

Actionable Climate Action Planning

Colorado Resilience Office's
Climate Adaptations and Futures Webinar Series

JANUARY 6, 2020
12 P.M. - 1 P.M.



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Resiliency Office
Department of Local Affairs

Welcome

Please use the Q&A feature to communicate any questions for the panelists.

This webinar is being recorded and will be posted on the Colorado Resiliency Office's website: coresiliency.com/webinars



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Patrick Rondinelli
SW Regional Manager, DOLA



Megan Holcomb
Senior Climate Change
Specialist, DNR



Angie Fyfe
Executive Director
ICLEI



Chris Menges
Sustainability Programs
Administrator, City of Aspen



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Agenda

- State Resources, Plans, & Roadmap for Climate Action
 - Patrick Rondinelli, Department of Local Affairs
 - Megan Holcomb, Department of Natural Resources
- Why & How to Create an Actionable Climate Action Plan
 - Angie Fyfe, ICLEI Executive Director
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- CO Case Study: Aspen's Climate Action Plan
 - Chris Menges, City of Aspen
 -
- Q&A with Panelists



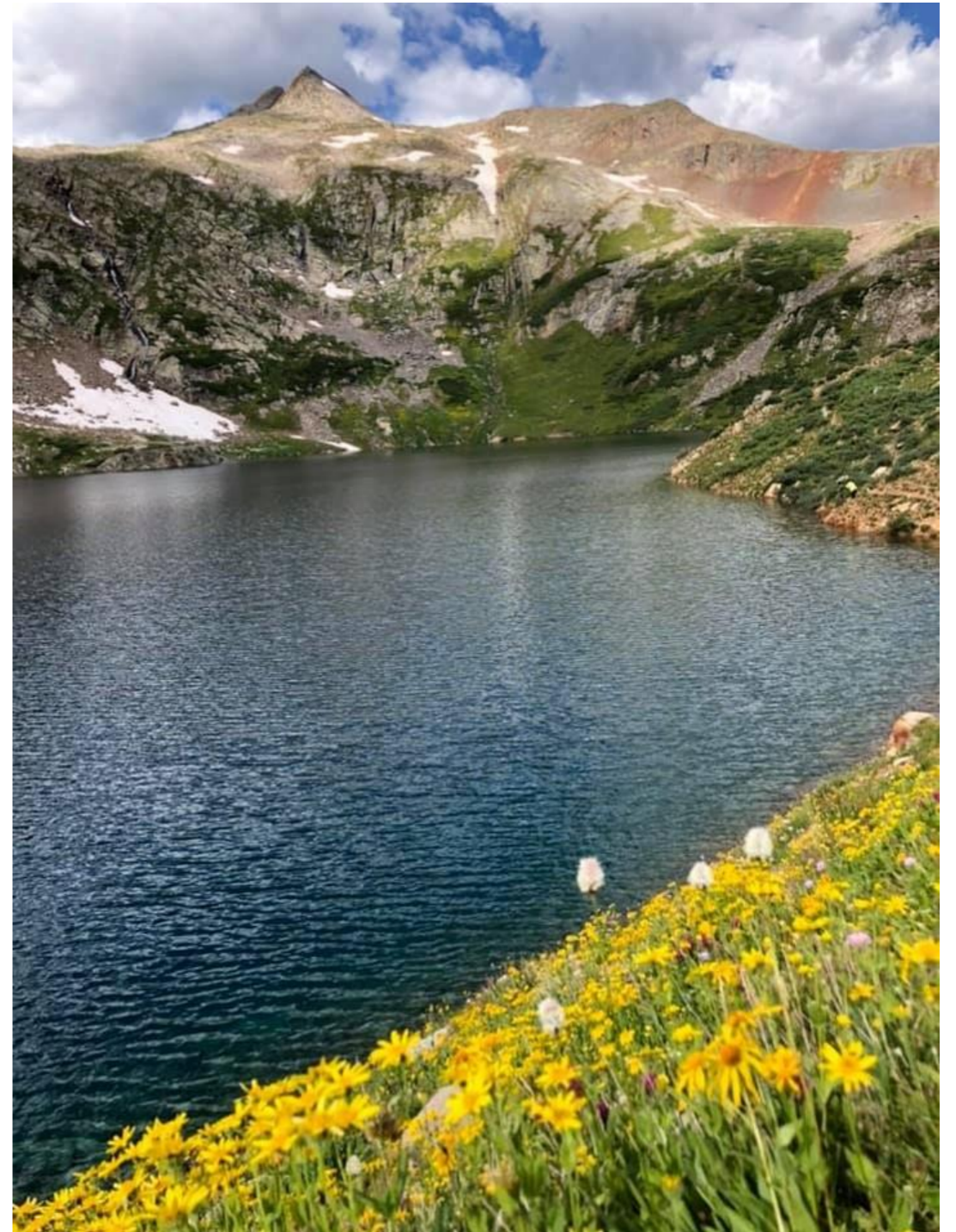
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State Resources

- EIAF Administrative Grants (more information [here](#))
- Your Colorado Peers!
 - Over 35 jurisdictions here in Colorado have completed a climate-related plan (list [here](#) & posted on www.coresiliency.com/webinars)
- CRO is available for technical assistance

