2030 Climate Action Plan

Adopted 2025

CONTENTS

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Cover Photo Credit

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Community Engagement Hosts

Center for the Arts
The Eldo Elevation Hotel & Spa
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EXECUTIVE SUMMARY

The 2030 Climate Action Plan is an update to Crested Butte's 2019 plan, outlining a clear path to reduce greenhouse gas emissions to 2030 and reaffirming the Town's commitment to mitigating climate change across the community and its municipal operations.

Climate change is already impacting Crested Butte, with warmer summers, increased wildfire risk, and changing snow and water patterns. The local economy, community, and way of life, deeply tied to Crested Butte's natural beauty, are at risk. Global warming will continue, and while adaptation is crucial, reducing emissions by 2030 is key to mitigating severe future impacts.

Community Emissions and Climate Actions

Crested Butte's total community greenhouse gas (GHG) emissions increased by 5% from 2017 to 2022. It's per capita emissions, or GHG emissions produced on average by each person in Crested Butte, increased by 1%. Even though electricity use decreased slightly (4%), energy use in buildings (electricity and natural gas) represents most of Town's in-boundary emissions. This change is mostly influenced by a 23% increase in natural gas usage, a small increase in vehicle miles traveled (VMT) (<1%), and an increase in the amount of waste the community produced (20%).

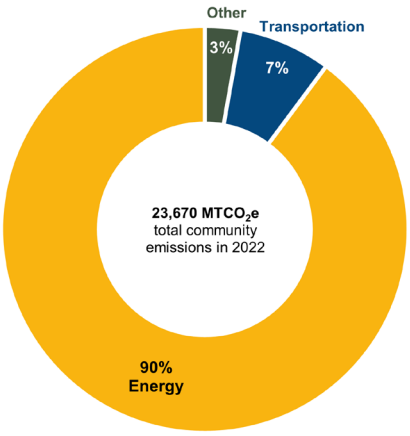


Figure 1. 2022 Total GHG Emissions Inventory Summary

This Plan's Approach:

This plan identifies buildings as both the largest source of community emissions and the Town's greatest, most cost-effective opportunity to reduce those emissions significantly by 2030. The 2030 CAP aligns with key strategies outlined in the "Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050 (US Department of State 2021) and includes other actions and commitments that will reduce local emissions, decrease cost burdens to the community, and empower community members to engage in climate action in sectors such as buildings, energy production, waste, and transportation. The Town will focus heavily on the following strategies to reduce greenhouse gas emissions by 2030:

Improve Efficiency: Reduce energy use in buildings and transportation by leveraging permit processes for energy assessments, offering incentives and education to drive retrofits, and advancing sustainable transit through the Transportation Mobility Plan.

Electrify: Continue leading electrification by supporting electric technologies in buildings and supporting EV adoption through the regional Readiness for Electric Vehicles (REV) Plan.

Decarbonize: Advocate for Tri-State's grid decarbonization, Crested Butte's wholesale electricity provider, and collaborate with Gunnison County Electric Association (GCEA) and Colorado Communities for Climate Action (CC4CA) to achieve 100% renewable electricity for the community by 2030.

Town Commitments

To support and enable implementation of the recommended strategies in this plan, the Town commits to the following:

Empower Individual Action: Empower businesses and residents to take climate action to reduce emissions with building energy assessments that inform cost-effective efficiency measures, incentive programs for energy efficiency and electrification to reduce cost burdens, and waste reduction initiatives to increase access to waste diversion programs.

Invest Funds: Make climate investment decisions based on impact and cost-effectiveness, exploring grants, taxes, partnerships, and local measures, to support building retrofits and other programs that reduce emissions and ease financial burdens for the community.

Be Accountable: Improve emissions tracking and overall sustainability data—focusing on building energy assessments and eventual energy benchmarking—to better understand the Town's building stock to make informed decisions for future investments, and remain proactive and adaptive in the Town's climate strategies.

See the **"Taking Action"** chapter for recommended strategies and actions in this plan. Full climate action details and metrics are included in **Appendix I. 2030 CAP Action Details.**

Plan Impacts

By implementing this plan, Crested Butte expects a **52% reduction** in total community emissions and a **59% reduction** in per capita emissions by 2030 from 2022 levels. This reduction is driven by a combination of the actions in this plan and Tri-State's commitment to 80% renewables by 2030, improved vehicle efficiencies, and expected EV adoption.

52% decrease in community emissions & **59% decrease** in per capita emissions in 2030.

The estimated cost to implement everything in this plan over the next five years ranges from approximately $397,700 to $522,000. Budget and staffing considerations for implementation will be evaluated annually during the Town Council budgeting process.

While Crested Butte's carbon footprint may feel small in the global context, its strong legacy of climate action, collaboration, and innovation positions the Town to lead in advancing climate solutions. By focusing on emissions reductions in buildings, transportation, and energy, this plan outlines a clear path to a resilient, low-carbon future—serving as an example for other mountain and rural communities. Ambitious local action can drive regional impact, engage residents in sustainability, and help ensure Crested Butte remains a vibrant, thriving community for generations to come.

A LETTER FROM TOWN COUNCIL

To the Crested Butte Community:

To preserve the quality of life we value in the West Elk Mountains, it is crucial our community continues to engage in meaningful climate actions. This plan takes an in-depth analysis of our past, current, and possible future greenhouse gas emissions. Through public input, spirited debate, and careful analysis, we have created a plan that will hold the Town, community, and future decision makers accountable on the important path towards reducing Crested Butte's climate impacts.

Photo by Lydia Stern

We are well aware that climate change has been born out of human consumption, constant growth, and the fallacy that our resources are infinite. To reverse this tide, we need to take a hard look at the crisis we face and learn to make choices that guide our community on a better path. There is no substitute for effective governance in a crisis. At the municipal level, the Town is dedicated to curtailing its consumption and understands the real need to generate funds to support the transition to use of efficient and clean energy within our community.

Our greenhouse gas emissions inventory makes it clear that **the most meaningful way to impact climate change will be through a fundamental change in how we view the energy we use in our existing buildings,** both residential and commercial. This path is unique to the Town of Crested Butte. Our scope is limited. We acknowledge that our ability to thrive at 9,000 feet is supported by high emissions industries outside of our town boundary. We can both reduce our in-town emissions and call on other entities to do their own careful analysis to follow a path towards energy efficiency and emissions reduction.

In this plan, we outline the most impactful, cost-effective way to guide our community towards meaningful change. The strategy is clear - reduce energy use in all buildings through upgrades and efficiencies, electrify as much energy as possible, and decarbonize the grid where that energy is sourced. The Town will accomplish this through community engagement, education, and incentives, but the Town cannot do it alone; it needs the community to make the real choice to engage, care, and take actions to reduce their own energy impacts. At the same time, we must prepare for the inevitable challenges and unanswered questions ahead. What revenue will help us transition in an equitable way for all community members? What high end polluting luxuries are we willing to stand up against? How will our valley-wide partnerships grow our impact? This community has saved mountains; can we do more?

The time for kicking the can down the road is over. The alarm bells are ringing, and we must be ready to justify our actions to future generations. We must not sit back and talk about inevitability but instead plan for adaptation and change.

Crested Butte Town Council
April 2025

INTRODUCTION

This 2030 Climate Action Plan (CAP) provides a strategic roadmap for climate action out to 2030. It builds on the Town's 2019 Climate Action Plan (CAP) to update an understanding of Crested Butte's greenhouse gas emissions and charts an actionable path to reduce them. It renews the Town's commitment to mitigating climate change by prioritizing the reduction of greenhouse gas (GHG) emissions across the community and municipal operations.

Climate Change in Crested Butte

Climate change is a critical issue, and Crested Butte is already feeling its effects—warmer summers, increased wildfire risk, and shifting snow and stream patterns. The town's high-altitude environment, economy, and way of life depend on its natural surroundings, which are increasingly at risk.

Global warming is expected to continue until at least mid-century, with many changes becoming irreversible for centuries (IPCC 2021). While adaptation is essential, significantly reducing emissions by 2030 can help mitigate severe impacts. In Colorado, temperatures have risen about 2.3°F since 1980, with further warming, shifting precipitation, and declining snowpack expected by 2050 (Bolinger et al. 2024).

The Gunnison Valley has warmed about 1.5°F since 1980—slightly less than the state average—thanks to its high-altitude climate (NOAA 2024). However, rising temperatures may drive more people to Crested Butte's cooler mountain setting, increasing pressure on local resources. As extreme weather, drought, and wildfires intensify, the town's economy and outdoor recreation-based lifestyle will face growing challenges. This plan reflects the community's deep environmental ethic held by residents, who care passionately about the health of the ecosystems that support Crested Butte's recreation-based economy and way of life. The surrounding mountains, forests, and rivers are not only critical to local economic activity—such as skiing, biking, fishing, and hiking—but are also deeply valued in residents' sense of identity.

Crested Butte's Climate Challenge

The 2022 Crested Butte GHG emissions inventory identifies that 90% of in-boundary community emissions are produced from building energy use, 51% of which are produced by residential buildings' energy use. Addressing emissions from existing buildings continues to be one of the more challenging and complex GHG emissions reduction strategies for Crested Butte, and significantly reducing emissions must be balanced with other declared emergencies, such as the housing emergency, and community and funding priorities.

Climate Action Goal

Crested Butte will act on the urgency of climate change by setting the example of what is possible for mountain communities to take responsibility for our climate impacts and

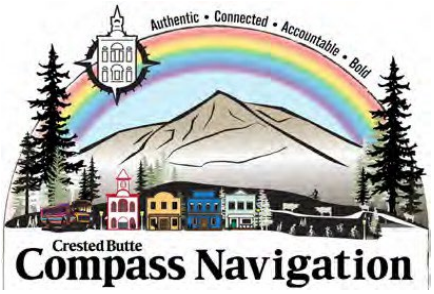
strategically drive down Crested Butte's GHG emissions. As Crested Butte prioritizes its climate mitigation strategies, it will need to live by its community values of accountability and boldness by identifying actions that tangibly drive down emissions with opportunities to lead.

Local Action Matters

The shift from the Biden Administration, notably one of the most climate-forward presidential administrations in American history, to the Trump Administration, an administration that appears to be pivoting away from supporting major climate action policy, during the development of this plan presents certain challenges and political and financial uncertainty over the next five years. However, Colorado state and local policy remain committed to addressing climate change and its impacts. Even amidst market changes and shifting economic patterns in the Gunnison Valley that have resulted in compounding challenges emerging at an unprecedented scale; including tourism growth, an affordable housing crisis, workforce shortages, and the increasing cost of goods and services, this strong Town Council support for climate initiatives reinforces Crested Butte's resolve to lead on climate action, regardless of shifting national priorities.

HOW THIS PLAN WAS DEVELOPED

Crested Butte's Climate Action Plan (CAP) is a bold, actionable roadmap aimed to meet the Town's strategic plan goal of "acting on the urgency of climate change while preparing for the changes we expect from it", while integrating other community goals and priorities. Recognizing challenges like housing shortages, rising costs, and tourism growth, the Town adopted a strategic, interconnected approach known as Compass Navigation. Rooted in the 2022 Community Compass, this plan aligns climate action with key initiatives through collaboration and forward-thinking solutions.



Transportation Mobility Plan (TMP) – Prioritizes walking, biking, and transit while reducing car dependency. The CAP advances this by implementing low-carbon transportation solutions.

Climate Action Plan (CAP) – This CAP integrates climate-focused strategies into all Compass plans, ensuring that sustainability considerations are embedded across town planning efforts.

Historic Preservation Plan (HPP) – Preserves Crested Butte's architectural identity while integrating energy-efficient building guidelines that respect the character of Crested Butte.

Community Plan (CP) – Leverages development regulations to boost private market investment in community-serving housing, businesses, and non-profits, with zoning strategies to increase opportunities for people to live closer to where they work, ultimately reducing emissions.

The Compass Process

Crested Butte's CAP was developed following the Community Compass 5-step process to ensure informed, value-driven decisions:

1. **Define the challenge** – A 2022 GHG inventory shaped the CAP's challenge and goals.
2. **Community engagement** – A climate action plan committee (CAPC) was formed and Town conducted broad community engagement through events and surveys.
3. **Success measures** – Criteria were established to assess action impacts, including whether actions meaningfully reduced emissions and provided a return on investment.
4. **Refine solutions** – Recommended climate action actions were refined through community input and success measures.
5. **Informed decisions** – The CAP supports data-driven, clear actions that allow current and future Councils to make bold and informed climate decisions.

By integrating climate action with other planning efforts, this CAP ensures that Crested Butte remains resilient, forward-thinking, and committed to climate action.

UNDERSTANDING CRESTED BUTTE'S GHG EMISSIONS

The 2022 GHG Emissions Inventory

The 2022 Town of Crested Butte Greenhouse Gas Emissions (GHG) Inventory **(Appendix II)** and this CAP focuses on emissions sources over which the Town has significant leverage. This included mainly Scope 1 and Scope 2 emissions and limited Scope 3 emissions (see Table 1 for Scope emissions definitions).

Table 1. The scope of emissions in the community-wide emissions inventory for 2022

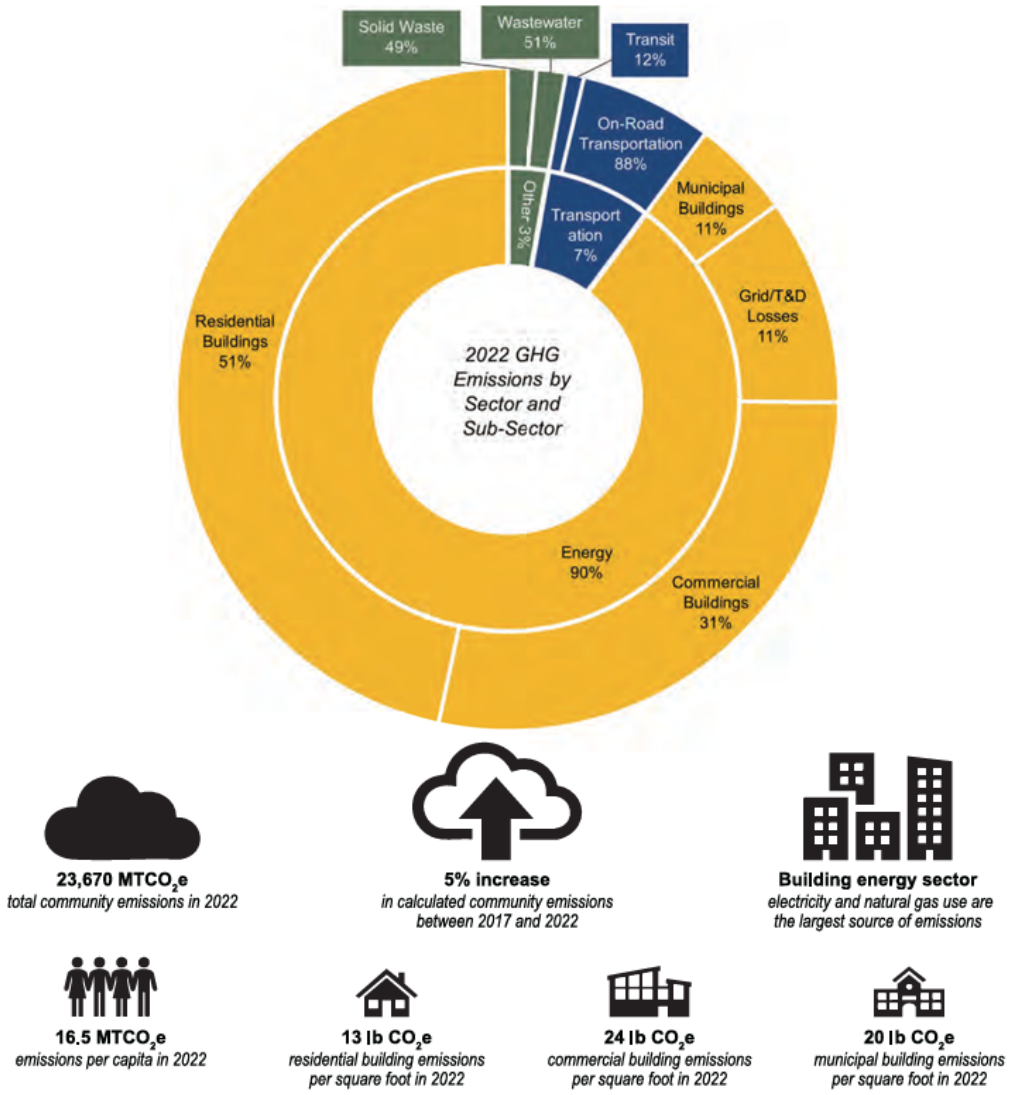
Scope	Definition	Sources Included in the 2022 Inventory
Scope 1	GHG emissions from sources located within the Town boundary.	• Natural gas use • Wastewater treatment processes • Transportation within Town limits
Scope 2	GHG emissions occurring because of the use of grid-supplied electricity, heat, steam, and/or cooling within the Town boundary.	• Electricity use
Scope 3	All other GHG emissions that occur outside the Town boundary because of activities taking place within the Town boundary.	• Solid waste disposal

Crested Butte's Emissions Today

In 2022, Crested Butte's community emissions totaled 23,670 MTCO2e—equivalent to 5,000 gasoline cars driven for a year (EPA 2024). The Energy sector (electricity and natural gas) accounted for 90% of emissions, followed by Transportation at 7% and Waste/Water at 3%. *A detailed greenhouse gas (GHG) emissions inventory is available in* ***Appendix II: 2022 Town of Crested Butte GHG Emissions Inventory.***

Photo Credit: Robby Lloyd

Figure 2. Crested Butte's community-wide 2022 greenhouse gas emissions



Scope 3 Emissions Reduction Opportunities

Crested Butte's GHG inventory aligns with current best-practice guidance but does not encapsulate all possible emissions associated with a community's activity. Emissions occurring outside of Crested Butte because of activities inside the Town, called Scope 3 emissions, can be particularly difficult to quantify but still drive regional emissions. The Town recognizes that these emissions sources, like regional traffic emissions or the Gunnison County airport, contribute significantly to climate change and are not separate from living at 9,000 ft or Town operations. However, many scope 3 emissions sources should be regionally addressed, and the Town will continue to tackle these emissions sources through regional collaboration and multi-jurisdictional planning projects, such as with the emissions sources below:

- The **transportation emissions** from commuter and visitor travel can be managed via the Transportation Mobility Plan, regional transit expansion, visitor education, and alternative transport. The Community Plan and regional Corridor Plan will address land use and growth, impacting housing and transportation patterns.
- While the **embodied carbon of building materials** is not included in the GHG Inventory, both this Climate Action Plan and the Historic Preservation Plan include actions to better understand building material lifecycles and emissions.
- **Emissions associated with waste disposal** in the landfill are included in the GHG inventory based on information provided by Waste Management. However, there may be an opportunity for regional coordination to improve waste data collection and provide a more holistic estimate of waste emissions.
- Additional scope 3 emissions are associated with **the production and delivery of goods and services** consumed in Crested Butte, including both local and non-local food production.

Municipal Emissions Today

In 2022, municipal emissions totaled 1,800 MTCO2e (8% of community emissions), equivalent to 420 gasoline vehicles driven for a year (EPA, 2024). Buildings and facilities contributed 71%, fleet vehicles 11%, and wastewater treatment 18%. Municipal emissions weren't specifically identified in the 2017 inventory, so there is no baseline year for comparison.

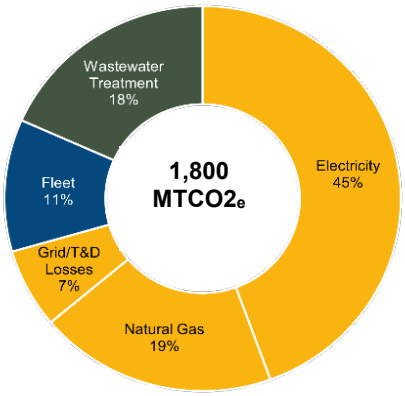


Figure 3.2022 Municipal GHG Emissions by

Where feasible, the Town of Crested Butte considers converting its medium- and heavy-duty fleet to electric vehicles

In 2022, as part of the Town's 196 $MTCO_2e$ in fleet emissions, approximately 86% of fleet emissions are from medium and heavy-duty vehicles. Between 2025-2030, the Town is considering acquiring two to three medium and heavy-duty electric vehicles for its fleet to replace existing aging equipment. The impact of converting these vehicles to electric would reduce Town transportation emissions by an additional 9-14 $MTCO_2e$, or about 1% of the Town's forecasted GHG emissions in 2030.

Photo credits: Town of Crested Butte

Key Takeaways:

- As GCEA's electricity **supply becomes more renewable**, including local energy supply projects such as the Oh Be Joyful 1.1 MW solar array, the emissions associated with each unit of electricity used in Town facilities will decrease.
- **The addition of new facilities will increase energy use**, underscoring the importance of maximizing efficiency and powering new buildings with clean electricity.
- As the Town electrifies its fleet vehicles, **the emissions associated with fleet operations will decrease.**
- The Town has an opportunity to further reduce existing building emissions **through efficiency improvements and electrifying natural gas systems** when the opportunity arises.

