




# Stakeholder Meeting #2

July 25, 2018



Good  
Afternoon

- Stakeholder Introductions
  - Name, Affiliation, and Expertise
- Agenda
- Ground Rules





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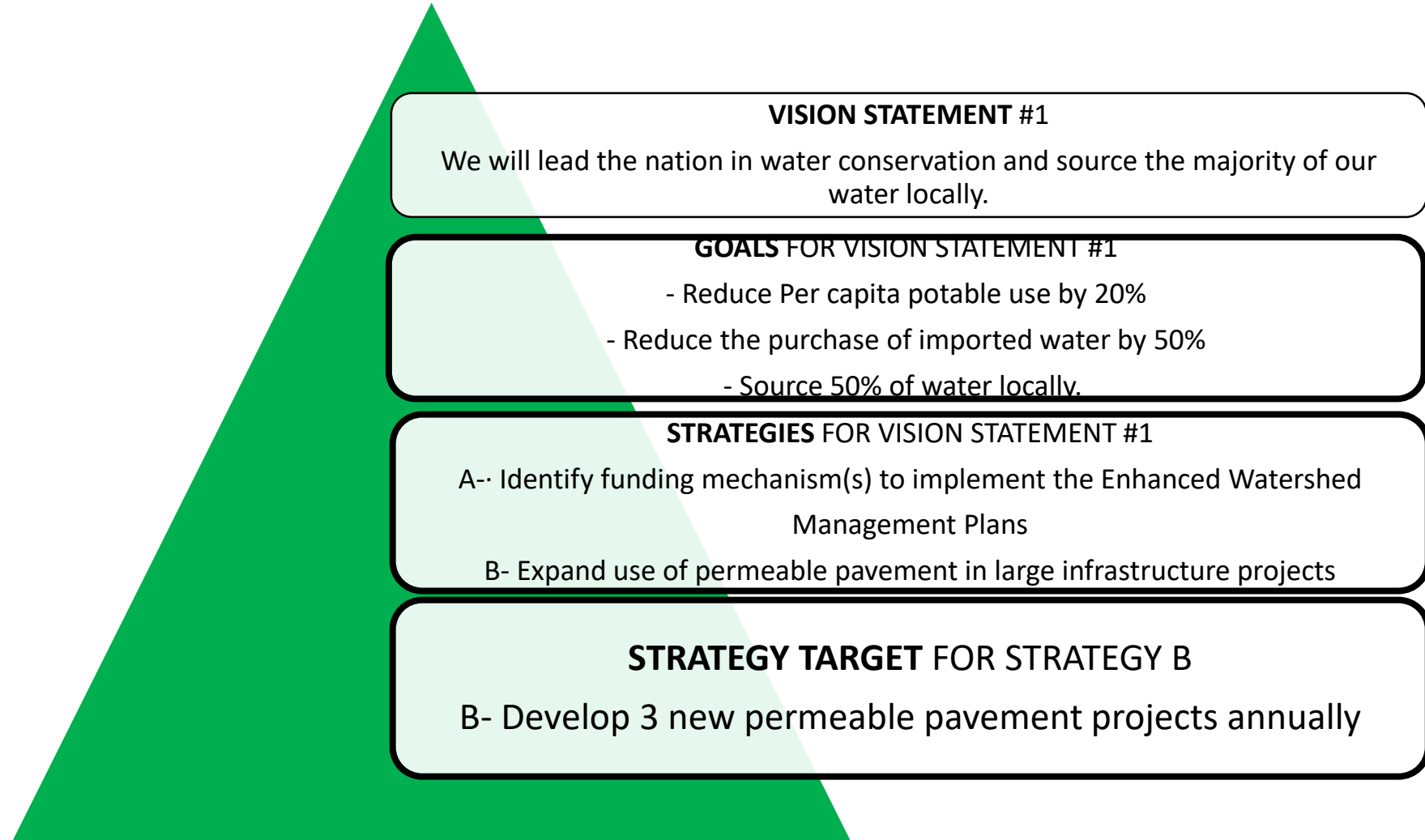
# Climate Action Plan Process

Overview

# Vision vs. Goals vs. Strategies



# Exercise 1 – Review Strategies and Goal Setting



# Exercise 1 – Review Strategies and Goal Setting (cont.)



## **VISION STATEMENT #2**

We invest in rail, bus lines, pedestrian/bike safety, and complete neighborhoods that provide more mobility options and reduce vehicle miles traveled.

