Crested Butte 2030 Climate Action Plan
Climate Action Planning Committee Meeting #2

Meeting Room Jr. (first floor), Crested Butte Town Hall
507 Maroon Ave, Crested Butte, CO, 81224
Thursday, April 25
3 – 5 pm

Public Zoom Webinar Link: https://us02web.zoom.us/j/84103162631
CAPC members will receive their own panelist link to join the meetings.

****Please note that these meetings are public and will be recorded. Members of the public are welcome to join and observe, but we will not be allowing public comment on the 2030 CAP during these committee meetings****

Meeting 1 Objectives:

- ❑ Objective 1: Provide overview of 2022 GHG emissions inventory (understand the challenge)
- ❑ Objective 2: Firm up challenge and goal statement
- ❑ Objective 3: Define success measures

Agenda

3:00pm – 3:30 pm
2022 GHG Emissions Presentation
Brendle and staff will provide an overview of the final 2022 GHG emissions inventory.

3:30pm – 4:00p
Firm up challenge statement and goal
We'll be discussing the revised challenge and goal statement based on the final GHG emissions inventory and the CAPC's feedback.

> *Discussion: Did staff capture thoughts correctly? How do you see the goal evolving? Have we missed anything major at this point?*

4:00 – 5:00 pm
Define Success Measures
Staff will seek the committee's input on proposed success measures and receive any additional success measure suggestions.

> *Discussion: Do these measures define success as the committee understands climate action success for Crested Butte? How can we refine these measures to better reflect the Compass goals of being a bold, accountable, authentic, and connected community? Are there measures of success we didn't think of or capture?*

Meeting Resources:

Plan Development Refresh:

The 2030 Climate Action Plan is being developed in 4 phases under the Community Compass framework The below steps and table identify where the CAP and committee stands in this process now:

1. **Define the challenge and develop a goal statement to address the challenge.**
2. **Commit to a community engagement strategy.**
3. **Identify success measures**.
4. Create alternatives and filter the solution through success measures.
5. Make decisions based on informed consent.

Phase 1 - ***Finalizing this phase*** **Understand the challenge and the goal. 2022 GHG Emissions Inventory.** (Jan – Mar 2024)	**Phase 2** - ***Entering this phase*** **Define success measures.** (Apr – May 2024)	**Phase 3 –** **Develop alternatives** (June – July 2024)	**Phase 4** **Drafting the Plan.** (July – December 2024)
Community Engagement: CAP Launch Webinar (Jan 18) – an intro webinar for the community to launch the 2030 CAP planning process and likely goals of the plan. **Town Council Work Session (Monday, February 5):** Joint work session with Town Council and BOZAR to provide overview of the CAP and Navigation process. **CAPC Meeting #1 (Thursday, Feb 25 3-5pm):** Define the challenge and goal statement **Quarterly Navigation Committee Meeting #3 (Wed, Mar 27, 9am-12pm):** **Data Analysis:** 2022 GHG Emissions Inventory by consultant team and staff	**CAPC Meeting #2 (Thursday, Apr 25, 3-5pm):** Provide 2022 GHG Inventory overview, firm up challenge and goal statements, & define success measures. **CAPC Meeting #3**: **(Thursday, May 16, 3-5pm):** Firm up success measures, alternatives discussion	**Quarterly Navigation Committee Meeting #2 (Wed, Jun 5, 9am-12pm):** Navigation committee meeting, emphasis on CAP alternatives **Community Engagement**: Summer Climate Series – dates and events to be announced. **Town Council Work Session (Monday, June 17: Joint work session with Town Council and BOZAR:** Navigation progress and CAP success measures and alternatives **CAPC Meeting #4 (Thursday, Jul 25, 3-5pm):** Refine alternatives with GHG modeling	**CAPC Meeting #5 (Thursday, Sep 5, 3-5pm):** Review Draft CAP (ahead of public comment) **Quarterly Navigation Committee Meeting #3 (Wed, Sep 11, 9am-12pm):** Navigation committee meeting, emphasis on Community Plan (TBD) **Community Engagement:** Public Comment Period – Draft CAP will go to out for a 30-day public comment period **CAPC Meeting #6 (Thursday, Nov 14, 3-5pm):** Public comment review and refine draft plan **Quarterly Navigation Committee Meeting #4 (Date& Topic TBD)**

CAPC Meeting #1 Summary:

- The committee participated in introductions and was provided an overview of the processes for the Community Compass, Compass Navigation, and the 2030 CAP
- Committee was presented with three questions, whose responses are summarized here:
    - *"What concerns you about the impacts of climate change"?*
        - Inequitable socioenvironmental impacts of technological climate solutions and increasing disparities.
        - Mental and economic impacts of "climate weirding" in a community that already is suffering from these issues
        - Habitat and species loss
        - Resource scarcity and what that means for future generations
        - Inaction despite well-known effects of climate change
    - *"What makes you hopeful about climate action?"*
        - Seeing resources being put towards climate action
        - Small actions being made all over the world and climate action actions could be reaching their tipping points
        - Could push us as a society towards more shared values and working together as a community
        - Natural solutions are linked more to resiliency
        - Planning process is valuable in building partnerships
    - *"Aside from GHG emissions reduction, what other topics would you like to see the 2030 CAP address?"*
        - Regional partnerships as much as possible
        - Other focus areas of the Compass
        - Community engagement
        - Economics in climate change
        - Resilience
        - Light pollution
        - Policy advocacy
        - Irrigated lawns and green space
- Draft GHG emissions reduction goal
    - The committee was presented with three potential goal setting approaches:
        - Top Down – MT 2030 alignment (or a net-zero emissions by 2030)
        - Top Down – Science-Based Targets (meeting "our fair share" of GHG emissions reduction by 2030 based on the IPCC's community-specific goals to keep global average temperatures below 1.5 degrees Celsius
        - Bottom-up – Action impact analysis or identifying preferred climate action alternatives and analysing their impacts on our community goals.

In summary, the committee and council showed substantial preference for a "bottom up" goal setting approach; that is, identifying alternatives that have been evaluated for impact ahead of a quantitative goal being set.

- Committee and Council were reticent to set a goal “without a plan to get there”
- Could be an opportunity for municipal and community goals
- Science Based Target or MT 2030 goals could be a potential success measure

Draft Challenge & Goal Statement

On April 13th, Town of Crested Butte staff provided for the CAPC’s consideration a draft challenge and goal statement for the 2030 CAP. This draft and challenge statement was drafted based on the feedback staff received at the February 5 town council meeting and the CAPC meeting on Feb 15. The initial challenge and goal statements, a summary of comments, and the revised challenge and goal statements are provided below

Initial:

Challenge Statement:
Crested Butte has long recognized the threat climate change poses to the Gunnison Valley. Our quality of life is deeply rooted in snowpack, access to wilderness, outdoor recreation, and a tourism-based economy. The Town has transitioned from anticipating the negative impacts of climate change to experiencing them. The urgency of climate change is not abating and continues to grow, while our understanding of the complexity in reducing GHG emissions continues to evolve. The bold climate actions this community has taken and continues to explore is expected to take some time to demonstrate results. Significantly decreasing GHG emissions has historically been slow and challenging, and a renewed and integrated approach is needed.

Goal Statement:
Crested Butte will set the example of what is possible for mountain communities and take responsibility for our climate impacts to act on the urgency of climate change by strategically driving down Crested Butte's GHG emissions through integrated and intentional efforts.

CAPC Comments (Summarized):

- **Challenge statement:**
  - Acknowledging our happiness and livelihoods are intertwined with the climate as well as the inherent increased resources and emission impacts of choosing to live in this climate.
  - Acknowledging our scope 3 emissions and including this narrative
  - Recognizing the difficulties of economically, politically, and socially creating environmental awareness and behavior change.
  - Acknowledging the progress (or lack thereof) that we are seeing.
  - Defining previous challenges from the first climate action plan
  - Changing the language from “not abating” to “climate change intensifies”
  - Showing or defining the carbon ROIs on action items within the 2019 climate action plan.
- **Goal statement:**
  - Adding language about preparing for adaptation to the changes we’re seeing.

Revised Challenge and Goal Statement

Significant changes noted in *grey*

Revised Challenge Statement:
Crested Butte has long recognized the threat climate change poses to the Gunnison Valley. Our quality of life is deeply rooted in snowpack, access to wilderness, outdoor recreation, and a tourism-based economy. The Town has transitioned from anticipating the negative impacts of climate change to experiencing them.

The urgency of climate change is intensifying while our understanding of the complexity in reducing GHG emissions in a community dependent on imported goods and services continues to evolve. The bold climate actions this community has taken and continues to explore is expected to take some time to demonstrate results. Significantly decreasing GHG emissions has historically been slow and challenging, and a renewed and integrated approach is needed.

