



**Strategic Policy Initiatives:** The Colorado Energy Office (CEO) has identified several strategic policy initiatives for FY 2015-16 and beyond. For this performance evaluation, the Department has updated progress on the initiatives identified in the FY2016 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 Dec. 31, 2015. 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 is well-positioned 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.

**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 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.

In 2013, CNG fuel sales in Colorado totaled 2,583,243 GGEs and increased to 5,648,589 GGEs in 2014. Data for 2015 will be available at the end of Q3 FY2016. CEO was unable to receive accurate data for electric vehicles this quarter. CEO plans to report on the progress of this goal in Q3 FY2016.

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 specified federal and state dollars, CEO is making awards to install new CNG and EV stations and will monitor and evaluate progress through the state’s contract standards.



Through the ALT Fuels Colorado program, CEO awarded four stations in the program's third funding round in August: Denver, Henderson, Rifle, and Gunnison. CEO has issued awards for a total of 15 CNG stations since the program's inception. The next funding round will take place in January 2016. Awards will be issued in March.

The Charge Ahead Colorado program made awards for 23 charging units in December. This brings the year's total to 43 EV charging stations, exceeding CEO's annual goal of 35 stations. Awards are based on available federal funds and demand for stations. The next funding round will take place in March.

**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 the amount of fuel burned. When consumers and businesses 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.

**SPI 2:** 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.

CEO's internal energy efficiency projects including the following programs will result in energy savings over the next two years: 1) agricultural energy efficiency; 2) energy performance contracting for public buildings; 3) Energy Savings for Schools; and 4) weatherization assistance. Progress data will be captured on an annual basis.

**SPI 3:** Decrease Colorado's average annual residential energy use by 5% from 91 MMBTU in 2012 to 86 MMBTU by June 30, 2018.

CEO's strategies to reduce energy use in the residential sector include integrating home rating systems into the home building process as well as the buying and selling process, making it easier for consumers and realtors to compare and understand energy efficiency features. Progress data will be captured on an annual basis.



**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.

In partnership with the Colorado Department of Human Services and the U.S. Department of Energy, CEO contracts with local agencies to provide economically disadvantaged residents access to cost-effective improvements that will reduce their energy usage and improve the comfort of their homes. Progress data will be captured on an annual basis.

To achieve these goals, CEO is contracting with external vendors and agencies to perform energy audits, ratings, trainings and retrofits. 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. 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. 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.

**SPI 5:** 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. In 2013, electricity from emerging energy technologies totaled 135,377 MWh, and increased by 45% to 196,318 MWh in 2014.

CEO completed two market research reports: Coal Mine Methane in Colorado and Colorado Recycled Energy Market Overview. The reports identify resource potential for the deployment of coal mine methane and recycled energy in Colorado and barriers to market. CEO will use this information to help deploy these technologies effectively.



Market assessments represent a means to commercialization and market transformation goals. To investigate the opportunities that may increase generation from energy clean technologies, market assessments are being 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.

**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 Contract Execution**

Measure	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	Q1 FY16	Q2 FY16	FY16 Total	1-Year Goal	3-Year Goal
<b>Publicly accessible compressed natural gas (CNG) fueling stations awarded</b>	N/A	N/A	N/A	11	4	0	4	9	4
Number of funding rounds through RFAs	N/A	N/A	N/A	2	1	0	1	2	2
Percent of contracts issued within 30 days after awarded	N/A	N/A	N/A	100%	100%	0%	-	100%	100%
<b>Electric vehicle (EV) charging stations awarded outside of the Denver Metro Area</b>	N/A	13	21	50	20	23	43 goal exceeded	35	35
Number funding rounds through RFAs	N/A	1	3	3	1	1	2	3	3
Percent of purchase orders issued within 30 days after awarded	N/A	N/A	N/A	100%	100%	N/A	100%	100%	100%



The last ALT Fuels Colorado grant awards were made in August. ALT Fuels funding rounds are scheduled semi-annually in July and January between 2014 and 2017. The second annual funding round opened on Jan. 4 and proposals are due on Feb. 2. Awards are slated for early March. Charge Ahead Colorado awards are made three times a year. The last funding round was in November with 23 awards made in mid-December. The program has a total of 43 stations. CEO has exceeded its annual goal of 35. The structure of the program allows for flexibility in station awards based on available federal funding and station demand. The next funding round for the Charge Ahead Colorado program is scheduled for March. In the second quarter, 0% of ALT Fuels Colorado contracts were issued within 30 days. CEO is assessing the process to determine how to streamline the process and achieve this operational measure.

**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	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	Q1 FY16	Q2 FY16	FY16 Total	1-Year Goal	3-Year Goal
<b>Energy audits performed for Colorado producers</b>	N/A	N/A	12	N/A	2	17	19	80	80
Percent of applications reviewed	N/A	N/A	N/A	N/A	100%	100%	100%	100%	100%
Percent of audits monitored for quality assurance (A minimum of 40%)	N/A	N/A	N/A	N/A	100%	100%	100%	40%	40%
<b>Introductory EPC presentations and MOUs</b>	N/A	N/A	N/A	19/9	2/1	3/3	5/4	20/10	24/12
Number of preliminary interactions before presentations/MOUs	N/A	N/A	N/A	38	5	9	14	40	48
<b>Introductory ESS presentations and MOUs</b>	N/A	N/A	N/A	24/4	6/0	5/2	11/2	24/12	24/12
Number of preliminary interactions before presentations/MOUs	N/A	N/A	N/A	48	12	15	27	48	48



Both the Energy Performance Contracting and Energy Savings for Schools programs use outreach and presentations to establish agreements (Memorandums of Understanding - MOUs) with districts and jurisdictions. Sometimes MOUs are executed without conducting presentations though a presentation is often the first step in securing an MOU. A signed MOU is a key indicator that an energy audit will take place and energy efficiency improvements will be implemented. A signed MOU also provides access to CEO’s technical support services. (Energy/MMBTu savings). In the second quarter, CEO monitored 100% of audits as CEO thought it was necessary to review all audits until they were prepared to CEO’s standard and contained no editorial or mathematical errors.