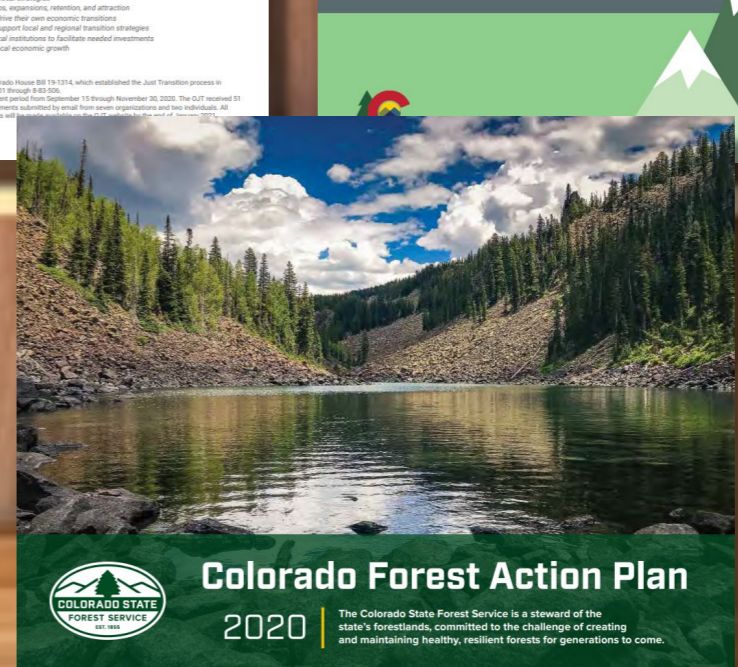
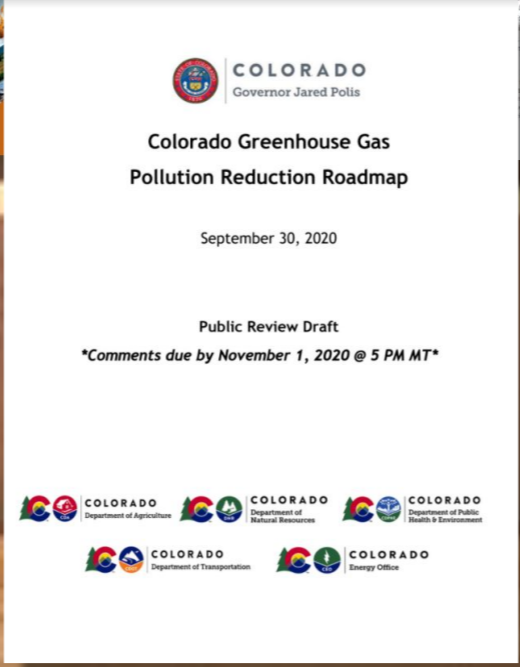
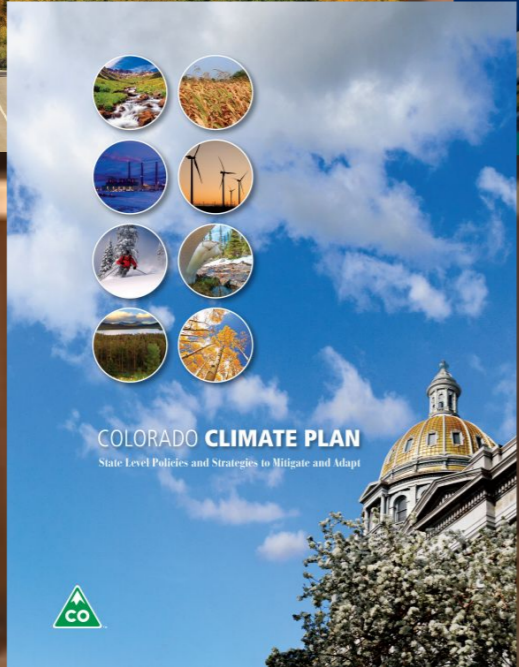
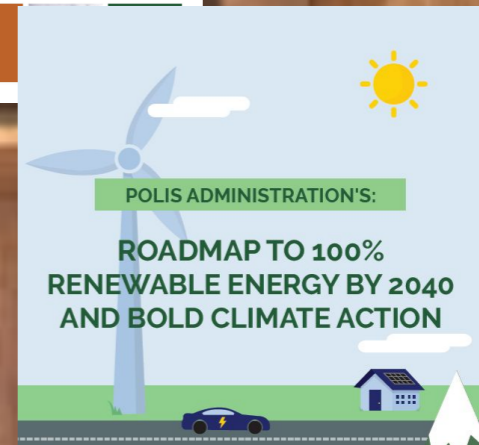
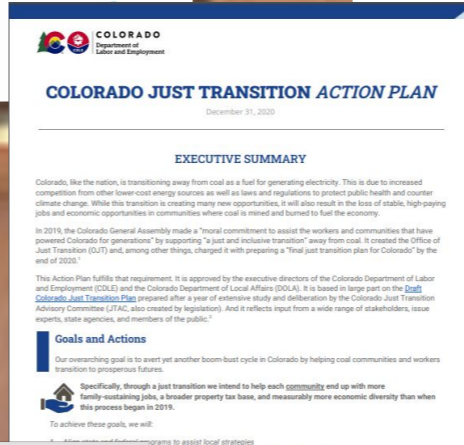
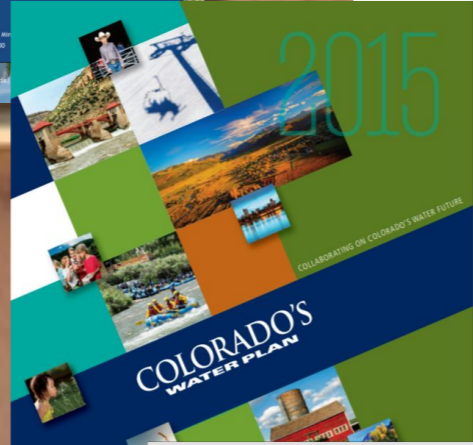
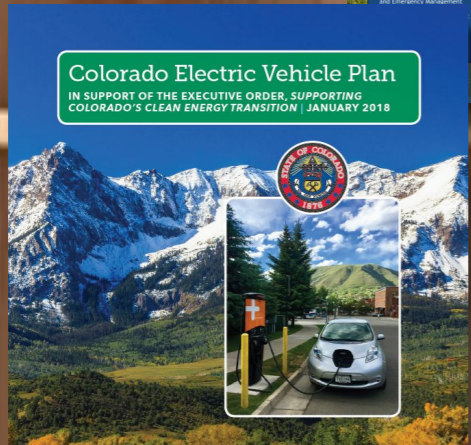
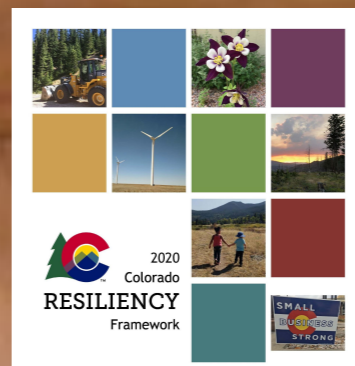
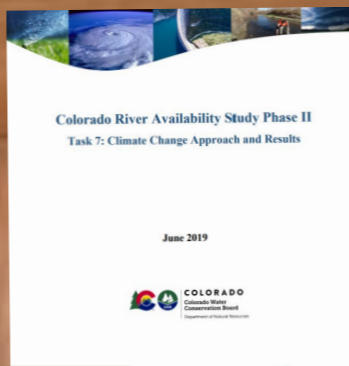
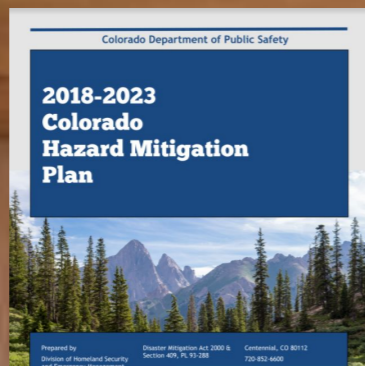