## **GOALS FOR VISION STATEMENT #2**

- Reduce Vehicle Miles Traveled by 10% by 2035
- Increase the percentage of all trips made by walking, biking, or transit to at least 50% by 2035

## **STRATEGIES FOR VISION STATEMENT #2**

- A-Expand existing programs that generate demand for clean tech
- B-Expand capacity of park and ride network



July

Energy Efficiency and Renewable Energy: Review strategies and set goals

Aug.

Transportation: Review strategies and set goals

Sept.

Waste and Recycling: Review strategies and set goals

Oct.

Forestry and Land Use: Review strategies and set goals

Nov.

Summarize Process and Create Vision Statements

Dec.

Finalize Plan

2019

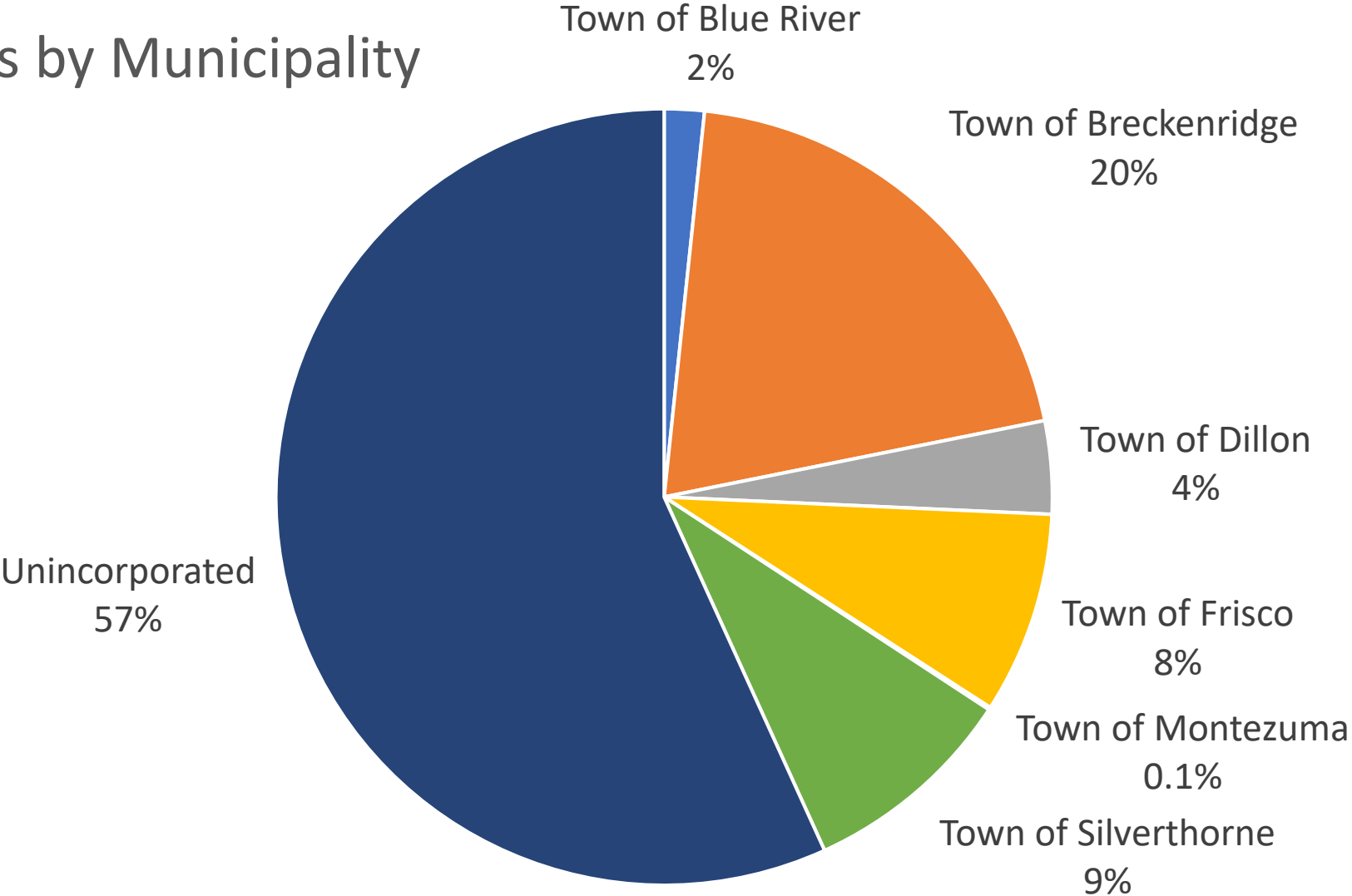
Open House and Launch of the Climate Change Collaborative