Revised Goal Statement:
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.

Staff recognizes that within this iteration of the goal statement, "resiliency" wording was not included, as suggested by the committee. The 2030 CAP is unlikely to have a full "resiliency" section, and to avoid scope creep, staff feels that the topic of resiliency may be addressed in the identification of co-benefits for proposed alternatives. Staff will address further in the committee meeting. This goal is likely to continue to be revised throughout the 2030 CAP development, and staff welcomes additional feedback throughout the process.

2022 GHG Emissions Inventory Summary

Brendle Group worked with Town Staff to update the community-wide 2017 greenhouse gas (GHG) emissions inventory using available data for 2022, and to develop a 2022 inventory for municipal operations. An introduction and overview of the GHG emissions inventory was provided at the February 15, 2024, CAPC meeting. During the April 25, 2024, CAPC meeting, Brendle Group will provide an overview of the complete 2022 inventory and summarize key changes and trends since 2017.

The GHG emissions inventory summary document attached to this agenda provides an overview of results.

Draft Success Measures

Success measures are generated by (1) identifying how the community's values (authentic, connected, accountable, and bold) relate to the plan's challenge, and (2) filtering the community's values through the plan's goal to establish success measures.

The first CAPC committee meeting provided ideas for what a successful plan could look like which helped inform the development of draft success measures. Based on what staff heard, a few themes emerged (contributing thoughts have been summarized):

A balance of nature-based and technological solutions

- "Current societal belief of exponential growth and resource use may lead to a major reduction in the ability to use energy and change the way we live.

- “Natural solutions are linked to resiliency”
- “CB implementing EV chargers was huge”

Leverages regional efforts and reduces duplication of effort

- “There are a lot of things happening regionally – are there opportunities to share?
- “Other plans are underway”
- “Regional resilience – we may need to branch out and work with other partners”

Economic feasibility and return on investment

- **“**Economics in climate change – some systems need to change fundamentally”
- “If we choose to fund climate action, are we sacrificing affordable housing, etc”
- “Council didn’t know what they were choosing from and didn’t want to set a goal without knowing how to get there”

Boldy driving down Crested Butte’s GHG emissions and setting an example

- **“**We have to be bold – 2050 is kicking the can”
- **“**The goal may be too precise – we don’t know how to get there”
- **“**The planning process is as valuable as the plan itself, creates opportunities for collaboration and dialogue
- **“**Many in Crested Butte are positioned to be role models”

Based on these emerging themes, the 2022 GHG emissions inventory findings, feedback from the Town Council and BOZAR work session on Feb 25 and the CAPC committee meeting on Feb 16, staff will request input during on the following proposed success measures:

1.	Meaningfully reduces the Town or community’s GHG emissions ($/CO2e)
2.	Sets the example of what is possible and shows leadership among mountain communities
3.	Is systemically focused over tactically focused
4.	Leverages community and regional initiatives and partnerships
5.	Positively impacts public health
6.	Provides other co-benefits, such as climate resilience
7.	Moves us toward becoming a net-zero community OR; Contributes to reaching a Science-Based Target (SBT) GHG emissions reduction target

Staff is thinking about these success measures in phases, where success measure 1 and success measure 2 act as “primary” success measures and 3-7 are “secondary”. Below is a graphic that may help the committee visualize this process:

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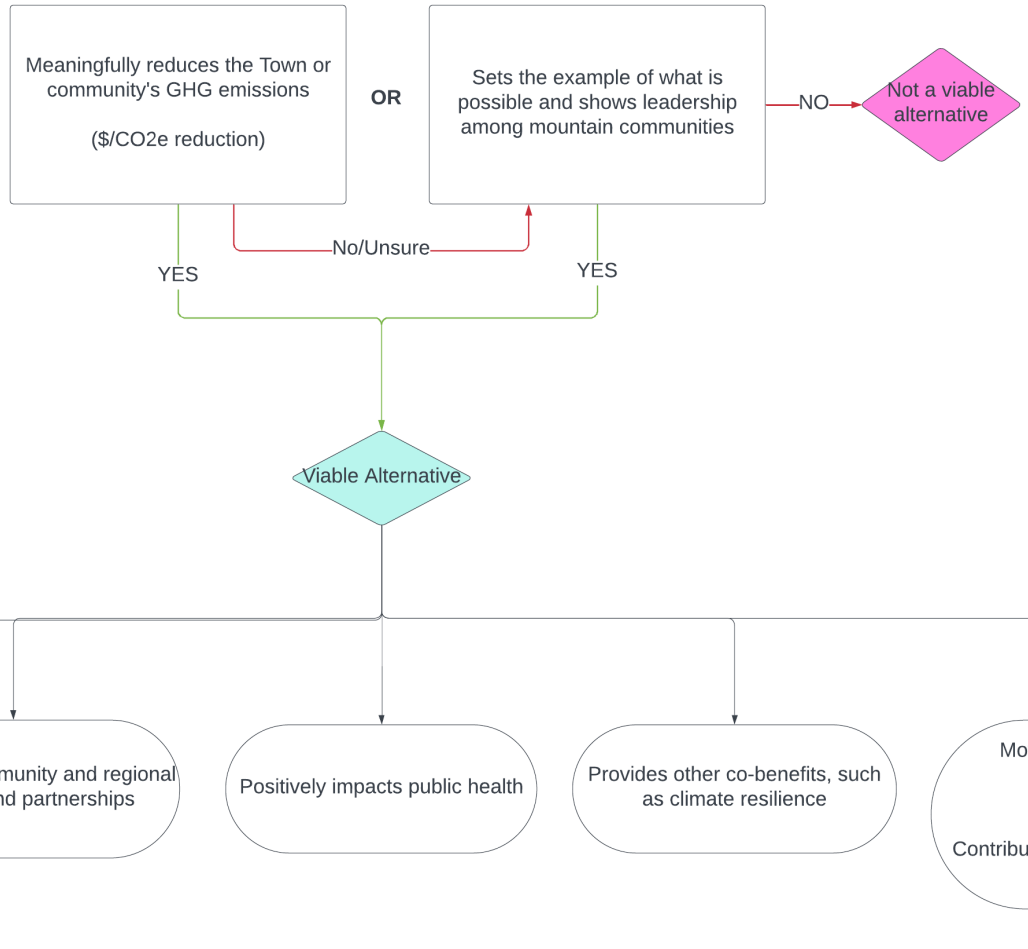

CRESTED BUTTE, COLORADO
A National Historic District

Crested Butte GHG Emissions Inventory

Summary of results

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2022 Emissions Inventory Scope

Scope	Source	Sector
Scope 1: GHG emissions from sources located within the Town boundary	Natural gas	Energy • Residential • Commercial • Municipal
	Gasoline Diesel CNG	Transportation • Transit (MTX) • Other on-road transportation
	Wastewater treatment processes	Wastewater treatment
Scope 2: GHG emissions associated with grid-supplied electricity	Electricity	Energy • Residential • Commercial • Municipal Transportation • Electric vehicles
Scope 3: Other GHG emissions occurring outside CB as a result of activities taking place within the Town	Landfill emissions	Solid Waste

