales), increasing new light duty vehicles sold in Colorado to 2% in 2017.

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 is conducting grant opportunities that will attract a pool of qualified applicants. With designated federal and state dollars, CEO is making awards to install new CNG fueling and EV charging stations and will monitor and evaluate progress through the state's contract standards.

While CEO continues to support statewide development of the CNG market, CEO efforts are focused on specific geographical areas that represent gaps in Colorado's CNG transportation infrastructure. Due to the relatively low gas and diesel prices, the program continues to see significant caution with CNG infrastructure investment. CEO continues to adapt to these market forces as needed and may make more adjustments to its ALT Fuels Colorado program.

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 consumers and businesses. It also has an impact on the quality of the air. Reducing energy use reduces carbon emissions. When consumers and businesses invest dollars to save on energy usage, they not only see immediate utility savings, they can also 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) school administrators to provide energy management information, energy audits and technical assistance to achieve measurable savings; 3) public jurisdictions to provide information about energy performance contracting; and 4) agricultural producers to provide energy audits and technical support that will reduce energy use.

SPI 2: Increase energy savings resulting from CEO's direct energy efficiency projects by 14.6% from a goal of 151,265 MMBtu in FY2016 to at least 173,378 MMBtu by June 30, 2018.

CEO's direct energy efficiency projects, including the following programs, will result in energy savings: 1) Low-Income Energy Services; 2) Energy Performance Contracting (EPC) for public buildings; 3) Energy Savings for Schools; and 4) Agricultural Energy Efficiency. Progress data is captured on an annual basis.

Progress Outcome: Progress data is captured annually. CEO will report on annual energy savings for its four programs by mid-July 2018.

SPI 3: Increase average low-income household energy cost savings by 50% from \$200 in 2013 to \$300 by June 30, 2018.

Progress Outcome: In partnership with the Colorado Department of Human Services and the U.S. Department of Energy, CEO contracts with local agencies to provide low-income residences access to cost-effective improvements that will reduce their energy usage and

improve the comfort of their homes. In FY2017, the program saved 31,828 MMBtu and achieved a \$60 annual increase in energy cost savings, raising its average low-income household annual energy cost savings to \$260. Progress is captured on an annual basis. The next update will be provided by mid-July 2018.

To achieve these goals, CEO is contracting with external vendors and agencies to perform energy audits, ratings, trainings, and cost-effective retrofits and solar installations. CEO is monitoring and evaluating progress through the state's contract standards. CEO is conducting presentations and trainings to educate stakeholders and build partnerships; educating consumers through identified communication channels; and performing quality assurance through the Colorado's Weatherization Assistance Program.

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. CEO is focusing on innovation, including the continued advancement of clean energy electric generation in the state and aiding in the commercialization of near-market-ready emerging technologies.

SPI 4: Assist clean technology developers to increase annual generation of emerging technologies by 100% from 130,000 MWh in 2013 to 260,000 MWh by 2018, and increase the capacity of hydropower by 16% from 209 MW in 2010 to 242 MW by 2018.

Progress Outcome:

In 2013, electricity from emerging energy technologies totaled 135,377 MWh, which increased by 78% to 240,755 MWh in 2016 (2017 data will be available by the end of Q2 2018). Hydropower capacity increased by 15% from 209 MW in 2010 to 239.74 MW in 2017.

Market assessments represent a means to commercialization and market transformation goals. To investigate the opportunities that may increase generation from clean energy technologies, market assessments are being designed and executed by working closely with key stakeholders to assure that the analysis is properly targeted and of the greatest value to investors and other market movers.

Operational Measures
SPI 1: Alternative Fuel Vehicles - Diversifying transportation fuel use for all Coloradans
Major Program Area – Programs and Initiatives
Process – Grant funding rounds and outreach

Measure	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	FY18 Total	1-Year Goal	3-Year Goal
Publicly accessible compressed natural gas fueling stations awarded	N/A	11	4	0	0	0	0		0	3	3
Number of CNG gallon equivalents committed to by fleet owners in awarded CNG station proposals	N/A	1,995,164	1,441,399	0	0	0	0		0	175,000	175,000
*Electric vehicle charging stations installed outside of Denver Metro	17	42	51	28	*0	4	3		7	20	20
**Number of applications received	N/A	30	30	31	**14	7	19		40	40	40
Number of EV Wired Workplace events	N/A	N/A	4	4	1	0	0		1	12	12
Number funding rounds through RFAs	3	3	3	3	1	1	1		3	3	3

Note: The 3-year goal is a projected annual goal, not a cumulative goal.

*CEO will be reporting on electric vehicle charging stations installed moving forward as opposed to awarded as it has in the past

**CEO will be reporting on the # of applications received moving forward as opposed to the # of stations proposed as it has in the past

CEO is focused on geographical areas along major highway corridors to complete CNG transportation corridor infrastructure. To provide greater flexibility for potential developers, the program continues to accept station proposals on a rolling basis. Due to the relatively low gas and diesel prices, the program continues to see significant caution with CNG infrastructure investment. In fact, CEO no longer expects to receive any CNG proposals for the remainder of

FY2018. This is counter to what has been communicated to CEO previously by CNG station developers and provides additional weight to the argument for CEO to modify its CMAQ grant program to provide grants to standalone EV fast-charging stations and propane fueling stations. These actions will allow CEO to remain responsive to the alt fuels market. Further, Refuel Colorado, CEO's fleet-coaching program, will continue to provide public and private fleets across Colorado with timely and concise information pertaining to investment opportunities for alternative fuels and with a goal of increasing local demand for CNG fueling infrastructure.