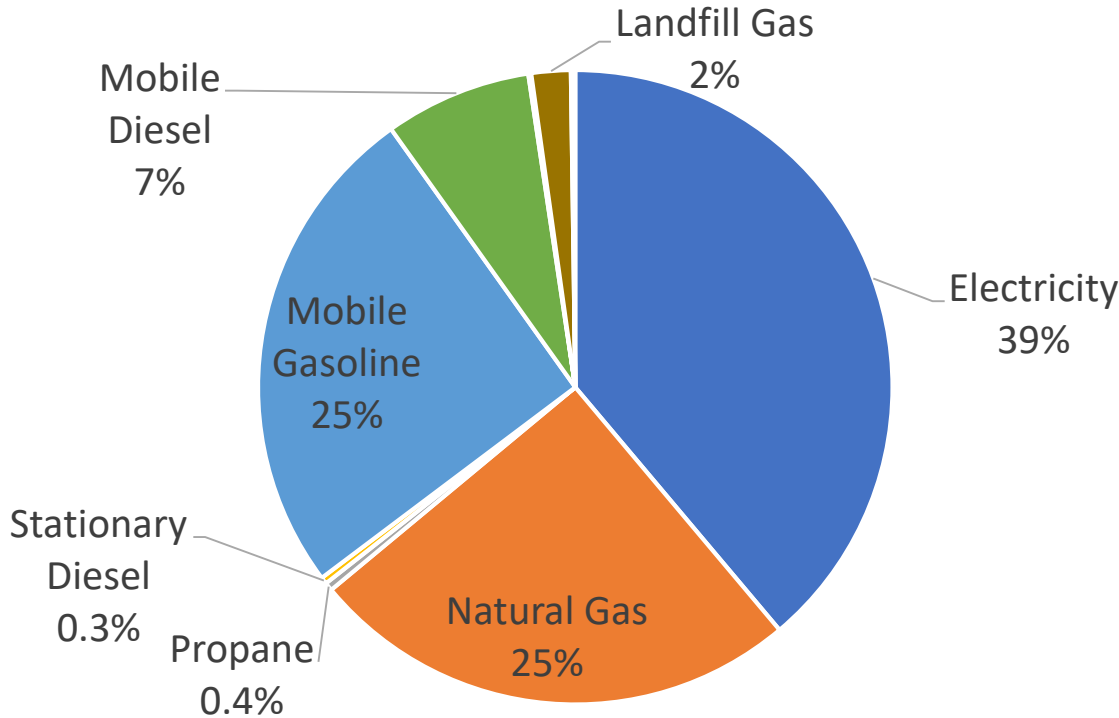
# Summit County's GHG Inventory Results | 2017



