SpencerFane

Climate Change in Colorado: Part 4 – Local Initiatives

The first in the series outlined federal policy established in President Biden's executive orders and federal legislation. The second article reviewed some of the most significant federal agencies' initiatives that implement federal policy. The third article reviewed initiatives at the state level in Colorado, while Part 3.2 was a supplement that topped off the state initiatives article and focused on transit-related legislation. This final chapter drills into local initiatives to address climate change in the state.

The International Trigger for Action – The United Nations Challenge

I know, gentle readers, that you love links to pursue rabbit holes. Let's start with several provided at the international level.

The United Nations (UN) posits that cities are responsible for up to 70% of the world's greenhouse gas emissions and consume over 75% of the world's energy. "Urban activities like transportation and buildings are among the biggest contributors to these emissions."

As the cornerstone of its 2030 Agenda for Sustainable Development, the UN set 17 goals as the "most practical and effective pathway to tackle the causes of violent conflict, human rights abuses, climate change, and environmental degradation." Focusing on cities, Goal Number 11 seeks to make cities and human settlements "inclusive, safe, resilient, and sustainable." It encourages citizens to "Take an active interest in the governance and management of your city. Advocate for the kind of city you believe you need. Develop a vision for your building, street, and neighborhood, and act on that vision."

Discussing its New Urban Agenda in December 2015, the UN set the stage for action at the local level:

> Local government activity in this arena is a testimony to the increased leadership of cities in climate mitigation and resilience action. Urban planning and development should support reducing emissions from major urban sectors such as transport, buildings, and waste management, while at the same time building resilience of urban systems and the built environment to withstand the adverse climate impacts and disaster risks.

By 2021, more than 1,000 cities and local governments joined the Cities Race to Zero by signing the Race to Zero commitment representing 722 million people. They will pursue ambitious climate action in line with limiting global temperature rise to 1.4 degrees Celsius – the global standard for climate action. See:

- The Glasgow Climate Pact – Key Outcomes from COP26 | UNFCCC
- Cities – Climate Champions
- From Mannheim to Montreal: How Cities and Regions Across the Globe Are Leading the Charge in Climate Action – Climate Champions

As only one aspect of that agenda, in November 2022, the UN Environment Programme announced a new initiative at the 27th United Nations Climate Change Conference – the Nature for Cool Cities Challenge, with the goal of incentivizing cities to use the cooling power of nature to address climate change.

With those links as teasers, let's turn to local initiatives in Colorado.

The Colorado Energy Office

The ideal website to access is provided by the Colorado Energy Office (CEO). If you've ever met that office's tireless Executive Director, Will Torr, or any of his exceptional staff, you'll understand why that particular website is the go-to link for everything energy and climate change related in the state. I can only provide some highlights of what you'll encounter.

The Land Use and Climate Fact Sheet recites that, "The State Demography Office estimates that Colorado's population will grow by 1.72 million people by 2050," and then outlines suggestions for how strategic growth can lower emissions and provide other co-benefits.

Electric Vehicle Charging. The May 2024 multi-agency collaborative Colorado Electric Vehicle Charging Study provides guidance for local government land use policies to facilitate electric vehicle (EV) charging development. To set the stage, the study recites that:

> The State of Colorado has the goal of reducing greenhouse gas (GHG) emissions from transportation by 41% by 2030. A key strategy to achieve this goal is the widespread adoption of EVs: Colorado aims to have 940,000 EVs on Colorado roadways by 2030 and to enable EV usage by increasing the number of public charging ports awarded grant funding or installed to 1,700 Direct Current Fast Chargers and 5,800 Level 2 by 2025.

Weatherization Assistance Program. The Colorado Weatherization Assistance Program helps qualified Coloradans better their homes and environment through proven, energy conservation solutions. The program provides assistance for low-income households for: energy audits; energy conservation education; air infiltration sealing; insulation in attic, floors, and walls; furnace repair or replacement; LED light bulbs; high efficiency appliances; solar; and air source heat pumps.

Energy Efficiency. Residential Retrofitting Actions. The CEO (using funds from the U.S. Department of Energy) contracted with the National Renewable Energy Laboratory (NREL) to address residential retrofitting options. *See* the final modeling results for the Colorado Residential Retrofit Energy District Phase I. The NREL's simulation study used building and grid modeling tools to develop an experimental plan based on the results. NREL modeled a community of existing single-family homes to assess the performance of various technology packages that include efficiency measures, electrification, photovoltaics (PV), energy storage, EV charging, and controls in terms of cost-effectiveness and benefits to both residents and the utility grid.

