

A Vision and Framework for Colorado's Energy Future



The Terry J. Stevinson Fellowship

The Terry J. Stevinson Fellowship was established in honor of Terry J. Stevinson, a founding board member of CSI and champion of free enterprise. The fellowship is awarded annually to two individuals, with different backgrounds and perspectives, to research a critical public policy issue facing Colorado while also presenting achievable solutions. This year, the fellowship research topic selected was energy.

Tisha Schuller



Tisha Schuller advises private clients from Fortune 100 energy companies to non-profit environmental organizations in matters including ESG and decarbonization strategies, energy policy, and environmental justice. She serves as the Strategic Advisor for Stanford University's Natural Gas Initiative and sits on the National Petroleum Council, an advisory to the Secretary of Energy under the Obama, Trump, and Biden administrations.

Doug Benevento



Doug Benevento is a partner at Holland & Hart. He formerly served as U.S. EPA Acting Deputy Administrator and the EPA's Region 8 Administrator. As the former Executive Director of the Colorado Department of Public Health and Environment, Doug has a public health background and ability to proactively identify and develop solutions. He is also currently serving as President of Douglas County, Colorado Board of Health.

In an ideal end state, Colorado's energy would be affordable, reliable, and leave the smallest possible environmental footprint. To achieve this, energy would be appreciated as a central force that enables progress—rather than being viewed by legislators and policymakers as a necessary evil. Consumers would be empowered with choices that reflect their means, values, and circumstances. **While we understand that both state and national energy objectives will continue to prioritize lowering the greenhouse gas (GHG) footprint of energy, in an ideal state, decarbonization would be one among many balanced tradeoffs.**

In this ideal state, Colorado leaders would make economic development a central consideration of energy policy. After all, this would position Colorado to sustainably reduce GHG emissions with public support, while attracting the businesses, workers, students, innovators, and partners required to undertake the massive task of evolving the energy system. Policymakers would endeavor to increase the availability of energy sources, types, and services to allow for skillful identification and management of tradeoffs. This will require strong state leaders who acknowledge that a GHG-reduction framework alone does not make good energy policy. Colorado has an opportunity to be a leader and national role model: a blue state willing to navigate the real-world tradeoffs that an energy evolution requires.

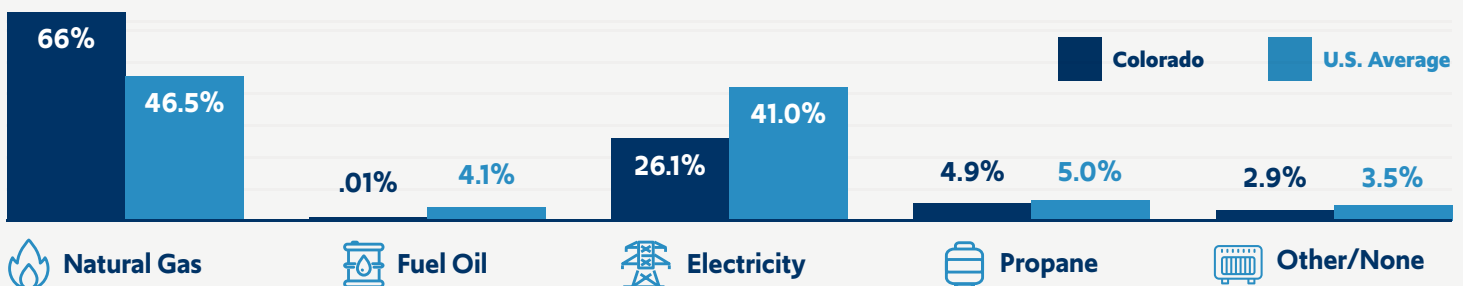
WHY ENERGY MATTERS

- The energy system is extraordinarily complex and includes much more than electricity in homes and gasoline in cars. Energy is everywhere: it keeps the lights on, the room warm, and the vehicles running. More subtly, energy is the near-literal lifeblood of our economy, moving goods from factories across oceans to ports and over land by rail and road to neighborhood stores.
- This global transportation network allows communities and businesses to thrive with unprecedented, affordable access to goods, people, and services. Energy also powers industrial processes, like steel smelting, and enables the entire global manufacturing sector to produce the materials and goods that we depend upon every day. Oil and gas serve as feedstocks required to produce chemicals, plastics, and fertilizer. Without energy refining and its products, we don't have computers, cell phones, Tupperware, clothing, or makeup. Without these processes and their outputs, we can't produce abundant, affordable food. This energy enables human flourishing.

