


Colorado Energy Office

FY 2020-21 SMART Act Hearing
January 16, 2020
Will Toor, Executive Director




Colorado Energy Office

Mission

Reduce greenhouse gas emissions and consumer energy costs by advancing clean energy, energy efficiency and zero emission vehicles to benefit all Coloradans.

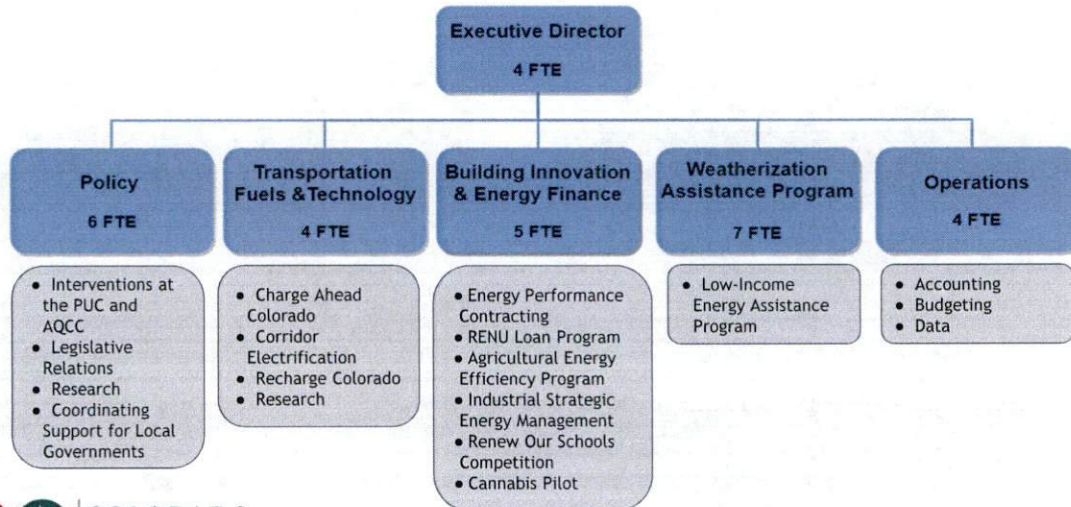
Vision

A prosperous, clean energy future for Colorado.

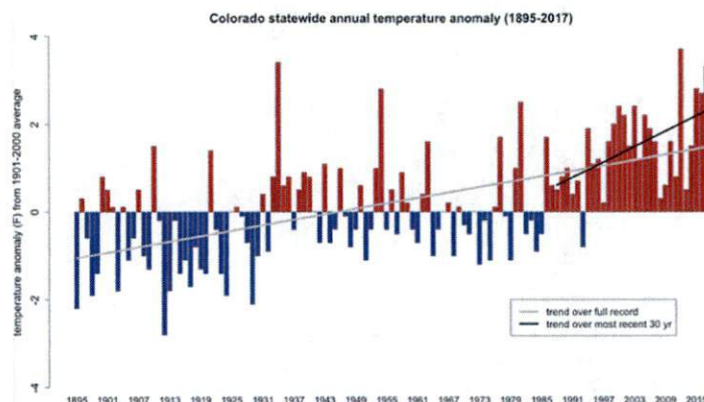


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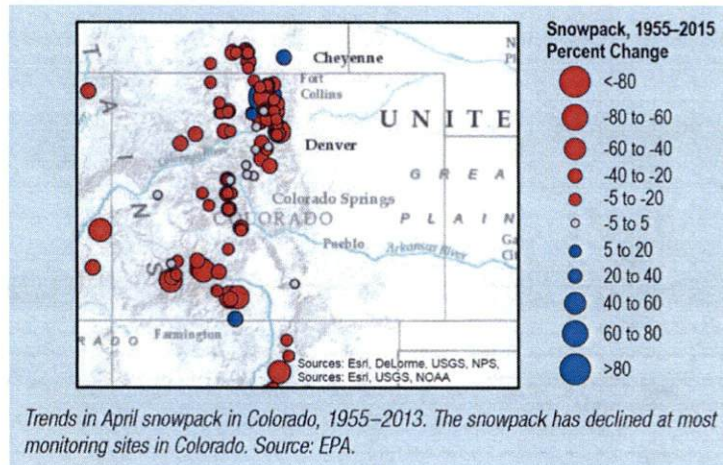
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Performance Environment: *The urgency of climate action*



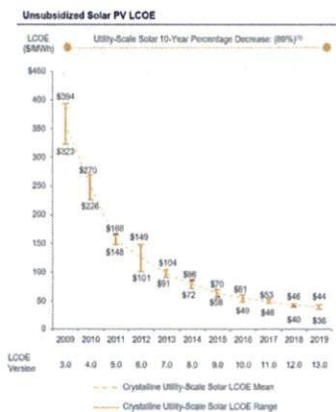
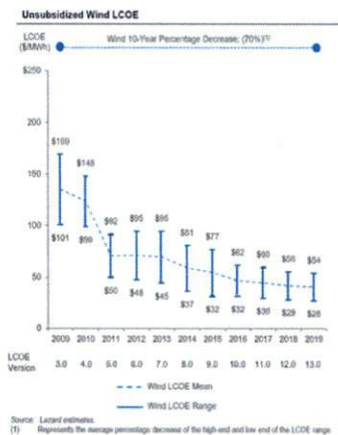
Performance Environment: *The urgency of climate action*