Additional energy efficiency studies focus on the oil and gas and cannabis industries:

- Oil and gas: Energy Efficiency and Electrification Best Practices for Oil and Gas Production – 2020
- Cannabis: Energy Use in the Colorado Cannabis Industry – 2018

Other studies and reports focus on renewable energy options including solar, hydropower, energy recommendations for agriculture, and industrial energy efficiency.

Energy Performance for Existing, Commercial and Multi-Family Buildings. In 2021, the legislature passed HB21-1286, the Energy Performance for Buildings statute, that requires **owners of existing commercial, multifamily, and public buildings 50,000 square feet or larger** to annually benchmark their whole-building energy use and meet building performance targets. Together, these buildings must reduce sector-wide emissions 7% by 2026 and 20% by 2030 from 2021 levels.

Building Performance Colorado is Colorado's statewide program aimed at increasing energy efficiency and decreasing GHG emissions from the building sector to meet these targets. Both Denver and Boulder have passed and are implementing building standards. Aspen's program is in development, and Fort Collins has the program under consideration.

Denver's Ordinance. Denver's program is arguably the most advanced in its development. The Energize Denver Ordinance establishes Energy Use Intensity (EUI) targets for buildings 25,000 sq. ft. and larger. Buildings must meet a final EUI target by 2030, with interim targets in 2024 and 2027.

Zero GHG Emissions by 2040. The Denver ordinance's purpose is to establish a high-performance program for existing buildings that requires covered building owners to:

- Benchmark building energy performance, and
- Make such energy performance information publicly available in order to raise awareness and drive action.

To reach the city's climate action goal of zero GHG emissions from existing buildings by 2040, the ordinance requires covered building owners to address existing building performance through energy efficiency, renewables, and/or renewable heating and cooling (electrification).

How It Works: It Varies Based on the Size of the Building

The Energize Denver Hub provides a "one-stop-shop" for understanding the city's requirements with the goals to:

1. Reduce GHG emissions from commercial and multifamily buildings;
2. Lower energy bills for building owners and tenants; and
3. Improve indoor air quality and comfort for building users.

Denver Buildings 25,000 sq. ft. or larger. The Energize Denver and Green Building Ordinances require buildings 25,000 sq. ft. and larger to:

- Submit annual benchmarking of the building's energy use;
- Meet energy performance requirements based on the building's EUI;
- Electrify when replacing space and water heating equipment; and
- Install a cool roof or meet other compliance options when replacing a roof.

Denver Buildings 5,000-24,999 sq. ft. Buildings 5,000 to 24,999 sq. ft. do not have to send annual benchmarking reports or meet an energy use intensity performance requirement. Instead, these buildings have two alternative options to comply with Energize Denver:

- Improve lighting: Certify that a minimum of 90% of the building's total lighting load is provided by LED lights, or that all lighting meets 2019 Denver Building and Fire Code for lighting power density; or

- Improve energy source: Utilize on- or off-site renewable power generation to meet a minimum of 20% of the building's annual site energy usage.

Denver Buildings Under 5,000 sq. ft. Buildings under 5,000 sq. ft. are not subject to Energize Denver. They are still subject to upcoming electrification requirements. Those requirements will be part of the 2025 and 2027 building codes.

Boulder's Ordinance. In their push to make buildings in Boulder more energy efficient, the city adopted the Boulder Building Performance Ordinance. Introduced in 2015, the ordinance makes the reduction of energy consumption mandatory instead of voluntary for commercial and industrial privately owned buildings as well as city-owned buildings that requires qualifying buildings to:

- Rate and report their energy use annually;

- Perform energy assessments every ten years followed by the appropriate building tune ups; and
- Orchestrate a one-time lighting upgrade.

The Boulder "how-to" guide is provided on the city's website.

Beyond Building Standards

No more plastic bags. Drilling deeper into some of the local actions, we learn that Denver joins 10 states and hundreds of cities that now prevent the sale of plastic bags. Starting **January 1, 2024,** a store may not provide a disposable plastic carryout bag to a customer. Stores may only provide recycled paper disposable bags that are made from 100% recycled material or other post-consumer content, or reusable bags.

California, Connecticut, Delaware, Hawaii, Maine, New Jersey, New York, Oregon, Vermont, and Washington – had some form of statewide ban on single-use plastic bags as of 2023 and bans in Colorado and Rhode Island went into effect on the first day of 2024.

Colorado's statewide plastic bag ban took effect January 1, 2024. With limited exceptions, the law passed in 2021 (House Bill 21-1162) prohibits stores and retail food establishments, on and after January 1, 2024, from providing single-use plastic carryout bags to customers.

As of 2021, more than 500 cities and towns across 28 states had a plastic bag ordinance in effect.