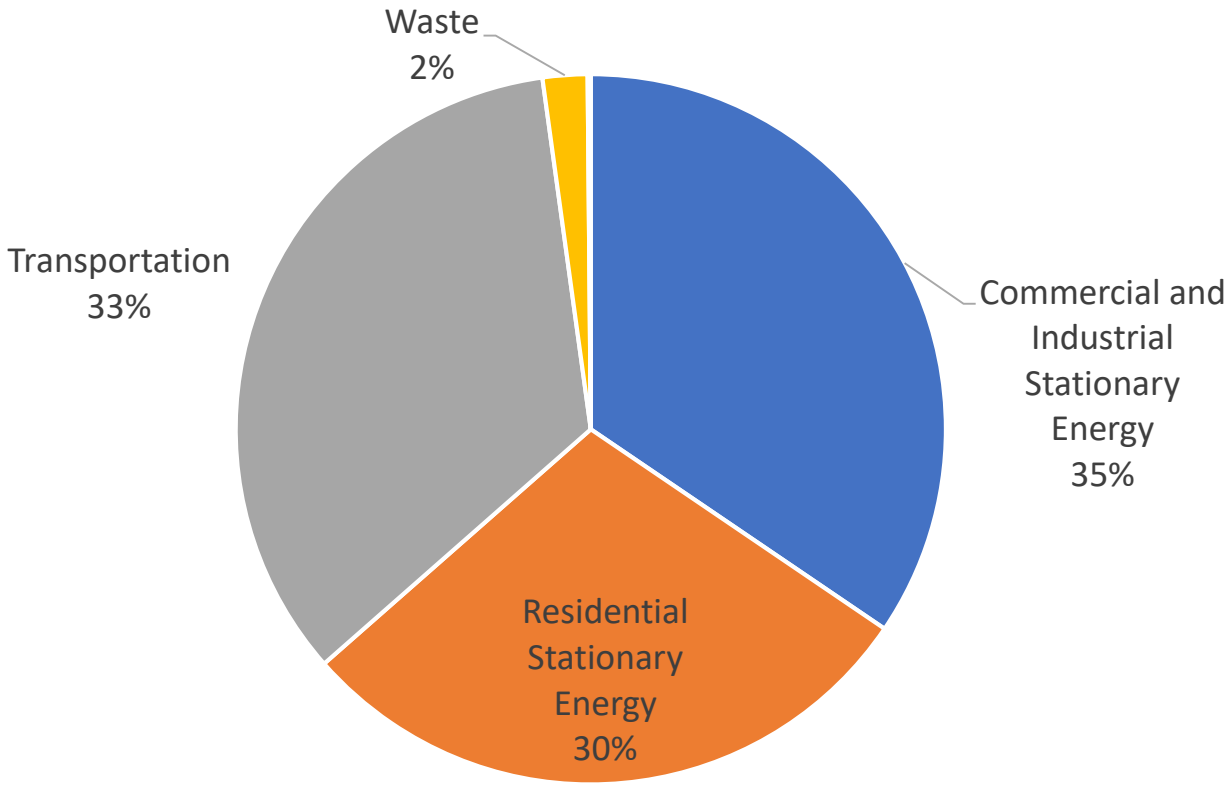
# Emissions by Municipality



# Emissions by Source

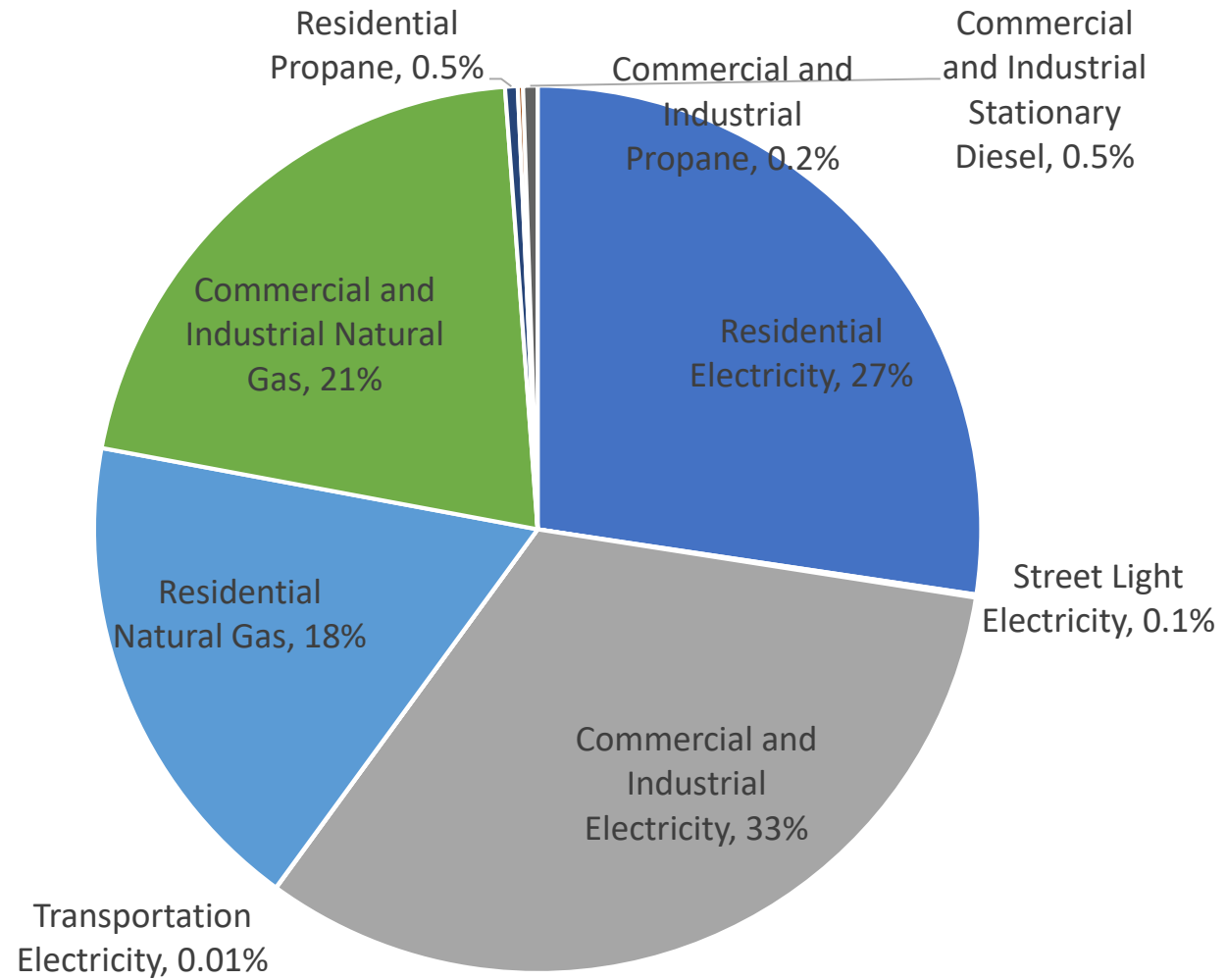


# Emissions by Sector