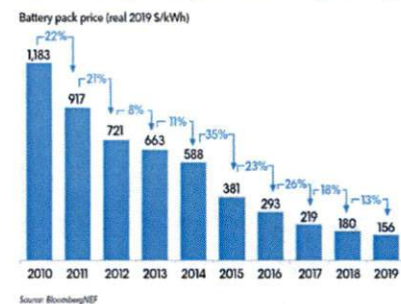
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Performance Environment: *Changing economics of wind, solar, batteries, and EVs*



Lithium-ion battery price survey results: Volume-weighted average




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Performance Environment: *Legislative and administrative direction*

THE BOLD FOUR



Tax Reform & Economic Development
Fiscal reform that serves hard-working Coloradans



Energy & Renewables
Set Colorado on a path to 100% renewable energy by 2040



Health
Reduce the cost of healthcare



Education & Workforce
Implement free full-day kindergarten for all and expand preschool

CEO FY 2019-20 Goals



Roadmap to GHG reductions & 100% renewable energy by 2040



Reduce emissions across the transportation sector



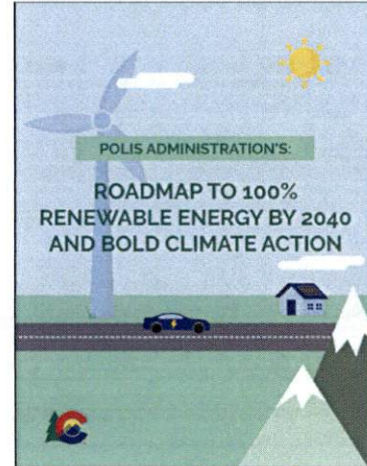
Support local community clean energy goals & promote clean energy economic opportunities



Increase access to energy improvements for homes & businesses

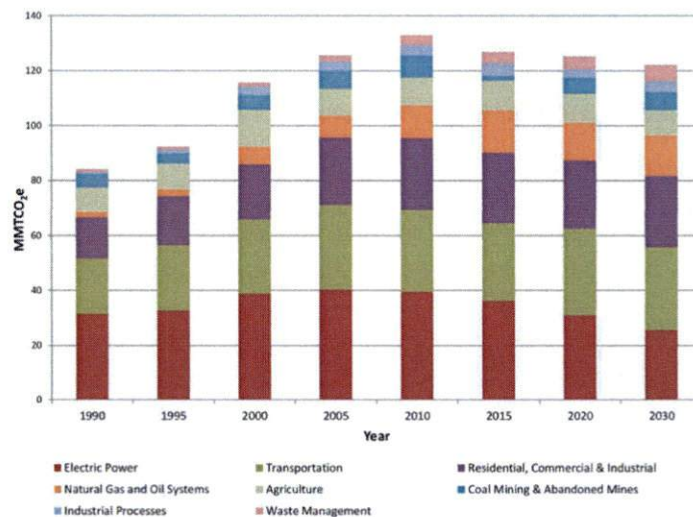
CEO Goal 1

Create a blueprint for pollution reduction to achieve 26% reductions in greenhouse gas (GHG) emissions below 2005 levels by 2025 and 50% reductions in GHG emissions below 2005 levels by 2030, and implement targeted strategies to achieve reductions in the electricity sector by June 30, 2020.



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Estimated Colorado GHG Emissions by Sector 1990-2030



CDPHE, GHG Inventory 2019

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CEO Implementation of 2019 Legislation

Engaging with PUC Proceedings

- Distribution system planning
- Tri-State ERP
- Interconnection
- Energy Market Study
- Performance-based Ratemaking
- Electric Rule Amendments
- Community Solar Garden Rules

Programs

- Modernizing the Electric Vehicle Grant Fund
- Updating Building Energy Codes
- Roadmap for GHG Reductions
- Housing Authority Property In Colorado - New Energy Improvement District [C-PACE]
- Just Transition from Coal-based Electrical Energy Economy
- SB 239 Study/Stakeholder Process



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Energy Related FY 2019-20 Research

- Beneficial Electrification Market and Decarbonization Potential
- Clean Fuels Standard Feasibility Study
- Floating Solar Study
- Electricity Rate Structures for Electric Vehicles
- Energy Efficiency Opportunities in Oil & Gas Operations
- The Future of Energy Storage in Colorado - Opportunities, Barriers, Analysis and Policy Recommendations



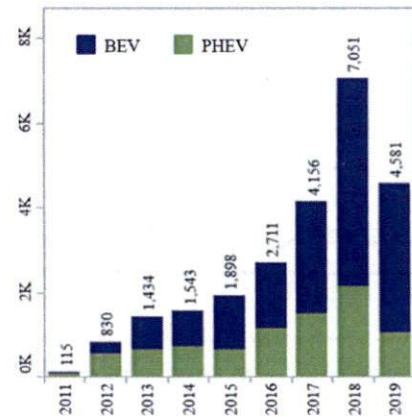
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CEO Goal 2