Community Emissions Since 2017

Community GHG emissions increased by 5% from 2017 to 2022, driven mainly by higher natural gas use, increased vehicle miles traveled, and increased solid waste generation. Reduced electricity use and lower emissions factors for electricity, natural gas, and transportation helped offset the total emissions increase. Per capita, community emissions increased by 1% between 2017 and 2022.

Figure 4. Town of Crested Butte community-wide GHG emissions by sector, 2017 and 2022

Increased:

- **Natural gas usage**
- **Vehicle miles traveled**
- **Solid waste generation**

Reduced:

- **Electricity use**
- **Emissions factors (electricity, natural gas, vehicle efficiency)**

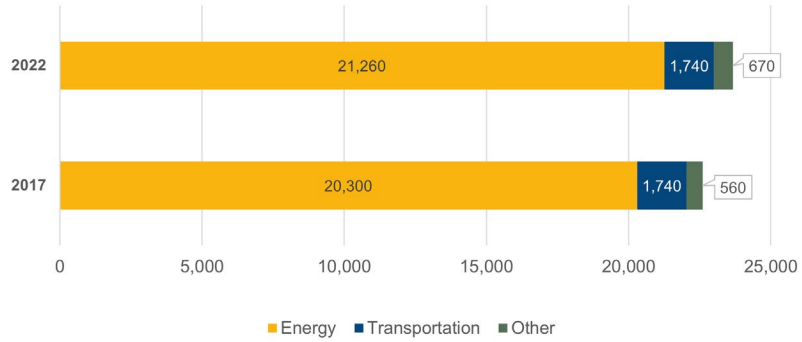


Table 2. Community emissions by sector and sub-sector, 2017 and 2022, population numbers are 5-year ACS estimates

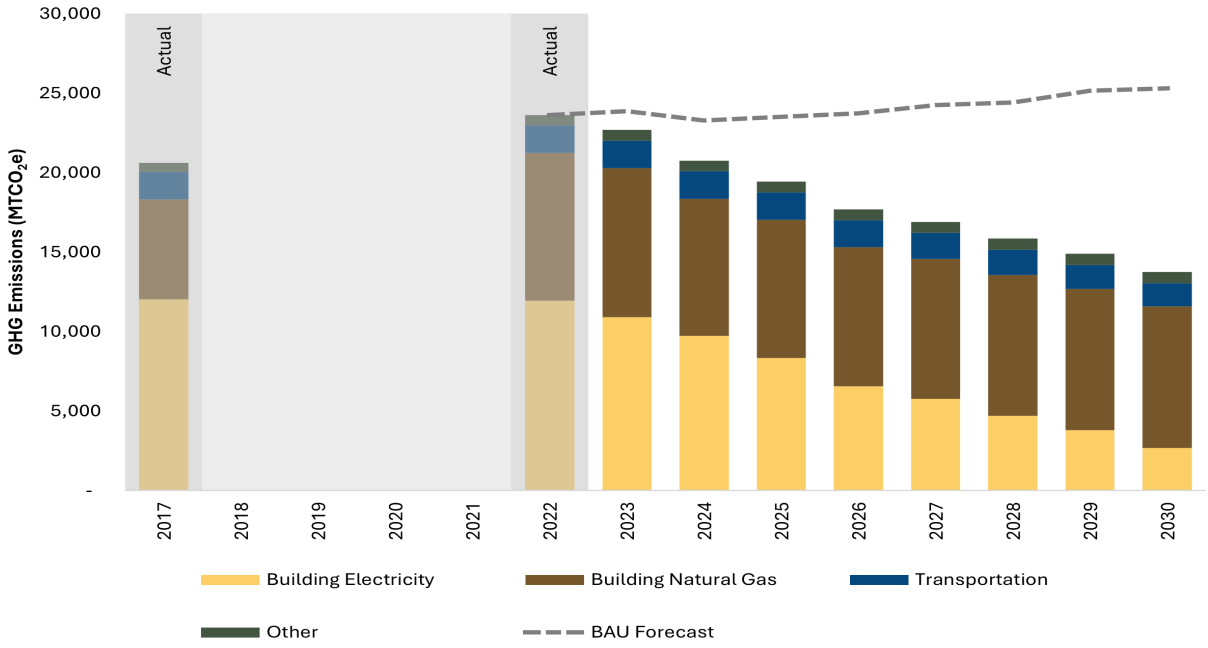
SECTOR	2017 ($MTCO_2e$)	2022 ($MTCO_2e$)	CHANGE
Energy	**20,300**	**21,260**	**+5%**
Commercial Buildings	8,750	6,680	-24%
Grid / T&D Losses	1,970	2,390	+21%
Municipal Buildings	Included in Commercial	1,150	N/A
Residential Buildings	9,580	11,040	+15%
Transportation	**1,740**	**1,740**	**0%**
On-Road Transportation	1,740	1,530	-12%
Transit	Not calculated	210	N/A

Other	**560**	**670**	**+20%**
Solid Waste	240	330	+38%
Wastewater Treatment	320	330	+6%
TOTAL EMISSIONS	**22,600**	**23,670**	**+5%**
Population	**1,385**	**1,434**	**+4%**
PER CAPITA EMISSIONS	**16.3**	**16.5**	**+1%**

Community Emissions in 2030

The 2022 GHG Emissions Inventory **(Appendix II)** projects a 42% reduction in community emissions and a significant drop in per capita emissions by 2030, based on Tri-State's renewable energy goals, ongoing climate actions, and factors like electrification, EV adoption, and population growth **(Fig 4).**

Figure 4. GHG Emissions Reduction Forecast to 2030



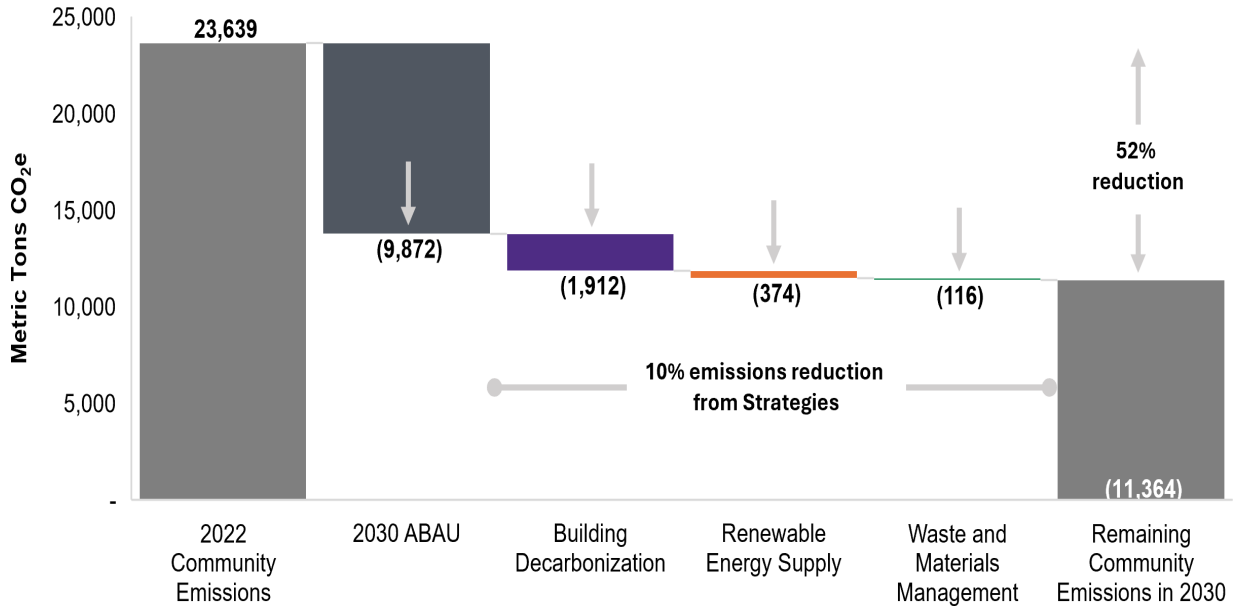
Key Takeaways

- **Significant emissions reductions** are anticipated between 2022 and 2030 because of GCEA's transition to more renewable sources of electricity.
- **Improving building energy use efficiency and electrifying systems** in Crested Butte is the Town's largest opportunity to significantly reduce emissions to 2030.
- As electricity and transportation emissions reduce over time, natural gas will become an **increasingly large portion** of the community's remaining emissions.

Total Plan Emissions Impacts

Implementing all strategies in this CAP could achieve an additional 10% reduction in total community emissions and a 24% reduction in per capita emissions, **resulting in an overall 52% reduction in total community emissions by 2030 (Fig. 5) and a 59% reduction in total per capita emissions.**

Figure 5. Greenhouse gas emissions impacts of Crested Butte's climate action plan strategies and actions.



Emissions Reduction in Context

The cumulative impact of the GHG emissions forecast and the estimated impact of implementing all strategies identified in this CAP is **a 52% reduction in community greenhouse gas emissions from 2022 levels.**

While this plan does not set a quantified GHG target for Crested Butte, it does provide a framework for monitoring change in emissions over time, providing both a baseline and forecast for comparison. Additionally, the estimated emissions reduction aligns with state and federal targets for emissions reduction, including:

- The State of Colorado's adopted goal is to reduce emissions by 50% by 2030 and 100% by 2050, compared to 2005 levels (State of Colorado 2024).
- The Biden Administration set goals to reduce U.S. GHG emissions 50-52% below 2005 levels by 2030 and achieve net-zero emissions by 2050.
- The reduction also aligns with the 50% reduction in global emissions needed to meet the United Nation's Paris Agreement goal to keep global warming below 1.5^{o} Celsius.

TAKING ACTION

Based on the Town's emission inventory and forecasts, the key opportunities for emissions reduction to 2030 are clear:

- **Improving efficiency** in buildings, transportation, and material management,
- **Electrifying buildings** to leverage an increasingly renewable grid, and;
- **Decarbonizing the grid at a utility level** to significantly reduce Town and community GHG emissions and assessing local renewable energy needs to meet 100% renewable energy.

This section outlines the specific strategies and recommended climate actions that will move the Town towards achieving this plan's goals to 2030. Full action details, such as emissions reduction impacts, cost estimates, implementation timelines and other important action information, can be viewed in ***Appendix I. 2030 CAP Action Details.***

Improve Efficiency

Crested Butte became a statewide leader in building electrification by being the first Colorado municipality to require all-electric new construction through its 2021 building code update. Now, the Town's greatest climate challenge is addressing energy use and greenhouse gas (GHG) emissions from existing buildings, which make up 90% of local emissions—primarily from residential and historically protected mining- and ski-era homes. To tackle this, the CAP will leverage its permitting touchpoints with property owners to conduct energy assessments to better understand the Town's building stock and build on that data to develop appealing incentive and education programs to drive retrofits in existing buildings. Improving energy efficiency in these buildings is essential for reducing energy demand, lowering emissions, cutting utility costs, and allowing right-sized electrification upgrades. While buildings remain the primary focus, additional CAP strategies will target transportation and waste to further reduce community-wide emissions. **Table 3** summarizes the actions that will move the Town further towards reducing energy use and improving energy efficiency community wide.

Table 3. Improve Efficiency Actions

Actions	Description	Implementation Begins
Understand Crested Butte's Building Stock		
Action 1. Require energy assessments for all remodels to collect community-wide energy use data in residential and commercial properties.	Updates Crested Butte's Building Code to require energy assessments for all residential alteration permits (Levels 1, 2, and 3, **see Guide to Key Terms**). It utilizes the permitting process as a touchpoint to gather baseline energy data for future retrofitting programs. Homeowners also gain valuable insights to improve and electrify their properties.	2025-2026
Action 2. Require energy assessments for short-term rentals to collect community-wide energy use data in residential and commercial properties	As of 2024, Crested Butte has 191 licensed vacation rentals. This action integrates energy assessments into the annual licensing process, helping the Town track energy use over time and providing owners with insights to improve efficiency and electrify their properties.	2025-2026
Action 3. Require energy use disclosure and benchmarking for commercial buildings.	Requires commercial buildings over a certain size to disclose energy use, enabling comparisons to drive energy reductions through awareness and efficiency improvements. A benchmarking program will help the Town track energy data and inform future efficiency incentives or requirements.	2027-2028
Drive Retrofits in Existing Buildings		
Action 1. Develop incentive programs to drive residential and commercial retrofits.	Incentivize energy efficiency improvements community wide. Incentives could be designed to increase access to funding or remove permitting barriers for community-based workers and community-serving businesses.	2025-2026
Action 2. Develop a municipal Facilities Energy Efficiency and Electrification Plan.	Develop an energy efficiency and electrification plan for Town buildings, using past energy audits and upcoming facility changes to create a long-term roadmap for emissions reduction that the Town can implement to improve energy efficiency and electrify.	2025-2026

Improve Building Efficiency in Future Development		
Action 1. **Incorporate climate considerations in zoning code and regional planning efforts.**	Integrate climate goals into the 2025 Community Plan, zoning update, and Gunnison County Corridor Plan to boost in-town living and cut transportation emissions by providing more opportunities for people to live closer to where they work.	2025-2026
Action 2. **Enable climate-friendly construction and development through flexible design guidelines and a review of permitting processes.**	Update design standards and guidelines, building codes, and permitting to support efficiency, electrification, and renewables. Guided by the Historic Preservation Plan, this balances climate goals with design flexibility outside the National Historic District.	2025-2026
Action 3. **Estimate and track building materials used in construction.**	The Town will begin tracking high-carbon building materials used in construction through the building permitting process. Early steps may involve tracking high-carbon materials, such as concrete and steel, in new construction to assess their carbon impact and explore alternatives in the future.	2027-2028
Implement Transportation Mobility Plan to Reduce Energy Use from Cars		
Action 1. **Improve Transportation Choices.**	Improve alternative transportation choices through transit investments, traffic calming measures, corridor plans, and streetscapes while supporting EV adoption for necessary car trips.	See TMP
Action 2. **Manage Parking Supply.**	Address parking over the next 20 years by managing over-parked areas, improving safety, and reducing traffic.	See TMP
Action 3. **Integrate land use and transportation.**	Address long-term transportation emissions through land use design.	See TMP
Drive Efficient Waste Practices to Increase Landfill Diversion		
Action 1. **Facilitate the development of new waste diversion programs or infrastructure.**	Facilitate the development of new waste diversion infrastructure, programs, or incentives. This could include new waste programming, building code changes for infrastructure or incentives, or Town	2025-2026

	employee waste reduction programs.	
Action 2. Adopt a Save-as-You-Throw (SAYT) waste ordinance.	Discourage waste generation and complement recycling and compost initiatives with a proposed residential Save-As-You-Throw (SAYT) ordinance that links trash costs to trash volume.	2025-2026
Action 3. Limit the distribution of certain materials and enforce requirements for construction and demolition materials recycling.	Reduce waste by banning the distribution of certain materials and mandating elimination, reuse or recycling, especially for construction and demolition waste.	2027-2028

Electrify

Electrification is a key strategy for reducing emissions by shifting from fossil fuels to electricity, which is increasingly powered by renewables like wind, solar, and hydropower. As Tri-State continues to decarbonize its energy mix, the carbon intensity of Crested Butte's electricity declines, making electrification a more impactful solution over time—unlike natural gas, whose emissions are unlikely to improve significantly in the coming years. By electrifying sectors such as heating, cooling, transportation, and municipal operations, the Town can align with long-term climate goals and build resilience as technologies like battery storage advance. Crested Butte has already taken major steps through the adoption of the 2021 IECC and above-code electrification standards for buildings and will continue exploring opportunities in other areas, including electric vehicles through the regional REV Plan and electrification of Town facilities. **Table 4** identifies Town's next concerted steps towards community wide electrification.

Table 4. Electrify Actions

Actions	Description	Implementation Begins
Drive Building Electrification		
Action 1. Develop incentive programs to drive residential and commercial electrification.	Incentivize electrification community wide. Incentives could be designed to increase access to funding or remove permitting barriers for community-based workers and community-serving businesses.	2025-2026
Action 2. Exemplify energy efficiency and electrification in municipal buildings.	Advance facility upgrades from the Town's Energy Efficiency and Electrification Plan, using them as case studies for reducing emissions in Town buildings.	2025-2026

Strengthen Electrification Requirements through the Building Code		
Action 1. **Require all-electric commercial kitchens**	Amend the Town of Crested Butte's existing energy and building codes to expand the new construction electrification requirement to commercial kitchens.	2029-2030
Prepare for Electric Vehicles (EVs)		
Action 1. **Implement the Mt. Crested Butte/Crested Butte Readiness for Electric Vehicles (REV) Plan**	Implement the Mt. Crested Butte/Crested Butte REV Plan to expand EV infrastructure, update policies, and support community readiness for increased electric vehicle adoption.	2025-2026

Decarbonize

Decarbonizing electricity is one of the most impactful strategies for reducing emissions by 2030, with utility-scale renewable energy expected to account for 42% of the total emissions reductions in this plan. Transforming how energy is produced and used—through advocacy, investment, and supporting a clean energy grid—will enable buildings and transportation to fully transition to low-carbon power. A cleaner grid amplifies the benefits of electrification across all sectors. Beyond energy, decarbonization also involves reducing the lifecycle emissions of materials used in construction and Town operations; by choosing low-carbon materials and sustainable practices, Crested Butte can further minimize its environmental footprint. **Table 5** explains how the Town will advocate and support decarbonization for the region to 2030.

Table 5. Decarbonize Actions

Actions	Description	Implementation Begins
Advocate for more renewable energy on the grid		
Action 1. **Advocate for increased renewable energy generation at the local, state, and federal levels.**	Advocate for stronger climate policies through CC4CA and explore further advocacy at local, state, and federal levels, including with GCEA and Tri-State.	2025-2026
Pursue partnerships and opportunities to achieve up to 100% renewable energy generation		
Action 1. **Partner with GCEA to support local renewable energy generation up to 100%.**	Work with GCEA to maximize local clean electricity generation within existing Tri-state generation caps.	2025-2026
Action 2. **Evaluate renewable energy**	Assess renewable energy installation to	2025-2026

generation to meet municipal energy needs up to 100%.	generate more energy for Town facilities to reach up to 100% of municipal energy needs in compliment with utility-level renewable energy generation.	
Enable on-site renewable energy in the community		
Action 1. **Support voluntary community adoption of renewable energy generation.**	Encourage voluntary adoption of local generation by raising awareness of existing opportunities and evaluating the facilitation of installation through a "group buy" program.	2025-2026
Action 2. **Assess solar permitting fees.**	Evaluate Crested Butte's solar permitting fees to reduce financial barriers for installing on-site solar.	2025-2026
Action 3. **Expand the Renewable Energy Mitigation Program (REMP) to require renewable energy generation or fee-in-lieu for buildings over a certain size.**	Expand the program to include a requirement for on-site renewable energy generation or a fee-in-lieu for all newly constructed buildings over a defined size**.**	2027-2028

IMPLEMENTATION

The Town is focused on cost-effective strategies that benefit the community while keeping costs down, with a strong emphasis on building retrofits and incentive programs. These efforts will be a top priority from the start, making sure residents and businesses have access to affordable ways to improve energy efficiency, reduce emissions, and save money in the long run. Implementation will be heavily supported by the Town's other three key strategies:

Empower Individual Action: The Town can empower community members and business owners to engage in climate action through energy assessments that inform property owners how their funds and time may be best spent to improve their buildings, effectively reducing emissions and improving building stock over time; attractive incentive programs that reduce cost barriers to making these efficiency and electrification improvements; education for the community and building professionals on current policies and energy efficient technologies; and easy-to-use waste and materials management programs that encourage community members to reduce their waste both at the source and to divert materials from the landfill (i.e., improved composting programs and infrastructure).

Invest Funds: Town Council has been clear that climate progress should remain a priority and be a lens through which the Town views decision making in a time when Town funds have several competing priorities, such as a housing emergency, critical infrastructure projects, and market pressures that increase cost of living and services in Crested Butte. Town will thoughtfully make climate investment decisions based on impact and cost-effectiveness, exploring grants, taxes, partnerships, and local measures, to support building retrofits and other programs that reduce emissions and ease financial burdens for the community.

Be Accountable: Improving emissions tracking and sustainability data collection, with a focus on building energy assessments and phased energy benchmarking will give the Town a clearer picture of building energy use and emissions trends, allowing for a more targeted and effective approach to building efficiency programs. With better data, Crested Butte can develop targeted incentive programs—such as efficiency rebates, weatherization support, or electrification incentives—designed to meet the specific needs of local building types across town. Consistent reporting and tracking tools will ensure measurable progress, enable data-driven policy adjustments, and enable property owners to take meaningful action.

The above strategies do not directly reduce greenhouse gas emissions. Instead, they are crucial commitments that enable the Town to pass more effective climate policies and develop programs that remove barriers for community members to be part of the Town's efforts to meaningfully reduce community emissions and improve sustainability practices over time.

Timeline

Once the plan is adopted, implementation will kick off right away, with plenty of flexibility to adjust as new challenges, opportunities, and community feedback come up. Town staff will work closely with the community and Town Council to adjust program details and make sure financial

incentives and support are tailored to local needs.