You may ask, what? Plastic bags? What do they have to do with global warming? First, they start out as fossil fuels. Also, when exposed to sunlight, plastic bags can produce greenhouse gases like methane and ethylene. Because they break down more easily than other plastics, they have a larger surface area that releases more gases over time.

Climate Protection Fund. In addition, Denver's Office of Climate Action, Sustainability, and Resilience identifies the Climate Protection Fund as the backbone of its climate change effort. This fund dedicates more than $40 million to climate action every year for programs that provide the following:

- Help small businesses go green;
- Operate multiple e-bike libraries that provide 70 e-bikes in under-resourced neighborhoods for residents to use for their commutes and other trips at no cost;
- Provide local businesses with electric cargo bikes, free of charge;
- Provide a limited number of e-bike rebate vouchers for Denver residents every other month. The rebate voucher is a point-of-sale rebate applied to the price of an e-bike or e-cargo bike from a participating bike shop. The rebate amount is deducted from the price of the bike;
- Operating a carsharing program for residents who are unable to afford or don't want to own a car. Instead, residents subscribe to use shared vehicles instead. Through the program, residents can subscribe to use shared vehicles. Colorado Carshare manages the vehicles and provides subsidized memberships for at least 450 residents.

Buying RECs: How Cities and Others Are Going Green?

An article in the *Harvard Business Review* raises the issue of whether renewable energy credits (RECs) deliver the professed environmental benefits.

> On paper, anyway, a purchaser whose use of electricity from a coal-fired plant generates, say, a ton of CO_2 may offset that pollution by buying RECs that represent an equivalent amount of nonpolluting electricity. The money paid to purchase those RECs, in theory, subsidizes the higher cost of producing clean electricity, making this alternative competitive, or creates a market mechanism that will cause more renewables to be produced.
>
> There's a problem with this calculus, though: The clean electricity that a wind farm produces, for example, is fed into the utility grid for distribution regardless of what becomes of its associated RECs. Those RECs are handled independently; they may be sold for a lot or a little, immediately or sometime in the future. Right now, huge surpluses of low-priced RECs are flooding the market, and the cost of an REC represents just a fraction of the added expense of making green power.
>
> Therefore, the purchase of a kilowatt-hour worth of RECs does not necessarily displace a kilowatt-hour of dirty electricity; nor, by extension, does it reduce the amount of CO_2 entering the atmosphere.

> In short, it's doubtful that most RECs are delivering the environmental benefits ascribed to them. So where does this leave companies that genuinely want to reduce the environmental impact of the electricity they use?

No matter the concern, the market for RECs is abundant. And cities are taking advantage of the opportunity to advertise that they embrace "green energy." RECs get them there. I provide only two examples here.

Vail. The town of Vail owns approximately 200KW of installed PV solar panels across town facilities, including a 150KW system that provides clean energy directly to the Holy Cross distribution grid. The town also purchases renewable energy for electricity use through the Holy Cross Energy PuRE program, a voluntary renewable energy power program that allows members to offset their energy coming from fossil fuels with renewable power.

Fort Collins. Residents and businesses in Fort Collins can purchase clean, renewable energy for an additional 1.6 cents per kilowatt-hour (kWh) on top of their normal utility bill. All customers may purchase 100% of their energy use or as many blocks as they need. Residential customers can purchase blocks of 200 kWh for $3.20 per block. Non-residential customers can purchase blocks of 1,000 kWh for $16 per block.

