



Colorado's Economic Recovery and Climate-Resilient Future: Barriers September 2020

Moving to a low-carbon economy is a full scale economic transition. Colorado's climate goals encapsulated in HB19-1261 and the administration's ensuing climate action roadmap require more than just a focus on reducing carbon emissions. As the state and local governments reduce their dependence on the fossil fuel industry, they will need to find innovative ways to restructure their economies.

The goal of this analysis is to determine the primary economic and structural barriers to Colorado's economic recovery on the way to becoming a climate-resilient state. From funding innovation in the clean energy sector to reducing overall carbon emissions, we have identified three primary challenges: funding, standardized data collection and dissemination, and becoming economically resilient for the 21st century.

FUNDING

In the first place, state coffers are depleted from COVID-19. The state budget is being cut by 13% compared to 2019. Without significant private investment, the state does not have sufficient resources for new infrastructure that is needed to support the beneficial electrification of Colorado (as defined in SB 19-236).¹ As a result, Governor Polis and his economic taskforce have written to all of Colorado's federal representatives enumerating where federal stimulus dollars could account for the losses while investing in innovative clean technology and infrastructure.²

- A. Whether or not federal funding is granted, a major hindrance to the clean energy transition is the existing fiscal paradigm that the state government has with the fossil fuel industry. The fossil fuel industry continues to receive almost twice as much in tax benefits than clean energy projects.³ Specifically, the ad valorem tax credit continues to directly support the fossil fuel industry's operations in Colorado, which largely offsets the local severance taxes that they owe.
- B. To incentivize clean energy growth, an expansion of the existing federal tax equity markets can further the development of wind and solar energy projects. In addition, the same tax credits have yet to be made available to geothermal energy. Previously, the cost of drilling for geothermal made scaling up infeasible, but Colorado has an excess of idle drill rigs that can be repurposed, substantially offsetting the initial investment.

- C. Private capital is key to unlocking the potential for Colorado’s clean energy future. Additional incentive programs with innovative public-private funding models could allow private capital to flow freely into low-carbon, clean energy technologies, including both energy generation and transmission infrastructure (see Section 3.A).
- D. The underlying fiscal system needs to be replaced. However, the Taxpayer Bill of Rights (TABOR), a fiscal challenge specific to Colorado, makes it difficult to raise taxes. The law requires that new taxes receive voter approval. Even a revenue-neutral tax would be subject to TABOR’s constitutional process.

Our climate policy cannot be abstracted from the markets in which they operate. Our energy goals are tied to our state’s ability to flourish economically. Our first challenge is ensuring energy security and sustainability through clean energy tech because it is the most risk-averse path. We can start by incentivizing capital allocation toward a clean energy future.

DATA: STANDARDIZED REPORTING + MODELING

Generating and communicating large-scale energy policies is contingent upon considerable time, resources and accurate reporting. For example, any policies designed to regulate or disincentivize carbon emissions, the largest contributing factor to global warming, rely on the ability to accurately track the various sources of emissions.

- A. Research into reporting and data collection needs to be expanded and improved in order to create an interstate standardized reporting protocol for GHG emissions. SB 19-096 and Regulation 22 have begun to expand the source categories for emissions reporting. To continue to effectively lower state-wide emissions, the next step is a standardized technology and reporting protocol that can be made available across local governments and inform state-wide policy.^{4 5}
- B. In addition, the Governor’s office has limited capacity, and they are in need of modeling support for large-scale policy options. Some of the necessary policies will alter economies and restructure fiscal systems. Time and resources are required across a number of governmental agencies that were stretched thin even before the pandemic.
- C. The dissemination of information from state to city governments is a critical component to Colorado’s climate resilience. Currently, local officials are reporting that they don’t have the information they need regarding sustainability best practices. Many local officials also report having outdated energy management planning documents. An accompanying issue is a general lack of understanding of how climate change will affect their towns. Lastly, limited capacity throughout the government exacerbates all of these challenges (see Section 3.B).⁶

BUILDING RESILIENCE FOR THE 21ST CENTURY

Economically, the goal is to determine the most sustainable, risk-averse path forward. When it comes to reducing air pollution and the effects of climate change, climate and economic resilience are intimately tied. For many cities and towns, the challenge of becoming climate resilient is akin to adapting to the 21st century economy: a matter of basic economic development and attracting new industries.

