Climate Action Plan
for the Eagle County Community

Stakeholders' – Collaborative Meeting

Monday, March 27, 2017

Walking Mountains Science Center
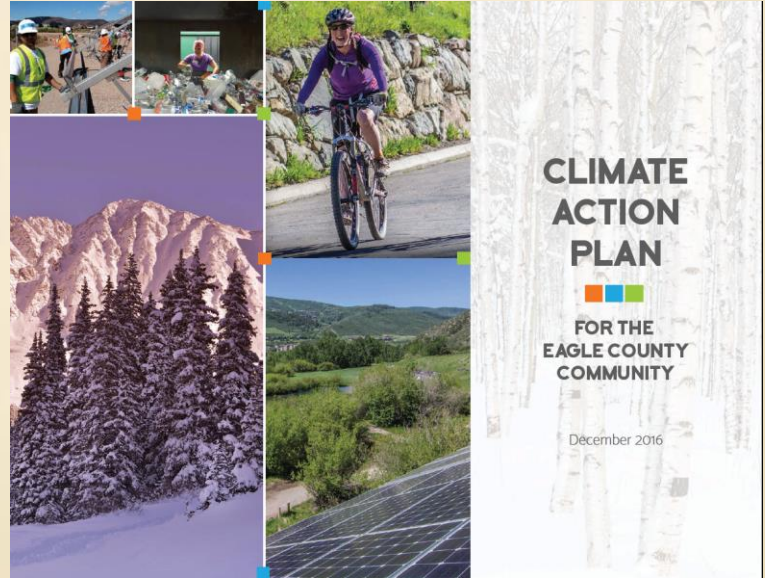
Let's Get Started!

- Welcome
- Agenda Overview
- Stakeholder Updates
- Collaboration Purpose, Roles & Structure
- Sector Working Groups

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Session #1: Stakeholder Updates

Aim for
1 minute each!

Session #2:
Purpose, Roles & Structure

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Collaborative Purpose & Principles

- Collaborative
- Vision & Purpose
- Guiding Principles
- Expectations
- Structure
- Decision-making

Collaboration

A voluntary process through which a broad array of interests, some of which may be in conflict, enter into civil dialogue to collectively consider possible recommendations and actions that benefit the community.

Five Conditions for Collective Success

- Common Agenda
- Shared Measurement
- Mutual Reinforcing Activities
- Continuous Communication
- Backbone Organization

From: Stanford Social Innovation Review (Winter 2011)

Summary Structure of Collaboratives

FORMAL (Less / More)

FLEXIBLE (Less / More)

Regulatory Body
The organization has been granted the authority to act as a government, which could include the ability to levy taxes and fines, set regulations, or enact policies.

Legal Entity
The network is a formal legal entity, giving it privileges such as collecting and managing funding, hiring staff, owning assets, and entering into contracts.

Chartered Network
The network has developed a charter or other system of agreed-upon rules that specifies how members wish to govern their interactions and make decisions.

Informal Network
A group of regional actors who agree to meet regularly to work together towards a shared goal, though that goal may be broadly defined.

DRAFT Vision Statement

The Eagle County community is actively engaged in climate action and successfully meets the targets reducing GHG emissions 25% by 2025 and 80% by 2050.

Future generations of Eagle County citizens and guests enjoy a flourishing year-round economy, recreational experiences, and a healthy resilient ecosystem that enhances the well-being of all.

DRAFT Guiding Principles

- Implement strategies in the CAP
- Serve as a "crossroads" of shared resources
- Use processes that encourage participation, sharing, transparency and inclusiveness
- Produce consensus decisions for the betterment of the community
- Balance economic, social, and environmental considerations in our recommendations
- Be accountable for our actions and use data to measure and monitor collective impact

DRAFT Expectations

- Allocate staff time and other resources to implement initiatives
- Communicate often and proactively
- Develop plans and projects that empower our community
- Proactively integrate GHG reduction actions into decision-making, infrastructure, and community assets

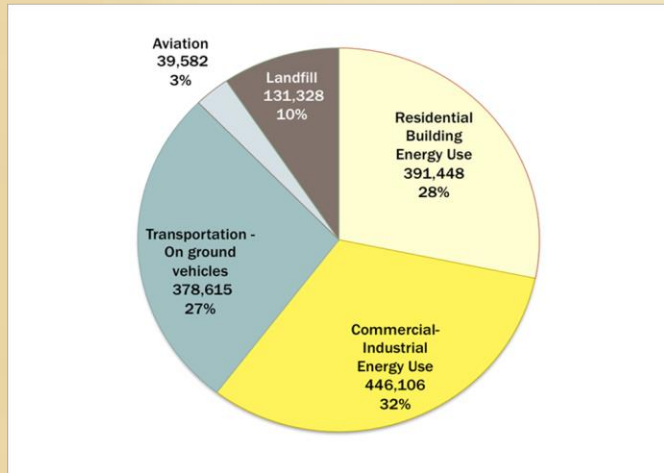# To be determined…

- Structure
- Decision-making
- Funding

Let's take a break!

