Strategic Policy Initiatives: The Colorado Energy Office (CEO) identified several strategic policy initiatives for FY 2016-17 and beyond. For this performance evaluation, the Department has updated progress on the initiatives identified in the FY 2017 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 September 30, 2016. 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. 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: Progress Outcome:

CNG: CNG fuel sales in Colorado increased from 2,583,243 GGEs to 5,648,589 GGEs in 2014, and increased slightly to 5,815,863 GGEs in 2015. The Colorado Department of Revenue has a three-month delay in releasing excise tax data. During January through June 2016, 3,961,606 GGEs were sold in Colorado. (Data source: DOR)

EV: As of April 2016, Colorado had 6,678 EVs in the state, increasing light duty vehicles sold in Colorado from 0.62% in 2013 to 1% in April 2016. CEO will report total 2016 EV numbers in March 2017. (Data source: DOR and Polk)

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.

CEO is focused on specific geographical areas to complete CNG transportation corridor infrastructure. In addition, to provide greater flexibility for potential developers, the program instituted a rolling grant period in September. Due to the relatively low gas and diesel prices, the program continues to see significant caution with CNG infrastructure investment. CEO is evaluating these market forces and may make more adjustments to its ALT Fuels Colorado program. With new legislation that will give EV consumers point of purchase tax credit savings effective January 2017, CEO anticipates a surge in EV sales.

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 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 14.6% from 151,265 MMBtu in FY16 to at least 173,378 MMBtu by June 30, 2018.
Note: CEO has modified its original SPI 2 goal (i.e. by 12.6% from 273,253 MMBtu in FY16 to at least 307,878 MMBtu by June 30, 2018) based on further analysis of the underlying assumptions used to establish the EPC baseline, concerning number and types of projects. The original projection included a period of stimulus funding from the American Recovery and Reinvestment Act that is not reflective of current program potential.

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

Progress Outcome: In FY 2016, CEO launched the Colorado Dairy and Irrigation Efficiency and Energy Savings for Schools Programs. These programs provide energy audits and technical assistance to producers and schools located in rural Colorado. Part of technical support includes connecting participants to various funding sources. The lag time between audits, access to financial support, and implementation has been longer than anticipated resulting in fewer completed projects. FY 2016 savings from these programs was 1,579 MMBTus. In FY

2017, CEO estimates that energy savings will be approximately 21,600 MMBTus for both programs. CEO's Energy Performance Contracting Program saw six groups execute energy performance contracts in FY 2016, resulting in 90,104 MMBTu savings, lower than the projected estimates. CEO has modified its long-term goal based on average number of executed projects per year as well as scopes of projects. CEO's Weatherization Assistance Program achieved its annual goal of 41,919 MMBTU in savings. In total, direct savings from CEO's energy efficiency programs was 133,602 MMBTus for FY 2016. (Data source: CEO contractor attested energy audits)

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:
According to data from the U.S. Energy Information Administration, Colorado's average annual residential energy use was 91 MMBtu in 2012, increased to 102 MMBtu in 2013, and fell to 99 MMBtu in 2014. CEO is assessing the factors that drove the increase and decrease. Specifically, CEO is looking at normalizing energy use (e.g., correcting for weather variations), and assessing if Denver's housing shortage (due to the large population influx) likely increased per household consumption. CEO will continue to assess this SPI metric and may identify changes that better reflect CEO's ability to impact energy use in Colorado's residential sector. There is an 18-month lag in data. (Data Source: EIA with Colorado Census)

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. Through outreach and training, CEO will secure agreements with real estate industry stakeholders to use and promote the Home Energy Score rating tool. CEO will coordinate with the weatherization assistance program to include a portion of scores for weatherized homes. CEO will continue to educate Colorado consumers about the value of increasing home energy efficiency and how to assist homebuyers with low-cost finance tools. CEO will work with identified jurisdictions to adopt 2015 International Energy Conservation Code. A house built under the 2015 code is nearly 40% more efficient than one built under 2006. 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.

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 economically disadvantaged residents access to cost-effective improvements that will reduce their energy usage and improve the comfort of their homes. CEO's annual energy savings for low-income household in its weatherization assistance program is 41,919 MMBTus. The next step is to convert these energy savings into dollars saved. (Data Source: CEO contractor attested energy audits)

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: 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 to 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, and modestly increased to 199,580 MWh in 2015. Small generators report to the U.S. Energy Information Administration (EIA) on an annual basis, and EIA has a 10-month delay in releasing generation data from small generators. (Data Source: EIA)

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 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
Publicly accessible compressed natural gas fueling stations awarded	**N/A**	**N/A**	**11**	**4**	0				**0**	**6**	**5**
Number of CNG gallon equivalents committed to by fleet owners in awarded CNG station proposals	N/A	N/A	1,995,164	1,441,399	0				0	175,000	175,000
Percent of contracts issued within 30 days after awarded	N/A	N/A	100%	100%	N/A					100%	100%
Electric vehicle charging stations awarded outside of Denver Metro	**13**	**21**	**50**	**53**	4				**4**	**18**	**20**
Number of applications received	N/A	N/A	30	30	6				6	40	40
Number of EV Wired Workplace events	N/A	N/A	N/A	4	1				1	12	12

Number funding rounds through RFAs	1	3	3	3	1				1	3	3
Percent of purchase orders issued within 30 days after awarded	N/A	N/A	100%	82%	100%				100%	100%	100%

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

ALT Fuels Colorado funding rounds were scheduled semi-annually in July and January between 2014 and 2017. The program initiated a rolling grant period in September 2016 that will give developers more flexibility in making grant proposals. CEO received three proposals during the first quarter but they lacked required information and will be submitted under the rolling bid period. Due to the relatively low gas and diesel prices, the program has seen significant caution with CNG infrastructure investment. CEO is evaluating the market conditions and may make additional adjustments to its program.