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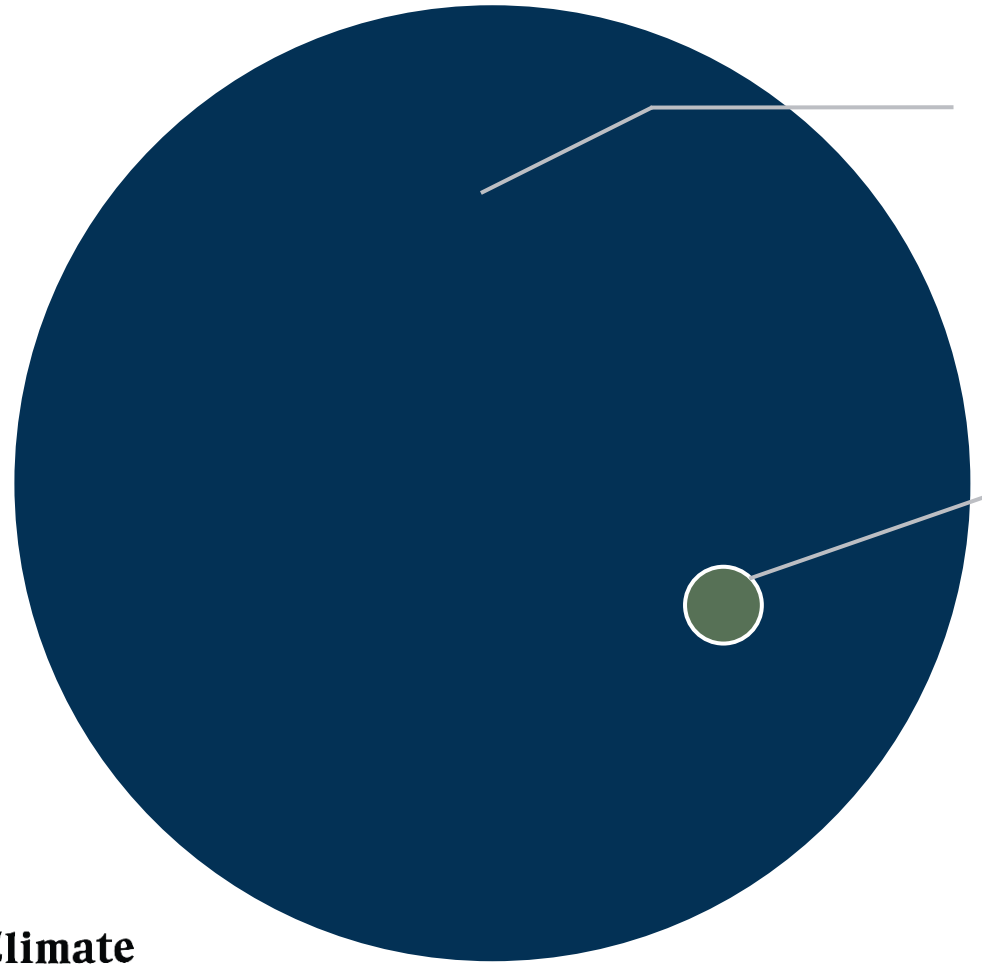
2022 Community & Municipal Emissions



Community Emissions: 23,807 MT CO_2e

Emissions within the Town of Crested Butte

Municipal Emissions: 1,789 MT CO2e

8% of community total

Emissions associated with municipal government facilities and operations

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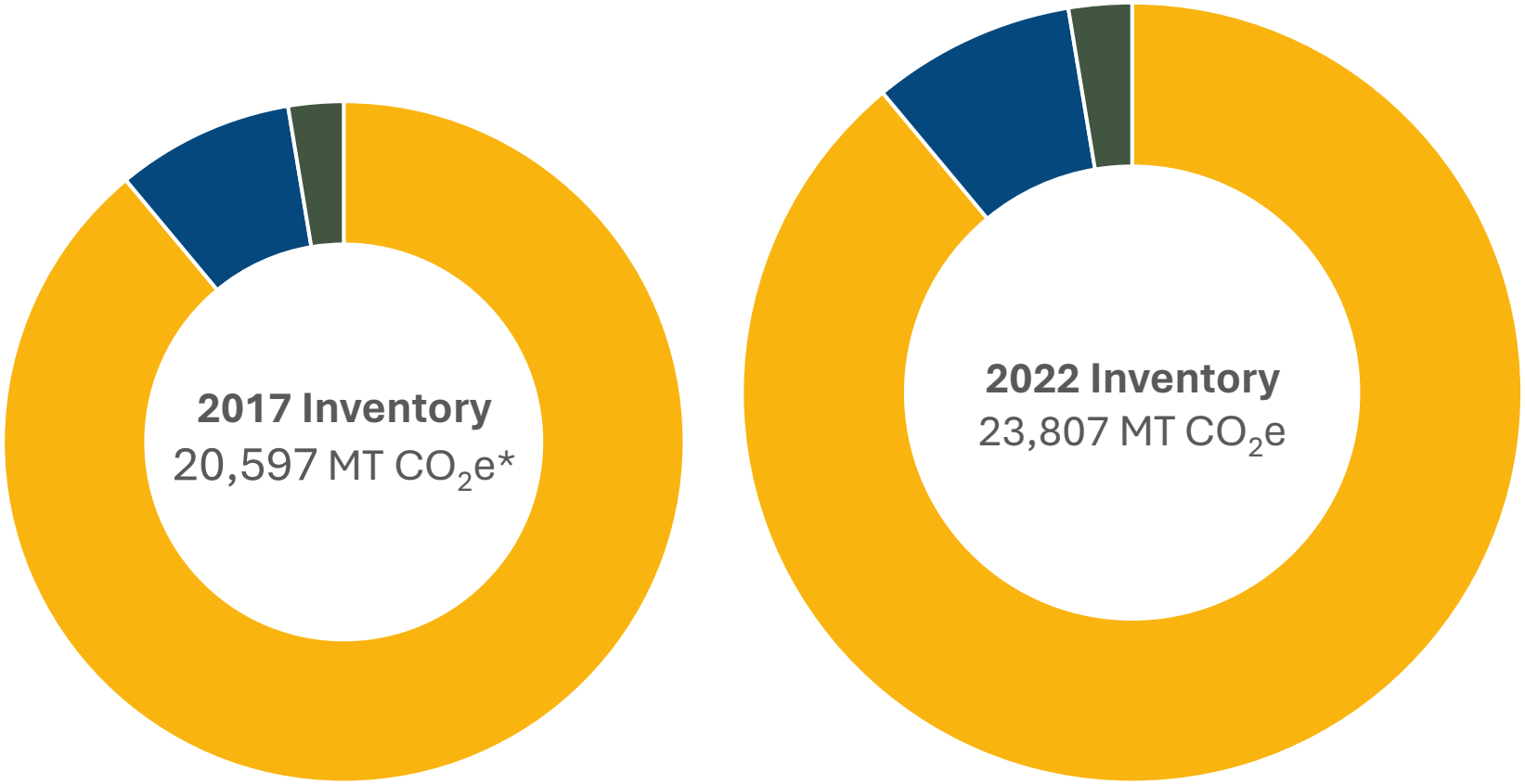
Community Emissions Summary By Sector



16% Increase in *calculated* emissions**

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*Transportation emissions displayed were revised from 2017 inventory to account for a change in methodology.
** Note that caution is advised when comparing total emissions due to changes in methodology and weather.

Emissions per capita

Sector	2017 MT CO_2e	2022 MT CO_2e	Change
Energy	18,323	21,437	+15%
Transportation	1,735	1,729	- <1%
Other	540	640	+19%
Total Emissions	**20,597**	**23,807**	**+16%**

Population	1,385	1,434	+4%
Emissions per capita ($MTCO_2e$)	14.9	16.6	+12%

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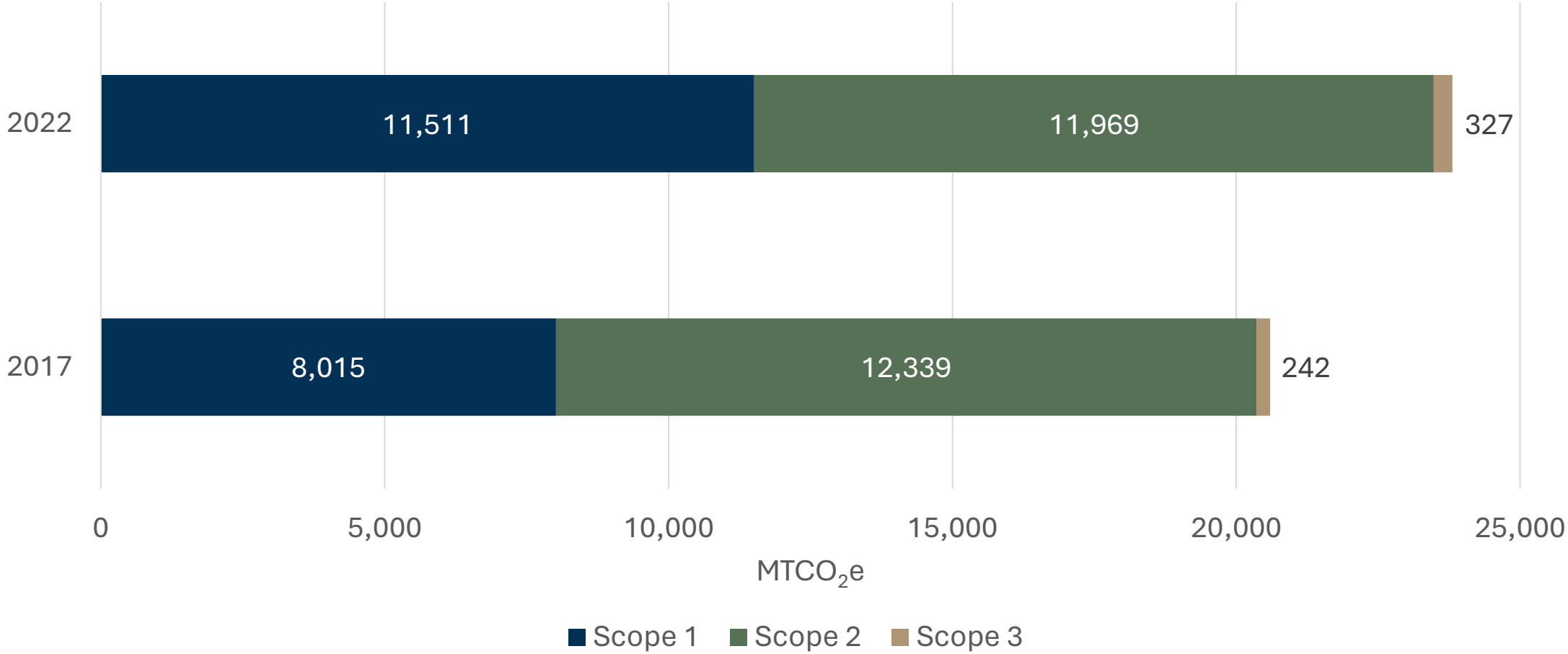
Community Emissions by Scope