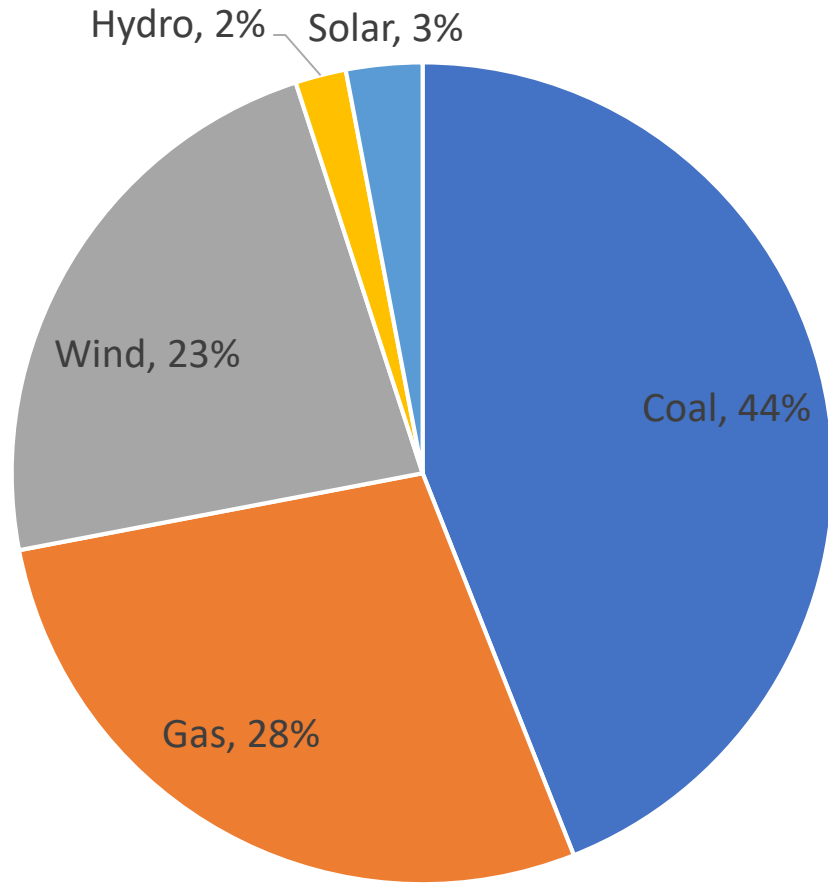


Today we will focus on 65% of 2017 Emissions



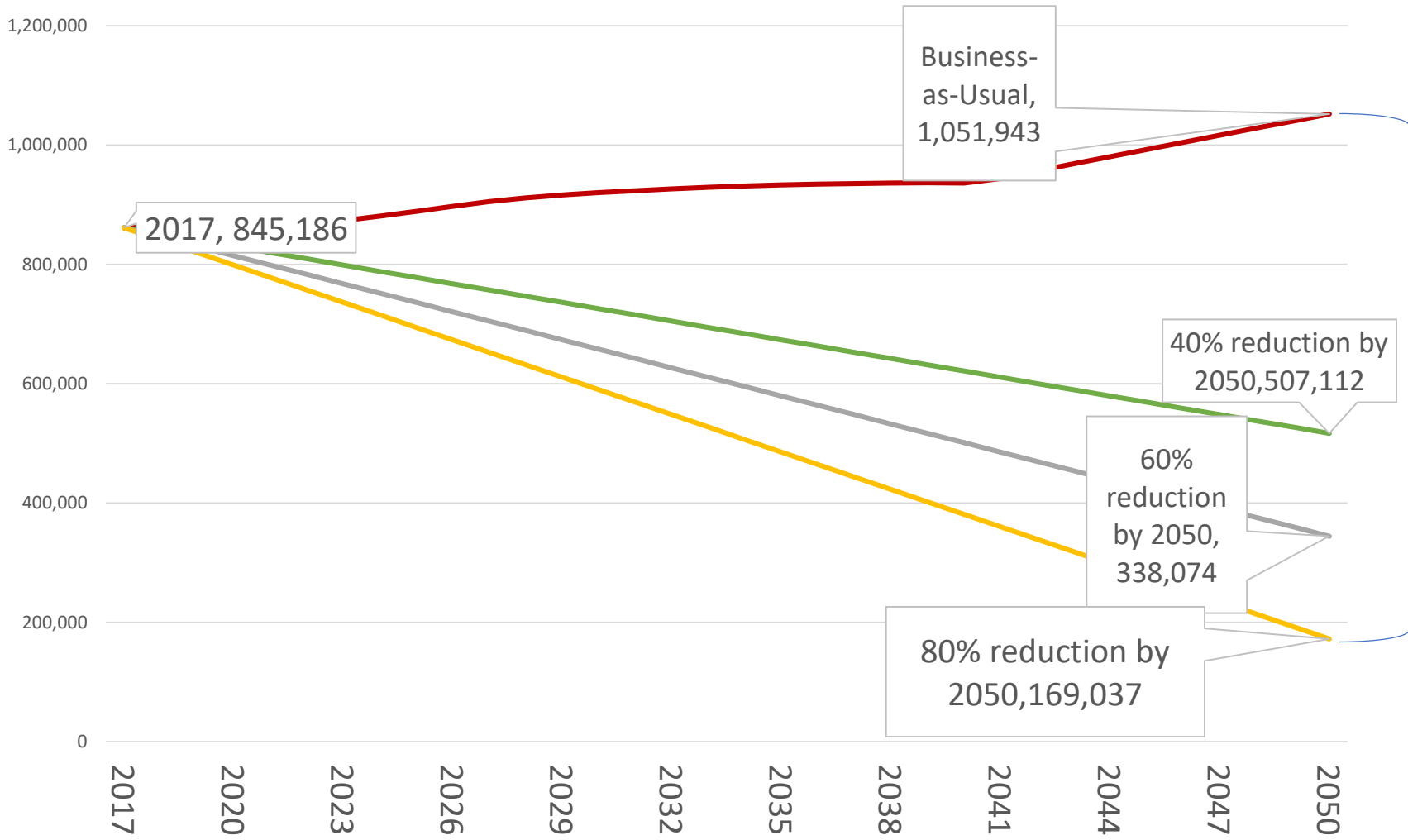


**Today's Focus  
is Stationary  
Energy**



# Current Electricity Blend





Difference of  
882,906  
mtCO2e



# Strategies for Summit County

Exercise #1



# Strategy Types

Strategies are categorized by program or project type:

- Renewable Energy
- Residential Energy Efficiency
- Commercial Energy Efficiency
- Codes and Policies

Lenses  
through which  
to view  
strategies:  
**Additional  
Benefits**

Based on top 5 additional benefits  
identified in stakeholder meeting #1

- Outdoor industry economic impacts
- Resource stewardship
- Water (quality and quantity) and forest health
- Energy savings lead to cost savings
- Improving social and physical well-being



Lenses  
through which  
to view  
strategies:  
Leading  
communities

Which other communities researched are doing this?

- Eagle County
- Pitkin County
- Park City, Utah
- Summit County, Utah
- Denver
- Whistler, British Columbia, Canada

Lenses  
through which  
to view  
strategies:  
Timeframe

What is the reasonable timeframe during which we can implement this strategy and see the impact on emissions?

- Short Term—Next 1 to 3 Years
- Mid-Term—by 2030
- Long Term—by 2050



Lenses  
through which  
to view  
strategies:  
GHG  
Reduction  
Potential and  
Cost

What is the estimated impact the implementation of this strategy will have on emissions (based on BAU projections)?  
What will it cost?

- Low Impact (>0.5% GHG Reduction Potential)
- Medium Impact (<0.5-2% GHG Reduction Potential)
- High Impact (>2% GHG Reduction Potential)
  - Low Cost (<\$100,000 annually to implement)
- Medium Cost (\$100,000-1 Million annually to implement)
- High Cost (>\$1,000,000 annually to implement)





**Topic:** Renewable Energy

# All jurisdictions adopt renewable energy policies, setting goals of transitioning to 100% renewable energy

## Definition

Actively pursue policies and projects that will move Summit County towards a 100% renewable energy goal, including through support for rooftop and utility-scale solar, utility scale wind projects, and other technologies as applicable.

## GHG Reduction Potential



## Costs



## Additional Benefits



Leading Communities  
(Note: all Colorado communities with a 100% goal are listed here)

Aspen  
Boulder  
Breckenridge  
Pueblo County

Denver  
Lafayette  
City of Pueblo

Longmont  
Nederland  
Summit County



# Advocate at the state level for a rapid increase in the amount of renewable energy on the grid

## Definition

Through policy, incentives, and other tools, support the increased development of renewable energy on the grid via roof-top scale solar, ground-mounted solar, utility-scale solar, and other technologies as applicable.

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

Eagle County  
Pitkin County  
Park City

Denver  
Summit County, Utah  
Whistler

# Require that all new workforce housing to be built Net Zero Energy (includes on-site solar)

## Definition

Through policy, incentives, and other tools, support the development of workforce housing units that are energy efficient and utilize renewable energy to make the buildings net zero energy.

## GHG Reduction Potential



## Costs



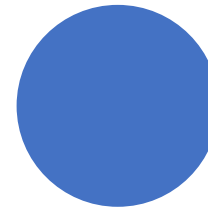
## Additional Benefits



## Leading Communities

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Are we missing any renewable energy goals and/or strategies?







**Topic:** Residential Energy  
Efficiency

# Through the Energy Smart Colorado program, implement energy efficiency strategies for achieving deep carbon reductions (i.e. 30-50%) in existing buildings

**Definition**

Provide resources and incentives for implementing building upgrades that lead to deep carbon reductions in existing residential buildings.

**GHG Reduction Potential**



**Costs**



**Additional Benefits**



**Leading Communities**

Eagle County  
Park City  
Summit County, Utah  
Denver

Through the Energy Smart Colorado program, implement energy efficiency strategies for achieving deep carbon reductions (i.e. 30-50%) in existing buildings

Goal Options
3% buildings owners benefit over 5 years
5% buildings owners benefit over 5 years
7% buildings owners benefit over 5 years
No Goal

# Expand income-qualified energy efficiency programs such as Colorado Affordable Residential Energy (CARE)

## Definition

Supporting the expansion of weatherization programs for income-qualified households through grants and other funding

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

Eagle County  
Summit County, Utah

# Expand income-qualified energy efficiency programs such as Colorado Affordable Residential Energy (CARE)

Goal Options
10% of Low Income Homes Benefited every 5 years
20% of Low Income Homes Benefited every 5 years
30% of Low Income Homes Benefited every 5 years
No Goal



# Host an LED light bulb give-away or exchange

## Definition

Provide LED lightbulbs to residents and business owners with for free or with the exchange of a traditional incandescent bulb, meanwhile communicating savings and efficiency opportunities to the audience.