Charge Ahead Colorado awards are made three times a year. The first funding round for FY16-17 received six applications with four stations awarded. Through strategic outreach and partnership building, the program continues to receive interest from a pool of qualified applicants. CEO is focusing efforts on workplace charging due to the fact that most people with EVs will charge their vehicles at home or work. Additionally, national data indicate that employees are 20 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
Energy audits performed for Colorado producers	**N/A**	**N/A**	**12**	**64**	**0**				**0**	**60**	**60**
Number of applications received for the Colorado Agricultural Energy Efficiency Program	N/A	N/A	N/A	84	5				5	70	70
Partner contributions leveraged from CEO's	N/A	N/A	N/A	N/A	$5,000				$5,000	$275,000	$275,000

Regional Conservation Partnership Program partners											
EPC MOUs	**N/A**	**N/A**	**9**	**7**	**0**				**0**	**12**	**12**
*Number of preliminary presentations before MOUs	N/A	N/A	19	17	7				7	24	48
ESS MOUs	**N/A**	**N/A**	**4**	**21**	**2**				**2**	**18**	**18**
*Number of preliminary presentations before MOUs	N/A	N/A	24	31	4				4	24	48

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

Due to CEO renegotiating its contract with its technical provider for the Colorado Agricultural Energy Efficiency Program, it caused a three-month delay. As a result, fewer audits were completed in first quarter than anticipated. The contract includes an expedited six-month schedule to ensure the program meets its annual goal of 60 audits. The program is working with Colorado Department of Agriculture to release a funding round in October, significantly increasing the planned partner contributions. The EPC MOU goal is behind with the presentation goal ion track. CEO is placing a high priority on program outreach this year in order to secure the planned goal of 12 MOUS. 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). The ESS goals are slightly behind. CEO's technical contractor is pursuing an aggressive outreach campaign starting in October which should put the program back on track.

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**	**214**				**214**	**6,000**	**6,000**
Number of real estate stakeholders that successfully completed training	579	1063	1242	1470	0				0	1,500	1,500

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
Number of qualified assessors recruited	N/A	N/A	N/A	59	10				10	60	60
Increase the percentage 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	13.9%				13.9%	17%	-
New homes sold with a Home Energy Rating System Index rating	N/A	6,784	8,385	8,832	*1,772				*1,772	9,000	12,000
Number of jurisdictions that are considering adopting the 2015 International Energy Conservation Code that receive training and technical assistance	N/A	N/A	N/A	N/A	0				0	7	7
Number of 2015 IECC, HERS, and builder technical trainings	N/A	42	67	76	0				0	30	30

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

CEO modified its new homes/codes for FY 2017 to better reflect its impact on the market. CEO has 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. The new goal reflects CEO's direct impact on increasing the number of HERS scores. The training goal has been modified to include the range of training currently administered through CEO.

Up until FY 2016, 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. CEO continues to promote the value of the Home Energy Score through real estate industry training and outreach.

*This numbers reflects 2 months of the quarter. There is a one-month lag in reported data.

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 FY16	Q2 FY16	Q3 FY16	Q4 FY16	FY16 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**	***198**				***198**	**2,000**	**2,000**
Percent of home retrofits meeting or exceeding performance standards for weatherization	100%	100%	100%	100%	100%	100%				100%	100%	100%

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

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 15th 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	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	Q1 FY16	Q2 FY16	Q3 FY16	Q4 FY16	1-Year Goal	3-Year Goal
Pressure-reducing valve (PRV) hydropower workshops for water utility stakeholders	**N/A**	**N/A**	**N/A**	**N/A**	**0**				**1**	**N/A**
Number of stakeholders attending	N/A	N/A	N/A	N/A	0					N/A
Geothermal stakeholders to complete and release a statewide geothermal strategy report	**N/A**	**N/A**	**N/A**	**N/A**	**0**				**1**	**N/A**
Number of Colorado Geothermal Coalition meetings hosted	N/A	N/A	N/A	N/A	2				5	N/A
Local government stakeholders to design and deploy a database of energy information for Colorado buildings	**N/A**	**N/A**	**N/A**	**N/A**	**0**				**1**	**N/A**
Number of contacts with stakeholders	N/A	N/A	N/A	N/A	5				5	N/A
Colorado Recycled Energy Market Overview updated and a customer/developer commitment for a recycled energy project secured	**N/A**	**N/A**	**N/A**	**N/A**	**0**				**2**	**N/A**
Number of contacts with recycled energy stakeholder	N/A	N/A	N/A	N/A	7				10	N/A

Electric cooperative partner established on a feasibility analysis of a shared renewable energy project	**N/A**	**N/A**	**N/A**	**N/A**	**0**				**1**	N/A
Number of contacts with stakeholders	N/A	N/A	N/A	N/A	12				20	N/A

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

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.