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Community Emissions Summary

Sector	2017 MT CO_2e	2022 MT CO_2e	Change
Energy	**18,322**	**21,438**	**+17%**
Residential Buildings	9,574	11,038	+15%
Commercial Buildings	8,748	6,676	-10%
Municipal Buildings	Included in commercial	1,147	
Grid / T&D Losses	Not calculated	2,577**	-
Transportation	**1,735**	**1,729**	**- <1%**
On-road Transportation	1,735*	1,522**	-12%
Transit	Not calculated	207	-
Other	**540**	**640**	**+19%**
Solid Waste	242*	327	+35%
Water/Wastewater	297*	313**	+5%
Total Emissions	**20,597**	**23,807**	**+16%**

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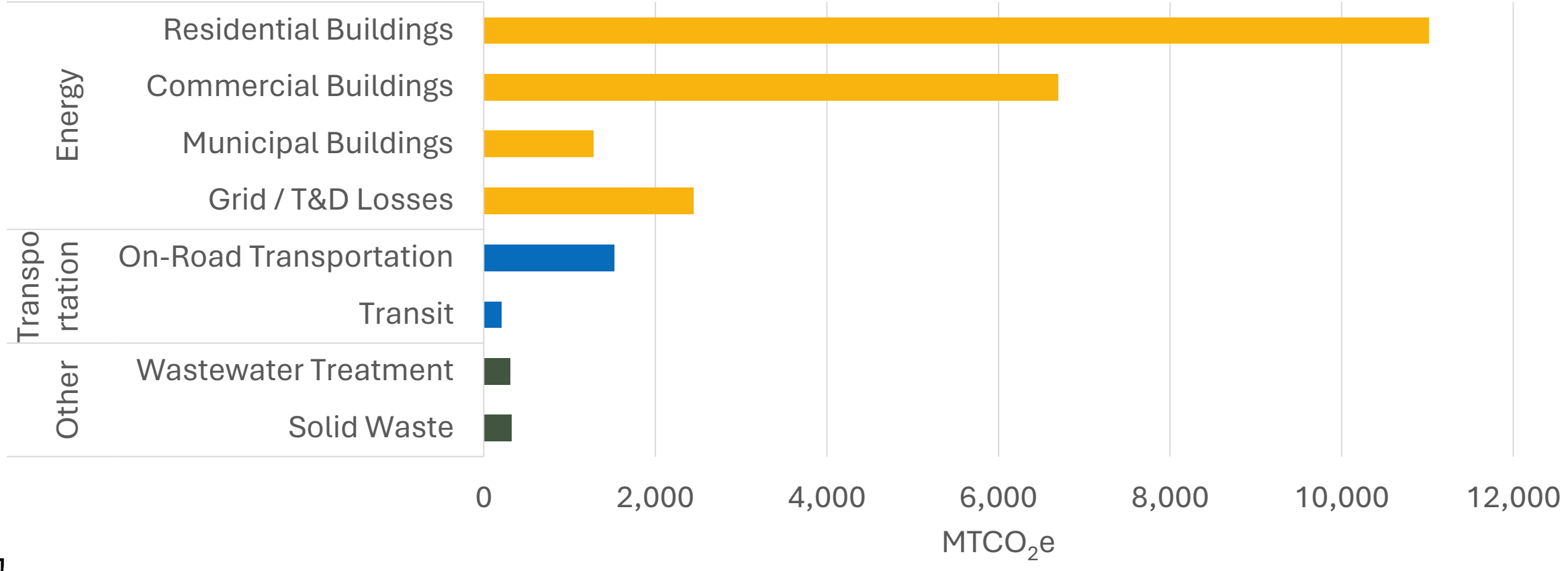
* Transportation, Waste, and Wastewater emissions revised for 2017 inventory to reflect methodology change

** Denotes significant change in methodology between 2017 and 2022 inventory

2022 Emissions Summary by Sub-Sector



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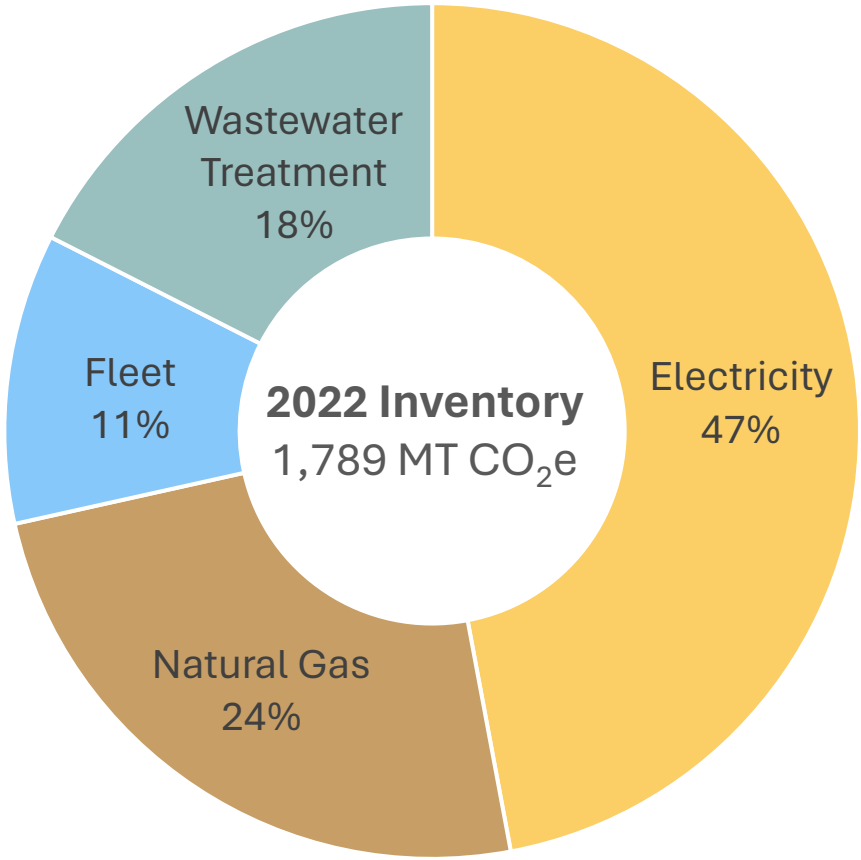
2022 Municipal Emissions Summary

Sub-Sector	2022 MT CO_2e
Electricity	842
Natural Gas	438
Fleet Vehicle Fuel Use[1]	196
Wastewater Treatment Processes[2]	313
Total	**1,789**