**SPI 3: Energy Efficiency and On-Site Clean Generation – Residential Energy Use**  
**Major Program Area – Programs and Initiatives**  
**Process – Training and recruitment**

Measure	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	Q1 FY16	Q2 F16	FY16 Total	1-Year Goal	3-Year Goal
<b>Home Energy Scores completed</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>27</b>	<b>231</b>	<b>258</b>	<b>2,000</b>	<b>10,000</b>
Number of real estate stakeholders that successfully completed training	N/A	579	1063	1242	26	61	87	1470	1,500
Number of qualified assessors recruited	N/A	N/A	N/A	N/A	23	7	30	85	250
<b>Colorado Springs builders participating in a CEO-sponsored technical assistance or building science program</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5</b>	<b>1</b>	<b>6 goal met</b>	<b>6</b>	<b>15</b>
Number of inquiries through Colorado Springs Utility partnership	N/A	N/A	N/A	N/A	0	11	11	10	20
<b>New homes sold with a Home Energy Rating System Index rating</b>	<b>N/A</b>	<b>N/A</b>	<b>6,784</b>	<b>8,385</b>	<b>1990</b>	<b>1454</b>	<b>3,444</b>	<b>9,000</b>	<b>12,000</b>
Number of Energy Code trainings	N/A	N/A	21	30	0	1*	1	50	50
Number of builder sales trainings	N/A	N/A	21	37	2	11	13	48	30

Up until FY16, the real estate stakeholder trainings focused on the Home Energy Rating System Index and the new home market. Due to several market barriers, Colorado found a better tool to address the existing home market. In September of FY16, Colorado launched the Department of Energy’s Home Energy Score specifically for the existing home market. The real estate training is now focused on the Home Energy Score. CEO is still working with HES



stakeholders to refine the reporting process and anticipates a quick ramp up in the number of home energy scores in the third quarter. Builder sales trainings and energy code trainings address the use of the Home Energy Rating System Index and how to seamlessly integrate HERS into the new home package.

\*CEO schedules the majority of building code trainings for the second part of the fiscal year. CEO is on track to meet this operational measure.

**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	Q1 FY16	Q2 FY16	FY16 Total	1-Year Goal	3-Year Goal
<b>Energy efficiency measures performed on low-income eligible homes</b>	<b>7,087</b>	<b>4,137</b>	<b>2,925</b>	<b>3,050</b>	<b>377*</b>	<b>324**</b>	<b>701</b>	<b>2,600</b>	<b>2,600</b>
Percent of home retrofits meeting or exceeding performance standards for weatherization	100%	100%	100%	100%	100%	100%	100%	100%	100%

The weatherization assistance program inspects 5% of Colorado weatherized homes (app. 2,600) for quality assurance. The program’s numbers are reported a month after installations.

\*\*December’s completed units are not reflected in this quarterly report.

\*This number reflects an updated Q1 number that includes September’s units.

The weatherization assistance program inspects 5% of Colorado weatherized homes (app. 2,600) for quality assurance. The program’s numbers are reported a month after installations. The number of completed units are reported the 15<sup>th</sup> of the following month.



**SPI 5: Innovative Energy Production - Emerging Energy Technologies**  
**Major Program Area – Policy and Research**

**Process - Market assessments to analyze opportunities and barriers**

Measure	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	Q1 FY16	Q2 FY16	1-Year Goal	3-Year Goal
<b>Micro-hydro assessment for municipal water districts and pilot project</b>	N/A	N/A	N/A	N/A	0	0	1	N/A
Number of water districts contacted	N/A	N/A	N/A	N/A	13	0	15	N/A
<b>Two studies to assess the market potential/ market barriers for emerging clean technologies</b>	N/A	N/A	N/A	N/A	1 goal met	N/A	1	1
Number of meetings with emerging technology stakeholders	N/A	N/A	N/A	N/A	5	N/A	5	5
<b>Geothermal resource assessment and feasibility study for Rico, Colorado</b>	N/A	N/A	N/A	N/A	0	0	1	N/A
Number of Rico geothermal stakeholders contacted	N/A	N/A	N/A	N/A	8	1	10	N/A
<b>Clear Creek County assistance in accessing technical and financial resources for a geothermal project</b>	N/A	N/A	N/A	N/A	0	0	1	N/A
Number of Clear Creek geothermal stakeholders contacted	N/A	N/A	N/A	N/A	7	1	10	N/A

CEO’s Policy and Research area conducts market assessments to determine opportunities and barriers for emerging energy technology. 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 complete, the office works with targeted stakeholders to gather feedback on project aspects that could be improved for future market assessments. CEO completed two market research reports the first quarter and will publish in the third quarter: Coal Mine Methane in Colorado and Colorado Recycled Energy Market Overview.