

FY 2016-17 Annual Performance Evaluation (October 2017)

Strategic Policy Initiatives: The Colorado Energy Office (CEO) identified several strategic policy initiatives for FY 2017-18 and beyond. For this performance evaluation, the Department has updated progress on the initiatives identified in its FY 2016-17 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 October 1, 2017. 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

CEO works to increase the adoption of alternative fuel vehicles, including compressed natural gas (CNG) and electric vehicles (EV). CEO's strategy is to increase the number of publicly accessible alternative fueling stations along Colorado's major transportation corridors via infrastructure grants in order to reduce Coloradans' concerns about the driving distance from one station to another and increase the likelihood of alternative fuel vehicle purchases.

SPI 1: 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 EV market share for new light duty vehicles sold in Colorado from 0.62% in 2013 to 2.3% by June 30, 2018. **Progress Outcome (CNG):** CNG fuel sales in Colorado increased from 5,815,863 GGEs in 2015 to 8,221,186 GGEs in 2016. CNG fuel sales through June 2017 totaled 4,811,193 GGEs (Data source: DOR). **Progress Outcome (EV):** Colorado had an estimated 8,138 EVs in the state for 2016, increasing new light duty vehicles sold in Colorado from 0.9% in 2015 to 1.2% in 2016 (Data source: DOR and Polk). First and second quarter 2017 figures will be updated by the end of calendar year 2017.

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

Energy efficiency is an integral part of the state's economic and environmental health. As such, CEO manages various programs and direct energy savings projects that increase energy efficiency and savings for its end-users, including: 1) Agricultural Energy Efficiency; 2) Energy Savings for Schools; 3) Energy Performance Contracting (EPC) for public buildings; and 4) Weatherization Assistance.

SPI 2: Increase energy savings resulting from CEO's direct energy efficiency projects by 14.6%, from a goal of 151,265 MMBtu in FY 2015-16 to at least 173,378 MMBtu by the end of FY 2017-18. **Progress Outcome:** Direct savings from CEO's energy efficiency programs was 78,409 MMBtus in FY 2016-17.

SPI 3: Decrease Colorado's average annual residential energy use by 5% from 91 MMBTU in 2012 to 86 MMBTU by June 30, 2018. **Progress Outcome:** CEO determined that it does not have sufficient control over the outcome of this performance metric and that it cannot track it in a timely manner and thus will not continue to use it moving forward.

SPI 4: 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. **Please note that CEO is modifying this SPI to reflect clearer language in FY 2017-18. **Progress Outcome:** Weatherization Assistance Program saved 31,828 MMBtus and achieved a .3% reduction of income expended on energy by low-income households; from 1.2 to 1.5%.

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 and aiding in the commercialization of near-market-ready technologies.

SPI 5: 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 45% to 196,318 MWh in 2014. The total decreased in 2015 to 159,851 MWh due to a temporary generator outage. Data for 2016 will be available in November 2017. Hydropower capacity increased by 15% from 209 MW in 2010 to 239.5 MW in 2016. Data for 2017 will be available in March 2018.

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	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	FY17 Total	1-Year Goal	3-Year Goal
CNG fueling stations awarded	N/A	N/A	11	4	0	0	0	0	0	6	5
CNG gallon equivalents committed to by fleet owners in awarded CNG proposals	N/A	N/A	1,995,164	1,441,399	0	0	0	0	0	175,000	175,000
EV charging stations awarded (non-Denver metro area)	17	17	42	51	4	7	20	-3	28	18	20
# proposed stations	N/A	N/A	30	30	18	10	62	0	90	40	40
# EV Wired Workplace events	N/A	N/A	N/A	4	1	0	0	3	4	12	12
# funding rounds via RFAs	1	3	3	3	1	1	1	0	3	3	3

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

Summary: CEO is focused on geographical areas along major highway corridors to complete CNG transportation corridor infrastructure via its ALT Fuels Colorado Program. Due to the relatively low gas and diesel prices, the program continues to see significant caution with CNG infrastructure investment; however, several proposals for new stations and station renovations are expected by end of the calendar year 2017. CEO continues to adapt to these market forces and is evaluating additional adjustments to make to its ALT Fuels Colorado program. Charge Ahead Colorado (EV) granted awards to 28 stations in FY 2016-17, exceeding its annual goal of 18. In FY 2017-18, CEO will focus on workplace charging since most people with EVs will charge their vehicles at home or work. 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 presentation and MOU execution

Measure	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	FY17 Total	1-Year Goal	3-Year Goal
Audits performed for CO Ag. producers	N/A	N/A	12	64	0	18	19	23	60	60	60
# applications received	N/A	N/A	N/A	84	5	36	14	16	71	70	70
Partner contributions leveraged	N/A	N/A	N/A	N/A	\$5,000	\$250,000	\$0	\$20,000	\$275,000	\$275,000	\$275,000
EPC MOUs	N/A	N/A	9	7	0	3	1	1	5	12	12

# preliminary presentations before MOUs	N/A	N/A	19	17	7	2	8	14	31	24	48
ESS MOUs	N/A	N/A	4	21	2	5	8	3	18	18	18
# preliminary presentations before MOUs	N/A	N/A	24	31	4	16	6	5	31	24	48

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

Summary: CEO's Agricultural Energy Efficiency Program met its goal of 60 audits. Due to the aggressive outreach conducted this year, 6 are on the waiting list for FY 2017-18. To date, 26 producers have implemented projects saving nearly 1,400 MMBtu per year. Another 36 producers are in the process of implementing improvements. The ESS Program met its annual MOU goal, and EPC fell short. This impacted CEOs SPI2 Progress Outcome because EPC contributed the largest portion of CEOs potential direct energy savings and the EPC Program did not secure large projects in FY 2016-17.