The Town will fine-tune budgets, staffing, and resources while laying out clear steps and timelines for each action as the plan moves forward. Community input will be key in shaping programs, from outreach efforts to education initiatives, to make sure they're accessible and effective. A timeline for rolling out strategies is included in **Appendix I. 2030 CAP Action Details** and will be updated as things evolve—whether it's progress, budget shifts, or new opportunities. The Town will also stay involved in regional Gunnison Valley projects that could have a big impact on reducing emissions beyond Crested Butte's boundaries.

Tracking Progress

The Town will keep track of progress by setting clear metrics at the start of each project and using an internal database to stay organized. Staff are committed to keeping the community informed on climate efforts, so Town will regularly share updates about key milestones and emissions data. For example, GHG emissions per capita, which the Town is interested in tracking in addition to total community emissions, can tell the community how much more "efficient" the community is becoming. By reporting progress more often, the Town can stay on top of challenges, adjust as needed, and make sure plans align with community needs and budget changes. A full update to the Climate Action Plan, including a detailed greenhouse gas emissions report, is set for 2030.

GLOSSARY

Adjusted Business As Usual (ABAU): Forecast of community and municipal emissions that takes into account Business As Usual change along with utility renewable generation commitments and projected vehicle efficiency and electrification policy and market impacts.

Average Daily Annual (ADA) Population: The average number of people present in a given location on any day over the course of a year. This measure accounts for variations in population throughout the year due to factors such as tourism, seasonal residents, commuters, or transient visitors.

Business As Usual (BAU): Forecast of community and municipal emissions that takes into account expected population growth, planned Town facilities, and existing Town codes.

Climate change: Climate change refers to long-term shifts in temperatures and weather patterns. Since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil, and gas (United Nations n.d.).

Community Compass: The Crested Butte Community Compass is the Town of Crested Butte's comprehensive long-range plan. The Compass includes a strategic plan and decision-making framework that was used to guide the development of this Climate Action Plan in a way that is aligned with the community's values.

Decarbonization: The process of reducing or eliminating GHG emissions from activities, for example by a transition to more renewable sources of energy.

Electrification: The process of replacing technologies or systems that rely on fossil fuels such as natural gas with those that rely on electricity.

Emissions factor: The emissions generated per unit of activity such as energy consumption or fuel use.

Emissions scopes (1, 2, 3): For the purposes of GHG inventories, emissions are classified into three scopes. Scope 1 emissions are associated with sources located inside the Town boundary (e.g., the burning of natural gas), Scope 2 emissions are associated with the generation of grid-supplied electricity used inside the Town, and Scope 3 emissions are other emissions that occur outside the Town boundary as a result of activities taking place within the Town.

Energy assessment: The assessment of a building's energy usage that can be used to identify
opportunities for efficiencies and improvements.

Energy benchmarking: Energy benchmarking policies require property owners to report energy usage data and compare against similar types of buildings, often using a standardized metric like Energy Use Intensity (EUI) or ENERGY STAR scores.

Energy disclosure: Energy disclosure policies require property owners to report energy

usage data to
increase transparency and encourage energy efficiency improvements.

EV (Electric Vehicle): EVs are vehicles powered entirely or partially by electricity, as opposed to internal combustion engines that rely on fossil fuels such as gasoline or diesel. EVs include both Battery Electric Vehicles (BEVs) powered solely by electricity, and Plug-in Hybrid Electric Vehicles (PHEVs) that have both an electric motor and an internal combustion engine.

GHG (greenhouse gas): GHGs are gases that trap heat in the atmosphere and contribute to climate change. GHGs emitted by human activities include Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O) and Fluorinated gases (EPA 2024).

GPC (Global Protocol for Community-Scale Greenhouse Gas Inventories): The GPC is an internationally recognized framework for the development of community-scale GHG inventories. It provides a standardized methodology for calculating and reporting emissions and is widely used in climate action planning. The GPC is regularly updated to reflect best practices and is maintained by the World Resources Institute, C40 Cities, and ICLEI Local Governments for Sustainability (WRI, ICLEI, and C40 Cities Climate Leadership Group 2022).

ICLEI Local Government Operations Protocol: A widely used protocol to account for GHG emissions associated with local government operated buildings, vehicles, and other operations (ICLEI USA 2018).

kWh (kilowatt-hour): A kWh is a unit of energy used to measure electricity consumption over time. 1 kWh represents the energy usage of a device that consumes 1 kilowatt of power continuously for 1 hour.

Level 1, Level 1, Level 3 Permits: These permit types represent different levels of building alteration as defined in the International Code Council 2021 International Building Code adopted by the Town of Crested Butte (International Code Council 2021).

- Level 1 Permit: Includes the removal and replacement or the covering of existing materials, elements, equipment or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.
- Level 2 Permit: Includes the addition or elimination of any door or window, the reconfiguration of any system, or the installation of any additional equipment, and applies where the work area is equal or less than 50% of the building area.
- Level 3 Alterations: Where the work area exceeds 50% of the building area.

$MTCO_2e$ (metric tons carbon dioxide equivalent): $MTCO_2e$ is a standard unit used to quantify and compare GHGs with different global warming potential (GWP). Since gases have different impacts on climate change, emissions are standardized by the equivalent amount of carbon dioxide that would have the same impact.

Renewable energy: Energy sources are considered renewable when they are replenished at a higher rate than they are consumed. Solar and wind energy are examples of renewable resources, while fossil fuels such as coal, oil, and gas are non-renewable resources. Generating renewable energy creates far lower GHG emissions than burning fossil fuels (United Nations n.d.)

Snow: Don't forget about snow in Crested Butte! We have big winters and a lot of snow and climate action strategies need to take this seasonal reality into account.

Therm: A therm is a unit of energy used to measure natural gas consumption. One therm is equivalent to 100,000 British Thermal Units (BTUs), and one BTU is the amount of energy required to raise the temperature of one pound of water by one degree Fahrenheit.

Grid / Transmission and Distribution (T&D) Losses: This term refers to the emissions associated with losses in the energy system, including electricity lost during the generation, transmission, and distribution of electricity from power plants to end users, and natural gas leakage.

Waste reduction: A decrease in the total amount of waste generated.

Waste diversion: The percentage of total waste generated that is reused, recycled, or composted rather
than sent to landfill.

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Appendix I. 2030 CAP Action Details

Contents

Introduction

This appendix outlines the action details of the recommended strategies and actions in the Town of Crested Butte's 2030 Climate Action Plan (CAP). This document includes important action metrics, such as forecasted greenhouse gas (GHG) emissions impacts, estimated costs, implementation timeline, and how the actions are measured for success. The metrics included with each action are explained below:

2025-2030 targets needed to achieve savings: a detailed explanation of the targets that must be met to achieve the anticipated GHG emissions reduction.

GHG Calculations: GHG emissions variables considered for the emissions reduction impact calculations.

Cost Calculations: the cost variables considered for cost estimations.

Key Metrics

- **Scope of Impact:** whether the action affects the community or is focused on Town operations.
- **Action Type:** whether the action enables other actions to reduce emissions or a requirement (typically in the form of a policy or code amendment) is being considered.
- **Targets:** The target that must be achieved to realize the expected GHG emissions reduction potential.
- **Emissions impact in 2030:** the direct GHG savings expected from the action being implemented.
- **Total Estimated Cost 2025 – 2030:** The range of estimated costs to the Town of Crested Butte to implement the action between 2025 and 2030.
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** a calculation of the "Total Estimated Cost 2025-2030" divided by the "Emissions impact in 2030" that results in an estimate of how many dollars the Town may spend to reduce one metric ton of $CO2_e$.
- **Expected Staff Time:** Anticipated staff time that may need to be dedicated to an action.
    - Minimal = <0.5 FTE
    - Moderate = 0.5-1.0 FTE
    - Substantial = 1.0+ FTE
- **Begin Implementation:** when implementation is scheduled to begin.

Success Measures Evaluation

Meaningfully reduces GHG emissions	Whether the action has a meaningful reduction in GHG emissions.
Provides a substantial return on investment	Whether the cost effectiveness calculation is reasonable.
Sets a bold example among mountain communities	Whether the action was seen as “bold”.
Is proactive before reactive	Whether the action responds to a climate problem or proactively solves the problem.
Leverages regional initiatives and partnerships	Whether regional partners could be involved.
Provides significant co-benefits	A list of relevant social and environmental co-benefits that are also addressed through the action. The Town identified four major co-benefits: “social equity and affordability”, “public health and wellbeing”, “supports local businesses and economy”, and “enhances climate resilience and environmental quality”.

Improve Efficiency Overview

Crested Butte became a statewide leader in building electrification by being the first Colorado municipality to require all-electric new construction through its 2021 building code update. Now, the Town’s greatest climate challenge is addressing energy use and greenhouse gas (GHG) emissions from existing buildings, which make up 90% of local emissions—primarily from residential and historically protected mining- and ski-era homes. To tackle this, the CAP will leverage its permitting touchpoints with property owners to conduct energy assessments to better understand the Town’s building stock and build on that data to develop appealing incentive and education programs to drive retrofits in existing buildings. Improving energy efficiency in these buildings is essential for reducing energy demand, lowering emissions, cutting utility costs, and allowing right-sized electrification upgrades. While buildings remain the primary focus, additional CAP strategies will target transportation and waste to further reduce community-wide emissions.

The Town will implement efficiency improvements community wide with the following strategies:

- **Understand Crested Butte’s Building Stock**
- **Drive Retrofits in Existing Buildings**
- **Improve Efficiency in Future Development**
- **Implement Transportation Mobility Plan to Reduce Energy Use from Cars**

- **Drive Efficient Waste Practices to Increase Landfill Diversion**

Improve Efficiency Actions Impact Summary Table

Action	2030 Carbon Reduction ($MTCO_2e$)	Total Estimated Cost (2025 – 2030)	Cost Effectiveness ($/$MTCO_2e$)	Implementation Begins	Expected staff time
Understand Crested Butte's Building Stock					
Action 1. **(RESIDENTIAL IMPACTS)** Require energy assessments for all remodels to collect community-wide energy use data in residential and commercial properties.	No direct emissions impact (enabling action)	$4,300 - $6,500	Not calculated (no direct emissions impact)	2025-2026	Minimal
Action 1. (COMMERCIAL IMPACTS) Require energy assessments for all remodels to collect community-wide energy use data in residential and commercial properties.	No direct emissions impact (enabling action)	$4,300 - $6,500	Not calculated (no direct emissions impact)	2025-2026	Minimal
Action 2. Require energy assessments for short-term rentals to collect community-wide energy use data in residential and commercial properties.	No direct emissions impact (enabling action)	$10,800 - $16,200	Not calculated (no direct emissions impact)	2025-2026	Minimal
Action 3. Require energy use disclosure and benchmarking for commercial buildings.	5	$8,600 - $13,000	$1,813 - $2,741	2027-2028	Substantial
Drive Retrofits in Existing Buildings					
Action 1. Develop incentive programs to drive residential and commercial retrofits and electrification.	1,163	$89,500 - $95,000	$77 - $82	2025-2026	Minimal

Action 2. Develop a municipal Facilities Energy Efficiency and Electrification Plan.	No direct emissions impact (enabling action)	$55,600 - $68,000	No direct emissions impact (enabling action)	2025-2026	Minimal
Improve Building Efficiency in Future Development					
Action 1. Incorporate climate considerations in zoning code and regional planning efforts.	Included in development of Community Plan	Included in development of Community Plan	Included in development of Community Plan	2025-2026	Minimal
Action 2. Enable climate-friendly construction and development through flexible design guidelines and a review of permitting processes.	Included in implementation of Historic Preservation Plan	Included in implementation of Historic Preservation Plan	Included in implementation of Historic Preservation Plan	2025-2026	Minimal
Action 3. Estimate and track building materials used in construction.	No direct emissions impact (enabling action)	Not calculated	No direct emissions impact	2027-2028	Minimal
Implement Transportation Mobility Plan to Reduce Energy Use from Cars					
Action 1. Improve transportation choices.	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan
Action 2. Manage parking supply.	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan
Action 3. Integrate land use & transportation.	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan	Included in Transportation Mobility Plan
Drive Efficient Waste Practices to Increase Landfill Diversion					
Action 1. Facilitate the development of new waste diversion programs or infrastructure.	Not calculated for individual waste actions	TBD based on need and opportunities	Not calculated for individual waste actions	2025-2026	TBD

Action 2. Adopt a Save-as-You-Throw (SAYT) waste ordinance.	Not calculated for individual waste actions	$2,200 - $3,200	Not calculated for individual waste actions	2025-2026	Minimal
Action 3. Limit the distribution of certain materials and enforce requirements for construction and demolition materials recycling.	Not calculated for individual waste actions	$44,600 - $50,000	Not calculated for individual waste actions	2027-2028	Moderate

Improve Efficiency Action Details

Understand Crested Butte's Building Stock

Action 1. Require energy assessments for all remodels to collect community-wide energy use data in residential and commercial properties.

Change building and/or energy code to include energy efficiency assessment requirements to help improve the energy performance of existing residential and commercial buildings for all levels of building remodels. The metrics below are separated into residential and commercial impacts.

RESIDENTIAL

2025-2030 targets needed to achieve savings

- 100% of applicable permits receive an energy assessment

GHG Calculations

- No GHG savings are anticipated. This action is anticipated to enable GHG savings in other actions

Cost Calculations

- The calculations for this action incorporate costs associated with:

- Gathering stakeholder input to inform code changes
- Development and delivery of trainings to support code implementation
- Outreach to inform the community about the changes

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** 100% applicable permits receive an energy assessment following code update
- **Emissions impact in 2030:** No direct emissions impact (enabling action)
- **Total Estimated Cost 2025 – 2030:** $4,300 - $6,500
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** No direct emissions impact
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions ($MTCO2_e$)	N/A
Provides a substantial return on investment ($/MTCO2e)	N/A
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Public health and wellbeing • Enhances climate resilience and environmental quality

COMMERCIAL

2025-2030 targets needed to achieve savings

- 100% of applicable permits receive an energy assessment

GHG Calculations

- No GHG savings are anticipated. This action is anticipated to enable GHG savings in other actions

Cost Calculations

- The calculations for this action incorporate costs associated with:
  - Gathering stakeholder input to inform code changes
  - Development and delivery of trainings to support code implementation
  - Outreach to inform the community about the changes

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** 100% applicable permits receive an energy assessment following code update
- **Emissions impact in 2030:** No direct emissions impact (enabling action)
- **Total Estimated Cost 2025 – 2030:** $4,300 - $6,500
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** No direct emissions impact
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Public health and wellbeing • Enhances climate resilience and environmental quality

Action 2. Require energy assessments for short-term rentals to collect community-wide energy use data in residential and commercial properties.

Require an energy assessment for all vacation rental units as part of the business license renewal process.

Cost Calculations

- The calculations for this action incorporate costs associated with:
  - Gathering stakeholder input to inform code changes
  - Development and delivery of trainings to support code implementation
  - Outreach to inform the community about the changes
- Higher costs for initial outreach and engagement are estimated since this is a regulation that is not seen in peer communities, although it is similar to Boulder's SmartRegs program (City of Boulder, 2024) with a more focused scope but a faster roll out
- Ongoing costs for this regulation are also high due to level of effort needed to confirm compliance that largely falls outside of existing Town workflows

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** 100% (191) vacation rental units completing an energy assessment 2025-2030
- **Emissions impact in 2030:** No direct emissions impact (enabling action)
- **Total Estimated Cost 2025 – 2030:** $10,800 - $16,200
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO_2e):** No direct emissions impact
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	No
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Public health and wellbeing

	• Enhances climate resilience and environmental quality

Action 3. Require energy use disclosure and benchmarking for commercial buildings.

Require annual energy disclosures and benchmarking for commercial buildings over a certain size to disclose energy use and compare against other similar businesses to encourage energy efficiency actions beyond energy disclosures (for large buildings) required by the state.

2025-2030 targets needed to achieve savings

- Benchmarking of commercial properties accounting for 25% of total community commercial energy use
- Reporting businesses improve energy efficiency by 2.4% from baseline

GHG Calculations

- Assumes that a benchmarking program would apply to the largest commercial properties equivalent to 25% of commercial business energy use in Crested Butte
- For those commercial properties that benchmark, a 2.4% energy savings from energy use is achieved by benchmarking, consistent with findings from other commercial benchmarking programs

Cost Calculations

- The calculations for this action incorporate costs associated with:
  - Gathering stakeholder input to inform regulation changes
  - Development and delivery of trainings to support implementation
  - Outreach to inform the community about the changes

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** Benchmarking of commercial properties accounting for 50% commercial energy use by 2030
- **Emissions impact in 2030:** 5 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** $8,600 - $13,000
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** $1,813 - $2,741
- **Expected Staff Time**: Substantial
- **Implementation Begins:** 2027-2028

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Social equity and affordability • Public health and wellbeing • Enhances climate resilience and environmental quality

Drive Retrofits in Existing Buildings

Action 1. Develop incentive programs to drive residential and commercial retrofits.

Create an energy efficiency incentive program for all residential and commercial properties. Metrics below are broken into residential and commercial impacts.

RESIDENTIAL:

2025-2030 targets needed to achieve savings:

- 87 residential homes converted to all electric
- 447 homes implementing energy efficiency actions
- 191 vacation rental properties implementing efficiency improvements
- Achieve 10% annual adoption by the residential sector for efficiency or electrification upgrades
- Achieve a 10% improvement in average HERS score of homes after energy efficiency upgrades

GHG Calculations

- The GHG impact of this action is based on 10% of residential properties upgrading annually, where approximately 12% of upgrades electrify their residence with associated energy efficiency gain and 88% perform energy efficiency improvements not tied to electrification
- While a net decrease in natural gas use is anticipated, a net increase in electricity use is expected because of residential electrification and efficiency measures in 2030

Cost Calculations

- The cost calculations for this action assume a match of GCEA's custom incentives at $0.15 per kWh and $4 per Dth. Estimated total incentives of $46,900 between 2025 and 2030 for energy efficiency improvements through this program assuming a utility incentive match program design based on energy savings.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:**
    - 87 residential properties electrified to remove natural gas use by 2030
    - 447 residential properties implementing energy efficiency improvements by 2030
    - 191 vacation rental properties implementing an energy efficiency or electrification upgrade by 2030
- **Emissions impact in 2030:** 1,163 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** $89,500 - $95,000
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** $77 - $82
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Social equity and affordability • Public health and wellbeing • Supports local businesses and economy • Enhances climate resilience and environmental quality

Action 2. Develop a municipal Facilities Energy Efficiency and Electrification Plan.

Use existing municipal building energy efficiency audits to inform the development of an energy efficiency and renewable energy plan. Complete updated ASHRAE Level II audits on all Town buildings to understand energy efficiency, renewable energy, and electrification opportunities and update the plan to reflect new opportunities.

2025-2030 targets to achieve savings

n/a

GHG Calculations

No emissions savings are calculated for this action as it is not directly influencing GHG emissions. Developing this plan and performing updated audits of municipal facilities are, however, important to reduce emissions in Town facilities in the future.

Cost Calculations

The cost calculation for this action includes the estimated cost of an updated energy audit for all Town of Crested Butte facilities (123,591 square feet at an estimated average of $0.50 per square foot (Pacific Northwest National Labratory, 2011).

Key Metrics

- **Scope of Impact:** Town Operations
- **Action Type:** Lead-by-example
- **Targets:** Develop an energy efficiency and electrification plan, conduct updated audits of all municipal
- facilities by 2026
- **Emissions impact in 2030:** No direct emissions impact
- **Total Estimated Cost 2025 – 2030:** $55,600 - $68,000
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** No direct emissions impact
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	No

Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Enhances climate resilience and environmental quality

Improve Efficiency in Future Development

Action 1. Incorporate climate considerations in zoning code and regional planning efforts.

The zoning code shapes future development, influencing emissions through density and building efficiency. This action integrates climate goals into the 2025 Community Plan, zoning update, and Gunnison County Corridor Plan to boost in-town living, cut transportation emissions, and enhance building efficiency.

2025 - 2030 targets to achieve savings

n/a

GHG Calculations

No emissions savings are calculated for this action as it is not directly influencing GHG emissions. This change, however, will impact future community growth and emissions.

Cost Calculations

An update to Crested Butte's zoning code has been identified as an action for the Community Plan. This update has been budgeted for elsewhere and therefore no cost has been calculated to incorporate climate-friendly considerations as part of the Climate Action Plan.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** Incorporation of climate considerations into the Community Plan and zoning code update
- **Emissions impact in 2030:** No direct emissions impact (enabling action)
- **Total Estimated Cost 2025 – 2030:** Included in development of Community Plan
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** Included in development of Community Plan
- **Expected Staff Time:** Included in development of Community Plan

- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Social equity and affordability • Public health and wellbeing • Enhances climate resilience and environmental quality

Action 2. Enable climate-friendly construction and development thought flexible design guidelines and a review of permitting processes.

This action updates design standards and guidelines, building codes, and permitting to support efficiency, electrification, and renewables. It empowers community members to propose climate-friendly designs through BOZAR, with measures like flexible roof pitches, water efficiency, and lower solar permit fees. Guided by the Historic Preservation Plan, it balances climate goals with design flexibility outside the National Historic District.