Six Sectors - Working Group Teams

Eagle County Emissions by Sector in 2014

SUMMARY OF RECOMMENDATIONS FOR CLIMATE ACTION

Education and Outreach
- Establish climate education task force
- Create county-wide marketing campaign
- Enhance Eco-Schools for K-12 schools
- Expand Actively Green business trainings and certifications
- Leverage special events platforms to change behaviors

Commercial Buildings Sector
- Reduce GHG emissions 25% by 2025
- Focus on energy efficiency
- Provide incentives
- Adopt "above building code" standards
- Promote and incentivize efficient use of water

Residential Buildings Sector
- Reduce GHG emissions 25% by 2025
- Focus on energy efficiency
- Expand Energy Smart Colorado program and incentives
- Adopt "above building code" standards
- Promote and incentivize efficient use of water

Transportation and Mobility Sector
- Reduce local GHG emissions 10% by 2025
- Include future commuter train or bus rapid transit
- Expand use of electric vehicles
- Encourage multi-modal transportation systems
- Strive for efficient land use patterns with housing in proximity to workplaces

Waste and Landfill Sector
- Set a waste diversion goal that is above the national average
- Develop a plan to increase waste diversion through recycling and composting
- Install waste-to-energy methane capture system at landfill
- Provide residential and commercial composting services

Energy Supply Sector
- Expand local exterior energy offset programs (Eco-Build example)
- Identify locations for local solar arrays
- Encourage energy utilities to set aggressive GHG emission reduction goals

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Education and Outreach

- Climate education team
- Enhance and expand existing programs
- Create marketing campaign

Waste and Landfill Sector

- **Increase waste diversion goal**
- **Increase recycling & composting**
- **Reduce waste**

Commercial Buildings Sector

- **Reduce emissions 25% by 2025**
- **Focus on energy efficiency**
- **Provide incentives**
- **Adopt "above building code" standards**

Transportation & Mobility Sector

- **Reduce local emissions 10% by 2025**
- **Increase bus rapid transit use**
- **Expand use of electric vehicles**
- **Strive for efficient land use patterns**

Energy Supply Sector

- **Expand energy offset programs**
- **Identify locations for solar arrays**
- **Encourage utilities to set aggressive emission reduction goals**

Working Group Team Discussions

- What does success look like?

- Preliminary Project Plan

- Chair and/or Co-Chairs

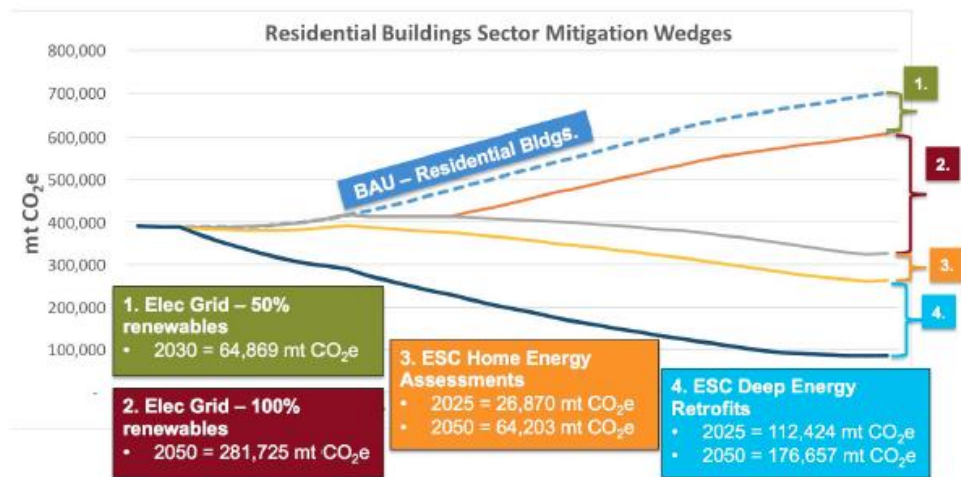# Mapping out Goals for Success

- WE CAN DO THIS!
  - Create system/tracking that brings goals within reach
- What is Baseline from 2014?
  - Come up with specific/measureable data from baseline study
- Breakdown of Annual goals until 2025 (mtCO2e)
  - Set annual goals, pathway to achieve goals, and include all possible contributors of data
- Tips/tools for coming up with metrics/data for tracking success

Residential Buildings Sector–Top Recommended Goals and Strategies

- Reduce GHG emissions 25% below 2014 levels in the residential buildings sector by 2025

- For existing residential buildings, expand the local Energy Smart Colorado energy efficiency program and incentives in order to reduce GHG emissions in 25% of all residential buildings in Eagle County by 2025, 50% of all residential buildings by 2035, and 100% by 2050.

- Provide support and incentives for rental units to be updated with energy efficiency improvements.