SPI 3: Energy Efficiency and On-Site Clean Generation – Residential Energy Use

Major Program Area – Programs and Initiatives

Process – Training, technical assistance and recruitment

Measure	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	FY17 Total	1-Year Goal	3-Year Goal
# Home Energy Scores completed	N/A	N/A	N/A	851	380	309	376	4,067	5,132	6,000	6,000
# qualified assessors recruited	N/A	N/A	N/A	59	10	0	3	1	14	60	60
Increase % of new homes in targeted areas (Colorado Springs and Grand Junction) with a HERS score from 14% in 2015 to 17% in 2017	N/A	N/A	N/A	N/A	14.11% YTD	14.70% YTD	13.71% YTD	14.89% YTD	15.23% YTD	17% YTD	-
# New homes sold with a HERS index rating	N/A	6,784	8,385	8,832	2656	2769	2189	1716	9330	9,000	12,000
# jurisdictions considering 2015 IECC adoption to receive training and technical assistance	N/A	N/A	N/A	N/A	0	2	6	4	12	7	7
# 2015 IECC, HERS, and builder technical trainings	N/A	42	67	76	0	6	17	25	48	30	30

Note: The 3-year goal is a projected annual goal, not a cumulative goal. Also, CEO eliminated an operational measure (# of real estate stakeholders that successfully completed training) due to incongruities for how it was being measured and tracked.

Summary: CEO's strategies to reduce energy use in the residential sector include integrating home rating systems into the home building, buying and selling processes, making it easier for consumers and realtors to compare and understand energy efficiency features. Through outreach and training, CEO works with real estate industry stakeholders to use and promote the Home Energy Score rating tool. CEO substantially increased the number of Home Energy Scores generated in Colorado in FY 2016-17 as compared to FY 2015-16 with 5,132 scores produced, but fell short of its annual goal. In FY 2016-17, CEO recruited 14 new Home Energy Score assessors, raising the total number of active assessors in the state to 35 active assessors at the end of FY 2016-17. CEO saw a lag from when candidates are recruited to when they become qualified assessors because they have six months to train for and pass the Home Energy Score exam.

CEO also worked with 12 jurisdictions to adopt the 2015 International Energy Conservation Code (IECC). A house built under the 2015 code is nearly 40% more efficient than one built under 2006. Further, CEO identified two regions—Colorado Springs/El Paso County and Grand Junction/Mesa County—to focus its efforts due to the volume of new construction compared to a low HERS penetration. CEO conducted training in Colorado Springs and Grand Junction and

provided technical to support builders in these areas. CEO's goal to increase the percentage of new homes with a HERS score to 17% is behind at 15.23%.

SPI 4: 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	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	FY17 Total	1-Year Goal	3-Year Goal
Energy efficiency measures performed on low-income eligible homes	7,087	4,137	2,925	3,050	2,969	331	386	454	1009	2,180	2,000	2,000
% of home retrofits meeting or exceeding performance standards for weatherization	100%	100%	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 Weatherization Assistance Program inspects 5% of Colorado weatherized homes for quality assurance. The program surpassed/met its annual goal both in terms of the number of homes that it weatherized and the % of home retrofits that met or exceeded weatherization performance standards.

SPI 5: Innovative Energy Production - Emerging Energy Technologies
Major Program Area – Policy and Research
Process - Market assessments to analyze opportunities and barriers

Measure	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	Q1 FY17	Q2 FY17	Q3 FY17	Q4 FY17	FY17 Total	1-Year Goal	3-Year Goal
# of Pressure-reducing valve (PRV) hydropower workshops	N/A	N/A	N/A	N/A	0	1	1	1	3	2	N/A
# of stakeholders attending	N/A	N/A	N/A	N/A	0	13	7	2	22	25	N/A
# Geothermal stakeholders to complete/release a strategy report	N/A	N/A	N/A	N/A	0	0	0	0	0	1	N/A
# of Colorado Geothermal Coalition meetings hosted	N/A	N/A	N/A	N/A	2	1	1	1	5	5	N/A
# Stakeholders to deploy a database of energy info for buildings	N/A	N/A	N/A	N/A	0	0	0	1	1	1	N/A
# Customer/developer commitments for a recycled energy project	N/A	N/A	N/A	N/A	0	0	0	1	1	2	N/A
Electric co-op partner on a feasibility study of a shared RE project	N/A	N/A	N/A	N/A	0	0	0	1	1	1	N/A

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

Summary: CEO's Policy and Research area exceeded its goal and hosted 3 PRV hydropower workshops that were attended by 22 stakeholders. The statewide geothermal strategy report has been drafted and will be formatted and released in FY 2017-18. A statewide databased of energy information for buildings was deployed and CEO obtained a commitment from a customer/developer for a recycled energy project. Recognizing that CEOs operational measures in this area fluctuate from year to year, CEO will seek to either adjust or eliminate this SPI and/or its related operational measures moving forward.