Charge Ahead Colorado grant awards are made three times a year. For round 1 in Q1 FY2018, CEO received 14 applications for 32 stations. From these applications, CEO issued 5 awards to install 1 DC Fast charger and 7 level II multi-port EVSE charging stations. These projects are currently underway and CEO will report on electric vehicle charging stations installed moving forward. For round 2 in Q2 FY2018, CEO received 7 applications, and for round 3 in Q3 FY2018, CEO received 19 applications for 54 level II and 9 DCFC stations. Based on the station installations that are expected to occur in Q4 FY2018, CEO is confident that it will achieve its goal of installing 20 EV stations outside of the Denver Metro area.

CEO continues to focus on workplace charging since most people with EVs will charge their vehicles at home or work. CEO is working with its Refuel Colorado fleet coaches to target identified companies and it issued 1 wired workplace award in Q1 FY2018. CEO will continue to promote the use of workplace charging as national data indicates that employees are six times more likely to purchase an EV at organizations with charging stations.

SPI 2: Energy Efficiency and On-Site Clean Generation – Energy Savings resulting from CEO’s direct energy efficiency projects
Major Program Area – Programs and Initiatives
Process – Energy audits and presentations and MOU execution

Measure	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	FY18 Total	1-Year Goal	3-Year Goal
Energy audits performed for Colorado producers	N/A	12	64	60	0	22	18		40	60	60
Number of applications received for Colorado Agricultural Energy Efficiency Program	N/A	N/A	84	71	17	19	14		50	70	70
Partner contributions leveraged from CEO's Regional Conservation Partnership Program partners	N/A	N/A	N/A	\$275,000	\$0	\$0	\$250,000		\$250,000	\$275,000	\$275,000
EPC MOUs	N/A	9	7	5	5	4	1		10	12	12
Number of preliminary presentations before MOUs	N/A	19	17	31	15	6	10		31	24	48
ESS MOUs	N/A	4	21	18	0	6	6		12	18	18
Number of preliminary presentations before MOUs	N/A	24	31	31	4	10	15		29	24	48

Note: The 3-year goal is a projected annual goal, not a cumulative goal.

CEO’s Agricultural Energy Efficiency Program is on target to meet its operational goals for FY2018. The program has availed itself to a variety of agricultural operations who are energy intensive and application submissions are ahead of schedule. CEO has experienced slower than expected production of MOUs within the ESS program and has been reevaluating if it should dedicate more resources towards meeting its ESS goal or instead focus more of its efforts on its EPC goal, but March proved to be a highly successful month in terms of procuring ESS MOUs. As such, CEO will continue to monitor its efforts in both markets to determine how to optimally allocate its time and resources.

SPI 3: Energy Efficiency and On-Site Clean Generation – Low-Income Energy Burden
Major Program Area – Weatherization Assistance Program
Process – Inspection of sub-grantee closed housing units

Measure	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	FY18 Total	1-Year Goal	3-Year Goal
Energy efficiency measures performed on low-income eligible homes	2,925	3,050	2,969	2180	239	332	*257		*828	1,750	2,000
Percent of home retrofits meeting or exceeding performance standards for weatherization	100%	100%	100%	100%	100%	100%	100%		100%	100%	100%

Note: The 3-year goal is a projected annual goal, not a cumulative goal.

***The # of completed housing units is reported on the 15th of the following month. Therefore, Q3 FY2018 figures contain housing units completed in January and February, but not March 2018. As such, Q3 FY2018 figures will be updated for the Q4 FY2018 Performance Evaluation Report.**

The Weatherization Assistance Program inspects 5% of Colorado weatherized homes for quality assurance. The program’s numbers are reported a month after installations. Based on historical data and seasonal projections, the Weatherization Assistance Program is tracking to meet its FY2018 operational goals.

SPI 4: Innovative Energy Production - Emerging Energy Technologies
Major Program Area – Policy and Research
Process - Market assessments to analyze opportunities and barriers and targeted outreach to enable project implementation

Measure	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	FY18 Total	1-Year Goal	3-Year Goal
Pressure-reducing valve (PRV) hydropower webinars for water utility stakeholders	N/A	N/A	N/A	3	0	0	0		0	2	N/A
Number of stakeholders attending	N/A	N/A	N/A	22	0	0	0		0	12	N/A
Customer/developer commitment for a recycled energy project secured	N/A	N/A	N/A	1	0	0	0		1	1	N/A
Number of contacts with recycled energy stakeholders	N/A	N/A	N/A	50	0	11	28		39	20	N/A

Note: The 3-year goal is a projected annual goal, not a cumulative goal.

CEO's Policy and Research unit conducts market assessments to determine opportunities and barriers for emerging energy technologies and conducts targeted outreach to enable project implementation. These project assessments are prioritized each year based on the need for more information related to a promising emerging technology in Colorado. After assessments are completed, the office works with targeted stakeholders to gather feedback on project aspects that could be improved for future market assessments.

CEOs Policy and Research unit has adjusted its operational measures to align with its evolving funding and staffing environment. As such, some new operational measures have been adopted while others have been terminated (i.e. commitment to secure a customer/developer energy storage project). CEOs Policy & Research unit will hold a PRV hydropower webinar for water utility stakeholders in April and it is expected to be attended by at least 30 stakeholders.