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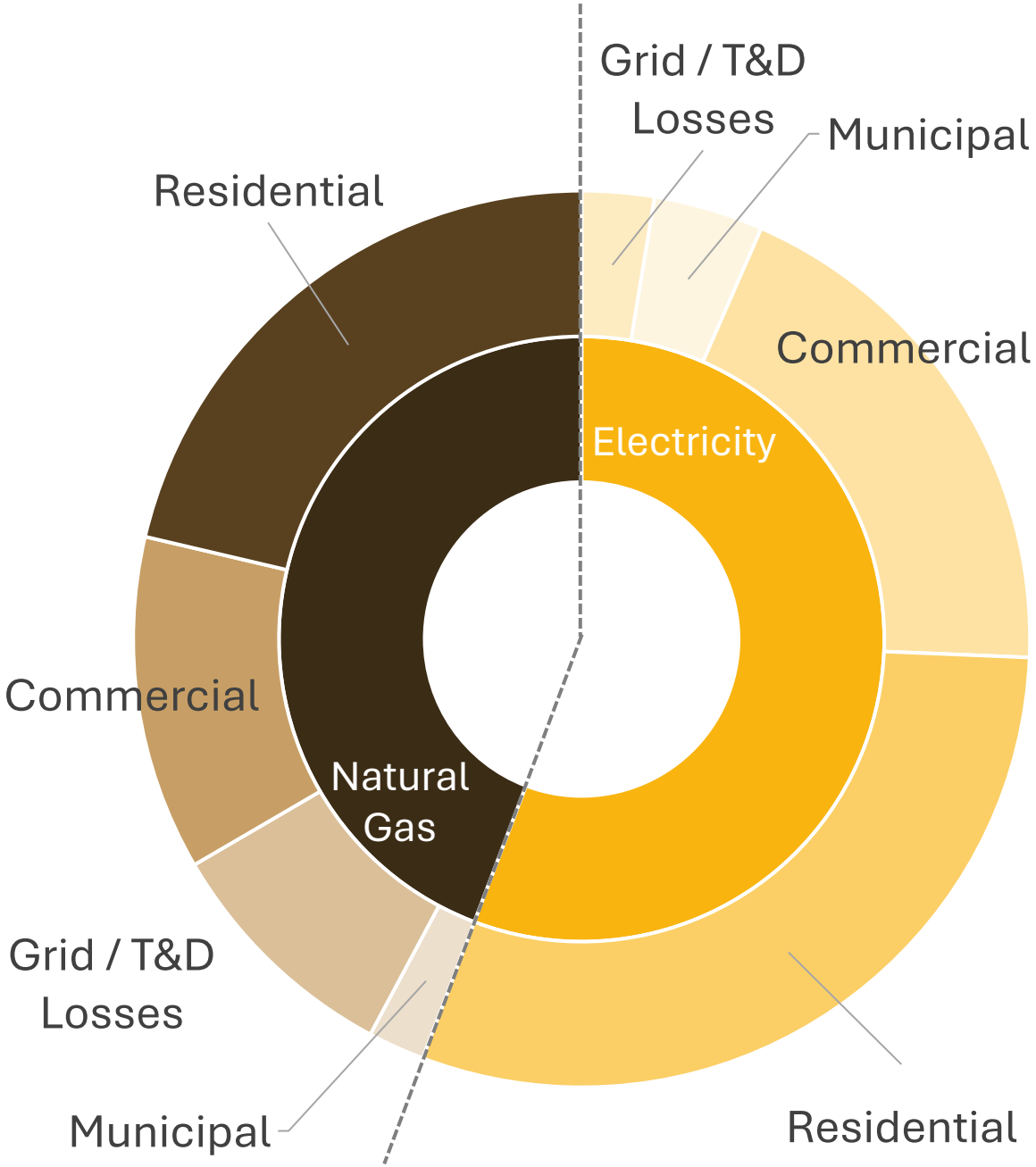
[1] Fleet includes municipal vehicle gasoline and diesel fuel use

[2] Wastewater treatment includes process-related and fugitive emissions

2022 Energy Emissions Snapshot

Sector	MT CO_2e	% Total
Energy	***21,438***	***90%***

Source and Sector	MT CO_2e	% Sector
Electricity	**11,948**	**56%**
Residential Buildings	6,461	30%
Commercial Buildings	4,086	19%
Municipal Buildings	800	4%
Grid Losses	601	3%
Natural gas	**9,490**	**44%**
Residential Buildings	4,578	21%
Commercial Buildings	2,590	12%
T&D Losses	1,976	9%
Municipal Buildings	347	2%



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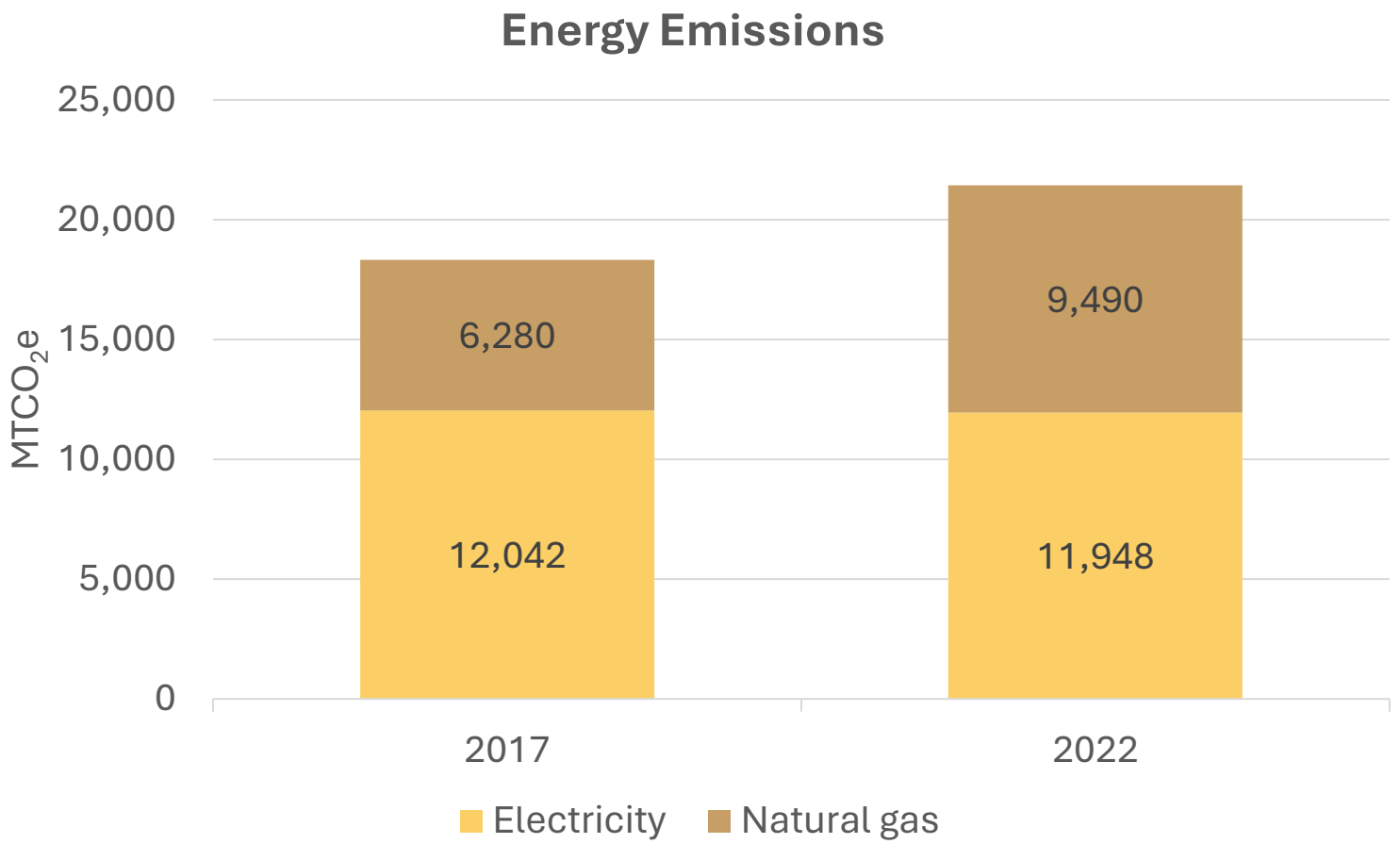
Change in energy emissions

17% increase in total energy sector emissions

2022 inventory includes grid and transmission/distribution losses not accounted for in 2017