WE NEED AN ENERGY POLICY

- A climate strategy alone does not make for a good energy strategy, and Colorado energy policy today is based primarily on reducing GHGs. In 2019, the Colorado legislature passed HB19-1261 to promote emissions reductions and establish statewide emissions targets. The goals established by 1261 were sweeping and have resulted in over 55 pieces of ensuing legislation and regulatory action that will soon impact numerous businesses and consumers in the state. The Roadmap called for an economy-wide GHG reduction of 26% by 2025, 50% by 2030, and 96% by 2050 below 2005 levels. In 2023, the Colorado legislature heightened those goals by passing SB23-016, which calls for the elimination of all GHG emissions by 2050 and promotes a more aggressive schedule of reductions leading up to that point.
- GHG reduction efforts have the potential to impact Colorado competitiveness in a myriad of ways, few of which are addressed in current policy making. Colorado requires an energy strategy that factors in cost, reliability, economic development, innovation, environmental footprint, and greenhouse gas footprint. Colorado can serve as a national leader with policy that acknowledges and weighs the tradeoffs inherent in the complex decisions required in an energy evolution.
- Current initiatives to replace buildings heated by natural gas with electrification provide one example. Sixty-six percent of households in Colorado are heated by natural gas—20% more than the national average. Only 25% of households are heated by electricity, which is 15% lower than the national average.

Energy Source Used for Home Heating (share of households)



If Colorado enacts policy to further electrify home heating, much of the load currently shouldered by natural gas and propane will be added to the electric grid. Nearly 30% of Coloradans are energy stressed, challenged, or impoverished; how we heat homes in the state is a complex and nuanced challenge.¹ Such challenges belong in an energy policy context, not just a GHG framework.

The authors believe Colorado can do better and offer the following joint recommendations.

RECOMMENDATION 1:

Create a real energy policy strategy. Colorado requires an energy strategy that factors in cost, reliability, economic development, innovation, environmental footprint, and greenhouse gas footprint.

Colorado's current energy policy framework is a GHG reduction framework. This choice has consequences and should be reconsidered. In this ideal state, Colorado leaders would make economic development a central consideration of energy policy. After all, this would position Colorado to sustainably reduce GHG emissions with public support, while attracting the businesses, workers, students, innovators, and partners required to undertake the massive task of evolving the energy system.

RECOMMENDATION 2:

Build an energy strategy reflective of the complexity of Colorado's energy system.

Policymakers should factor in the multiple dimensions of a complex energy system, including power generation, transmission, oil and gas production, refining, and transport, natural gas production, transport, and distribution, the mining, processing, and transport required for clean energy development, innovative energy solutions, and decarbonization solutions. Policymakers must think beyond electrification: Expanding the grid comes with its own Herculean challenges; electrification for various solutions should undergo robust analysis to consider alternatives and assess trade-offs.

RECOMMENDATION 3:

Eliminate renewable-only targets and move toward a net-zero framework.

It's time for policymakers to explicitly reassess Colorado's commitment to 100% renewable electricity generation by 2040. If Colorado policymakers want an effective decarbonization strategy, they should consider adopting a net-zero policy that maintains high reliability at low cost and is technologically sound. A net-zero policy would allow for the continued use of fossil fuels with appropriate offsets and or capture of GHGs. This strategy would also pave the way for a wide array of other potential technologies, such as nuclear power and hydrogen.

RECOMMENDATION 4:

Embrace a five-factor policy efficacy framework.

Policymakers should put their energy and climate bills, regulations, and decisions through a five-factor common-sense framework test to ensure that their benefits will outweigh their costs, their unintended consequences are aired, and their trade-offs are evaluated.

- Will this decision increase the cost of energy production, distribution, or use?
 - What advantages do the cost increases grant?
 - In what ways could the costs be mitigated?
- Will this decision potentially undermine energy availability, create grid reliability problems (such as brown and black outs), or cause price spikes?
- Will this decision enhance or inhibit Colorado's economic competitiveness, including its ability to attract new investment to the state, retain business activity in the state, and develop economically?
- Does this decision better position Colorado for an uncertain energy future by encouraging innovation, promoting resource diversity, and expanding domestic energy availability?
- Does this decision limit consumer choice for businesses and individuals? If so, for what trade-offs?

RECOMMENDATION 5:

Consider using an energy competitiveness index.

Policymakers should consider consulting an energy competitiveness index to help them understand Colorado's competitive position relative to other states—especially regional competitors.

Bottom Line

A climate strategy alone does not make for a good energy strategy, and Colorado energy policy today is based primarily on reducing greenhouse gases (GHG). Colorado has an opportunity to be a leader and national role model: a blue state willing to navigate the real-world tradeoffs that an energy evolution requires.

¹ <https://energyoffice.colorado.gov/low-income-services#:~:text=The%20average%20household%20in%20Colorado,they%20are%20considered%20energy%20impoverished>