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State Plans



New Website



climate.colorado.gov



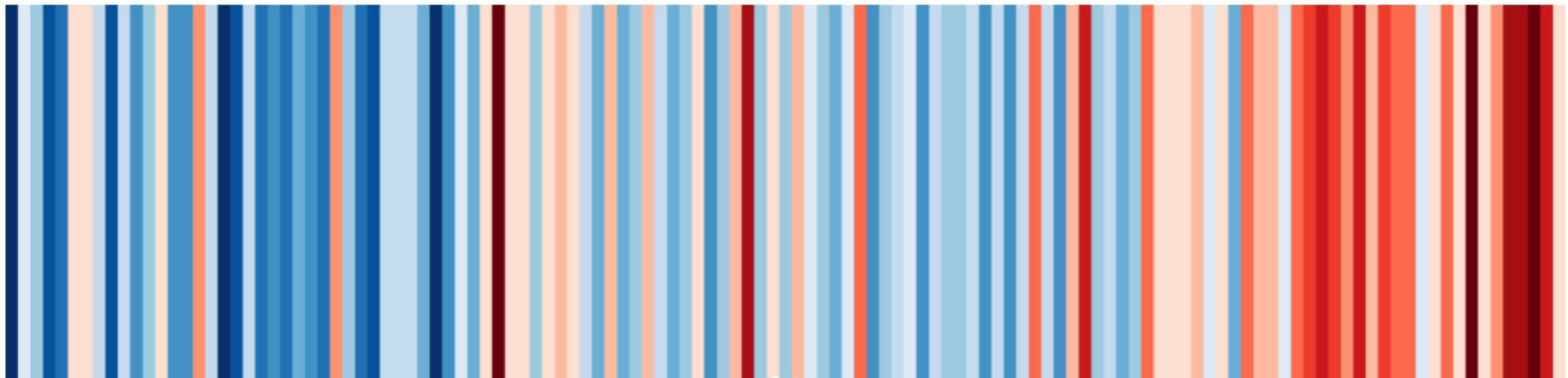
Search

Site Coming Soon in 2021

Bold Climate Action

In Colorado, we take climate action seriously. Colorado is a spectacular, vibrant, and economically diverse state with much to offer residents and visitors alike. Protecting Colorado's way of life means doing our part to mitigate and adapt to climate change by swiftly adopting renewable energy, protecting the health of our communities, creating good paying jobs, and strengthening our economy.

Our mountains, rivers, and trails are world renowned; as are our laboratories, breweries, universities, and agricultural products. Yet the Colorado that we know and love already faces real challenges with a changing climate. Our response to this global crisis is not a partisan issue; rather it is an economic development issue, a public health issue, a natural resource issue, and an emergency response issue.



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Tools and Data



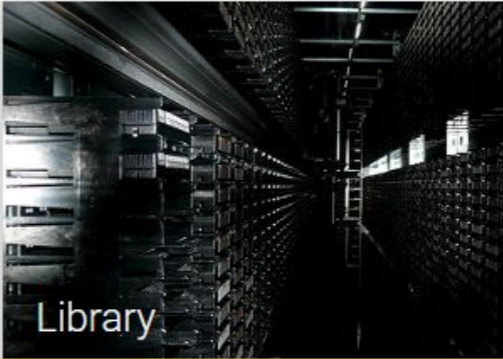
Colorado Water Conservation Board | Colorado Hazard Mapping & Risk MAP Portal

HOME FLOOD HAZARD LIBRARY MAP FAQs COMMUNITY RATING SYSTEM (CRS) CALENDAR LiDAR CO HAZARD MAPPING COLORADO RISK MAP


Welcome to the Colorado Hazard Mapping & Risk MAP Portal page. From this portal you can access various resources and websites using the links below.




Flood Hazard




Library




Map


 ENTER: Future Avoided Cost Explorer (FACE:Hazards)




Project Overview



Case Studies




Study



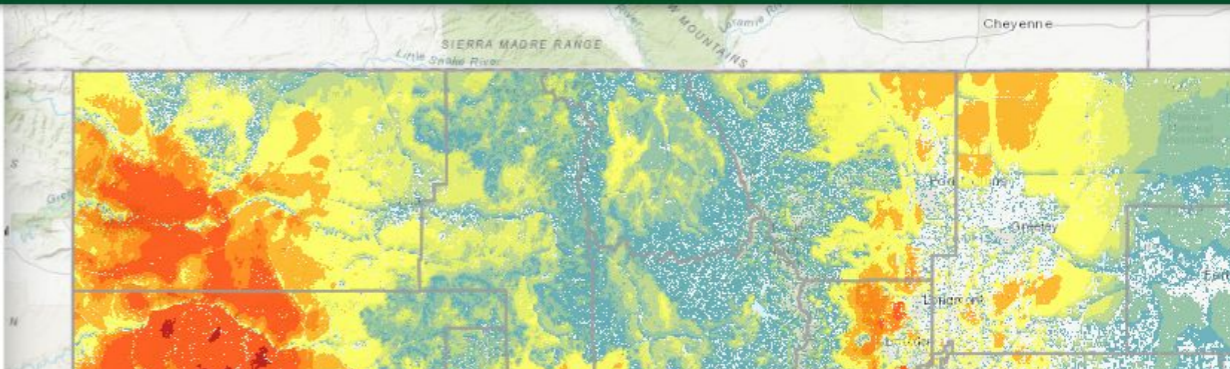
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 WILDFIRE RISK PUBLIC VIEWER