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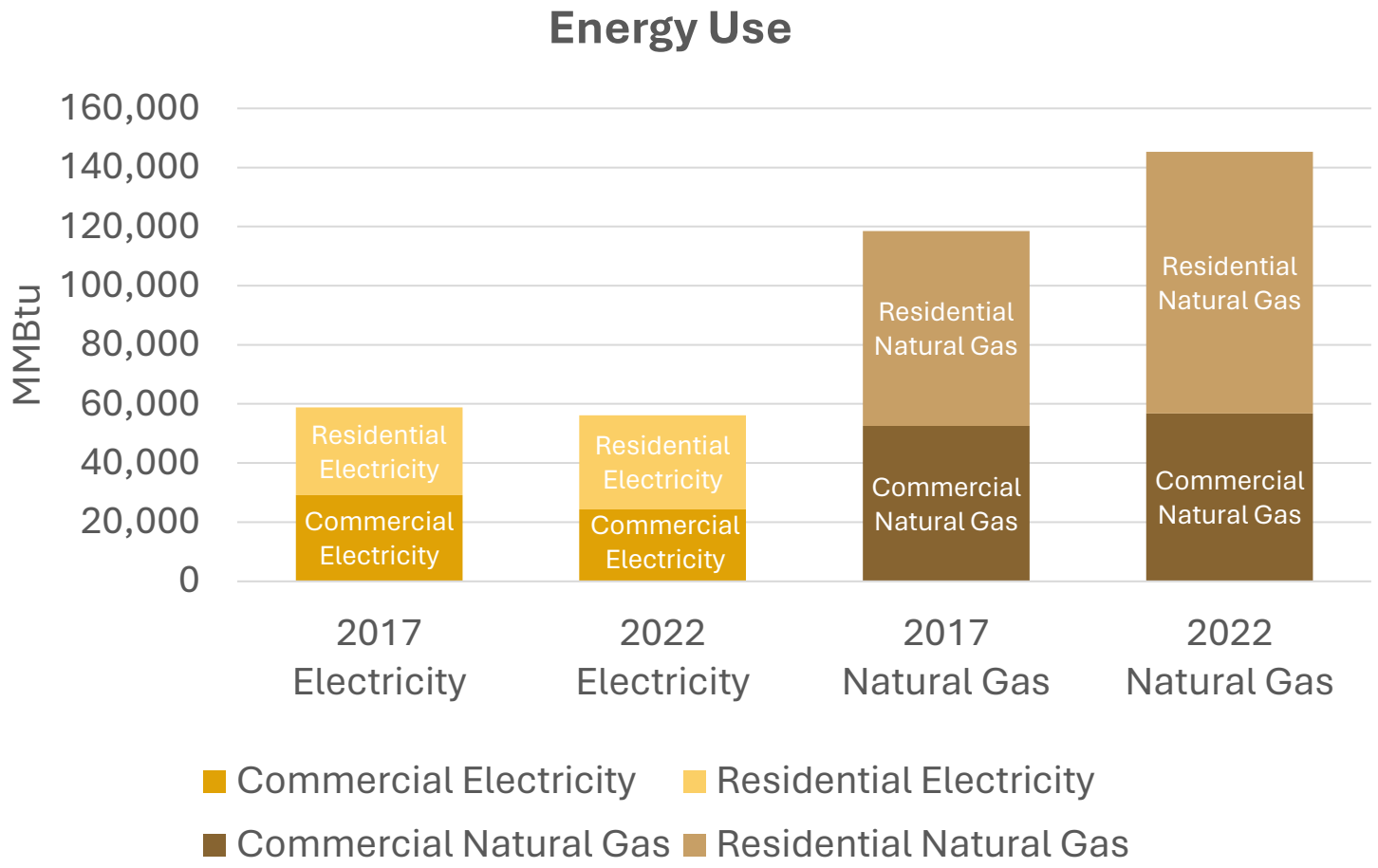
Change in energy use

Residential: 34% increase in gas use, likely driven by 42% increase in HDD

Commercial[1]: 17% decrease in electricity use, likely driven by business closures



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[1] Commercial sector includes municipal energy use

Electricity use and emissions

1% decrease in total electricity emissions driven by:

- Decreased commercial & industrial electricity consumption
- Reduced GCEA emissions factor
- Decrease partially offset by inclusion of grid loss emissions in 2022 to align with best practices

Emissions Factor
2017: 1,541 lbs CO_2e / MWh
2022: 1,520 lbs CO_2e / MWh

Sub-Sector	2017 kWh	2017 MT CO_2e	2022 kWh	2022 MT CO_2e	Change in kWh	Change in CO_2e
Residential Buildings	8,697,045	6,079	9,371,583	6,461	+7%	+6%
Commercial & Industrial Buildings	8,530,477	5,963	5,926,335	4,086	-17%	-18%
Municipal Buildings	Included in commercial	Included in commercial	1,159,667	800		
Grid Losses	Not calculated	Not calculated	-	601	-	-
Total Emissions	17,227,522	12,042	16,457,585	11,948	-4%	-1%

Natural gas use and emissions

51% increase in total natural gas emissions driven by:

- 23% increase in consumption, likely tied to 42% higher Heating Degree Days (HDDs)
- Inclusion of transmission and distribution losses in 2022 to align with best practices
- Increase partially offset by slight decrease in emissions factor used in 2022 compared to 2017

Emissions Factor
2017: 0.055 MT CO_2e / MCF
2022: 0.053 MT CO_2e / MCF

Sub-Sector	2017 MCF	2017 MT CO_2e	2022 MCF	2022 MT CO_2e	Change in MCF	Change in CO_2e
Residential Buildings	64,090	3,495	86,000	4,577	**+34%**	**+31%**
Commercial & Industrial Buildings	51,074	2,785	48,659	2,590	**+8%**	**+5%**
Municipal Buildings	Included in commercial	Included in commercial	6,511	347		
T&D Losses	Not calculated	Not calculated	-	1,976	-	-
Total Emissions	115,164	6,280	141,170	9,490	**+23%**	**+51%**
Heating Degree Days	7,352		10,458		+42%	

Energy benchmarking

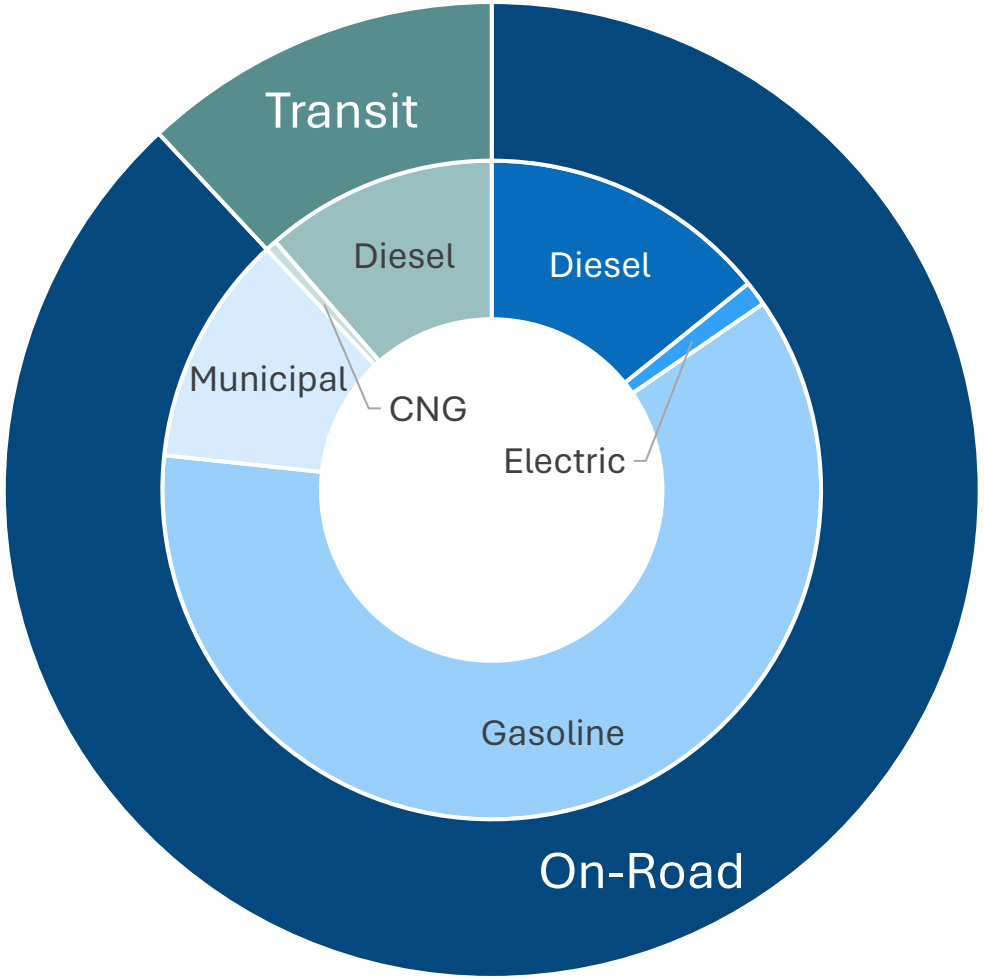
Benchmarks established in 2022 to support future tracking:

Benchmark	Year	Value	Source	Emissions Connection
Building square footage	2022	2,626,995 square feet (available by sector)	Town of CB	Increased square footage is a key driver of energy use
Behind-the-meter solar generation	Jan 2024	197 kW installed solar generation	GCEA	Increased behind-the-meter generation reduces electricity consumption
Electricity accounts	2022	2,202 (available by sector)	GCEA	Indicator of growth
Heating degree days	2022	10,458 HDD	Weather Data Depot	Measure of weather in a given year and a key indicator of natural gas heating demand
Jobs	2022	1,083	Colorado DOLA	Jobs could be linked to number/size of businesses and commercial energy use