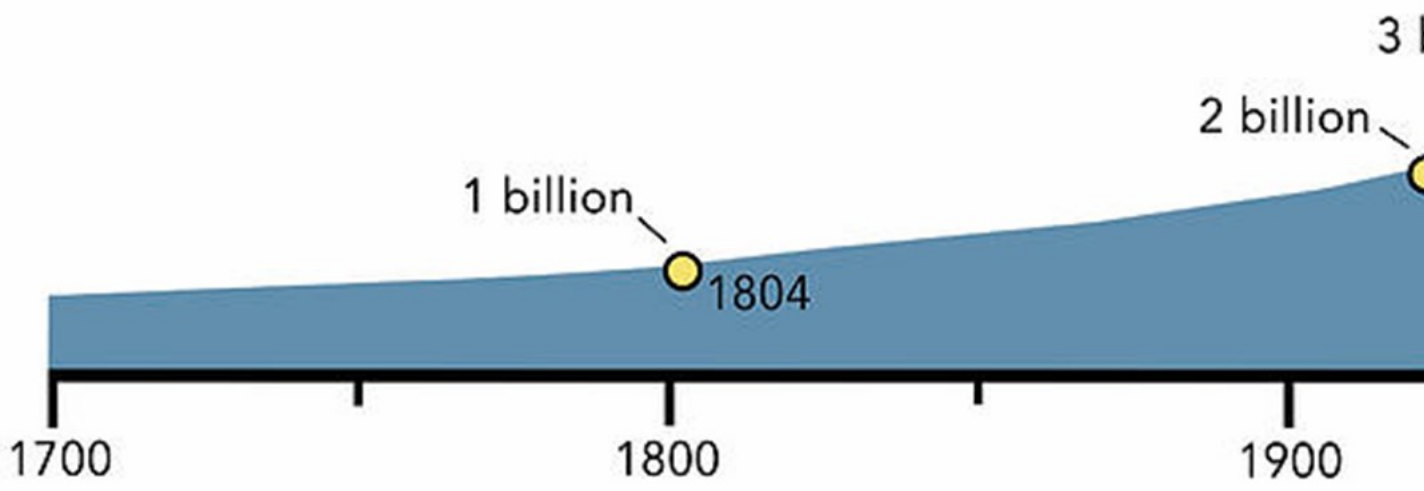
Links to Resources and Incentives – A Laundry List

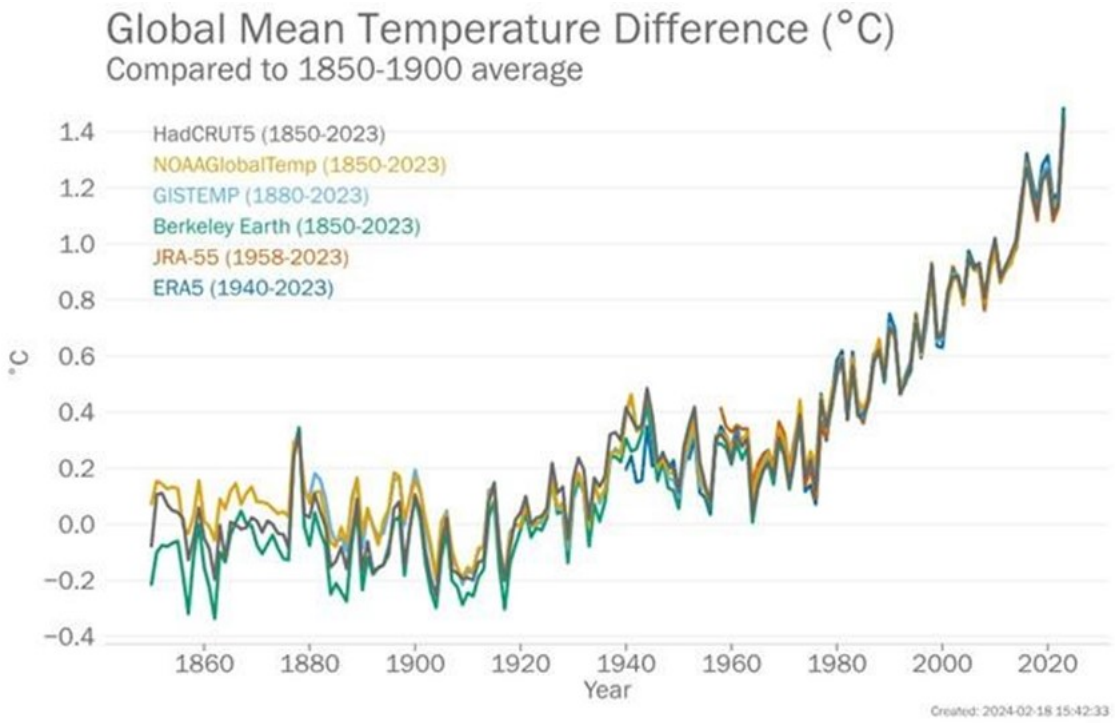
I'll wrap up with a selection of additional resource links and summaries of incentives to go renewable. You can search 'till you drop, but here are some of the best links to access.

- Energy Policy Institute at the University of Chicago
- Reliable Scientific Sources on the Environment and Climate Change
- Energy Information Administration – Renewable Energy Requirements and Incentives
- Incentives and Policies Affecting Renewable Energy Development – U.S. EPA
- Solar Incentives in Colorado – National Audubon Society

And finally, why we should care. It's simple, more people (lots more people) and 2023 was the hottest on record.

World Population





This post was drafted by John L. Watson, an attorney in the Denver, Colorado office of Spencer Fane LLP. For more information, visit www.spencerfane.com.

Click **here** to subscribe to Spencer Fane communications to ensure you receive timely updates like this directly in your inbox.