- ▶ Getting Started ? ▾
- ◆ Reference Layers ? ▾
- 📖 Explore Map Themes ? ▾
- 🔥 Identify Fire Intensity ? ▾
- ☰ County Summary ? ▾



Rebuild and Re-energize

Local Government Toolkit for a Resilient Clean Energy Future

November 9, 2020



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Colorado Climate Action Planning January 6, 2021

A Community Vision for
Integrated Climate Planning

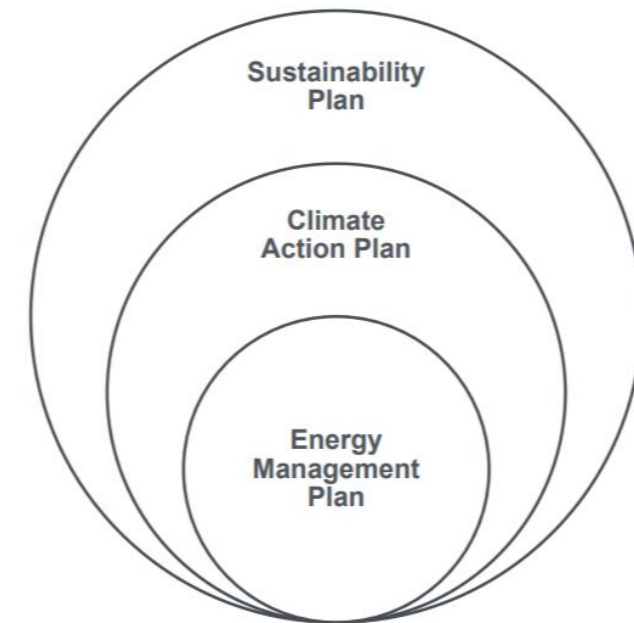


-
1. Sustainability; Climate Action Plan; Energy Plan
 2. Mechanics and benefits of local Climate Action Plans
 3. Moving from plan to action



Energy	fossil fuels and renewable energy sources and uses
Climate	<p>greenhouse gas emissions and removals</p> <ul style="list-style-type: none"> ● energy source / use ● waste ● consumption ● sequestration <p>Adaptation to climate change impacts Equity, inclusion</p>
Sustainability	Environment Economy Equity

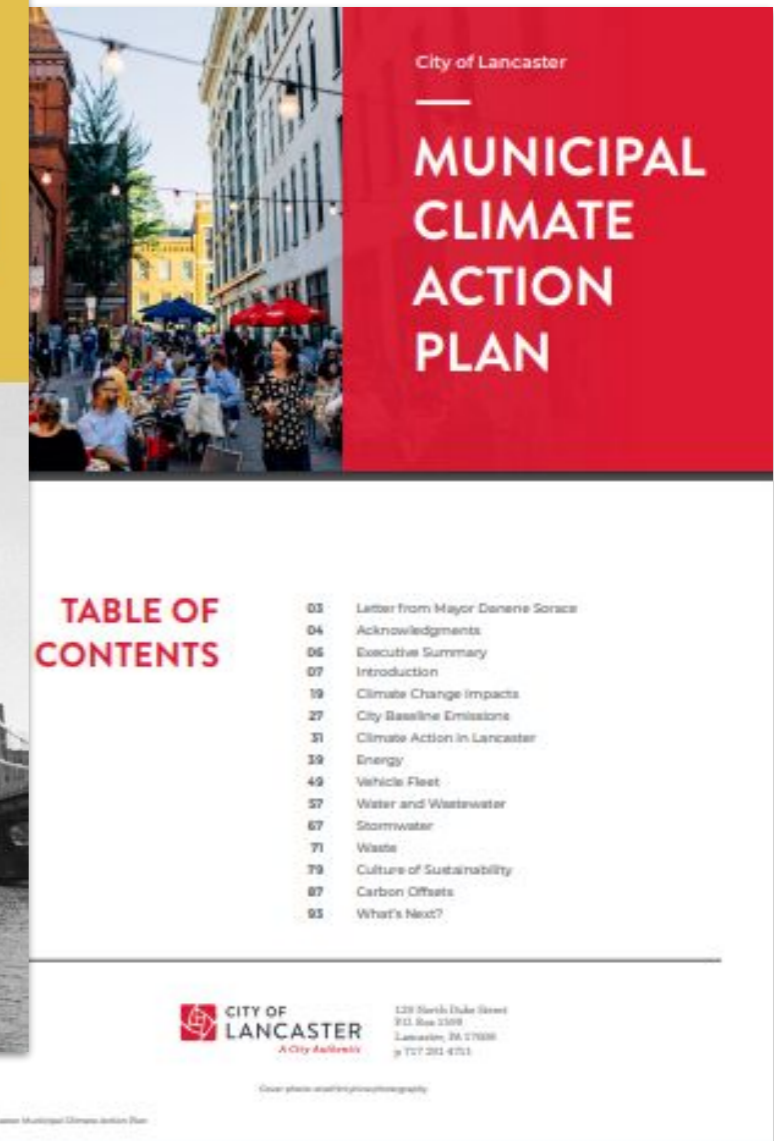
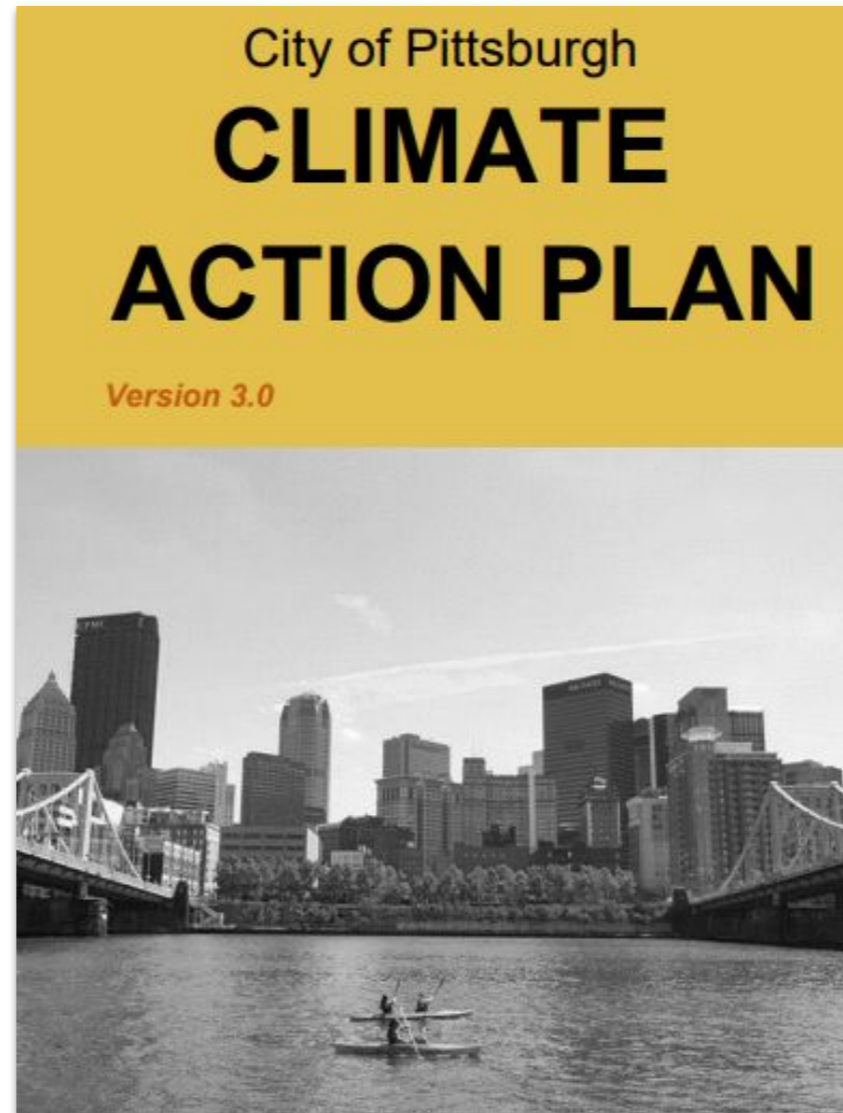
Related Types of Plans