Increase the number of new light duty electric vehicles (EVs) sold on an annual basis from 4,156 in 2017 to:

- 10,500 by June 30, 2020
- 23,500 by 2022

Annual ZEV Sales (thru June '19)



Alliance of Automobile Manufacturers



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Community Based Charging & Electrifying Corridors

Charge Ahead Colorado

- Since 2013, CEO and RAQC have made awards for more than 1,000 stations
- In FY 2019, CEO made awards for 65 Level 2 and 8 DC fast-charging stations
- 13 of the entities awarded were local governments.
 - Town of Fraser
 - Pueblo County
 - Town of Mancos
 - San Miguel County
 - Larimer County
 - Town of Rico
 - City of Salida
 - Town of Frisco
 - City of Loveland
 - City of Fort Collins
 - City of Woodland Park
 - Eagle County Government
 - Town of Basalt

EV Fast-Charging Corridors



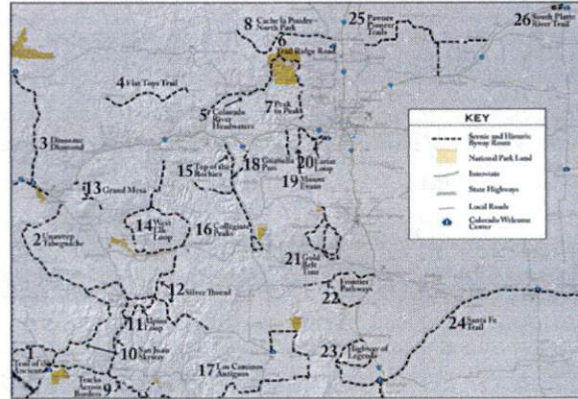
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Scenic Byway Electrification

- **Partners:** Colorado Tourism Office, CEO, CDOT, DOLA
- **Goal:** 5 byways electrified by FY21
- **Complete Byways:** Lariat Loop and Grand Mesa
- **1 DCFC short or already accessible for 200m+ range EVs:** Trail of the Ancients, Guanella Pass, Flat Tops Trail, Collegiate Peaks, Colorado River Headwaters, Highway of Legends, Mount Evans



CDOT, Scenic Byways Handbook

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Transportation Related FY 2019-20 Research

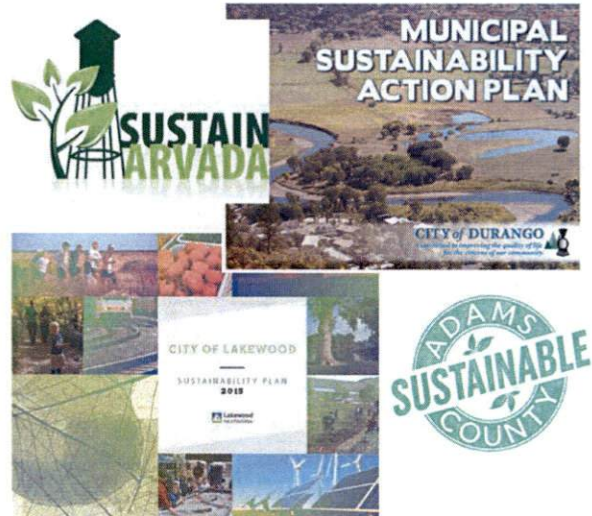
- Electric Vehicle Costs and Consumer Benefits in Colorado in the 2020-2030 Timeframe
- Xcel Energy Electric Vehicle Cost-Benefit Analysis
- DCFC Rate Design Study
- Colorado EV Growth Analysis
- Life-Cycle Emissions and Costs of Medium- and Heavy-Duty Vehicles in Colorado Market Study
- Renewable Natural Gas (RNG) in Transportation: Colorado Market Study



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CEO Goal 3

Ensure that at least 10 communities adopt an Energy Performance Contract, an EV readiness plan, a clean energy plan, or an advanced building code by June 30, 2020



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Additional CEO Goals

- Increase average annual customer cost savings for Weatherization Assistance Program (WAP) clients from \$330 to:
 - \$375 by June 30, 2020 and \$425 by June 30, 2022
- Increase the number of energy service projects implemented from 2,035 in FY 2017-18 to:
 - 2,243 by June 30, 2020 resulting in a projected GHG reduction of 22,000 tons
 - 2,750 by June 30, 2022 resulting in a projected GHG reduction of 30,000 tons
- Increase the amount of facilitated/closed financing from CEO partnered energy improvement programs in the buildings sector from \$37.1M in FY2017-18 to:
 - \$55M by June 30, 2020 and \$80M by June 30, 2022



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CEO 2020 Legislative Priorities

- Electric Vehicle Manufacturer Direct Sales
- Commercial Building Benchmarking and Transparency
- Utility Beneficial Electrification Programs
- JBC decision item for increasing CEO's legal appropriation for Department of Law



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