

D 2016-XXX

EXECUTIVE ORDER

Mitigating and Adapting to Climate Change

Pursuant to the authority vested in the Governor of the State of Colorado and, in particular, pursuant to Article IV, Section 2 of the Colorado Constitution, I, John W. Hickenlooper, Governor of the State of Colorado hereby issue this Executive Order setting greenhouse gas reduction goals for the state's power sector. This executive order further directs state agencies to incorporate additional climate change mitigation and adaptation strategies into their operations and planning to ensure execution of Colorado's 2015 Climate Plan, and directs state agencies to advance efforts to support the economic response and resilience of communities impacted by our nation's changing energy landscape.

I. Background, Need and Purpose

Coloradans have a unique appreciation for what is at stake in our natural environment. As a state, we recognize that clean air is essential to a strong Colorado. Clean air facilitates a healthy and productive citizenry, bolsters outdoor recreational activities, attracts highly-skilled workers and global companies, and helps diversify our economy. All of these things contribute greatly to the Colorado way of life.

Through a series of executive orders, landmark legislation, and other programs developed by state agencies, Colorado has expressed and acted upon its commitment to clean air. Our state has been a national leader in reducing energy consumption, advancing deployment of clean energy sources, and improving air quality. We have accomplished this while maintaining a commitment to preserving reliable, low-cost electric service for consumers. At the same time, the state is bolstering and aligning cross-agency efforts to provide economic development tools and other supportive services to communities impacted by our nation's changing energy landscape.

Colorado's private sector partners are also industry leaders. From 2009 to 2014, employment in Colorado clean technology industries grew by 29.1 percent-- more than 14 percent greater than the national average. In 2015, there were 2,070 cleantech companies operating in Colorado, and the industry supported 25,260 direct jobs and an additional 62,500 indirect jobs. These cleantech jobs provided \$3.6 billion in wages. Furthermore, Colorado is endowed with nearly 30 federal labs and research institutions that provide opportunity for partnership and collaboration on energy innovation and contribute an estimated \$2.3 billion to Colorado's economy annually.

Closely linked to our clean air goals is our commitment to mitigate and adapt to a changing climate. Globally the last two decades have been the warmest ever recorded, and nine of the 10 warmest years on record have occurred since 2002. In Colorado we have seen

temperatures rise an average of 2.5 degrees Fahrenheit in the last 50 years, and projections indicate temperatures will rise an additional 2.5 to 5 degrees Fahrenheit by 2050. Colorado's changing climate presents potential risks for all Coloradans.

- Greater air pollution will lead to a more hospital admissions and increased cases of respiratory illness;
- Changes in precipitation can adversely impact the amount and quality of Colorado's water resources;
- Changes in runoff patterns, intense precipitation, and rising temperatures can negatively affect food production and result in greater risk of food contamination and waterborne illness;
- Warmer temperatures may result in an increased incidence of vector-borne diseases, such as West Nile Virus and Hantavirus.

Furthermore, a shifting climate will affect many of our state's most vital industries, and we must proactively address these challenges.

- Colorado's economy depends on access to safe, reliable roads, rail, and airports. Greater heat intensity, wildfires, heavy precipitation, and flooding can result in infrastructure damage, increased maintenance requirements, and road closures. These impacts jeopardize the safety and reliability of our transportation system, and increase transportation costs;
- The agriculture industry employs over 170,000 Coloradans and contributes more than \$40 billion per year to our economy. Heat stress, drought and increased irrigation requirements could impact agricultural production in Colorado, thereby threatening farmers' livelihoods and impacting food prices at the grocery store;
- Colorado attracts 20 percent of all ski and snowboard visits in the United States, resulting in an annual economic impact of \$4.8 billion, and providing 46,000 year-round equivalent jobs and \$1.9 billion in wages. Yet warmer winters, reduced snowfall, and shorter snow seasons could put at risk the vitality of businesses and communities that rely on the winter sports industry;
- Summer recreation activities are also vital to Colorado. Hunting, fishing and wildlife-viewing contribute more than \$5 billion per year to the state's economy, and rafting contributes an additional \$160 million. But drought, wildfire, shorter and faster runoff, lower streamflows, and increased water temperatures can threaten the viability of certain species and diminish the availability and quality of summer outdoor recreation activities in Colorado.