(Source: Department of Energy Webinar, [Building Actionable Climate Action Plans](#))

What is a Climate Action Plan?

- Mitigation vs. Adaptation
- Standard CAP: Climate mitigation
- Integrated CAP: Mitigation + Adaptation
- Community-wide vs. local government operations



Why



Dave Chapin, Mayor of Vail

The Town of Vail is a vibrant community nestled in a beautiful mountain ecosystem and that values sustainability and environmental stewardship. The recent COVID-19 situation has shed light on the **importance of a strong and resilient community**. Ensuring our community is able to persevere, adapt, overcome, and strengthen in the face of any adversity—**from the impacts of climate change to a global pandemic**—is vital. With deep roots to support us, we will grow and strengthen through this."

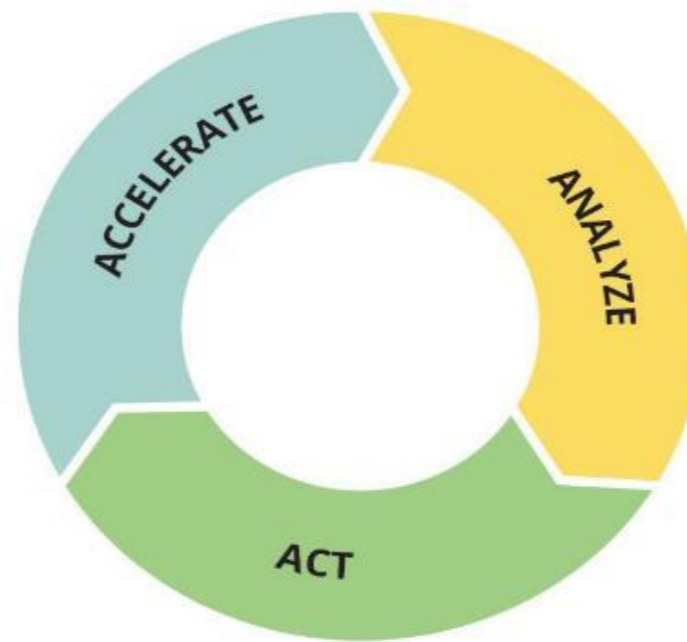
Honorable Mayor Nicola Armacost, Village of Hastings-on-Hudson, NY

"**Every community** should undertake a **climate vulnerability assessment** and we feel privileged to have ICLEI's support as we launch ours. The assessment will help us plan for **changing future conditions**. It will also help us **make investments now** that will ensure the resiliency of our community after we are long gone. Climate adaptation is not a choice—it is a duty!

Benefits

1. Reduce risk to people, property, profits
2. Protect nature, ecosystems
3. Develop coalitions
4. Access resources
5. Demonstrate leadership
6. Create economic opportunity

