



House Select Committee on Climate Responsibility

Prepared by

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House Select Committee on Climate Responsibility

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<https://leg.colorado.gov/committees/>

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House Select Committee on Climate Responsibility

Committee Charge

The House Select Committee on Climate Responsibility was convened pursuant to House Rule 25B, which allows the Speaker of the House of Representatives (Speaker) to create a committee to review a single specified subject matter area or issue during a regular legislative session. Pursuant to the House Rule, the Speaker appointed three members to the committee, and the Minority Leader appointed two members to the committee.

The purpose of the House Select Committee on Climate Responsibility (committee) was to consider policy options that would enable Colorado to meet its climate targets and goals. Topics included energy efficiency and local job creation; rural opportunities; and power supply, energy storage, and transmission.

The committee met three times during the 2018 legislative session. The committee did not recommend any legislation.

Committee Activities

During the 2018 legislative session, the committee met three times. The committee heard presentations from public utilities, energy efficiency researchers, energy producers, and local government officials. The committee received briefings on:

- developments in energy efficiency;
- renewable energy and climate resiliency;
- job opportunities in the renewable energy sector; and
- power storage and supply.

The committee heard from representatives of the Colorado Department of Natural Resources (DNR), Johns Manville, Energy Outreach Colorado, energy providers, Colorado Communities for Climate Action, International Center for Appropriate and Sustainable Technology, the Colorado Resiliency and Recovery Office, Rocky Mountain Recovery Office, the National Young Farmers Coalition, the Colorado Outdoor Recreation Industry Office, Colorado Petroleum Council, the Environmental Defense Fund, and the National Renewable Energy Laboratory. Presentations were focused on environmental issues and developments in renewable energy within the state, but also provided the committee with information regarding national and international issues.

Energy Efficiency

The committee heard presentations regarding energy efficiency and developments in the state that promote energy efficient technologies. A representative from the Department of Natural Resources discussed energy efficiency goals found in an executive order from Governor Hickenlooper, and

representatives from utility providers discussed energy efficiency programs. Briefings also included discussions from community activists and energy researchers.

Governor Hickenlooper's 2017 Executive Order. A representative from the Department of Natural Resources (DNR) discussed Governor Hickenlooper's 2017 Executive Order regarding climate change and energy efficiency. On July 11, 2017, Governor Hickenlooper issued Executive Order D 2017-015, supporting Colorado's Clean Energy Transition, which sought to, among other things, have "[a]ppropriate state agencies ... work strategically with any interested electric utilities or cooperatives that, on a voluntary basis, would like to maximize its use of renewable energy, while maintaining reliability and without increasing costs to customers." The executive order further set forth a goal to obtain a 26 percent decrease in greenhouse gas (GHG) emissions statewide by 2025 and a 25 percent reduction of carbon dioxide emissions from the electricity sector by 2025. The order also called for electricity savings of 2 percent of total electricity sales per year by 2020 using cost-effective energy efficiency methods.

Demand side management. Demand side management (DSM) involves reducing electricity use through activities or programs that promote electric energy efficiency or conservation, as well as more efficient management of electric energy. These efforts can include:

- promoting high-efficiency building practices and the purchase of energy-efficient products;
- encouraging the use of more efficient lighting technologies and the shifting of electricity usage periods;
- programs that provide limited utility control of customer equipment; and
- promoting energy awareness and education.

A representative from Energy Outreach Colorado discussed DSM programs in Colorado and how Energy Outreach Colorado ensures access to affordable, efficient energy to residents. Energy Outreach Colorado provides utility bill assistance and energy efficiency services to residents making less than \$2,000 per month, heating system repair and replacement, and energy efficiency education.

Representatives from Black Hills Energy and Xcel Energy provided the committee with information on their respective energy efficiency programs for consumers. These programs include free home energy evaluations, utility bill assistance, and renewable energy programs.

Building retrofits. The retrofit, renovation, or refurbishment of existing buildings represent an opportunity to upgrade the energy efficiency of commercial and residential buildings. Retrofit involves modifications to existing buildings that can improve efficiency or reduce energy demand. Retrofits can reduce operational costs in commercial buildings and result in lower energy costs to consumers. A representative from Johns Manville provided the committee with a briefing on how companies can utilize energy efficient retrofits to reduce emissions. Johns Manville produces insulation systems, commercial roofing systems, and other engineered products. The representative discussed how Johns Manville retrofits insulation systems to increase energy efficiency, thereby reducing emissions.

Renewable Energy Opportunities

The committee heard briefings on rural and urban opportunities to expand renewable energy and how utility companies are utilizing renewable energy resources.

Colorado Clean Jobs Report. A representative from the Environmental Entrepreneurs (E2) testified before the committee. E2 is a national, nonpartisan group of business leaders, investors, and professionals from different sectors of the state's economy advocating for policies that improve the state's economy as well as the environment. The representative discussed a report published by E2, entitled "Clean Jobs Colorado." According to the report, Colorado's clean energy industry employs more than 66,000 people statewide in industries such as energy efficiency firms, renewable energy development, and other clean energy businesses. This is a 6 percent increase in clean energy jobs over 2017. She also discussed efforts in the state to promote the use of electric vehicles and clean transportation. Currently, Colorado employs 2,500 people in alternative transportation technologies, and of that number, 1,400 work in electric vehicle development and electric vehicle infrastructure.

