# State Outlook on Getting to 100% Renewable Energy





## About the Colorado Energy Office (CEO)



#### 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.



### **CEO** Structure

**Executive Director, Community Access**  Communications Executive **Deputy Director**  Human Resources **Enterprise** 8 FTE Environmental Justice 2 FTE Local Government Land Use **Transportation** Weatherization Strategic **Building Operations Policy** Initiatives & Fuels & Assistance Decarbonization 7 FTE 7 FTE **Technology Financing Program** 3 FTE **10 FTE** 8 FTE **15 FTE**  Building Codes Charge Ahead Energy Energy Efficiency Air Quality Benchmarking Colorado Efficiency Control Building Upgrades for EV Corridors **Financing** Commission & Income Qualified Performance EV Plazas Geothermal Accounting **Public Utilities** Standards Coloradans • EBike programs Industrial Budgeting Commission (PUC) Affordable Rooftop Solar Recharge **Fmissions**  Data Management Legislative Housing Beneficial Reduction Colorado Procurement Relations Residential Electrification • EV outreach and Carbon Research efficiency & Workforce education Management electrification Development Research Cannabis Energy Efficiency



## Major Components of Colorado's Climate Policy

Establish greenhouse gas inventory with 2005 baseline

Reduce GHG emissions 26% by 2025, 50% by 2030, and 100% by 2050

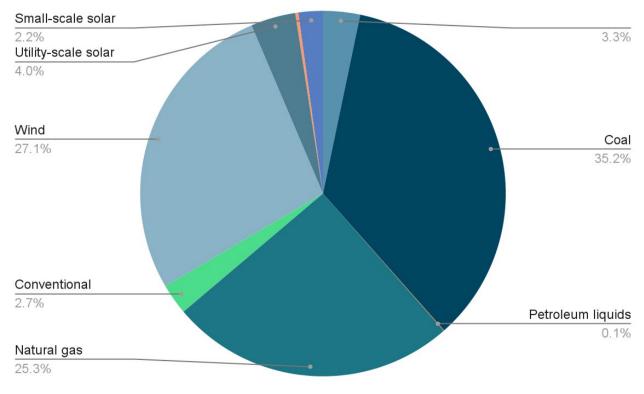
Develop rules and policies to reduce GHG emissions

Creates regulatory path for electric utilities to meet 80% GHG reduction by 2030

Requires annual tracking and reporting through CDPHE



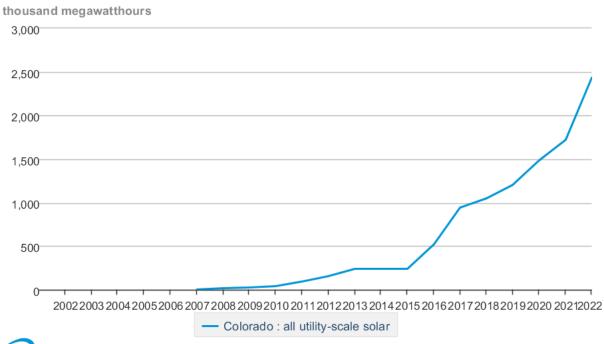
## Colorado Electricity Generation (2022)





## Colorado Solar Generation (2008-2022)

#### Net generation for electric power, annual







## Colorado's Clean Energy and Climate Policies

#### Clean energy legislation enacted

- 2019: 14 bills
- 2021: 31
- 2022: 26
- 2023: 25

#### Colorado's economy-wide GHG reduction goals, based on 2005 levels

- 26% by 2025
  50% by 2030
  65% by 2035
  75% by 2040
  90% by 2045
  100% by 2050 target



## Colorado's Climate Principles





## Colorado GHG Pollution Reduction Roadmap

- Worked with six of the state's utilities, which operate 99% of Colorado's fossil fuel-fired power plants, to create legally binding clean energy plans to reduce their greenhouse gas emissions by an average of 85% by 2030.
- Set first-in-the-nation requirements to reduce GHG emissions from natural gas utilities.
- Opened the nation's first statewide <u>Office of Just Transition</u> to support coal workers, employers, and communities affected by phase out of coal.
- Invested in statewide transition to electric vehicles (EVs), and adopted ZEV and ACT rules. Colorado is currently first in the region, fifth in the nation with EV market share.
- Established sector-wide emission reduction targets for buildings, and created building performance standards that apply to all commercial, multifamily, and public buildings 50,000 square feet and larger.
- Created or adopted first in the nation Transportation GHG Pollution Standard, rules for certain large industrial facilities to reduce their GHG emissions, and rules to reduce GHG emissions from oil and gas operations.



## Colorado GHG Roadmap 2.0

#### 2023: public engagement and updated analysis

• Interagency discussion on potential areas for consideration, including:

Expanded focus on environmental justice and just transition Expanded focus on 2030-2040 time horizon Housing Policy Carbon Management Technologies Hydrogen Technologies Geothermal Technologies

- Contracted with **Keystone Policy Center** to help organize and facilitate a public outreach and engagement process to inform the development of a detailed update to the State's greenhouse gas (GHG) pollution reduction roadmap
- Contracted with **RMI** for the development of a publicly available and updateable model that can be used to project greenhouse gas emissions reductions associated with state-level policy actions

2024: Release Roadmap and begin Near Term Actions



## IIJA and IRA

- Approximately \$250 million will flow through CEO
- CEO seeking competitive funding for hydrogen hubs, utility investments in wildfire detection and mitigation, energy codes, and building performance

## CEO reviewing federal guidance:

- High Efficiency Electric Home Rebate Program (HEEHRA)
- Home Energy Performance-Based, Whole Home Rebates (HOMES)



## energyoffice.colorado.gov @COEnergyOffice