ICLEI's Framework for Climate Action



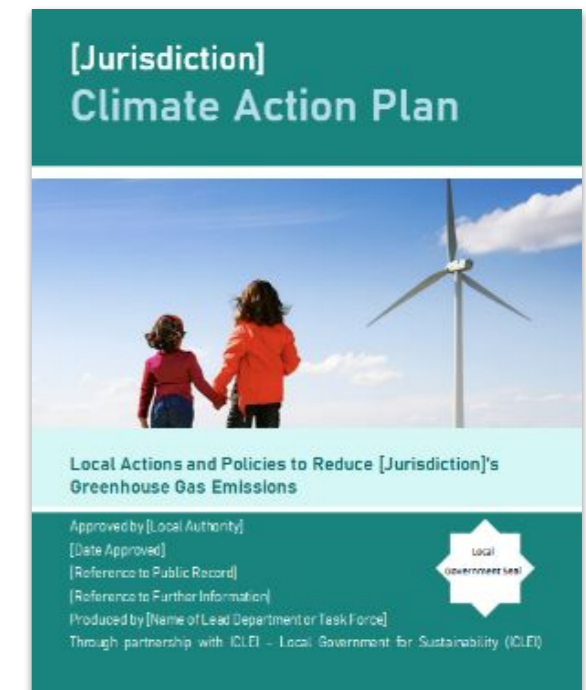
ICLEI's Framework for Climate Action



Getting Started



- Form a task force
 - **Local government:** Identify and contact internal and external collaborators to be on a task force
 - Key departments, community organizations, institutions, and elected officials who are knowledgeable, invested, and/or influential
 - **Local government:** Set up first task force meeting to go over GHG inventory and co-create vision statements
- Review resources
 - CAP template “Planning Process” section (Google Drive)
 - CAP Getting Started Guide (Google Drive)
 - Detailed CAP Cohort Schedule (Google Drive)
 - Selection of quality plans (Aspen, Cincinnati, Columbia, Princeton, NYC)



What does “action” really mean?

- **Adaptation**

- Fostering resilience to extreme hazards and changing seasonal patterns exacerbated by climate change:
 - Reducing long-term risk of damage/loss from an event
 - Robust emergency management plans and resources



- **Mitigation**

- Decreasing emissions from
 - Energy
 - Transportation
 - Solid waste
 - Water and wastewater
 - Agriculture
 - Food
 - Land use change



Learn / Do Cohort Schedule



DETAILED SCHEDULE

- Session 1: Climate Action Planning Introduction and Community Goals**
- Session 2: Climate Action Planning for Community Engagement and Equity**
- Session 3: Introduction to Vulnerability Assessments**
- Session 4: TEMPERATE Tool Demonstration for Vulnerability Assessments**
- Session 5: Using Greenhouse Gas Inventory Results to Forecast in the ClearPath Tool**
- Session 6: Developing and Prioritizing Adaptation Strategies**
- Session 7: Developing and Prioritizing Mitigation Strategies**
- Session 8: Round Robin on Progress and Challenges**
- One-on-One Check-ins and Modeling Support**
- Session 9: Round Robin on Community Engagement**
- Session 10: Publishing the Plan and Communications**
- Session 11: Implementation and Monitoring for Climate Action**
- Session 12: Cohort Debrief**
- Direct, Ongoing Membership Support**

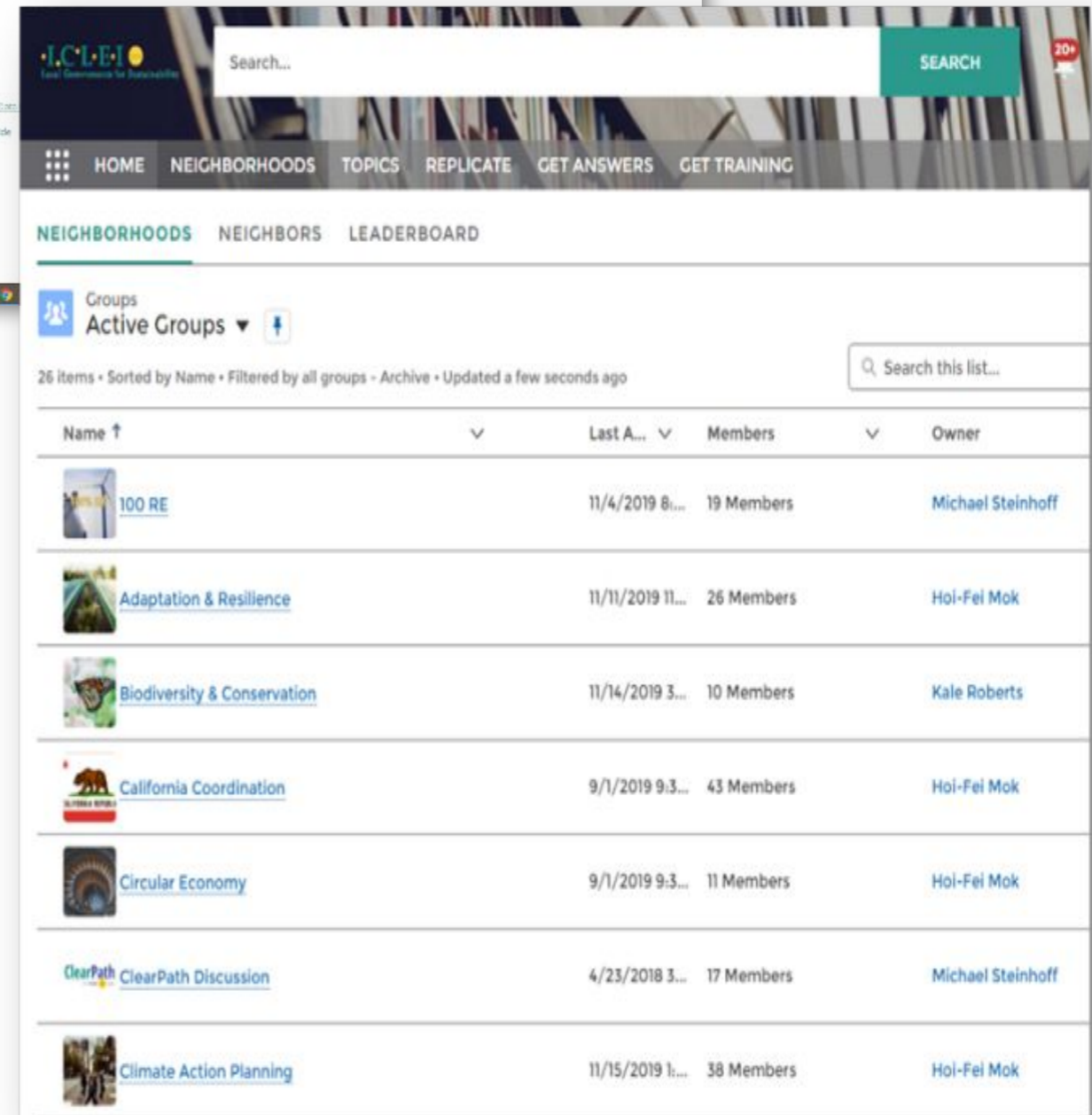
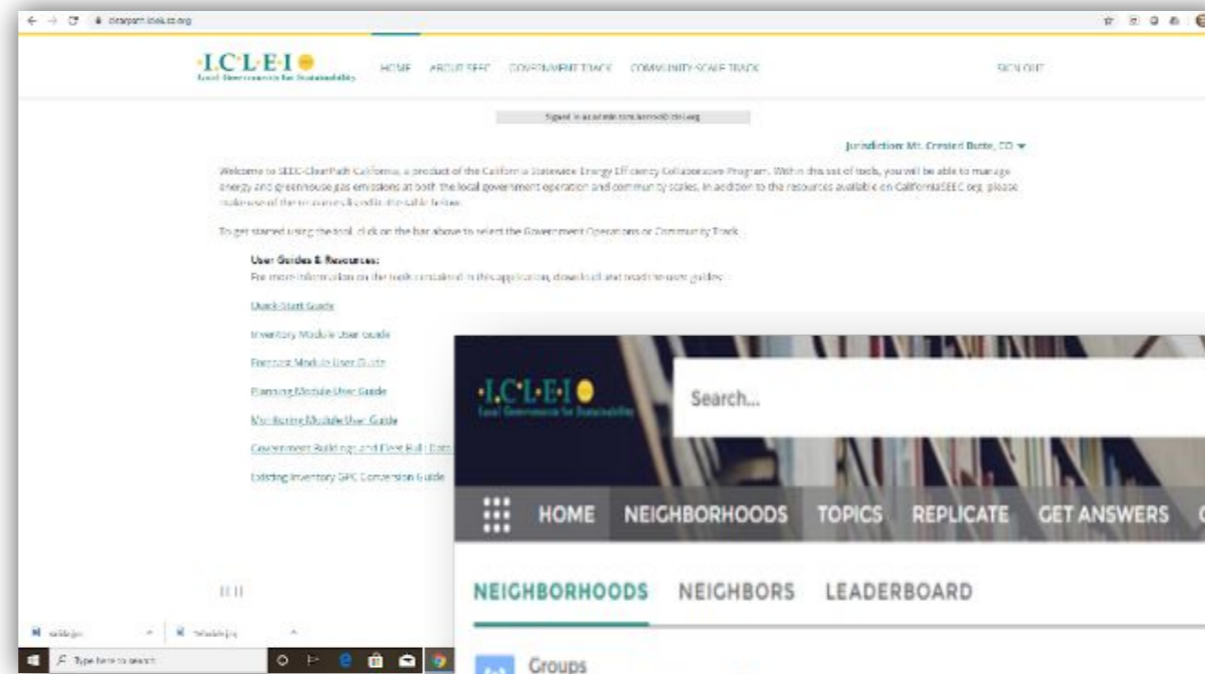
Tools Access