Rural opportunities in renewable energy. A representative for Gunnison County Electric Association (GCEA) discussed opportunities for renewable energy in rural parts of the state. GCEA is the second smallest electric cooperative in the state, serving Gunnison, Hinsdale, and Saguache Counties. GCEA also provides service to Crested Butte, Lake City, and rural areas surrounding Gunnison County. GCEA focuses on ways to improve conservation and efficiency, renewable energy, and environmentally beneficial electricity. GCEA utilizes renewable power supply in the form of a community solar garden and wind turbines. The representative discussed GCEA's voluntary green power program, which allows members to purchase blocks of power generated from solar, wind, and biomass. He also discussed local projects focused on renewable energy and GCEA's work with electric vehicles. He discussed the public electric vehicle charging provided by GCEA in Crested Butte and Gunnison County.

A representative of the National Young Farmers Coalition discussed the importance of soil health in agriculture and the mitigation of climate change. Methods farmers use to improve soil health include reduced tillage, cover cropping, and usage of microbes in fertilizer. Other states are currently developing healthy soils programs. The California Healthy Soils Program provides financial assistance for incentivizing and demonstrating the implementation of agricultural practices that reduce carbon and GHG emissions and improve soil health. The Oklahoma Carbon Program is a voluntary program for the verification, certification, and registration of carbon offsets in the state. The representative discussed how reducing carbon in soil reduces GHG and carbon dioxide emissions.

A professor from the Environmental Studies Program at the University of Colorado discussed the use of energy in different economic sectors and the effect of different industries on climate change. He stated that agriculture is a large cause of GHG emissions and discussed several principles in studying the effects of GHG and other emissions. He stated that policy should be based on evidence, should be inclusive, and should embrace technology and innovation. He discussed genetically engineered crops and the benefit that they can have on the environment by reducing impacts of climate change. He discussed several scientific reports regarding genetically engineered crops, such as rice. He also

discussed other technological innovations, such as the development of clean meat grown from animal cells without a living animal.

Urban developments in renewable energy. A representative from Eco-Cycle Solutions briefed the committee on recycling and composting impacts on energy use and greenhouse gas emissions. Eco-Cycle began as a grassroots campaign to increase the rate of recycling in the state. The representative discussed North and South Carolina’s recycling programs and stated that the two states have become a national hub for plastics recycling. She stated that the recycling program had a \$13 billion economic impact in South Carolina. She provided the committee with four strategies to improve recycling in Colorado:

- change the economics by increasing landfill fees;
- encourage the Colorado Department of Public Health and Environment to implement the 2016 Climate Action Plan;
- increase curbside recycling for every home in the state; and
- increase recycling market development.

Developments in Power Supply, Storage, and Transmission

The committee received briefings from several groups regarding power storage and supply in the state. Representatives from public utilities discussed their energy portfolios, and representatives from the oil and gas industry discussed ways in which the industry is improving energy efficiency.

Power supply and storage. A representative from United Power discussed recent projects that increased the use of renewable energy at United Power. Since 2012, United Power has connected three additional solar fields, increasing the amount of power delivered to customers through renewable energy sources. United Power has also implemented two utility battery storage system projects, which are the largest in the state. The battery storage system stores energy generated during times when energy demand is low and discharges the stored energy during peak hours. According to United Power, this type of storage reduces demand and helps to reduce costs for utility customers. Through the program, customers can buy into a utility storage battery and have those credits applied to their accounts. Unlike community solar projects, commercial and industrial companies are allowed to participate in the utility storage battery program.

A representative from Xcel Energy briefed the committee on Xcel Energy's renewable energy portfolio, and discussed the utility's increased reliance on wind energy. More than 20 percent of Xcel 's energy comes from wind energy mainly from the utility's Rush Creek Wind Farm. The wind farm is projected to save customers \$443 million over the next 20 years and cost \$28 per megawatt hour to develop, according to the representative.

Developments in oil and gas. Representatives from the American Petroleum Institute (API) and Colorado Petroleum Council briefed the committee on environmental stewardship within the industry and the Environmental Partnership. The Environmental Partnership was launched by API in 2017 and is a collaborative effort among oil and gas companies. The partnership is comprised of oil

and gas companies nationwide that have agreed to improve the industry's environmental impact. As a part of the partnership, a rulemaking process was initiated in 2017 that focused on increasing and updating requirements for the oil and gas industry to reduce emissions. The process specifically focused on the increased use of electric vehicles. The panel discussed common best management practices in the oil and gas industry to reduce GHG emissions, such as more efficient drilling, less truck traffic, natural gas or electrically powered equipment, leak prevention, and land emission controls. API has also collaborated with the Environmental Defense Fund to create policies within the industry to reduce GHG and emissions during oil and gas production.

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Resource Materials

Meeting summaries are prepared for each meeting of the committee and contain all handouts provided to the committee. The summaries of meetings and attachments are available at the Division of Archives, 1313 Sherman Street, Denver (303-866-2055). The listing below contains the dates of committee meetings and the topics discussed at those meetings. Meeting summaries are also available on our website at:

<https://leg.colorado.gov/committees/>

Meeting Dates and Topics Discussed

March 14, 2018

- Overview of Governor Hickenlooper's Executive Order on Clean Energy Practices
- Energy efficiency in building retrofits
- Energy efficiency and demand side management programs
- Emissions reductions
- Community activism
- Energy efficiency in transportation
- Sustainable technology
- Resiliency

April 4, 2018

- Briefing on rural opportunities
- Briefing on economic opportunities
- Municipal programs

April 25, 2018

- Presentation from power providers
- Presentation from representatives of the oil and gas industry
- Presentation on emissions