Many of the structural challenges associated with the clean energy transition are representative of the broader economic shift that is affecting the United States' job market.

Many of Colorado's rural cities and towns—especially those that rely on the fossil fuel industry—also lack access to basic technology, such as broadband, hampering their ability to attract new businesses and talent and transition their economies. With a high concentration of traditional energy employment in Colorado (2.7% of the US traditional energy workforce, 2019), the energy transition away from fossil fuels will require dedicated resources.⁷ The Office of Just Transition is in the process of developing a coordinated strategy that combines science and data with a human-centered approach to the energy transition.

What are the barriers that keep Colorado's cities and towns from adapting to the 21st century economy and becoming climate resilient?

- A. Infrastructure—As mentioned in Section 1, large amounts of capital along with financial incentives need to be directed toward updating the state's infrastructure. These projects are paramount to Colorado's ability to become climate resilient.
 - i. Specifically, beneficial electrification of the transportation sector, which recently became the state's largest source of emissions, requires the installation of charging stations that can serve medium and heavy-duty vehicles. As part of this, updated building codes would also allow EV infrastructure to be a part of new construction projects.
 - ii. For some towns, the first step to a climate-resilient future is a basic technological update. But, at a higher level, utilities and transmission infrastructures still largely serve an economy that subsists on fossil fuels and need to be updated for clean energy.

- B. Capacity—Both state and local governments need increased capacity to focus on attracting technological innovation and sustainability planning. In addition to the state's budget deficit, local governments are expecting budget cuts in the coming months. One of the immediate impacts of COVID-19 is the reduction in overall staff bandwidth. Local government staff have expressed an inability to fully pursue sustainability plans and projects. At the moment, hiring freezes for all departments are commonly reported, which add to the workload placed on existing staff.⁸

- C. Cultural Shift—Many towns have a proud history of supplying the state with reliable energy from fossil fuels. Accounting for the stability that is traditionally provided by the coal industry, shutting down coal plants and other heavy industries strips the area of its identity, resulting in significant push back against the transition underway.

SUMMARY

Changing the existing systems in Colorado will require visionary leadership and unprecedented collaboration. The ability to garner political will behind large-scale action hinges on a plan that takes into account foreseeable economic losses and gains while unlocking financing through coordinated policies. Moreover, enhanced communication and capacity across state departments, local governments, the private sector, and civil society will be fundamental to overcoming these barriers.

As long as Colorado's economy is tethered to finite resources and outdated infrastructure, our long-term economic potential is limited and short-term risk increased. But, if we speed the transition of our economy to renewable, distributed resources, we can remove these economic barriers and become national leaders in the climate-resilient, tech-forward economy of the future.

Outdated funding paradigms, insufficient data reporting, and economic development constraints and capacity are the barriers standing in our way.

This analysis provides barriers to economic recovery and growth. The following report by Signal Tech Coalition includes achievable solutions starting in 2021.

References

¹ Sunset Public Utilities Commission. SB19-236.

<https://leg.colorado.gov/bills/sb19-236>

² Polis—Letter to CO Delegation, COVID-19 Infrastructure and Energy. May 6th, 2020.

³ “As Colorado’s governor, lawmakers target tax breaks, a program that covers 75% of the state’s land could be in the crosshairs.” Colorado Sun. August 12th, 2019.

<https://coloradosun.com/2019/08/12/colorado-enterprise-zones-in-crosshairs/>

⁴ Proposed Regulation 22 - Greenhouse Gas Reporting and Emission Reduction Requirements in Colorado. Trinity Consultants. February 25, 2020.

<https://www.trinityconsultants.com/news/states/colorado/proposed-regulation-22-in-colorado>

⁵ Colorado Long-Term Climate Change Data. SB19-096.

<https://leg.colorado.gov/bills/sb19-096>

⁶⁸ Colorado Energy Office Local Government Survey: Energy Management Needs and Challenges. Deserai Crow, PhD, University of Colorado Denver, School of Public Affairs. 2020.

⁷ US Energy and Employment Report 2019—Colorado.

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