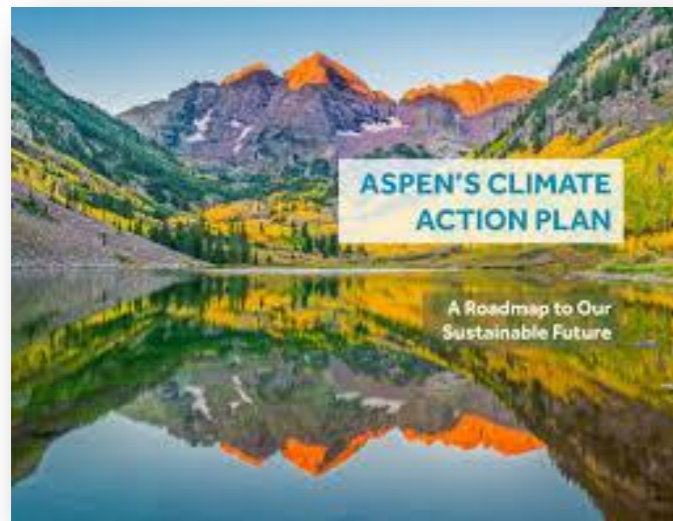
Google Drive Folder

ClearPath

ICLEI Community



Example CAPs



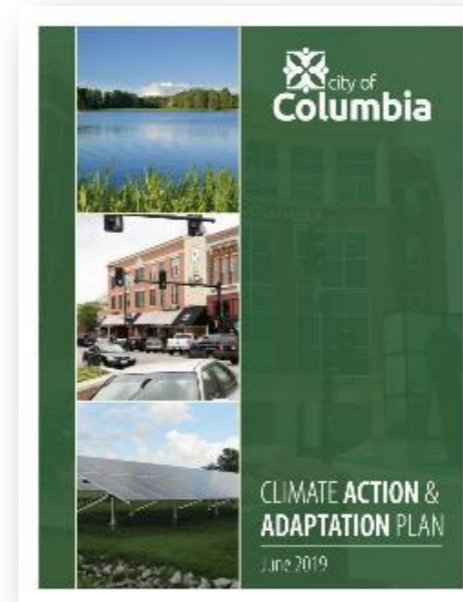
Aspen

- Utilized ICLEI Contribution Analysis
- Built directly from GHG Inventory
- Strong Forecasting



Cincinnati

- Strong community engagement
- Equity + Adaptation focus
- Project cost estimates



Columbia, MO

- Built with Monitoring in mind
- Clear implementation strategy included
- Integrated CAAP



King County

- Multi-community collaborative effort
- Materials available in multiple languages
- Strong GHG emissions modeling

Angie.Fyfe@iclei.org



ICLEI – Local Governments for Sustainability is a global network of more than 1,750 local and regional governments committed to sustainable urban development. Active in 100+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development. Our Members and team of experts work together through peer exchange, partnerships and capacity building to create systemic change for urban sustainability.

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CITY OF **ASPEN**

Aspen's Climate Action Plan

Chris Menges - 1/6/21

Presentation Overview

Aspen's Climate Action Plan

- Why we have one
- Approach to developing it
- How it's impacted programs and policies
- What we've learned
- Where we want to go

Why climate action

- Risk and costs
- Urgency
- Benefits
- Collective action



Aspen 1955. Photo: Aspen Historical Society.