2022 Transportation Emissions Snapshot

Sector	MT CO_2e	% Total
Transportation	***1,729***	***7%***

Source and Sector	MT CO_2e	Sector %
On-Road	**1,522**	**88%**
Gasoline	1,059	62%
Diesel	246	14%
Municipal Fleet	196	11%
Electric	21	1%
Transit	**207**	**12%**
Diesel	197	12%
CNG	10	<1%



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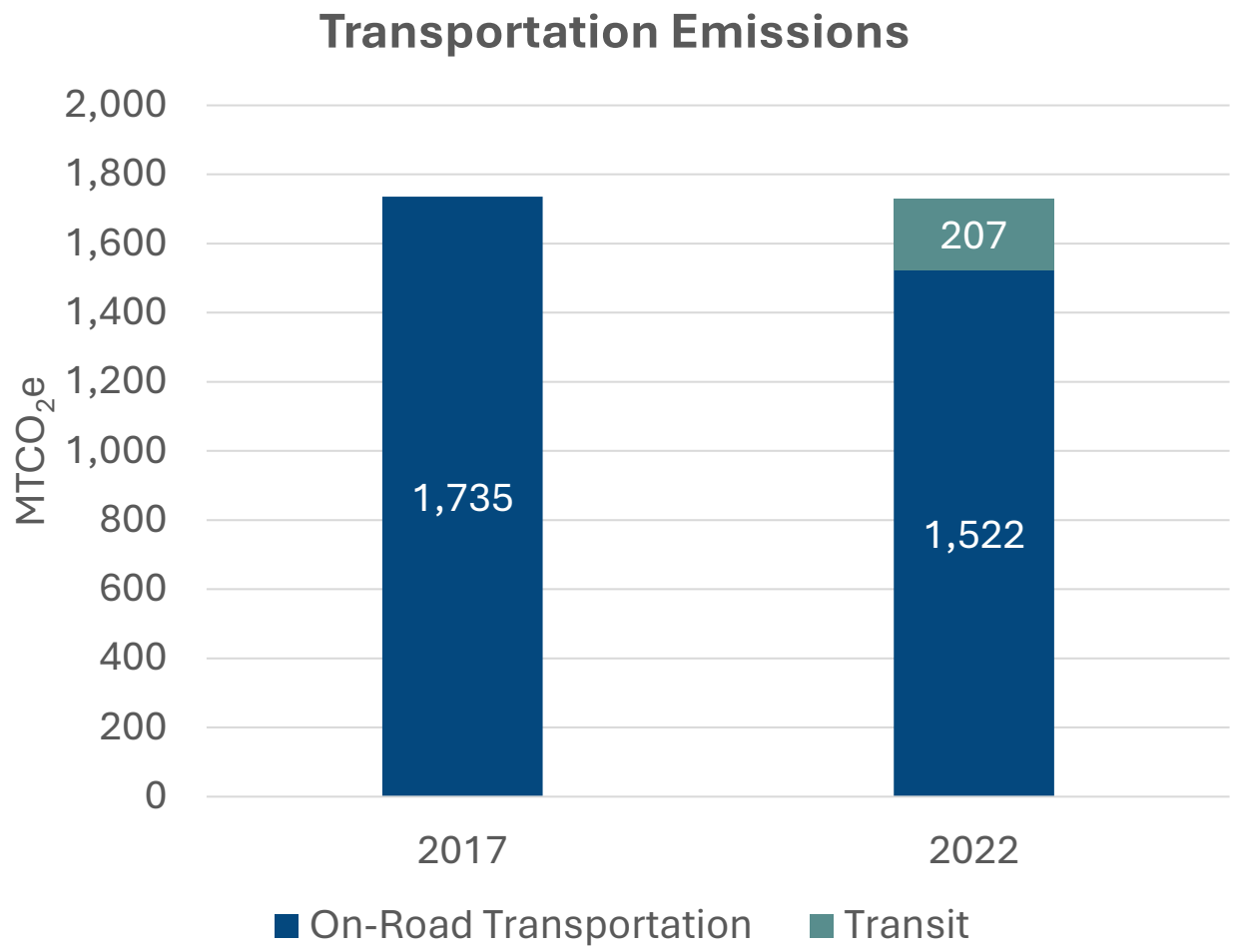
Change in transportation emissions

<1% decrease in calculated transportation emissions

2017 emissions adjusted to significant methodology change



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On-road VMT and emissions

Emissions Factor
Decrease in emissions factors across vehicle types.
2022 updated national average vehicle class allocation.

On-Road Vehicle Miles Traveled within Crested Butte (Scope 1)

- 2022 calculated using Streetlight data that was not available in 2017
- 2017 on-road emissions recalculated to reflect updated methodology
  - 2017 inventory calculated VMT scaled from county average resulting in over-estimate of county highway miles and classification of scope 3 emissions as scope 1.
  - The adjusted methodology scaled 2022 VMT to 2017 based on the change in CDOT vehicle data.
- Increased VMT offset by reduced emissions factor

Transit miles within Crested Butte (Scope 1, not calculated in 2017)

- 50% emissions from Mountain Express allocated to Crested Butte, other 50% allocated to Mount Crested Butte (100% diesel)
- ~0.725% RTA travel within Crested Butte boundaries included in inventory (32% diesel, 68% CNG)

Sub-Sector	2017 VMT	2017 MT CO_2e	2022 VMT	2022 MT CO_2e	Change in VMT	Change in CO_2e
On-Road Transportation	3,567,016	1,735	3,578,796	1,522	**+0.3%**	**-12%**
Transit	Not separated from on-road	Not separated from on-road	94,375	207	-	-
Total Emissions	3,567,016	1,735	3,673,171	1,729	**+ <1%**	**- <1%**

Transportation benchmarking

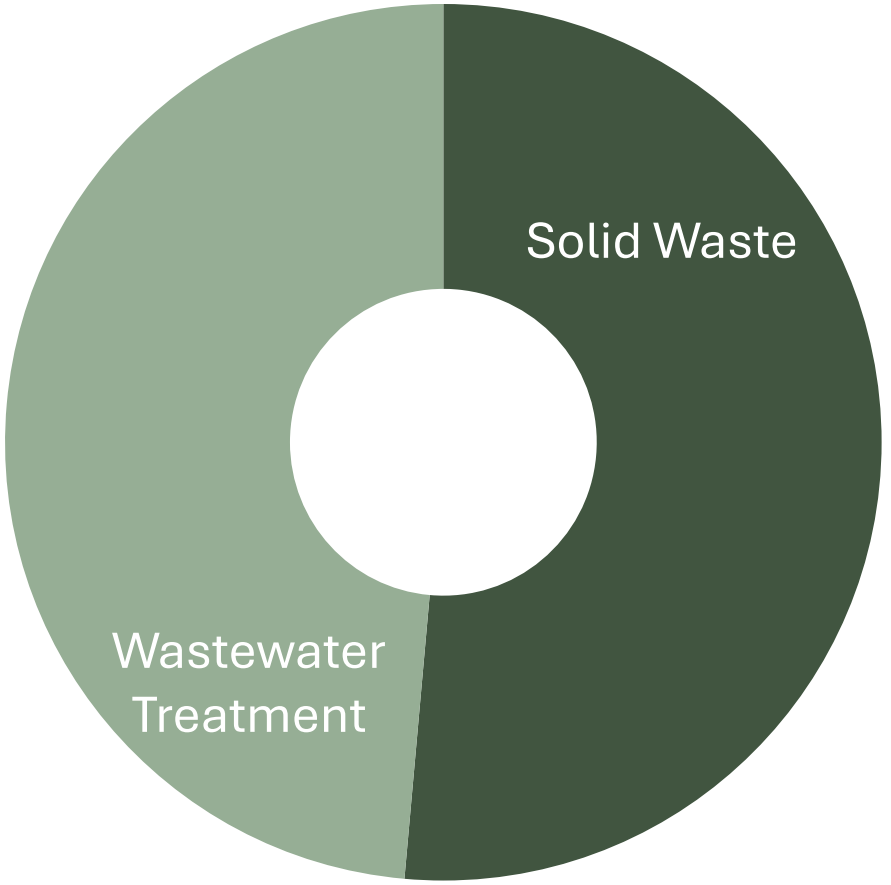
Benchmarks established in 2022 to support future tracking