2025 - 2030 targets to achieve savings

n/a

GHG Calculations

No emissions savings are calculated for this action as it is not directly influencing GHG emissions. However, this change is important for allowing building upgrades that will impact emissions as modeled below.

Cost Calculations

An update to Crested Butte's design standards and guidelines has been identified as an action in the Historic Preservation and Community Plans. This update has been budgeted for elsewhere and therefore no cost has been calculated to incorporate climate-friendly design and permitting considerations as part of the Climate Action Plan.

Key Metrics & Success Measures Evaluation

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:** Incorporation of climate considerations into the updated design guidelines
- **Emissions impact in 2030:** No direct emissions impact (enabling action)
- **Total Estimated Cost 2025 – 2030:** Included in implementation of Historic Preservation Plan
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** Included in implementation of HPP
- **Expected Staff Time**: Included in implementation of Historic Preservation Plan
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Social equity and affordability • Public health and wellbeing • Enhances climate resilience and environmental quality

Action 3. Estimate and track building materials used in construction.

Leverage a 2025 building code update to establish methods for tracking building materials used in new construction. This could include a phased approach for new municipal construction and then including all new construction in 2029 code updates.

2025-2030 targets to achieve savings

- Tracking process established

GHG Calculations

- No direct emissions impact from this action

Cost Calculations

- No cost was calculated for this action

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Enabling & Lead by Example
- **Targets:** Tracking process established
- **Emissions impact in 2030:** No direct emissions impact (enabling action)
- **Total Estimated Cost 2025 – 2030:** Not calculated
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** No direct emissions impact
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2027-2028

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Supports local businesses and economy • Enhances climate resilience and environmental quality

Implement Transportation and Mobility Plan to Reduce Energy use from Cars

Action 1. Improve Transportation Choices.

The Transportation Mobility Plan (TMP) aims to improve alternative transportation choices through transit investments, traffic calming measures, corridor plans, and streetscapes while supporting EV adoption for necessary car trips. The regional Readiness for Electric Vehicles (REV) Plan will outline steps to educate the community and improve EV accessibility. Improving and expanding transportation options reduces emissions and has significant co-benefits for the community.

Cost considerations, timeline, and other important action metrics are included in the Town of Crested Butte Transportation Mobility Plan.

Action 2. Manage Parking Supply.

The TMP addresses parking over the next 20 years by managing over-parked areas, improving safety, and reducing traffic. The Readiness for Electric Vehicles (REV) Plan will focus on meeting future charging demand, prioritizing origin and destination charging, such as at lodging and multifamily housing, to support the Town's "park once" approach.

Cost considerations, timeline, and other important action metrics are included in the Town of Crested Butte Transportation Mobility Plan.

Action 3. Integrate land use and transportation.

Land use significantly influences transportation choices by affecting travel distance and the access and convenience of different modes. Addressing land use impacts long- term transportation emissions. The Community Plan and the Gunnison County Corridor Plan will help to support this strategy.

Cost considerations, timeline, and other important action metrics are included in the Town of Crested Butte Transportation Mobility Plan.

Drive Efficient Waste Practices to Increase Landfill Diversion

Action 1. Facilitate the development of new waste diversion programs or infrastructure.

Facilitate the creation of new waste diversion programs, infrastructure, and incentive programs to increase recycling, composting, and reduce landfill waste. Examples could include a composting incentive or a Town Environmental Purchasing Policy (EPP).

2025-2030 targets to achieve savings

- TBD based on needs and opportunities

GHG Calculations

- All waste-related actions contribute to reducing a total of 116 MTCO2e, with the exact reduction depending on how effectively they are implemented.

Cost Calculations

- The scope of this action is still to be determined, ranging from removing barriers and facilitating the development of new waste diversion infrastructure to incentives or grants for infrastructure. No cost has currently been estimated for this action.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:** TBD based on need and opportunities
- **Emissions impact in 2030:** All waste-related actions contribute to reducing a total of 116 MTCO2e, with the exact reduction depending on how effectively they are implemented.
- **Total Estimated Cost 2025 – 2030:** TBD based on need and opportunities
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** Not calculated for individual actions
- **Expected Staff Time:** TBD
- **Implementation Begins:** 2027-2028

Success Measures Evaluation

Meaningfully reduces GHG emissions	TBD
Provides a substantial return on investment	TBD
Sets a bold example among mountain communities	No
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	Yes
Provides significant co-benefits	• Supports local businesses and economy

Action 2. Adopt a Save-as-You-Throw (SAYT) waste ordinance

Partner with Waste Management to develop and enforce a pay-as-you-throw ordinance with higher trash rates for larger containers or quantities of waste to disincentivize waste generation and encourage recycling and composting by residents and businesses.

2025-2030 targets to achieve savings

- TBD based on needs and opportunities

GHG Calculations

- All waste-related actions contribute to reducing a total of 116 MTCO2e, with the exact reduction depending on how effectively they are implemented.

Cost Calculations

- The calculations for this action incorporate costs associated with:
  - Gathering stakeholder input to inform policy adoption
  - Development and delivery of trainings to support implementation
  - Outreach to inform the community about the new requirements.
- Low level of effort estimated since this is a common approach to trash service.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:** Adopt a pay-as-you-throw ordinance
- **Emissions impact in 2030:** All waste-related actions contribute to reducing a total of 116 MTCO2e, with the exact reduction depending on how effectively they are implemented.
- **Total Estimated Cost 2025 – 2030:** $2,200 - $3,200
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** Not calculated for individual waste actions
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	Yes

Provides significant co-benefits	• Enhances climate resilience and environmental quality

Action 3. Limit the distribution of certain materials and enforce requirements for construction and demolition materials recycling.

This action reduces waste by limiting the types of materials that may be distributed in town, for example, certain single use plastics, and requiring elimination or recycling, with a focus on reusing and recycling construction and demolition debris.

2025-2030 targets to achieve savings

- TBD based on needs and opportunities

GHG Calculations

- All waste-related actions contribute to reducing a total of 116 MTCO2e, with the exact reduction depending on how effectively they are implemented.

Cost Calculations

- The calculations for this action incorporate costs associated with:
  - Gathering stakeholder input to inform policy adoption
  - Development and delivery of trainings to support implementation
  - Outreach to inform the community about the new requirements
- High level of cost and time commitment for engagement given the complexity of this regulation. Deconstruction regulations are also rate and infrastructure needed to be successful may not already exist.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** Adoption of ordinance to limit the distribution of certain materials or ban materials from landfill and/or require deconstruction/construction
- materials recycling
- **Emissions impact in 2030:** All waste-related actions contribute to reducing a total of 116 MTCO2e, with the exact reduction

depending on how effectively they are implemented.

- **Total Estimated Cost 2025 – 2030:** $44,600 - $50,000
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** Not calculated for individual actions
- **Expected Staff Time:** Moderate
- **Implementation Begins:** 2027-2028

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Enhances climate resilience and environmental quality

Electrify Overview

Electrification is a key strategy for reducing emissions by shifting from fossil fuels to electricity, which is increasingly powered by renewables like wind, solar, and hydropower. As Tri-State continues to decarbonize its energy mix, the carbon intensity of Crested Butte's electricity declines, making electrification a more impactful solution over time—unlike natural gas, whose emissions are unlikely to improve significantly in the coming years. By electrifying sectors such as heating, cooling, transportation, and municipal operations, the Town can align with long-term climate goals and build resilience as technologies like battery storage advance. Crested Butte has already taken major steps through the adoption of the 2021 IECC and above-code electrification standards for buildings and will continue exploring opportunities in other areas, including electric vehicles through the regional REV Plan and electrification of Town facilities.

The Town will continue to support community-wide electrification with the following strategies:

- **Drive building electrification**
- **Strengthen electrification requirements through the Building Code**
- **Prepare for Electric Vehicles**

Electrify Actions Impact Summary Table

Action	2030 Carbon Reduction ($MTCO_2e$)	Total Estimated Cost (2025 – 2030)	Cost Effectiveness ($/MTCO_2e$)	Implementation Begins	Expected staff time
Drive Building Electrification					
Action 1. Develop incentive programs to drive residential and commercial electrification.	Emissions impact included under "Develop incentive programs to drive residential and commercial retrofits."	$4,300 - $6,500	Not calculated (no direct emissions impact)	2025-2026	Minimal
Action 2. Exemplify energy efficiency and electrification in municipal buildings.	49	$20,800 - $31,100	$426-$636	2025-2026	Minimal
Strengthen Electrification Requirements through the Building Code					
Action 1. Require all-electric commercial kitchens.	19	$10,900 - $16,300	$587-$878	2029-2030	Minimal
Prepare for Electric Vehicles (EVs)					
Action 1. Implement the Mt. Crested Butte/Crested Butte Readiness for Electric Vehicles (REV) Plan.	Not calculated, see REV Plan	Not calculated, see REV Plan	Not calculated, see REV Plan	2025-2026	Minimal

Electrify Action Details

Drive Building Electrification

Action 1. Develop incentive programs to drive residential and commercial electrification.

Create an electrification incentive program for all residential and commercial properties. This action was separated from the "Develop incentive programs to drive residential and commercial retrofits" action following the analyses period. See **"Develop incentive programs to drive residential and commercial retrofits"** to understand electrification incentive program impacts.

Action 2. Exemplify energy efficiency and electrification in municipal buildings.

This action advances facility upgrades from the Town's Energy Efficiency and Electrification Plan, using them as case studies for improving efficiency and reducing emissions in Town buildings and infrastructure.

2025-2030 targets needed to achieve savings

- 1 Town facility is upgraded each year to include either energy efficiency or full building electrification (3 energy efficiency upgrades and 3 properties electrified between 2025 and 2030)

GHG Calculations

- Town upgrades alternate between implementing energy efficiency upgrades or fully electrifying natural gas space heating, water heating, and cooking end uses with its one annual upgrade.
- It is assumed a 50% likelihood that either energy efficiency (a 10% reduction in energy use is assumed) or full electrification with estimated savings associated with those improvements occurs for one property annually.
- Town facility electricity use is expected to see a net increase as a result of energy efficiency and building electrification measures.

Cost Calculations

- The cost calculations for this action assume an average 20-year payback for electrification and energy efficiency work and are based on estimated energy savings.
- Note that the costs shown are incremental investments above and beyond typical equipment replacement costs.

Key Metrics

- **Scope of Impact:** Town Operations
- **Action Type:** Lead-by-example
- **Targets:** 3 municipal property energy efficiency upgrades 2025 – 2030, 3 municipal properties electrified

- 2025 – 2030
- **Emissions impact in 2030:** 49 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** $20,800 - $31,100
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** $426 - $636
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Enhances climate resilience and environmental quality

Strengthen Electrification Requirements through the Building Code

Action 1. Require all-electric commercial kitchens

Update existing new construction building code to require electrification of commercial kitchen equipment for new construction, the only electrification measure not currently required by existing building code.

2025-2030 targets to achieve savings

- 2-3 new commercial kitchens transitioned to all electric

GHG Calculations

- The GHG impact of this action is calculated based on this historical average number of commercial new construction permits and a target for 2-3 new commercial kitchens being transitioned from natural gas to electric cooking equipment by 2030.

Cost Calculations

- The calculations for this action incorporate estimated costs associated with:

    - Gathering stakeholder input to inform code changes
    - Development and delivery of trainings to support code implementation
    - Outreach to inform the community about the changes
- Since this is a code requirement that is not common in peer communities and has received some pushback from community members, higher levels of engagement are expected to be required to build community understanding and compliance

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Require
- **Targets:** 3 all-electric new construction commercial kitchens by 2030
- **Emissions impact in 2030:** 19 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** $10,900 - $16,300
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** $587 - $878
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2029-2030

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Public health and wellbeing • Enhances climate resilience and environmental quality

Prepare for Electric Vehicles

Action 1. Implement the Mt. Crested Butte/Crested Butte Readiness for Electric Vehicles (REV) Plan

This action leverages the regional Readiness for Electric Vehicles (REV) Plan to address supporting electric vehicle (EV) adoption, increasing EV drivers, and charging infrastructure needs in the Towns of Crested Butte and Mt. Crested Butte. Reference the REV Plan for more action information.

Decarbonize Overview

Decarbonizing electricity is one of the most impactful strategies for reducing emissions by 2030, with utility-scale renewable energy expected to account for 42% of the total emissions reductions in this plan. Transforming how energy is produced and used—through advocacy, investment, and supporting a clean energy grid—will enable buildings and transportation to fully transition to low-carbon power. A cleaner grid amplifies the benefits of electrification across all sectors. Beyond energy, decarbonization also involves reducing the lifecycle emissions of materials used in construction and Town operations; by choosing low-carbon materials and sustainable practices, Crested Butte can further minimize its environmental footprint.

The Town will focus on continued decarbonization though the following strategies:

- **Advocate for more renewable energy on the grid**
- **Pursue partnerships and opportunities to achieve up to 100% renewable energy generation**
- **Enable on-site renewable energy in the community**

Decarbonize Actions Impact Summary Table

Action	2030 Carbon Reduction ($MTCO_2e$)	Total Estimated Cost (2025 – 2030)	Cost Effectiveness ($/MTCO_2e$)	Implementation Begins	Expected staff time
Advocate for more renewable energy on the grid					
Action 1. Advocate for increased renewable energy generation at the local, state, and federal levels.	No direct emissions impact (enabling action)	$13,500 - $16,500	Not calculated (no direct emissions impact)	2025-2026	Minimal

Pursue partnerships and opportunities to achieve up to 100% renewable energy generation					
Action 1. Partner with GCEA to support local renewable energy generation up to 100%.	16	$7,500-$22,500	$477-$1,431	2025-2026	Minimal
Action 2. Evaluate renewable energy generation to meet municipal energy needs up to 100%.	Up to 247	TBD	TBD	2029-2030	Minimal
Enable on-site renewable energy in the community					
Action 1. Support voluntary community adoption of renewable energy generation.	78	$15,000 - $45,000	$193 - $580	2025-2026	Minimal
Action 2. Assess solar permitting fees.	Not calculated	Not calculated	Not calculated	2025-2026	Minimal
Action 3. Expand the Renewable Energy Mitigation Program (REMP) to require renewable energy generation or fee-in-lieu for buildings over a certain size.	22	$3,200 - $4,900	$143 - $219	2027-2028	Minimal

Decarbonize Action Details

Advocate for more renewable energy on the grid

Action 1. Advocate for increased renewable energy generation at the local, state, and federal levels.

Advocate for stronger climate policies through CC4CA and explore further advocacy at local, state, and federal levels, including with GCEA and Tri-State.

2025-2030 targets needed to achieve savings:

- n/a

GHG Calculations

- This is an enabling action to pursue the potential for additional renewable energy in the Town electricity mix. No savings expected by 2030, rather a strategy to enable future significant electricity generation GHG emissions reductions.

Cost Calculations

The cost calculations for this action assume ongoing engagement with GCEA and TriState as well as continued participation in Colorado Communities for Climate Action (CC4CA) and engagement at the state and federal level.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:** Participate in ongoing advocacy, including opportunities and the local, state, and federal level
- **Emissions impact in 2030:** No direct emissions impact
- **Total Estimated Cost 2025 – 2030:** $13,500 - $16,500
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO$_2$e):** No direct emissions impact
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Enhances climate resilience and environmental quality

Pursue partnerships and opportunities to achieve up to 100% renewable energy generation

Action 1. Partner with GCEA to support local renewable energy generation up to 100%.

2025-2030 targets needed to achieve savings:

- n/a

GHG Calculations

- This is an enabling action to pursue the potential for additional renewable energy in the Town electricity mix. No savings expected by 2030, rather a strategy to enable future significant electricity generation GHG emissions reductions.

Cost Calculations

The cost calculations for this action assume ongoing engagement with GCEA and TriState as well as continued participation in Colorado Communities for Climate Action (CC4CA) and engagement at the state and federal level.

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:** 0.8 MW additional local renewable generation installed
- **Emissions impact in 2030:** 16 MT $CO2_e$
- **Total Estimated Cost 2025 – 2030:** $7,500 - $22,500
- **Cost Effectiveness (2025-2030 Cost / 2030 MTCO_2e):** $477-$1,431
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	N/A
Provides a substantial return on investment	N/A

Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Enhances climate resilience and environmental quality

Action 2. Evaluate renewable energy generation to meet municipal energy needs up to 100%.

Assess renewable energy installation to generate more energy for Town facilities to reach up to 100% of municipal energy needs in compliment with utility-level renewable energy generation.

2025-2030 targets needed to achieve savings:

- TBD based on need and opportunity

GHG Calculations

- Installed on-site solar covers all Town electricity needs in 2030
- Based on total generated power from installed solar offsetting grid electricity delivered at the emissions factor outlined in the ABAU (Town of Crested Butte 2022 GHG Emissions Inventory)

Cost Calculations

- Will be calculated as opportunities for renewable energy generation on Town facilities arise.

Key Metrics

- **Scope of Impact:** Town Operations
- **Action Type:** Lead-by-example
- **Targets:** 100% Town electricity needs met through local renewable energy generation
- **Emissions impact in 2030:** up to 247 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** TBD based on need and opportunities
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** TBD based on need and opportunities
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2029-2030

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	Yes
Provides significant co-benefits	• Social equity and affordability • Public health and wellbeing • Supports local businesses and economy • Enhances climate resilience and environmental quality

Enable on-site renewable energy in the community

Action 1. Support voluntary community adoption of renewable energy generation.

This action focuses on increasing voluntary adoption of local renewable energy through possible coordination of a "group buy" to bring down the cost of on-site installation to individual households and businesses through collective purchasing power. Pairing with educational resources will help to raise awareness of existing incentives and rebates available to support local renewable energy generation. Significant incentives already exist to support local renewable energy and studies have shown that additional local incentives may have limited impact on adoption, hence the focus on coordination and education. (Matisoff & Johnson, 2017) (van Valkengoed & Werff, 2022).

2025-2030 targets needed to achieve savings:

- 3 business and 3 residential solar arrays installed annually (triple the historical rate of installs)

GHG Calculations

- Total installed solar capacity 419 kW installed between 2025-2030 based on average system sizes of 5 kW per residential system and 23 kW per commercial system installed
- Installed solar capacity offsets grid supplied electricity with the emissions factor forecasted in the ABAU

Cost Calculations

- The calculations for this action incorporate costs associated with:
    - Education and outreach associated with coordinating and administering a group buy
    - Education and outreach related to existing incentives for local renewable energy generation
- Moderate level of effort estimated. There are well established group buy programs, but a significant amount of community outreach is still needed

Key Metrics

- **Scope of Impact:** Community-wide
- **Action Type:** Encourage
- **Targets:** Triple the current number of solar permits filed to achieve 3 business and 3 residential solar
- arrays per year, resulting in 84kW per year installed generation capacity
- **Emissions impact in 2030:** 78 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** $15,000 - $45,000
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** $193 - $580
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2025-2026

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Social equity and affordability • Public health and wellbeing • Support businesses and local economy • Enhances climate resilience and environmental quality

Action 2. Assess solar permitting fees.

Assess the Town of Crested Butte's current solar installation permitting fees and processes to remove barriers for residential or commercial properties to install solar and reduce cost where possible. This action was added later in plan development and was not assessed for GHG reduction or cost impacts, but Town Council indicated this as an important step to supporting community adoption of renewable energy systems.

Action 3. Expand the Renewable Energy Mitigation Program (REMP) to require renewable energy generation or fee-in-lieu for buildings over a certain size.

Evaluate the existing REMP program and add a requirement for on-site renewable energy generation or payment of a fee-in-lieu for all newly constructed buildings over a certain size.

2025-2030 targets needed to achieve savings:

- 2 business and 17 residential solar arrays installed between 2025-2030

GHG Calculations

- Total installed solar capacity 120 kW installed between 2025-2030 based on average system sizes of 5 kW per residential system and 23 kW per commercial system installed
- Based on total generated power from installed solar offsetting grid electricity delivered at the emissions factor outlined in the ABAU

Cost Calculations

- The calculations for this action incorporate costs associated with:
    - Gathering stakeholder input to inform policy adoption
    - Development and delivery of trainings to support implementation
    - Outreach to inform the community about the new requirements
- Moderate level of effort needed to pass this ordinance as there are similar ordinances in peer communities, but the ordinance can be complex to implement

Key Metrics

- **Scope of Impact:** Community-wide

- **Action Type:** Require
- **Targets:** 3 installations or payments in lieu each year, resulting in 24kW per year installed generation capacity
- **Emissions impact in 2030:** 22 $MTCO_2e$
- **Total Estimated Cost 2025 – 2030:** $3,200 - $4,900
- **Cost Effectiveness (2025-2030 Cost / 2030 $MTCO_2e$):** $143 - $219
- **Expected Staff Time:** Minimal
- **Implementation Begins:** 2027-2028

Success Measures Evaluation

Meaningfully reduces GHG emissions	Yes
Provides a substantial return on investment	Yes
Sets a bold example among mountain communities	Yes
Is proactive before reactive	Yes
Leverages regional initiatives and partnerships	No
Provides significant co-benefits	• Social equity and affordability • Enhances climate resilience and environmental quality

Timeline

Improve Efficiency

Actions	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Require energy assessments for all remodels to collect community-wide energy use data in residential and commercial properties.						