In September 2015, pursuant to C.R.S. § 24-20-111, Colorado released a statewide Climate Plan (the "Colorado Climate Plan" or the "Plan"), comprised of strategies and policy recommendations intended to mitigate greenhouse gas emissions and strengthen Colorado's ability to address threats posed by climate change. The Colorado Climate Plan focuses on seven main issue areas: water, public health (including air quality), energy, transportation, agriculture,

tourism and recreation, and ecosystems. The Plan also describes the roles local governments and the private sector can play in reducing greenhouse gas emissions and addressing a changing climate. To address the challenges and impacts Colorado will face as our population grows and our climate continues to change, the state must work collaboratively and embrace innovation. We must build upon the foundation established over the last decade and expand on work done pursuant to other initiatives such as Colorado's Water Plan and our *Greening of State Government* efforts.

Building on robust efforts to protect our clean air and meet the challenges posed by a changing climate, this Executive Order sets a state-specific carbon emission reduction goal within the electricity generation sector-- the state's top contributor to greenhouse gas emissions. Additionally, this Executive Order directs state agencies to work collaboratively to advance the strategies and policy recommendations set forth in the Colorado Climate Plan, and explore additional goals and implementation efforts that advance priorities established in the Plan.

II. Declaration and Directives

A. Colorado state agencies shall implement strategies to achieve, at minimum:

1. A 25 percent reduction in carbon dioxide emissions from the power sector by 2025, as compared to 2012 levels.
2. A 35 percent reduction in carbon dioxide emissions from the power sector by 2030, as compared to 2012 levels.

State agencies are directed to work with all utilities and stakeholders to plan and pursue all viable strategies to achieve the most significant degree of emissions reductions that can be accomplished while maintaining reliable, affordable energy for ratepayers. All strategies implemented will balance de-carbonization and emissions reduction with maintaining affordable energy prices. Building on past efforts, namely the Clean Air Clean Jobs Act and the Renewable Energy Standard, we expect and challenge utilities to meet or exceed this goal while maintaining reliable, low-cost energy. Additionally, state agencies shall maintain communication with the Environmental Protection Agency to ensure that Colorado's proactive efforts to reduce carbon emissions, including end-use efficiency improvements and engagement of low-income and disadvantaged communities, are properly acknowledged in the event of future federal carbon regulation.

B. In addition to the carbon dioxide emissions reductions set forth in Paragraph A of this Section II, Colorado state agencies shall incorporate climate change mitigation and adaptation strategies into their operations and planning to ensure execution of the strategy and policy recommendations included in the Colorado Climate Plan. To facilitate this process, the state's Senior Climate Change Specialist shall coordinate and

direct an interagency workgroup on Climate Change (the “Workgroup”) beginning no later than September XX, 2016. The Workgroup will meet on an ongoing basis and is charged with:

1. Providing recommendations to the Governor regarding policy, regulatory or legislative changes not currently included in the Colorado Climate Plan, as well as additions and revisions to measurable goals and targets that will further the priorities and objectives outlined in the Plan.
2. Collaborating with and coordinating work plans of all state agencies that share in the responsibility of achieving the state’s climate priorities.
3. Incorporating feedback and subject-matter expertise from our partners in non-governmental organizations, academia, federal agencies, local governments, private sectors, and the public on an ongoing basis, to ensure that the state thoughtfully and effectively advances priorities outlined in the Plan.
4. Representing the Governor’s interests in relevant local, regional and national efforts to address climate change.
5. Developing strategies to address data gaps, quantification challenges and funding barriers toward full implementation of the Colorado Climate Plan.
6. Contributing to the annual report to the General Assembly compiled pursuant to C.R.S. § 24-20-111(3).

Participating agencies shall include, but are not limited to, the Colorado Energy Office, the Colorado Resiliency and Recovery Office, the Department of Agriculture, the Department of Local Affairs (“DOLA”), the Department of Natural Resources, the Department of Public Health and Environment, the Department of Transportation, the Department of Economic Development and International Trade (“OEDIT”), and the Department of Regulatory Affairs.

- C. OEDIT, DOLA and the Department of Labor and Employment shall coordinate cross-agency efforts to provide economic development strategies and other supportive services to communities impacted by our nation’s changing energy landscape.

III. Duration

This Executive Order shall remain in effect until modified or rescinded by future Executive Order of the Governor.

GIVEN under my hand and the
Executive Seal of the State of
Colorado this [] day of
September, 2016.

John W. Hickenlooper
Governor