- For new residential buildings, develop new "above building code" standards and incentives, including "net zero" codes that are consistent across jurisdictional boundaries throughout Eagle County.

- Update Eagle County Eco-Build mitigation fees to include all energy use for large homes over the average Eagle County home size of 3,700 sq. ft., not just offsetting heated exterior surfaces and pools.

- Promote and incentivize efficient use of water in interior and exterior of residential buildings.

- Continue partnerships with local energy utilities in order to leverage for more economic incentives.
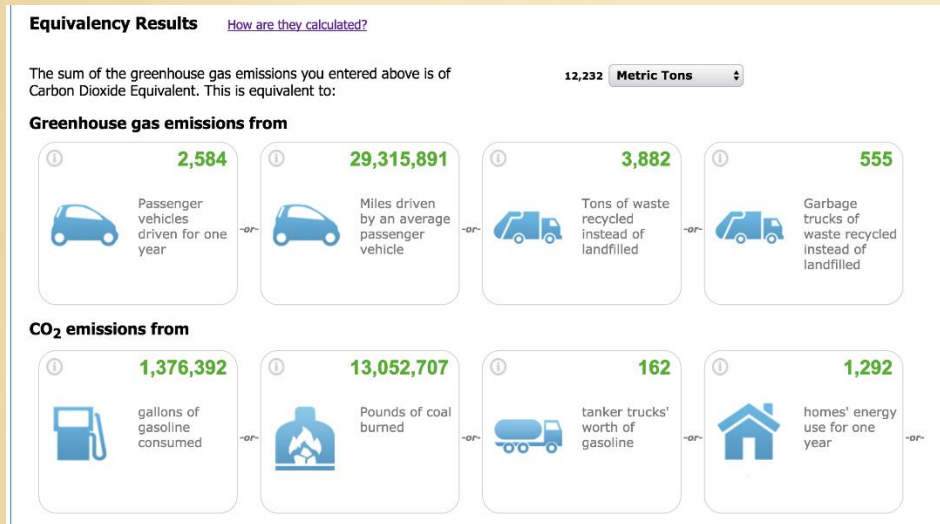

Residential Buildings Sector Mitigation Wedges

y-axis: mt CO_2e (800,000; 700,000; 600,000; 500,000; 400,000; 300,000; 200,000; 100,000)

BAU – Residential Bldgs.

1. Elec Grid – 50% renewables
- 2030 = 64,869 mt CO_2e

2. Elec Grid – 100% renewables
- 2050 = 281,725 mt CO_2e

3. ESC Home Energy Assessments
- 2025 = 26,870 mt CO_2e
- 2050 = 64,203 mt CO_2e

4. ESC Deep Energy Retrofits
- 2025 = 112,424 mt CO_2e
- 2050 = 176,657 mt CO_2e

This graph was developed by Dr. Abel Chávez using "EMiTT" (Effective Mitigation Transition Tool) to help visualize, model, track, and quantify climate action mitigation targets. This graph is a hypothetical scenario that includes the following GHG abatement pathways: 1) electricity from the grid would include 50% renewable energy by 2050 and 100% renewable energy by 2050, and 2) Energy Smart Colorado would reach the recommended goal of 50% of homes in Eagle County receiving home energy assessments, and half of those homes would complete deep energy retrofits. This graph illustrates that the Eagle County community can take climate action and make significant GHG emission reductions. Fixing aging, leaky buildings is a great start toward effective climate action, but more actions will be needed to reach recommended targets.

Example: Residential Energy

- 2014 Baseline: 391,448
- 2025 Goal= 391,448*.25= 97,862mtCO2e reduction
- 97,862/8 = 12,232mtCO2e / year
- Sources for mtCO2e?:
  - ESC Platform, utilities, NWCOG, EOC, Eagle County housing, other entities working in residential space?

Tools for Data Collection:

- ESC Salesforce Platform
- Actively Green
- EPA GHG Equivalencies Calculator:

Equivalency Results   How are they calculated?

The sum of the greenhouse gas emissions you entered above is of Carbon Dioxide Equivalent. This is equivalent to: 12,232   Metric Tons

Greenhouse gas emissions from

2,584	29,315,891	3,882	555
Passenger vehicles driven for one year	Miles driven by an average passenger vehicle	Tons of waste recycled instead of landfilled	Garbage trucks of waste recycled instead of landfilled

CO_2 emissions from

1,376,392	13,052,707	162	1,292
gallons of gasoline consumed	Pounds of coal burned	tanker trucks' worth of gasoline	homes' energy use for one year

https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Session #4:
Wrap Up and Next Steps…

- "Energy Authority" presentation 4/4
- Update www.walkingmountains.org/cap
- Working groups meets
- Submit editorial
- Working Group Project Plans –Deadline (6/1?)
- Any bike rack items? What else?
- Focus of June meeting: Structure, Projects, Budgets

THANK YOU!

Next meeting:
Monday June 26

Location TBD

Please keep in touch ☺

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