Require energy assessments for short-term rentals to collect community-wide energy use data in residential and commercial properties.

Require energy use disclosure and benchmarking for commercial buildings.

Develop incentive programs to drive residential and commercial retrofits and electrification.

Develop a municipal Facilities Energy Efficiency and Electrification Plan.

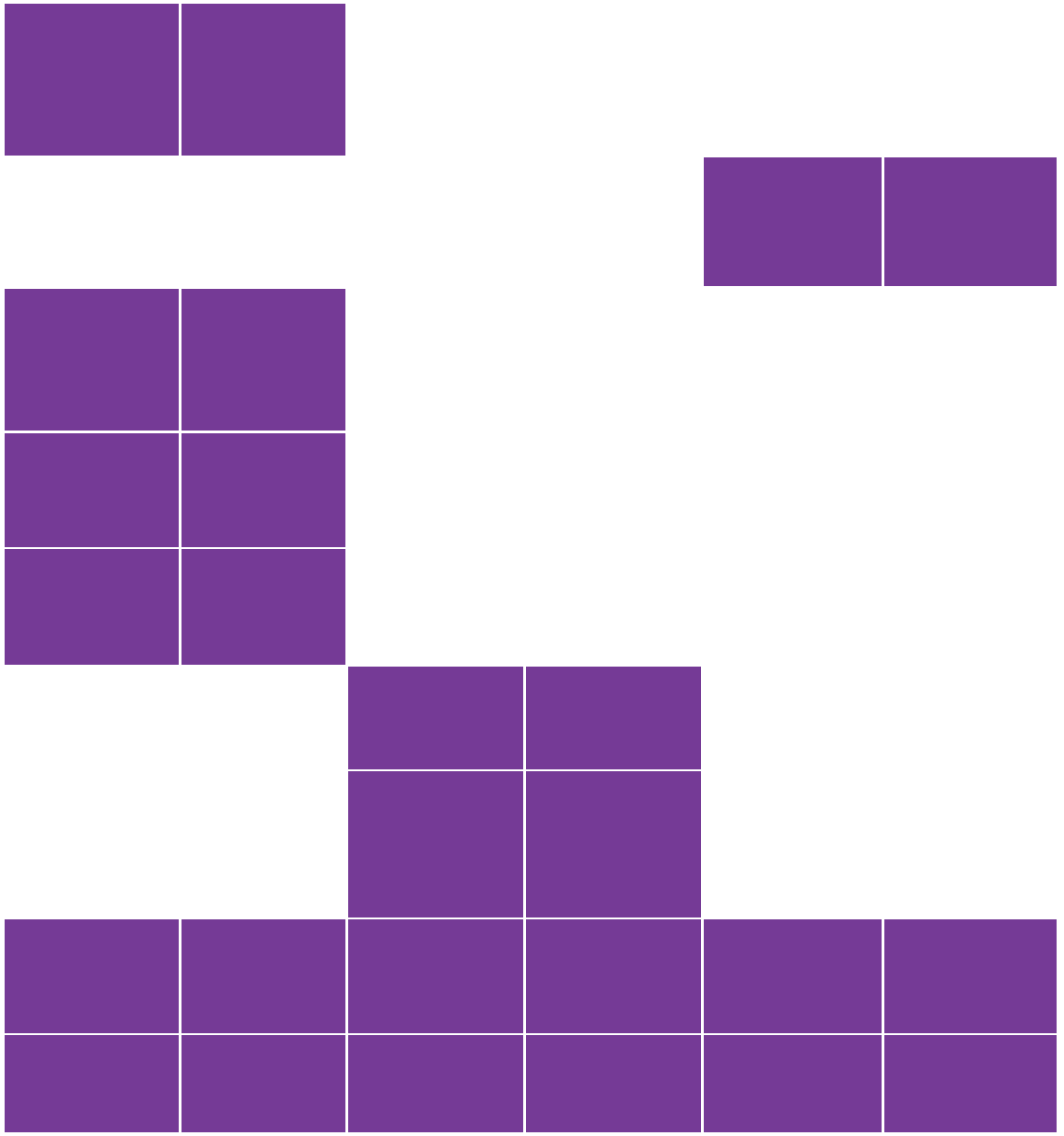
Incorporate climate considerations in zoning code and regional planning efforts.

Enable climate-friendly construction and development thought flexible design guidelines and a review of permitting processes.

Limit the distribution certain materials from landfill and enforce requirements for construction and demolition materials recycling.

Improve transportation choices.

Manage parking supply.



Integrate land use & transportation.						

Electrify

Actions	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Develop incentive programs to drive residential and commercial electrification**.**						
Exemplify energy efficiency and electrification in municipal buildings.						
Require all-electric commercial kitchens.						
Implement the Mt. Crested Butte/Crested Butte Readiness for Electric Vehicles (REV) Plan.						

Decarbonize

Actions	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Advocate for increased renewable energy generation at the local, state, and federal levels.						
Partner with GCEA to support local renewable energy generation up to 100%.						
Evaluate renewable energy generation to meet municipal energy needs up to 100%.						
Support voluntary community adoption of renewable energy generation.						

Assess solar permitting fees.

Expand the Renewable Energy Mitigation Program (REMP) to require renewable energy generation or fee-in-lieu for buildings over a certain size.

2022
Town of Crested Butte
Greenhouse Gas Emissions Inventory

November 2024

Climate Action Plan

CRESTED BUTTE, COLORADO
A National Historic District

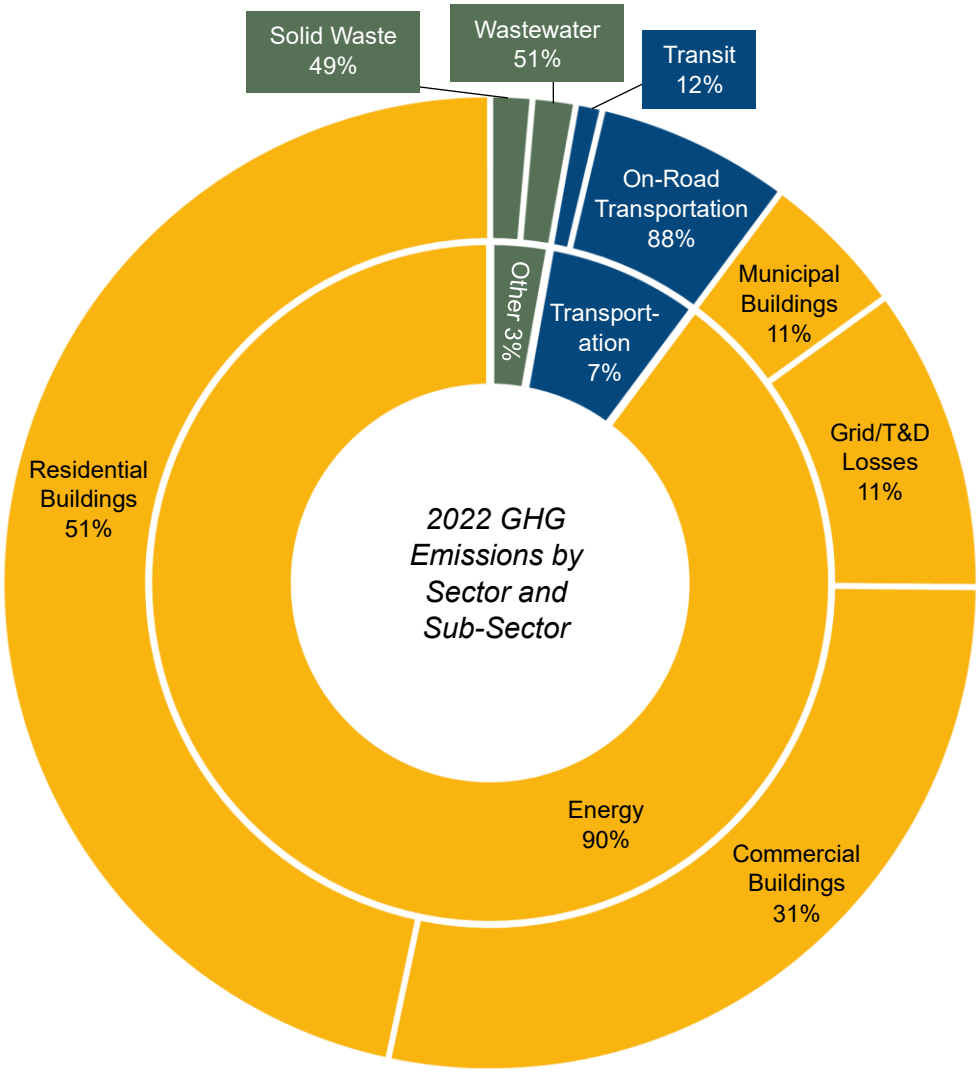
CONTENTS

FIGURES

TABLES

Town of Crested Butte 2022 Greenhouse Gas Emissions Inventory: Executive Summary

In order to inform the Climate Action Plan 2030, the Town of Crested Butte developed a community-wide and municipal greenhouse gas (GHG) emissions inventory. The inventory provides a snapshot of Crested Butte's GHG emissions in 2022, along with a comparison to 2017 data.



23,670 MTCO$_2$e

total community emissions in 2022

5% increase

in calculated community emissions between 2017 and 2022

1,800 MTCo2e

total municipal emissions in 2022, 8% of the community total

Building energy sector

electricity and natural gas are the largest source of emissions

[1] 2017 emissions presented in this report have been recalculated and updated from the original version of the 2017 inventory to align with current best practices.

CHANGE IN EMISSIONS: 2017 TO 2022

The key drivers of change in emissions between 2017 and 2022 include:

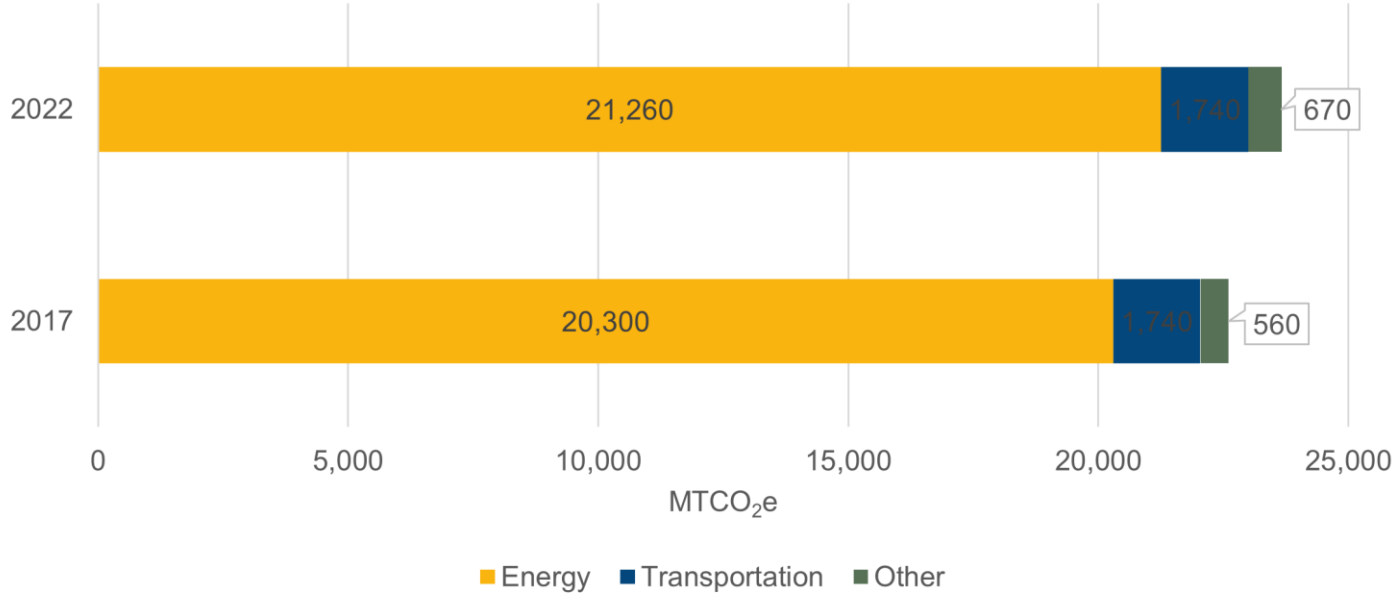
Increased:

- Natural gas usage
- Vehicle miles traveled
- Solid waste generation

Reduced:

- Electricity use
- Emissions factors (electricity, natural gas, vehicle efficiency)

Town of Crested Butte Community Emissions, 2017 and 2022



Sector	2017 ($MTCO_2e$)	2022 ($MTCO_2e$)	Change
Energy	**20,300**	**21,260**	**+5%**
Commercial Buildings	8,750	6,680	-24%
Grid / T&D Losses	1,970	2,390	+21%
Municipal Buildings	Included in Commercial	1,150	N/A
Residential Buildings	9,580	11,040	+15%
Transportation	**1,740**	**1,740**	**0%**
On-Road Transportation	1,740	1,530	-12%
Transit	Not calculated	210	N/A
Other	**560**	**670**	**+20%**
Solid Waste	240	330	+38%
Wastewater Treatment	320	330	+6%
Total Emissions	**22,600**	**23,670**	**+5%**

1. INTRODUCTION

This report provides an estimate of Crested Butte's greenhouse gas (GHG) emissions in 2022 and a comparison to 2017 emissions data.

The purpose of a GHG inventory is to quantify the emissions associated with energy consumption, fuel use, and activities within the community's geographic boundary. The inventory was created as a first step in the development of Crested Buttes Climate Action Plan. The inventory will inform the identification of climate action alternatives in the Climate Action Plan and will enable the Town to evaluate and monitor the impact of alternatives by tracking change in community and municipal emissions over time.

Community Context and Benchmarks

Since actions and trends in the community drive changes in GHG emissions, it is helpful to understand key community characteristics and context that may have influenced 2022 emissions and changes since 2017.

Factor	Description
Population Growth	Population growth is typically associated with increased activity and community emissions. The population of Crested Butte increased 4%, from 1,385 in 2017 to 1,434 in 2022 while the population of Gunnison County increased by 5%. This growth could explain some of the changes in energy use, transportation, and waste generation.
Impact of COVID-19	Evaluating emissions in 2022 avoids the most significant impacts of the COVID-19 global pandemic on activities and emissions in 2020 and 2021. However, since Crested Butte's tourism-driven economy was significantly impacted by the pandemic, some observed changes in emissions may be attributable to lasting indirect impacts of COVID-19.

Establishing New Community Benchmarks

The 2022 inventory establishes new community benchmarks to support GHG emissions trend analysis and evaluation in future years, including:

Factor	2022 Benchmark	Description
Number of Visitors	267,000	Given Crested Butte's small full-time population and high number of visitors, changes in activity may be more closely linked to changes in visitation than changes in the number of residents.
Annual Daily Average Population	2,779 (2021 estimate)	Average daily annual (ADA) is an average of population throughout the entire year.[2] This number was estimated for the Town of Crested Butte Wastewater Treatment Plant Improvements Project.
Heating Degree Days	10,458	Heating degree days (HDD) are a measure of how hot or cold it is in a given year and are a key indicator of natural gas heating demand.
Geographic Area	0.80 square miles	An increase in the geographic area due to annexations into the Town of Crested Butte could be associated with an increase in activity data and services provided by the Town.
Building Area	2,626,995 square feet	An increase in the building area inside the Town could be associated with increased energy use and emissions.

[2] Kingdom, J., and Charbonnet, E., (2021) Wastewater Treatment Plant Improvements Project: Project Memorandum 1

2. SUMMARY OF RESULTS

This inventory was prepared following the Global Protocol for Community-Scale Greenhouse Gas Inventories (GPC) BASIC+ requirements. The 2017 inventory was developed using different methodologies that are not consistent with the GPC protocol. The electricity grid losses, natural gas transportation and distribution losses, on-road transportation, solid waste, and wastewater treatment emissions presented in this report have been recalculated and updated from the original version of the 2017 inventory to align with current best practices that account more holistically for community emissions.

This section provides a summary of community and municipal inventory results by sector and includes a breakdown of community emissions by scope. **The inventory includes Scope 1 and Scope 2 emissions relevant to Crested Butte and accounts for Scope 3 solid waste emissions attributable to activities within Crested Butte.**

Scope	Definition	Sources Included In This Inventory
Scope 1	GHG emissions from sources located within the Town boundary.	• Natural gas use • Wastewater treatment processes • Transportation within Town limits
Scope 2	GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam, and/or cooling within the Town boundary.	• Electricity use
Scope 3	All other GHG emissions that occur outside the town boundary as a result of activities taking place within the Town boundary.	• Solid waste disposal

Community Emissions Summary

Community Emissions By Sector and Scope

Total community emissions for the Town of Crested Butte were 23,670 $MTCO_2e$ in 2022. As shown in **Figure 1**, by far the largest source of emissions was the Energy sector, accounting for 90% of the total, followed by Transportation at 7%, and Other emissions (Wastewater Treatment and Solid Waste) at 3%.

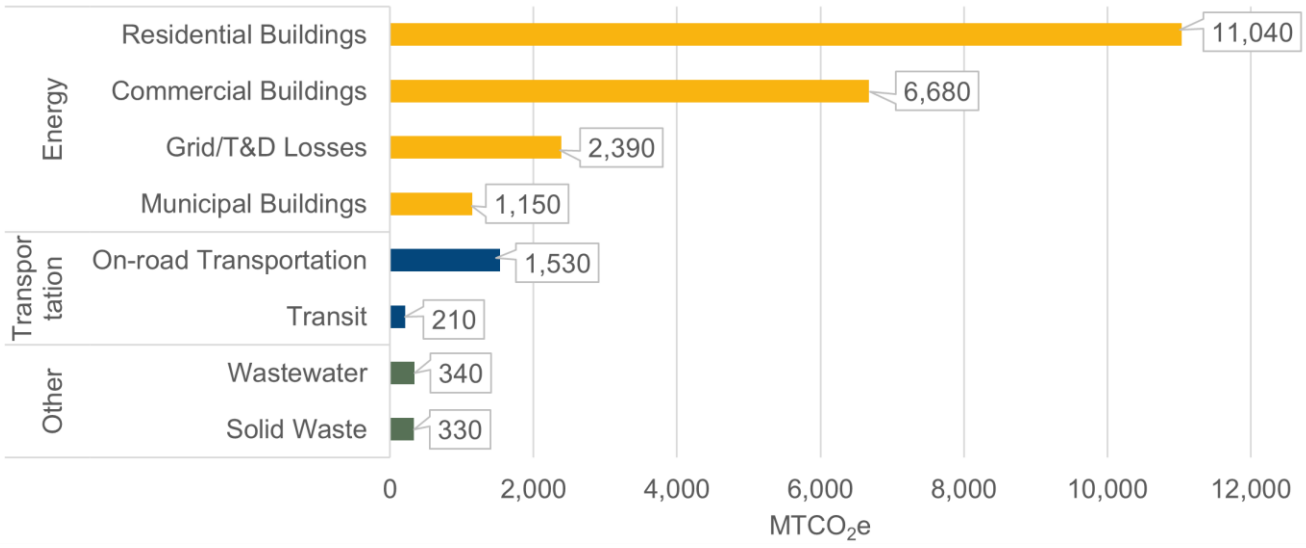


Figure 1. Town of Crested Butte GHG Emissions Summary by Sector And Subsector, 2022

Table 1 provides a more detailed summary of Crested Butte's emissions by sector, source and scope, showing that only a small portion of Scope 3 emissions are included in this inventory. Emissions are fairly evenly distributed between Scope 1 and 2.

Table 1: Community Emissions by Scope, Sector, and Source

Scope, Sector, Source	2022 $MTCO_2e$
Scope 1	**11,370**
Energy	**9,310**
Natural Gas	**9,310**
Commercial	2,590
Municipal	350
Residential	4,580
T&D Losses	1,790
Other	**340**
Wastewater	**330**
Wastewater Treatment Process	10
Wastewater Treatment Fugitive	330
Transportation	**1,720**
On-road Vehicle Transportation	**1,510**
Diesel	250
Gasoline	1,060
Municipal	200
Transit	**210**
Diesel	200
Compressed Natural Gas	10
Scope 2	**11,970**
Energy	**11,950**
Electricity	**11,950**
Commercial	4,090
Grid Loss	600
Municipal	800
Residential	6,460
Transportation	**20**
On-road Vehicle Transportation	**20**
Electric	20
Scope 3	**330**
Other	**330**
Solid Waste	**330**
Grand Total	**23,670**

Change in Community Emissions

While the 2017 emissions data presented in this report were calculated to align with current best practices, caution should still be exercised in drawing assumptions about trends between two individual years. As the Town creates future inventories using consistent methodology, it will become easier to reliably compare emissions and track trends over time.

As shown in **Figure 2** and **Table 2**, calculated emissions for 2022 were 5% higher than those for 2017.

The increase in calculated emissions was driven by increases in natural gas use, residential electricity use, vehicle miles traveled, and solid waste generation. Change in these sub-sectors was offset, in part, by reduced commercial electricity use and decreasing emission factors, including for electricity and vehicle efficiency.