## GHG Reduction Potential



## Costs



## Additional Benefits

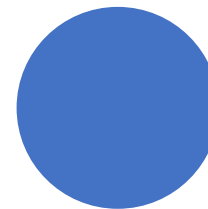


## Leading Communities

Eagle County  
Summit County, Utah (LED lighting program)

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Are we missing any residential energy efficiency goals and/or strategies?





**Topic: Commercial  
Energy Efficiency**

# Through the Resource Wise business program, implement energy efficiency strategies for achieving deep carbon reductions (i.e. 30-50%) in existing buildings

<b>Definition</b>	Provide resources and incentives for implementing building upgrades that lead to deep carbon reductions in existing commercial buildings.
GHG Reduction Potential	
Costs	
Additional Benefits	 
Leading Communities	Eagle County Park City Summit County, Utah Denver

Through the Resource Wise business program, implement energy efficiency strategies for achieving deep carbon reductions (i.e. 30-50%) in existing buildings

Goal Options
3% buildings owners benefit over 5 years
5% buildings owners benefit over 5 years
7% buildings owners benefit over 5 years
No Goal



# Require mandatory building energy benchmarking

## Definition

Require buildings of a certain size to measure and report energy use on a public-facing platform.

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

Eagle County (optional)  
Pitkin County (considering it)  
Summit County, Utah (optional)  
Denver

# Require mandatory building energy benchmarking

## Defining benchmarking goal

For buildings over 10,000 square foot

For buildings over 15,000 square foot

For buildings over 25,000 square foot

No Goal

# Focus on energy efficiency and renewable energy for school and government buildings

## Definition

Develop policy to incentivize or require school and government buildings to achieve certain standards of energy efficiency or to support to procurement of renewable energy on these buildings.

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

Summit County, Utah (for county buildings)  
Denver

# Create a program to incentivize existing building owners to bring their properties up to code or meet a certain efficiency standard

## Definition

Provide resources and incentives for implementing building upgrades that increase the number of building owners that are up to code or meet a certain efficiency standard in existing.

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

Eagle County  
Park City  
Summit County, Utah  
Denver

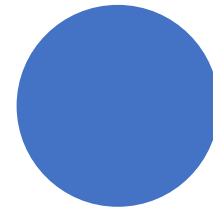
Create a program to incentivize existing building owners to bring their properties up to code or meet a certain efficiency standard

Goal Options
3% buildings owners participate over 5 years
5% buildings owners participate over 5 years
7% buildings owners participate over 5 years
No Goal



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Are we missing any commercial energy efficiency goals and/or strategies?



**Topic: Codes and Policies**

# Require that all new buildings be Net-Zero Energy Ready

## Definition

Require all new buildings to be built to the highest efficiency and performance standards and designed to accommodate a renewable energy system that will offset all of the building's energy use.

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

Eagle County (currently not requiring but considering codes and programs around net zero energy)  
Denver (Goal all new construction by 2035)

# Adopt and enforce the most updated version of the International Energy Conservation Code (IECC) for buildings

## Definition

Updated IECC guidelines are released every 3 years and provide guidance on the design and construction for new buildings.

## GHG Reduction Potential



## Costs



## Additional Benefits



Leading Communities

Eagle County

Pitkin County

Denver

# Develop a 'beyond' building code

## Definition

A 'beyond' code would require certain building standards for new construction and major renovation that is above and beyond the current IECC.

## GHG Reduction Potential



## Costs



## Additional Benefits



## Leading Communities

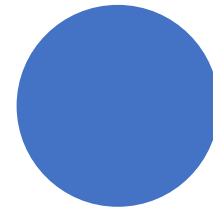
Eagle County (Optional)  
Denver

Pitkin County (considering it)  
Summit County, Utah (optional)



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Are we missing any codes and policies goals and/or strategies?





| Next Steps