Benchmark	Year	Value	Source	Emissions Connection
Number of visitors	2022	267,000 visitors	Gunnison Crested Butte Tourism and Prosperity Partnership	Visitation is a driver of traffic volume and VMT in-town
Transit ridership	2022	391,034 MTX 109,487 RTA	Crested Butte Transportation & Mobility Plan (MTX / RTA)	Increased transit ridership to and around CB could drive reduced VMT and emissions
Community transportation mode share	2022	21% CB residents drive alone to work	Crested Butte Transportation & Mobility Plan (Mobility Survey)	A shift away from driving alone could decrease VMT and emissions

2022 Other Emissions Snapshot

Sector	MT CO_2e	% Total
Other	*640*	*3%*

Source and Sector	MT CO_2e	% Sector
Solid Waste	327	51%
Wastewater Treatment	313	49%



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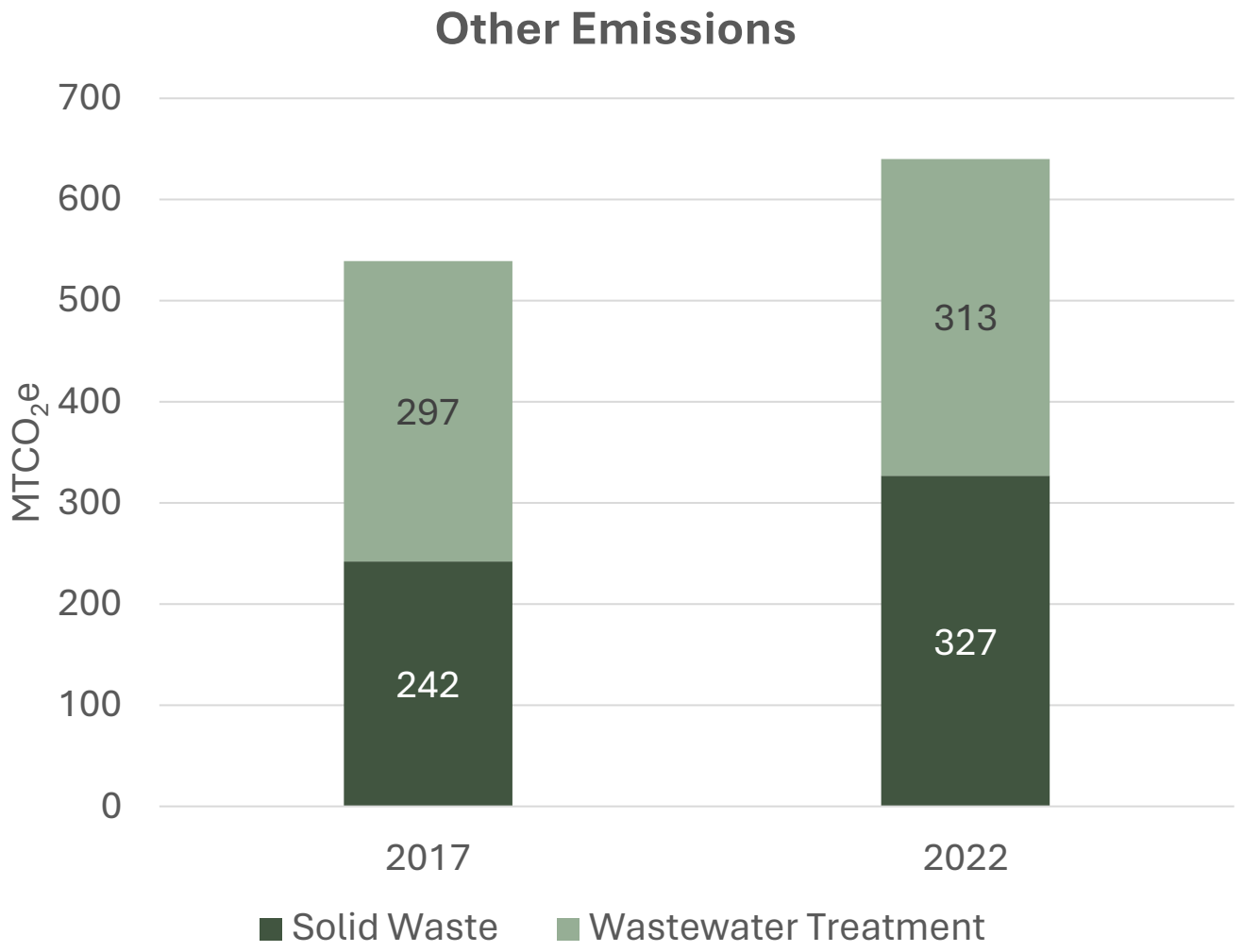
Change in other emissions

19% increase in calculated other emissions

2017 emissions recalculated to align with:

- Significant change in wastewater methodology
- Solid waste emissions factor



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Solid waste generation and emissions

35% increase in emissions driven by

- Increased waste generation
  - Waste to landfill increased by 35%, material recycled also increased by 49%

Emissions Factor
2017: 0.520 MT CO_2e / ton (recalculated)
2022: 0.520 MT CO_2e / ton (up-to-date EPA factor)

Sector	2017 Tons	2017 MT CO_2e	2022 Tons	2022 MT CO_2e	Change in Tons	Change in CO_2e
Solid Waste	466	242	629	327	**+35%**	**+35%**

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Wastewater emissions

2022 inventory updated to align with best practices[1]

- Water pumping and wastewater treatment electricity use included in municipal electricity use
- Wastewater treatment process and fugitive emissions calculated based on local treatment methods and daily average population of Crested Butte

2017 inventory re-calculated based on 2022 approach

- Re-classified water pumping and wastewater treatment electricity use as electricity emissions
- Back-casted 2017 annual daily average (ADA) population to calculate wastewater treatment process emissions[2]

Sector	2017 ADA[2]	2017 MT CO_2e[3]	2022 ADA[2]	2022 MT CO_2e	Change in ADA	Change in CO_2e
Wastewater Treatment	2,673	297	2,818	313	**+5%**	**+5%**

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[1] See GHG Protocol for Cities p.90

[2] Annual Daily Average (ADA) wastewater treatment plant population interpolated linearly based on Table 1.2 from "TCB WWTP Improvements Project - PM1 Preliminary Design Conditions.pdf"

[3] 2017 emissions were recalculated using a methodology consistent to the 2022 inventory

Other emissions benchmarking

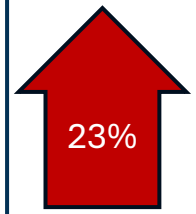
Benchmarks established in 2022 to support future tracking

Benchmark	Year	Value	Source	Emissions Connection
Average annual daily population	2022	2,779	Wastewater Treatment Plant Improvements Project	Average daily population is a driver of waste, energy, and wastewater treatment service and emissions
Material composted	2022	Residential: 7.7 tons Commercial: 3.2 tons	The Maintenance Company	Composting organic material diverts waste from landfill, avoiding emissions
Recycling	2022	263 tons	Waste Management	Recycling diverts waste from landfill, avoiding emissions
Waste diversion rate	2022	30% total waste composted or recycled	Waste Management, The Maintenance Company	Diverting waste from landfill helps to avoid emissions

Key Trends 2017 - 2022

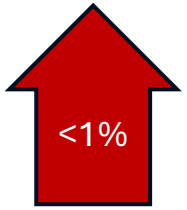
Electricity use decreased

- Decreased by 4% driven by reduction in commercial electricity use
- 2017 wastewater treatment plant electricity use reclassified from wastewater emissions category to electricity emissions category



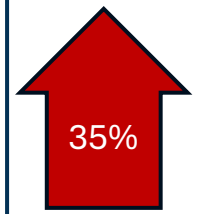
Natural gas use increased

- Increased by 23%
- 2017 vs. 2022 comparison is challenging due to Heating Degree Day difference



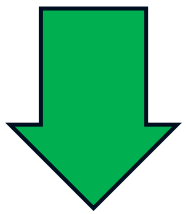
Vehicle miles traveled increased

- Increased by an estimated 0.3%
- Based on the change in CDOT traffic data



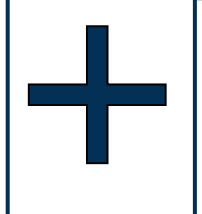
Solid waste generation increased

- Increased by 35%
- Recalculated 2017 emissions using EPA emissions factor reflects trend in solid waste tonnage



Emissions factors are decreasing

- Electricity, Natural Gas, and On-Road Transportation emissions factors all decreased



The 2022 inventory includes emissions categories not covered in 2017:

- Electricity grid losses
- Natural gas transmission and distribution losses
- Transit
- Wastewater treatment processes (now calculated for 2017)

Climate Action Plan