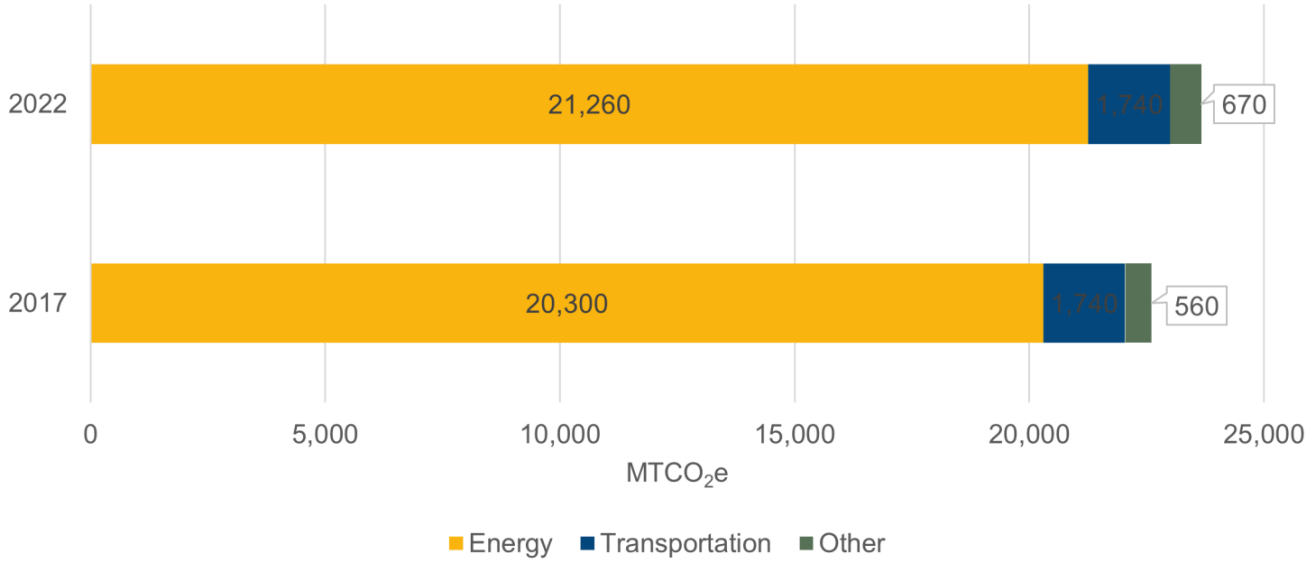


Figure 2. Town of Crested Butte Community GHG Emissions by Sector, 2017 and 2022

Table 2. Community Emissions by Sector and Sub-Sector, 2017 and 2022

Sector	2017 ($MTCO_2e$)	2022 ($MTCO_2e$)	Change
Energy	**20,300**	**21,260**	**+5%**
Commercial Buildings	8,750	6,680	-24%
Grid / T&D Losses	1,970	2,390	+21%
Municipal Buildings	Included in Commercial	1,150	N/A
Residential Buildings	9,580	11,040	+15%
Transportation	**1,740**	**1,740**	**0%**
On-Road Transportation	1,740	1,530	-12%
Transit	Not calculated	210	N/A
Other	**560**	**670**	**+20%**
Solid Waste	240	330	+38%
Wastewater Treatment	320	330	+6%
Total Emissions	**22,600**	**23,670**	**+5%**

Community Emissions Per Capita

Total calculated emissions per capita were approximately 16.5 $MTCO_2e$, a slight increase from 16.3 $MTCO_2e$ in 2017.

For comparison, **Figure 3** below shows per capita emissions from peer cities, the State of Colorado and the United States. Note that while these comparison cities are all mountain communities with tourism-based economies, they vary in size and are all larger than Crested Butte. Additionally, each of these communities have unique characteristics and different scales and scopes included in their GHG inventories, which means that direct comparison should be approached with caution, for example Aspen's inventory includes aviation emissions at the Aspen-Pitkin County Regional Airport.

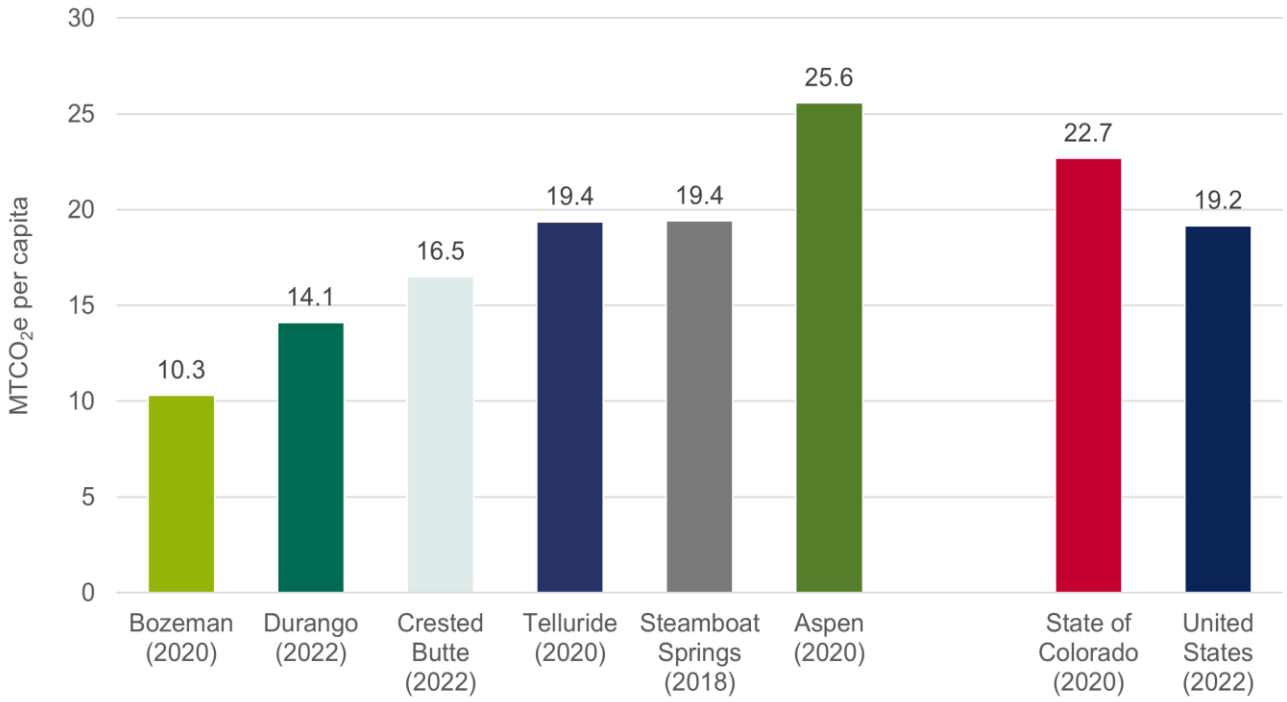


Figure 3. Community Emissions by Capita Comparison[4]

[3] City of Bozeman 2020 Community Greenhouse Gase Emissions Inventory Report, City of Durango 2022 Community and Municipal Greenhouse Gas Emissions Inventory, Town of Telluride 2020 Greenhouse Gas Emissions Inventory, Routt County and City of Steamboat Springs 2018 Greenhouse Gas Inventory and Forecasted Emissions Report, City of Aspen 2020 Greenhouse Gas Emissions Report, 2023 Colorado Statewide Inventory of Greenhouse Gas Emissions and Sinks, U.S. Greenhouse Gas Emissions 2022

Municipal Emissions Summary

This section describes emissions associated with Town of Crested Butte municipal operations. In 2022, total municipal emissions were 1,800 $MTCO_2e$ and accounted for approximately 8% of total community emissions.

Municipal Emissions by Sector

Figure 4 shows municipal emissions by sector and subsector. Energy accounted for 71% of total municipal emissions, fleet vehicles accounted for 11% and wastewater treatment processes accounted for 18%.

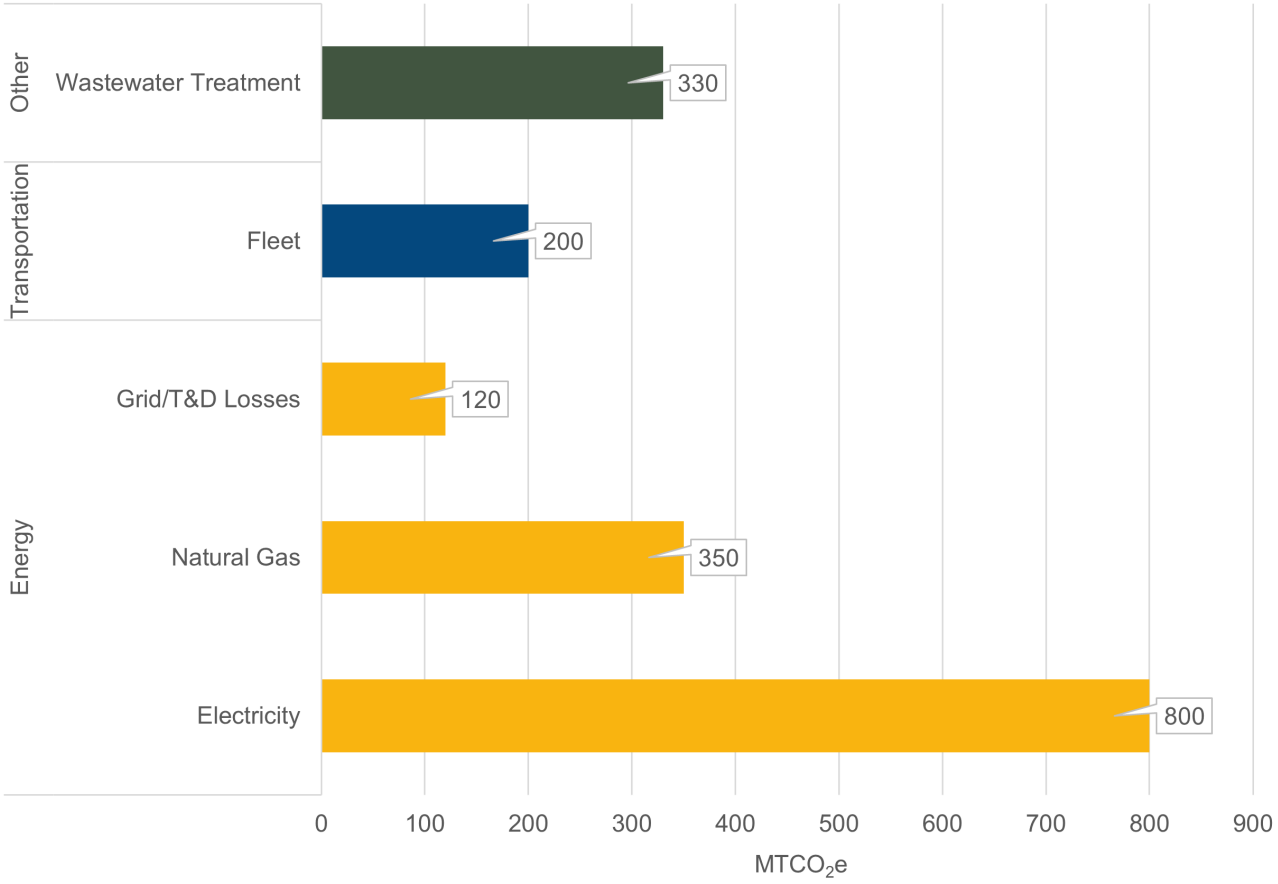


Figure 4. Town of Crested Butte Municipal GHG Emissions by Sector, 2022

Municipal Emissions: New Methodology

Municipal emissions, other than electricity used in wastewater treatment, were not separated out from community emissions in Crested Butte's 2017 inventory. The 2022 municipal emissions inventory was developed to align with best practices outlined in the ICLEI Local Government Operations Protocol and provide a more holistic picture of emissions associated with government operations.

The municipal inventory includes energy emissions from electricity, natural gas usage, and associated losses; gasoline and diesel use by Town fleet; and wastewater treatment process and fugitive emissions. The emissions from electricity used in wastewater production in 2022 are included in the total municipal electricity use total, in accordance with current best practices.

3. ENERGY EMISSIONS

This section provides an overview of emissions associated with energy used in the built environment, including electricity and natural gas use in residential, commercial, and municipal buildings, as well as the associated distribution system losses.

Emissions Snapshot

Total community energy emissions in 2022 were 21,260 $MTCO_2e$, accounting for 90% of Crested Butte's total community emissions. Emissions included in this sector were 5% higher in 2022 than 2017.

As shown in **Table 3**, the increase in energy emissions is driven by a 15% increase in residential building emissions and a 21% increase in energy losses. This increase was partially offset by an 11% reduction in commercial and municipal building emissions. Since municipal building emissions were not separated out from commercial buildings in 2017, Table 3 compares 2022 combined commercial and municipal emissions to the 2017 commercial subsector.

Table 3: Town of Crested Butte Energy Emissions, 2017 and 2022

Subsector	2017 $MTCO_2e$	2022 $MTCO_2e$	Percent Change
Residential Buildings	9,580	11,040	+15%
Commercial Buildings	8,750	6,680	-11%*
Municipal Buildings	Included in commercial	1,150	
Losses (Transmission & Distribution, Process & Fugitive)	1,970	2,580	+21%
Total	**20,030**	**21,260**	**+5%**

*Change in commercial and municipal emissions combined since municipal was not separated out from commercial in 2017.

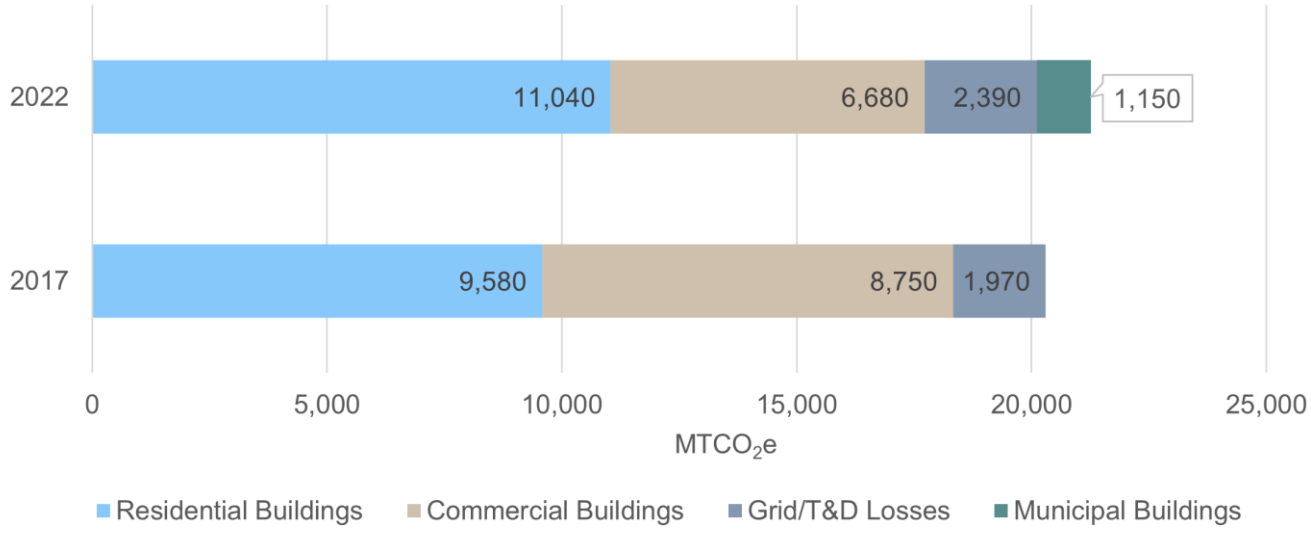


Figure 5. Town of Crested Butte 2017 and 2022 Energy Emissions

Electricity

Total electricity emissions in 2022 were 11,950 $MTCO_2e$, and account for 56% of total energy sector emissions, down from 63% in 2017. As shown in **Table 4** and **Figure 6**, total electricity emissions were 5% lower in 2022 than 2017.

Table 5 shows the change in electricity use between 2017 and 2022.

Table 4: Electricity Emissions, 2017 and 2022

Subsector	2017 $MTCO_2e$	2022 $MTCO_2e$	Percent Change
Residential Buildings	6,080	6,460	+6%
Commercial Buildings	5,960	4,090	-18%*
Municipal Buildings	Not calculated	800	
Transmission & Distribution Losses	510	600	+18%
Total	**12,550**	**11,950**	**-5%**

*Change in commercial and municipal emissions combined since municipal was not separated out from commercial in 2017.

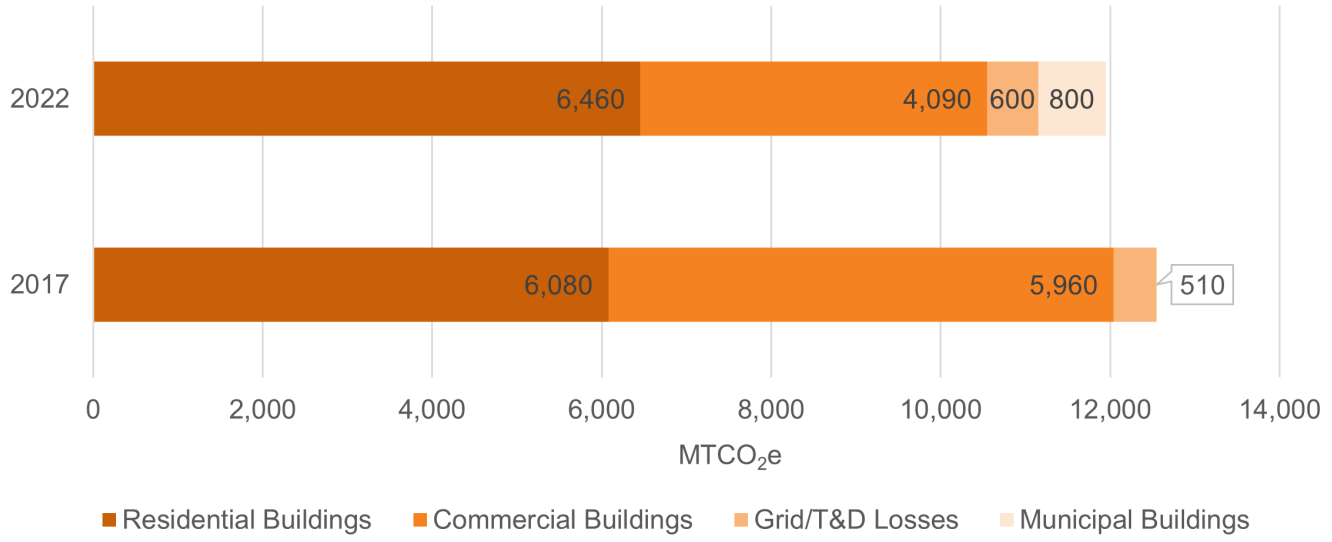


Figure 6. Electricity Emissions by Sub-sector, 2017 and 2022

Table 5: Electricity Inputs

Source	Unit[4]	2017 Input	2022 Input	Percent Change
Residential Use	kWh	8,697,045	9,371,583	+8%
Commercial Use	kWh	8,530,477	5,926,335	-17%*
Municipal Use	kWh	0	1,159,667	
Total	**kWh**	**17,227,522**	**16,457,585**	**-4%**

Emissions Factor	lbs CO_2e/MWh	1,541	1,520	-1%
Grid Loss Factor	%	4.2%	5.3%	+26%

[4] A kilowatt-hour (kWh) is a unit of measurement for energy consumption and the amount of energy used by a 1,000-watt appliance running for one hour. A megawatt hour (MWH) is equal to 1,000 kWh.

*Change in commercial and municipal use combined since municipal use was not separated out from commercial in 2017.

Key Drivers of Change in Electricity Emissions

The reduction in community electricity emissions is driven by a combination of lower commercial electricity consumption, and a reduced electricity emissions factor. Together, these changes offset an increase in residential electricity use and the grid transmission and distribution loss factor from 2017 to 2022.

Key drivers of change include:

- **Reduced total electricity usage:** Total electricity consumption in 2022 was 4% lower than in 2017, contributing to the overall reduction in emissions.
    - **Reduced commercial electricity consumption:** Electricity used in commercial buildings accounted for approximately 34% of total electricity emissions in 2022. As shown in
    - **Table** 5, total combined commercial and municipal electricity use decreased by 17% between 2017 and 2022. While the reason for this reduction is unknown, it could be connected to commercial energy efficiency measures and/or a reduction in commercial activity or the number of businesses operating in Crested Butte.
    - **Municipal electricity consumption:** Electricity used in municipal buildings and facilities was not separated out from commercial use in 2017 but accounted for approximately 7% of total community electricity emissions in 2022.
    - **Increased residential electricity consumption:** Electricity used in residential buildings accounted for 54% of total electricity emissions in 2022 and consumption was 8% higher in 2022 compared to 2017.
- **Reduced electricity emissions factor**: The local emissions factor (CO_2e per MWH) provided by Gunnison County Electric Association (GCEA) has decreased by 1% since 2017, as shown in
- **Table** 5. This change resulted in a 6% decrease in emissions associated with residential, commercial, and municipal electricity use, larger than the 4% reduction in total consumption. The emissions factor of GCEA's electricity supply is forecasted to continue decreasing as more renewable generation is brought online.
- **Increased transmission and distribution loss factor:** The loss factor associated with electricity use increased from 4.2% in 2017 to 5.3% in 2022. Grid losses accounted for 4% of total electricity emissions in 2017 and 5% in 2022.

Solar Generation

In 2022 there was a total of 226kW of solar photovoltaic (PV) capacity installed in Crested Butte, including 126kW of residential, 70kW of commercial and 30kW of municipal solar. This installed solar generates approximately 343,700kWh of local renewable electricity each year and reduces the total amount of electricity that residents, businesses, and the Town of Crested Butte need to purchase from the grid. Monitoring the amount of installed local renewable generation going forward will enable the Town to track the impact on electricity use and emissions.

Natural Gas

Total natural gas emissions in 2022 were 9,310 $MTCO_2e$ and accounted for 44% of total energy sector emissions, up from 38% in 2017. As shown in **Table 6**, total natural gas emissions were 20% higher in 2022 than 2017. **Table 6** shows the change in natural gas use between 2017 and 2022.

Table 6: Natural Gas Emissions, 2017 and 2022

Subsector	2017 $MTCO_2e$	2022 $MTCO_2e$	Percent Change
Residential Buildings	3,500	4,580	+31%
Commercial Buildings	2,790	2,590	+5%
Municipal Buildings	Not calculated	350	
Process & Fugitive	1,460	1,790	+23%
Total	**7,750**	**9,500**	**+20%**

*Change in commercial and municipal emissions combined since municipal was not separated out from commercial in 2017.

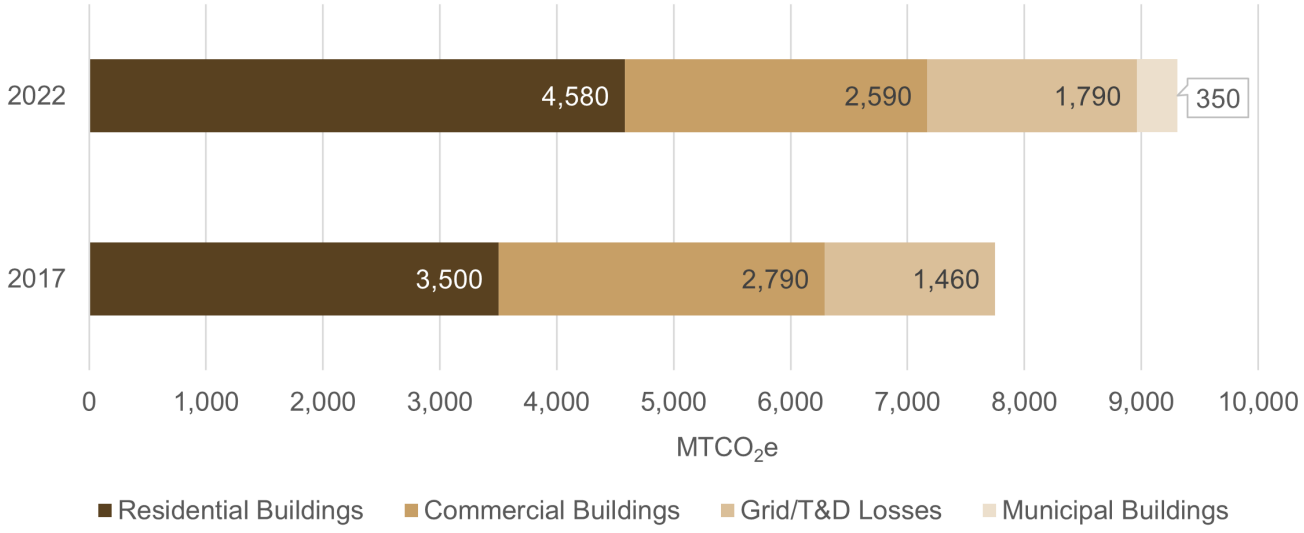


Figure 7. Natural Gas Emissions by Sub-sector, 2017 and 2022

Table 7: Natural Gas Inputs

Sector	Unit[5]	2017 Input	2022 Input	Percent Change
Residential Use	MCF	64,090	86,000	34%
Commercial Use	MCF	51,074	48,659	8%
Municipal Use	MCF	0	6,511	
Total	**MCF**	**115,164**	**141,170**	**23%**

Emissions Factor	MT/MCF	0.055	0.053	-2%
Leakage Rate	g CH_4/MCF	425	425	-

*Change in commercial and municipal use combined since municipal use was not separated out from commercial in 2017.

[5] MCF is an abbreviation for thousand cubic feet, a measurement of natural gas.

Key Drivers of Change in Natural Gas Emissions

Changes to natural gas consumption as well as an update to the associated fugitive emissions impacted natural gas emissions, driving the overall increase in energy emissions.

- **Increased natural gas consumption**: Total natural gas usage was 23% higher in 2022 compared to 2017.
    - **Increased residential natural gas consumption**: Residential buildings account for 49% of total natural gas emissions and consumption increased by 34% in 2022 compared to 2017. Residential natural gas use has increased steadily since at least 2019, with a 12% increase between 2019 and 2023. The 2022 increase compared to 2017 is also associated with 42% higher in Heating Degree Days (HDDs)[6], indicating that 2022 was a colder year than 2017 with a significantly higher home heating demand. Additional years of data will be needed to understand if there is a trend in natural gas use.
    - **Increased commercial natural gas consumption**: Natural gas in commercial buildings accounted for 28% of natural gas consumption. As shown in
    - **Table** 7, municipal natural gas use was not separated out from commercial use in 2017. Total combined commercial and municipal natural gas use increased by 8% between 2017 and 2022. Commercial gas use has been relatively steady between 2019 and 2023. Similar to residential natural gas use, the increase in commercial use in 2022 compared to 2017 is likely linked to the higher HDDs.
    - **Municipal natural gas consumption**: Natural gas used in municipal buildings and facilities was not separated out from commercial use in 2017 but accounted for 4% of natural gas emissions in 2022.
- **Updated natural gas emissions factor:** The 2022 inventory uses standard natural gas emissions factors updated annually by The Climate Registry. The emissions factor used in the 2017 inventory was 2% higher than that used in the 2022 inventory.
- **No change in natural gas leakage rate:** The 2017 and 2022 emissions inventories include an estimate of natural gas process and fugitive emissions based on survey data of natural gas system leaks in the United States. Leakage rates of the natural gas system have been found to be significantly higher than is estimated by the EPA and can vary significantly between municipalities and utilities. The inventory utilizes surveyed leakage rates in Denver, CO, which are slightly below the median leakage rate for U.S. cities surveyed. These emissions accounted for 19% of natural gas emissions in 2022.

[6] Heating Degree Days (HDD) are a measure of how cold the weather was over a time period and are used as an indicator of the amount of energy needed to heat a building over that period.

4. TRANSPORTATION EMISSIONS

This section provides an overview of transportation emissions, including on-road transportation within the Town boundary, as well as a portion of emissions from public transit that is attributable to the mileage driven by buses within the Town.

Emissions Snapshot

Total transportation emissions in 2022 were 1,740 $MTCO_2e$, accounting for 7% of total community emissions as shown in **Table 8**, down from 8% in 2017. The difference between 2017 and 2022 emissions was negligible shown in **Table 8** and **Figure 8** and Transit emissions were not calculated for 2017. **Table 9** shows the change in transportation sector inputs.

Table 8: Transportation Emissions, 2017 and 2022

Subsector	2017 $MTCO_2e$	2022 $MTCO_2e$	Percent Change
On-road Transportation	1,740	1,530	-12%
Transit	Not calculated	210	-
Total	**1,740**	**1,740**	**0%**

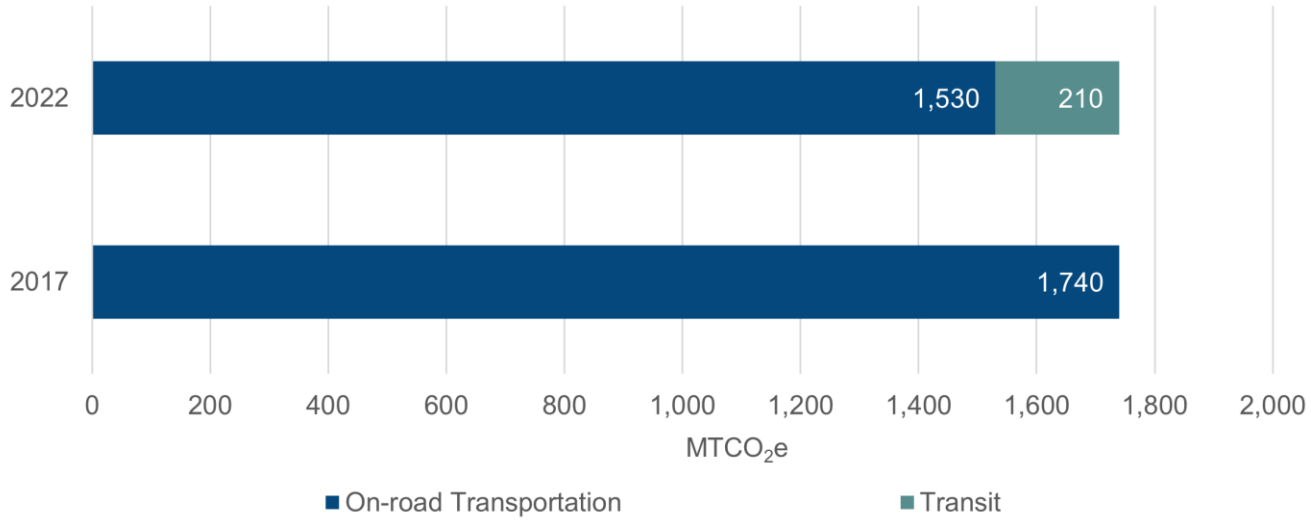


Figure 8. Transportation Emissions by Sub-sector, 2017 and 2022

Table 9: Transportation Inputs

Category	Source	Unit	2017 Inputs	2022 Inputs	Percent Change
On-Road Miles Traveled	Vehicle Miles Traveled (VMT)	VMT	3,567,016	3,578,796	0%
Public Transit	Diesel – Gunnison Valley RTA	Gallons	N/A	331	-
	CNG – Gunnison Valley RTA	GGE[7]	N/A	1,423	-
	Diesel – Mountain Express	Gallons	N/A	18,970	-
	VMT – Gunnison Valley RTA	VMT	N/A	9,011	-
	VMT – Mountain Express	VMT	N/A	85,364	-

[7] Gasoline gallon equivalent (GGE) is used to measure the amount of compressed natural gas (CNG) used.

Key Drivers of Change in Transportation Emissions

A reduction in on-road transportation emissions was negated by the inclusion of transit emissions in 2022, resulting in negligible change in total transportation emissions between 2017 and 2022.

- **Reduced vehicle emissions:** Total on-road vehicle emissions accounted for 8% of total transportation emissions and 6% of community emissions in 2022. On-road emissions decreased by 12% from 2017 to 2022.
    - **Negligible change in on-road VMT:** On-road VMT was back-calculated using an updated methodology for 2017 and there was negligible change in estimated VMT between 2017 and 2022.
    - **Increased internal combustion engine vehicle efficiency:** Since 2016, vehicle efficiencies have increased, and the national allocation of gasoline vehicles by class has shifted, leading to a larger percentage of more efficient vehicles on the road and a reduction in emissions per vehicle miles traveled.
    - **Electric vehicles:** Emissions associated with electricity used to power electric vehicles (EVs) were included in the 2022 inventory. While EVs represent a very small percentage of total emissions, tracking the impact of transportation electrification will be important as EV adoption increases.
- **Transit:** The 2022 inventory separates out emissions associated with public transit routes inside the Town of Crested Butte. This sub-sector accounts for 12% of transportation emissions.

Active Transportation

While the majority of visitors to Crested Butte drive to the Town, 95% of trips with an origin and destination within Crested Butte are completed on foot or by bike. This very high percentage of active transportation trips helps reduce Crested Butte's in-Town community transportation emissions.

Transportation Outside Crested Butte Town Limits

While this emissions inventory does not account for the impacts of transportation associated with Crested Butte but occurring outside of Town limits, also known as Scope 3 transportation emissions, the Climate Action Plan may still consider actions to reduce the impact of visitor and resident travel to and from Crested Butte.

5. OTHER EMISSIONS

This section provides an overview of emissions associated with the disposal of solid waste and wastewater generated inside Town limits in landfills located outside of Crested Butte.

Emissions Snapshot

Total solid waste emissions in 2022 were 330 $MTCO_2e$ and wastewater treatment process and fugitive emissions were 340 $MTCO_2e$ as shown in **Table 10**. Together, solid waste and wastewater treatment emissions accounted for just 3% of total community emissions. The 2022 solid waste emissions were 38% higher than the updated 2017 emissions and wastewater treatment emissions were 6% higher as shown in **Table 10** and **Figure 9**.

Table 11 shows the waste and wastewater inputs.

Table 10: Solid Waste and Wastewater Treatment Emissions, 2017 and 2022

Subsector	2017 $MTCO_2e$	2022 $MTCO_2e$	Percent Change
Solid Waste Total	**240**	**330**	**38%**
Wastewater Treatment Processes	10	10	0%
Wastewater Fugitive Emissions	310	330	6%
Wastewater Total	**320**	**340**	**6%**
Other Total	**560**	**670**	**20%**

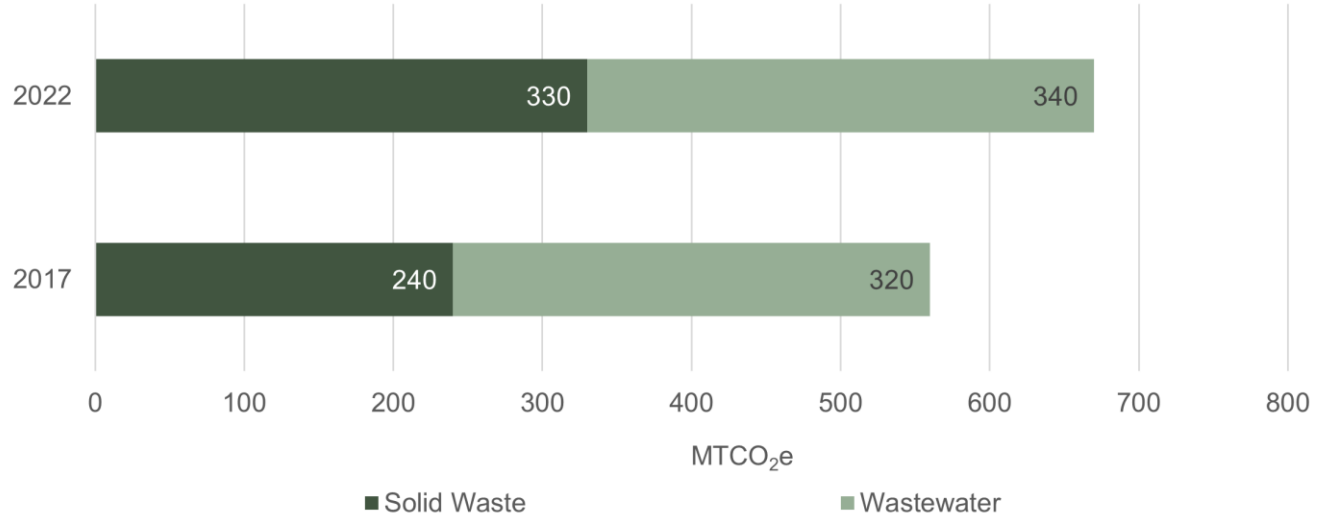


Figure 9. Solid Waste and Wastewater Treatment Emissions, 2017 and 2022

Table 11: Waste Inputs

Sector	Unit	2017 Amount	2022 Amount	Percent Change
Total Landfilled Waste	tons	466	629	35%
Average Daily Population	people	2,673	2,818	5%

Key Drivers of Change in Other Emissions

Both solid waste and wastewater emissions for 2017 were recalculated to allow for comparison using emissions factors and methodology aligned with current best practices. The increase in emissions for both sub-sectors from 2017 to 2022 was therefore directly in-line with change in the inputs used for calculation.

- **Community waste generation:** Both the volume of waste sent to landfill and emissions associated with waste generation increased, by 35% and 38% respectively between 2017 and 2022. While this increase could be driven by increased visitor numbers, additional years of data will be required to infer a trend.
- **Wastewater treatment process and fugitive emissions:** Wastewater treatment emissions are tied to the processes used for treatment and directly proportional to the population served. Both the average daily population served by Crested Butte's wastewater treatment plant and the emissions associated with treatment increased from 2017 to 2022, by 5% and 6% respectively.

Waste Diversion

In 2022, 30% of Crested Butte's total waste generation was diverted from landfill, including 263 tons of material sent for recycling and 11 tons of material composted locally. Diverting waste from landfill reduces waste emissions and tracking the total diversion rate over time will enable the Town to monitor the impact of actions to reduce and divert waste in the future.

6. FUTURE EMISSIONS IN CRESTED BUTTE

Based upon the Town of Crested Butte's 2022 GHG emissions inventory, community scale and town operations-scale GHG emissions forecasts were created to understand potential GHG emissions in 2030. For each scale, a Business as Usual (BAU) and Adjusted Business as Usual (ABAU) forecast of future annual emissions were created to serve as a baseline against which to measure the estimated impact of Climate Action Plan actions on 2030 emissions. The forecasts do not account for the impact of any new actions identified in the Climate Action Plan.

Future Community Emissions

The projection of future community emissions includes the same emissions scopes outlined in the Community Emissions Summary. The community emissions forecast also includes emissions associated with Town operations.

Business as Usual

Under the BAU scenario, community emissions are forecast to increase by an estimated 7% between 2022 and 2030 when accounting for the following known factors and existing Town commitments that will impact future emissions:

- **Expected population growth:** Population is a key driver of activities, including energy use, waste generation and some transportation activities. The BAU includes forecasted growth in the average daily population of Crested Butte. The average daily population, which takes into account both full-time residents and visitors, is based on a forecast of Average Daily Annual population developed to inform future Wastewater Treatment Plant operations (Kingdom and Charbonnet 2021). A summary of average rates of change between 2023-2030 is provided below in Table 12.
- **The Town's adoption of up-to-date building and energy codes:** The Town of Crested Butte has adopted the 2021 International Building and Energy Codes along with additional efficiency and all-electric provisions that will limit the emissions impact of future construction. Although the Town has all-electric new construction codes, a significant portion of the Towns existing building stock is unoccupied for a portion of the year, and in some cases the full year. A 2022 Crested Butte market study indicated housing units in the Town were approximately 68% occupied in 2020, with many of those unoccupied units being used occasionally, recreationally, or seasonally, or for short term rentals. A more recent local census count performed in 2023 found 66% of housing is occupied full time. Due to Town of Crested Butte land largely being built out as well as the prevalence of unoccupancy, the analysis assumes existing housing stock to have higher utilization year-round from increased visitors, in lieu of new builds. This results in slight growth in natural gas use in the residential housing stock being forecasted.

Municipal property growth is forecast to occur between 2023-2030 and is described in the

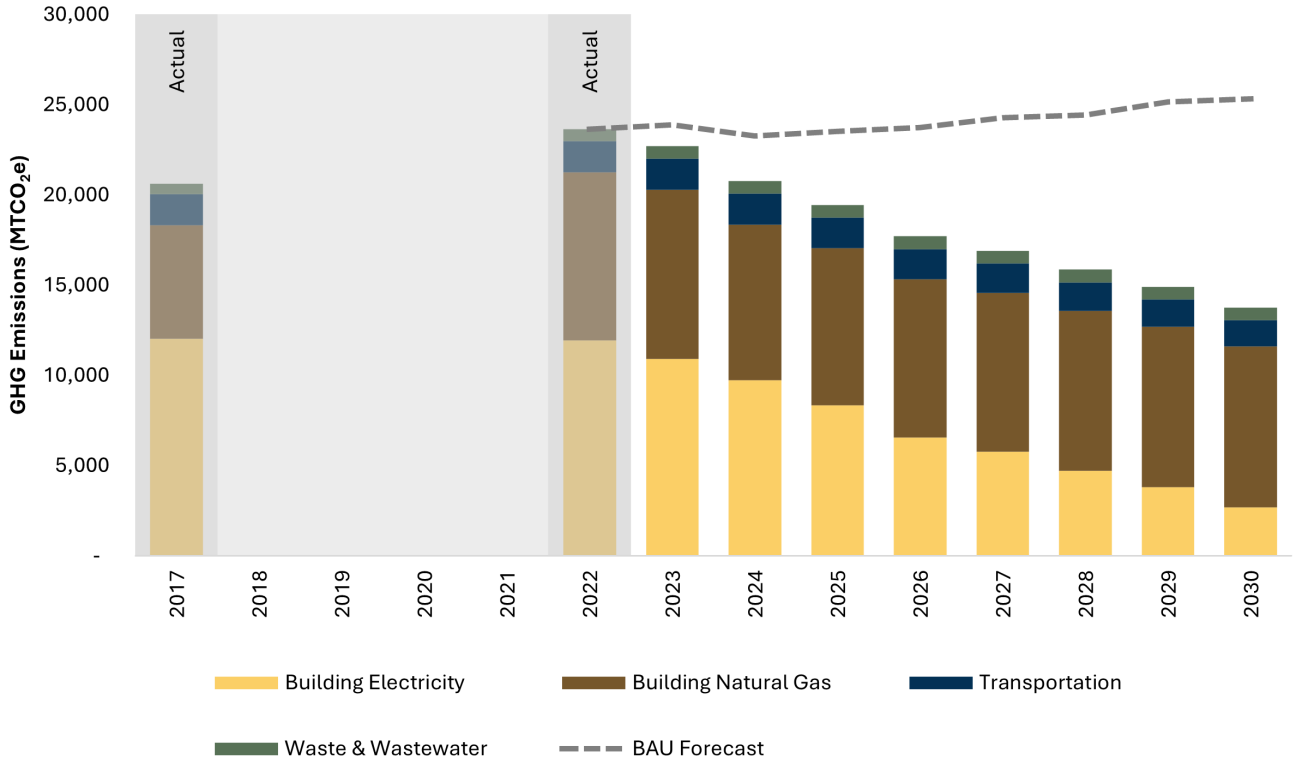


Figure 10. Crested Butte Community Adjusted Business As Usual (ABAU) Emissions Forecast with Business As Usual (BAU) line for comparison

- Future Town Emissions section.
- Commercial electricity and natural gas use is not forecasted to grow. Commercial sector energy use in 2022 has declined slightly since 2017, and employment levels in the Town are forecasted to remain stable to 2030.

Table 12. BAU average rates of change by emissions forecast categories

Metric	Category	Tied Rate of Change	2023-2030 Average Percent Change (annual)
Electricity - GCEA - Residential	Building Electricity	WWTP ADA	1.1%
Electricity - GCEA - Commercial	Building Electricity	Employment	No change
Electricity - GCEA - Municipal	Building Electricity	Town Building kWh	11.7%
Natural Gas - Atmos - Residential	Building Natural Gas	WWTP ADA	1.1%
Natural Gas - Atmos - Commercial	Building Natural Gas	Employment	No change
Natural Gas - Atmos - Municipal	Building Natural Gas	Constant	No change
Electricity - GCEA - T&D Losses	Building Electricity	Electricity T&D Loss	5.3%
Fugitive Natural Gas - Atmos	Building Natural Gas	Based on change in natural gas use	-0.4%
On-road vehicle transportation - community gasoline	Transportation	WWTP ADA	1.1%
On-road vehicle transportation - community diesel	Transportation	Employment	No change
On-road vehicle transportation - community electric	Transportation	WWTP ADA	1.1%
On-road vehicle transportation - municipal gasoline	Transportation	Town Fleet Gasoline Use	-11.5%
On-road vehicle transportation - municipal diesel	Transportation	Constant	No change
On-road vehicle transportation - municipal electric	Transportation	Town Fleet EV kWh	27.7%
Transit - gasoline	Transportation	WWTP ADA	1.1%
Transit - diesel	Transportation	WWTP ADA	1.1%
Transit - electric	Transportation	WWTP ADA	1.1%
Transit - CNG	Transportation	WWTP ADA	1.1%
Waste - Solid waste disposal	Waste & Wastewater	WWTP ADA	1.1%
Waste - Recycling	Waste & Wastewater	WWTP ADA	1.1%
Waste - Compost	Waste & Wastewater	WWTP ADA	1.1%
Wastewater treatment - Process	Waste & Wastewater	WWTP ADA	1.1%
Wastewater treatment - Fugitive	Waste & Wastewater	WWTP ADA	1.1%

Adjusted Business as Usual

Under the ABAU scenario, community emissions are expected to decrease by an estimated 42% between 2022 – 2030 when accounting for the following external commitments:

- **Increased renewables generation in our electricity supply:** Tri-State Generation and Transmission (Tri-State), the wholesale electricity provider to Gunnison County Electric Association (GCEA), has committed to reducing GHG emissions by 89% by 2030 from a 2005 baseline, resulting in an anticipated 78% reduction in Crested Butte's electricity emissions from 2022 to 2030. The planned reduction in electricity emissions factor is shown in Table 13.

Table 13. Tri-State's planned reduction in electricity emissions supplied by the grid

Electricity Emissions Factor	2025	2027	2030
Tri-State Generation Emissions Reduction from 2005 (percent)	47%	67%	89%

- In addition to a reduction in Tri-State's grid mix, GCEA as a member of Tri-State's cooperative is permitted to generate renewable electricity locally. GCEA has several renewable resources anticipated to be online by 2025, as shown in Table 14. In total, these resources are anticipated to generate over 8.1 million kWh of additional renewable energy.

Table 14. GCEA local renewable energy generation resources

Local Renewable Generation	2023	2024	2025
GCEA Renewable Resources by Year	120 kW Solar Garden program (existing) Doyleville wind turbine (existing)	Previous generation, plus Taylor River Hydro	Previous generation, plus Oh, Be Joyful Solar array

- **More fuel-efficient vehicles:** Along with the vehicle miles travelled with Crested Butte, vehicle fuel efficiency is a key driver of transportation emissions. The State of Colorado has adopted fuel efficiency standards that will reduce the emissions per mile of gas and diesel vehicles.
    - The EIA estimates fuel economy for light duty vehicles to increase from an average of 24.4 MPG in 2022 to 28.6 MPG in 2030.
    - The EIA estimates fuel economy for heavy duty vehicles to increase from an average of 7.5 MPG in 2022 to 8.6 MPG in 2030. For purposes of conservative analysis, freight trucks were assumed to make up heavy duty vehicles in Crested Butte for their relatively low fuel efficiency.
- **Transition to electric vehicles (EVs):** The transition from gas and diesel vehicles to electric, combined with more renewable electricity will drive down transportation emissions. The ABAU builds in an expected rate of electric vehicle transition associated with the State's Zero Emission Vehicle requirements and adoption forecasts. Specific sales rates for select years by vehicle class are shown below in Table 15, as specified by the State of Colorado's Advanced Clean Cars and Advanced Clean Trucks requirements. With these requirements in combination with an anticipated 6% vehicle replacement rate, it is estimated that there will be a 19% increase in light duty EV's and a 7% increase in heavy duty EV's in the Town of Crested Butte between 2023-2030.

Table 15. State of Colorado required EV sales rates by vehicle class

EV Sales Rates	2026	2028	2030
Light Duty (Based upon CO Advanced Clean Cars)	35% of sales are EV	51% of sales are EV	68% of sales are EV
Heavy Duty (Based upon CO Advanced Clean Trucks, Class 7-8)	10% of sales are EV	20% of sales are EV	30% of sales are EV

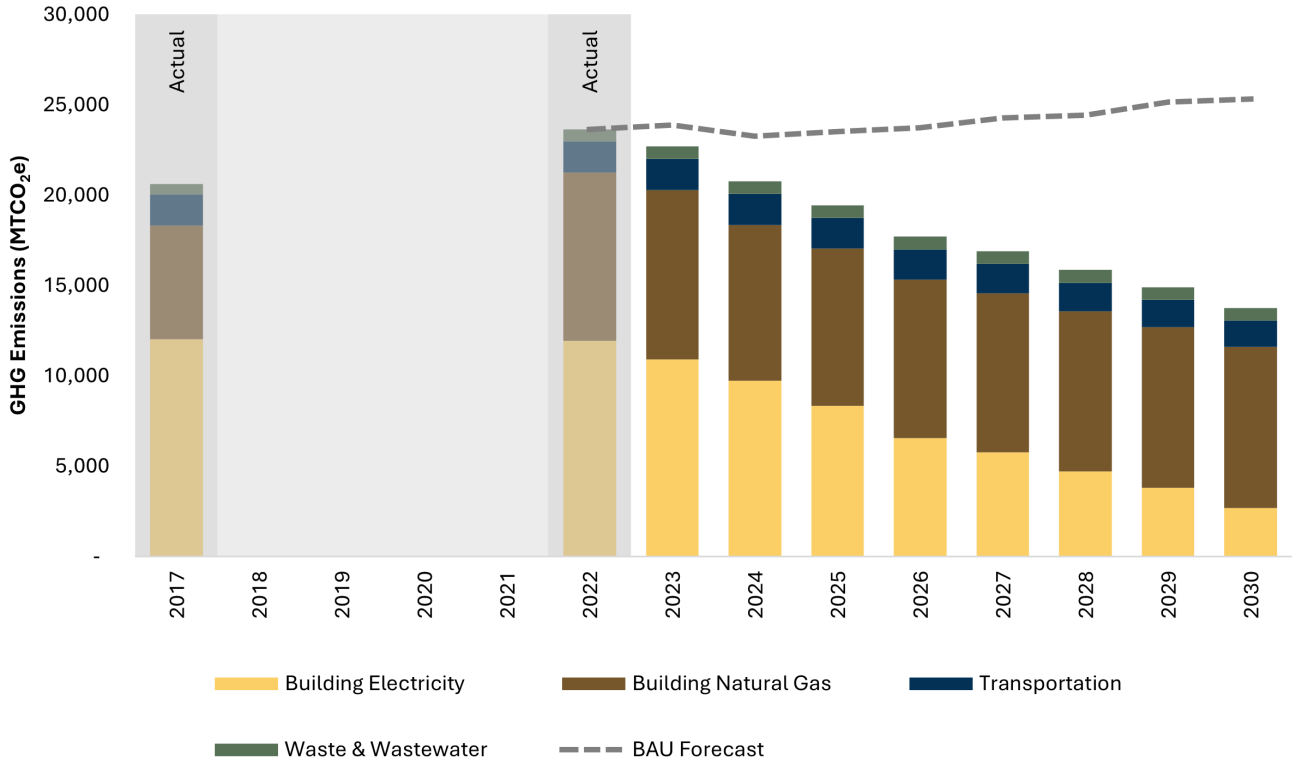


Figure 10. Crested Butte Community Adjusted Business As Usual (ABAU) Emissions Forecast with Business As Usual (BAU) line for comparison

Future Town Emissions

Similar to community-wide GHG emissions forecast, BAU and ABAU forecasts of future annual emissions specific to the Town's municipal operations were created to understand potential emissions in 2030. The emissions forecasts do not account for the impact of any new actions identified in this plan but serve as a baseline against which to measure the estimated impact of the actions on 2030 Town emissions.

Business as Usual

Under the BAU scenario, Town emissions in 2030 would be 59% higher in 2030 than 2022 due to planned new construction and redevelopment projects.

- **Planned new and redeveloped Town facilities:** A number of new Town facilities are planned for construction or redevelopment between now and 2030, according to the Facility Use Plan. Adhering to the Town of Crested Butte's all-electric building code, these properties are forecast to use 100% electricity. The properties and their estimated size and EUI are shown in Table 16.
    - The affordable housing development assumes 45 units at 1,046 square feet per unit, based upon the median US multifamily size.
    - The childcare/healthcare square footage is based upon the lot size, and the Emergency Services building is based upon a previously Town-reported square footage.
    - EUI's are based upon Energy Star Portfolio Manager benchmarking by building type.
    - In addition to the new properties shown in Table 16, the Wastewater Treatment Plant is planning to implement an energy efficiency project saving approximately 164,000 kWh and is also planning to build a new aeration building completely offset by on-site solar.

Table 16. Municipal new property assumptions

New Town Properties	Estimated Square Footage	Assumed EUI	Estimated Completion Date
Affordable Housing - Town Parcel 1	47,070	59.6	1/1/2029
Childcare/Healthcare - Town Parcel 2	10,000	51.2	1/1/2029
Emergency Services New Building (New Marshals' Office)	28,500	63.5	1/1/2027

- **Electrification of the Town's light duty fleet:** The Town is planning to electrify 18 light duty (LD) vehicles in their fleet between 2023-2030 based upon the Town's 2023 fleet replacement schedule. The Town has been electrifying some of its light duty fleet through 2022, but not its heavy duty fleet, potentially due to the limited current availability of electric heavy duty vehicles. Assumptions related to the light duty fleet are below in Table 17. On average, the Town is forecast to replace 2 light duty vehicles per year between 2023-2030.

Table 17. Municipal fleet electrification assumptions

Fleet Metrics	Unit	Value
Average LD Miles Driven per Year	mi/year	7,000
Existing LD Fleet MPG	miles per gallon	24.4
New EV LD Fleet mile per kWh	mile per kWh	2.5
Existing LD Fleet Gasoline per Vehicle	Gallons per vehicle, per year	286.7
New EV LD Fleet kWh per Vehicle	kWh per vehicle per year	2,800.0
Likelihood of New LD EV	percent	100%

Adjusted Business as Usual

Under the ABAU scenario, Town emissions will be 27% lower in 2030 than 2022 as a result of the same utility and state commitments described in the community ABAU section, driven particularly by a reduction in the emissions associated with electricity generation.

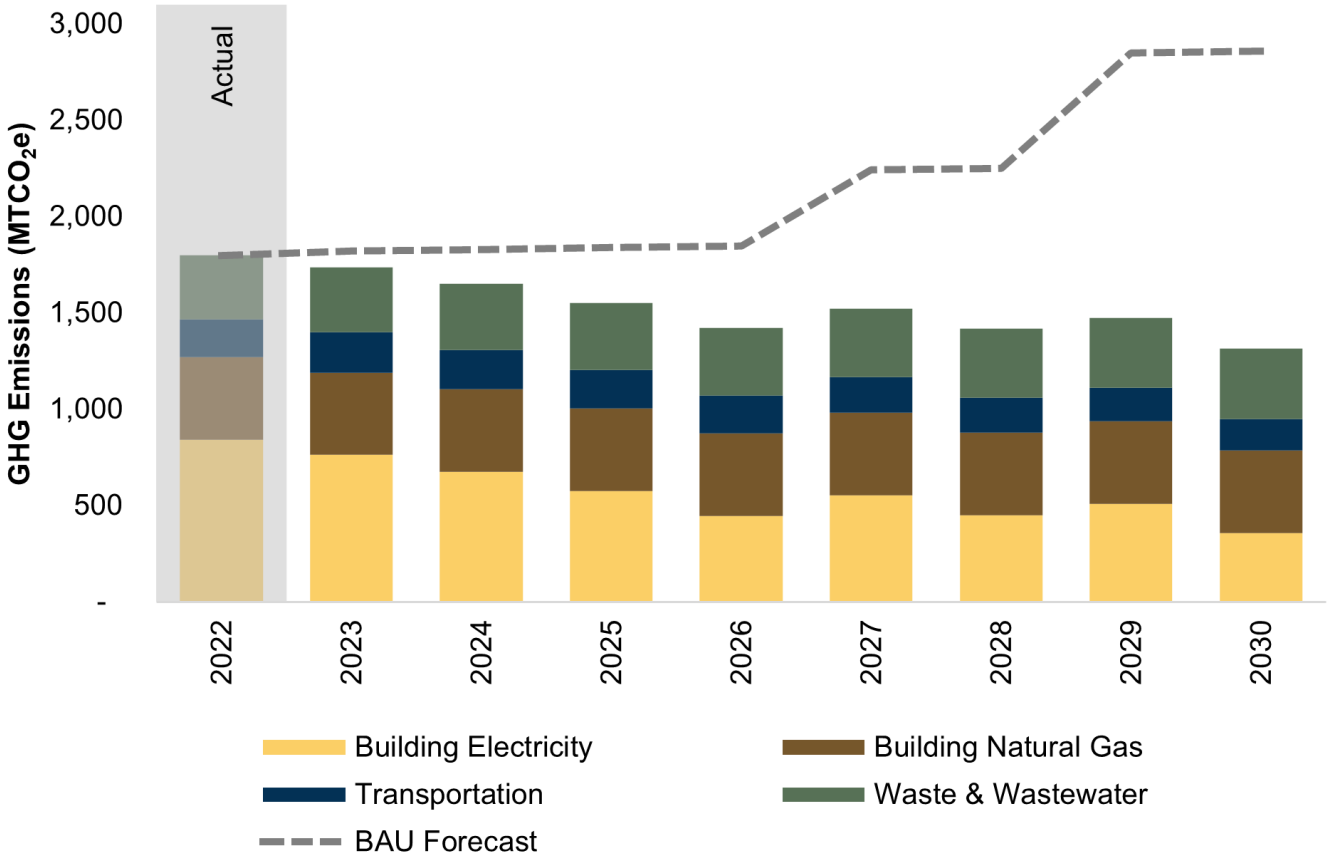


Figure 11. Crested Butte Town Operations Adjusted Business As Usual (ABAU) with Business As Usual (BAU) line for comparison

APPENDIX III. HOW CRESTED BUTTE RESIDENTS CAN TAKE CLIMATE ACTION

Learn about climate change

- Learn about the State of Colorado's actions on climate change and clean energy: climate.colorado.gov
- Explore how the climate is expected to change in Gunnison County and around the U.S.: crt-climate-explorer.nemac.org
- Check out tools, resources, and information to help our community become more resilient in the face of changing conditions: coresiliency.com
- Join a local volunteer or advocacy group or get involved in your local planning processes!

Buildings: Improve the efficiency of and electrify your home

- Explore ways that you can save energy at home: energy.gov/energysaver/energy-saver
- Sign up for a home Energy Evaluation through Gunnison County Electric Association (GCEA):
- gcea.coop/energy-efficiency/energy-evaluations
- Save money and improve the efficiency and comfort of your home through GV-HEAT's income qualified and non-income qualified programs: gvrha.org/gvheat
- Take advantage of available incentives to increase the efficiency of and electrify your home:
- homes.rewiringamerica.org/calculator and crestedbutte-co.gov/rebates

Renewable Energy: Help increase the amount of Crested Butte's energy supply met through renewable resources

- Start your solar journey by installing solar at home or signing up for one of GCEA's Green the Grid
- subscription programs: gcea.coop/energy-efficiency/renewable-energy-programs
- Participate in GCEA's PowerWise Pledge™ to show your financial commitment to GCEA's efforts to
- green the grid: gcea.coop/powerwise-pledge
- Participate in GCEA board meetings and elections to advocate for renewable power: gcea.coop/about-us/annual-meeting-elections

Waste : Reduce waste sent to landfill

- Make sure you know what can and cannot be recycled in CB: crestedbutte-co.gov/trash-recycle
- Sign up for composting:crestedbutte-co.gov/compost
- Learn how to reduce, reuse and recycle waste at home, work, and school: epa.gov/recycle/reducing-waste-what-you-can-do
- Consider borrowing or buying used items instead of buying new.
- Learn how to properly store food to maximize freshness and avoid waste: foodsafety.gov/keep-food-safe/foodkeeper-app

Transportation : Choose low carbon transportation options

- Walk, bike, roll, or take the bus around Town whenever you can!
- Take public transit when possible:
    - Mountain Express for in-town and inter-mountain trips: mtnexp.org

    - Gunnison RTA for trips to Gunnison: gunnisonvalleyrta.com
    - Bustang Outrider all the way to Denver: ridebustang.com/outrider
- Team up with others to carpool to work, run errands, or for longer trips
- Use available incentives to make your next vehicle electric: evco.colorado.gov

APPENDIX IV. HOW CRESTED BUTTE BUSINESSES CAN TAKE CLIMATE ACTION

Learn about sustainable business programs and best practices

- Check out voluntary sustainable business programs that can help you reduce emissions and stand out from the crowd:
- Join the State of Colorado Green Business Network to receive a free sustainability assessment: cdphe.colorado.gov/co-green-business
- Explore resources from B Lab, including B Corp certification and make your business a force for good: bcorporation.net
- Explore ways that you can save energy in your

Buildings: Improve the efficiency of and electrify your business

business: energystar.gov/buildings/save-energy-commercial-buildings

- Sign up for a business Energy Evaluation through Gunnison County Electric Association (GCEA):
- gcea.coop/energy-efficiency/energy-evaluations
- Save money and improve the efficiency of your business using GCEA's energy rebates: gcea.coop/energy-efficiency/rebates
- Explore resources available through the State of Colorado to support businesses with building
- efficiency and electrification: energyoffice.colorado.gov/funding-financing-businesses
- Track your building energy and water use: energystar.gov

Renewable Energy: Help increase the amount of Crested Butte's energy supply met through renewable resources

- Start your solar journey by installing solar at your business or signing up for one of GCEA's Green the Grid subscription programs: gcea.coop/energy-efficiency/renewable energy-programs
- Participate in GCEA's PowerWise Pledge™ to show your financial commitment to GCEA's efforts to green the grid: gcea.coop/powerwise-pledge

Waste: Reduce waste sent to landfill

- Sign up for recycling collection and install clear signage to ensure that all staff and customers know what can and cannot be recycled in CB: crestedbutte-co.gov/trash-recycle.
- Adopt a sustainable purchasing policy and buy from local vendors whenever possible.
- Reduce and reuse – source products and equipment from improvement or reuse stores like the Habitat Restore in Buena Vista.
- Consider eliminating single use items such as takeout containers and plastic water bottles.
- Participate in the Town of Crested Butte's Climate Responsible Special Events (CRSE) program

Transportation: Choose low carbon transportation options

- Encourage or incentivize your employees to walk, bike, carpool or take transit instead of driving alone.
- Coordinate an employee carpool or vanpool program.
- Explore opportunities and incentives to electrify your fleet vehicles: energyoffice.colorado.gov/funding-financing-businesses