Climate Change & Aspen

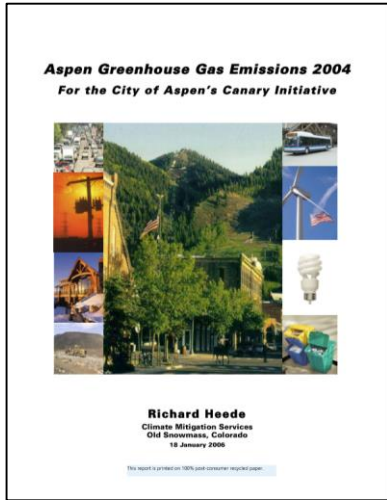
An Update on Impacts to Guide Resiliency Planning & Stakeholder Engagement

A report of the Aspen Global Change Institute
Prepared for the City of Aspen

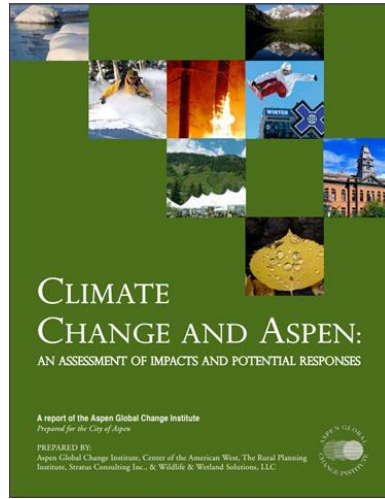


www.agci.org/project/climate-change-and-aspen

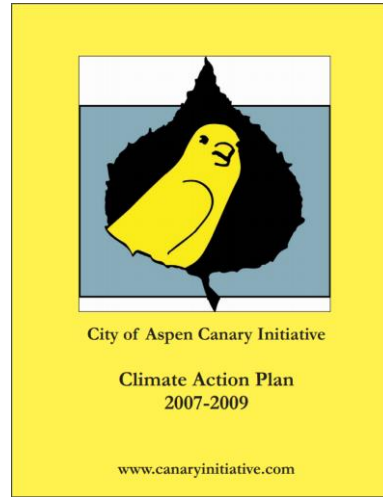
History of Climate Action



2004
1st GHG
Inventory



2006
1st Vulnerability
Assessment



2007
1st Climate Action
Plan



Taking Action

- Programs and policies
- 6 Sectors
- Community & operational

Climate action sectors



Energy Supply



Vehicles & Transportation



Residential Energy



Waste and Landfill



Commercial Energy



Aviation and Airport

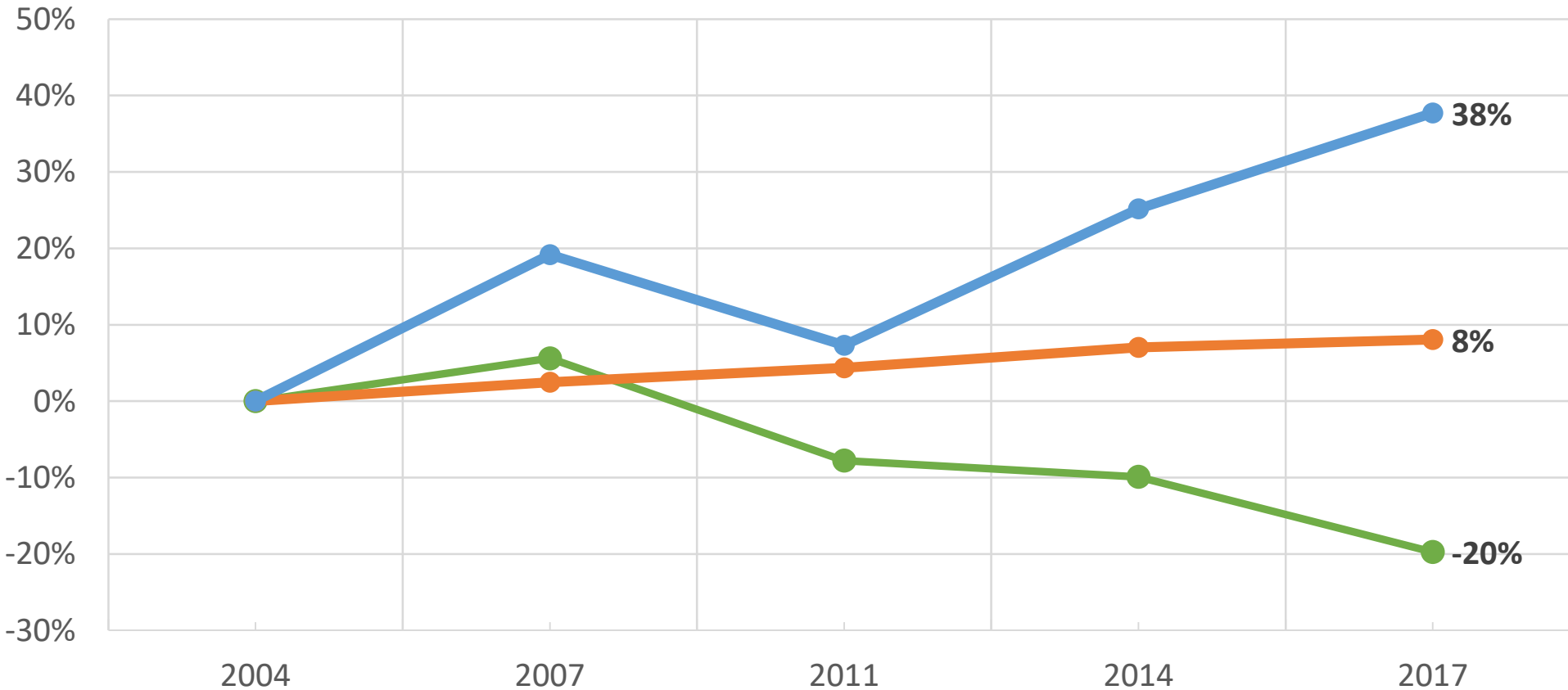


A few of the things we've done...

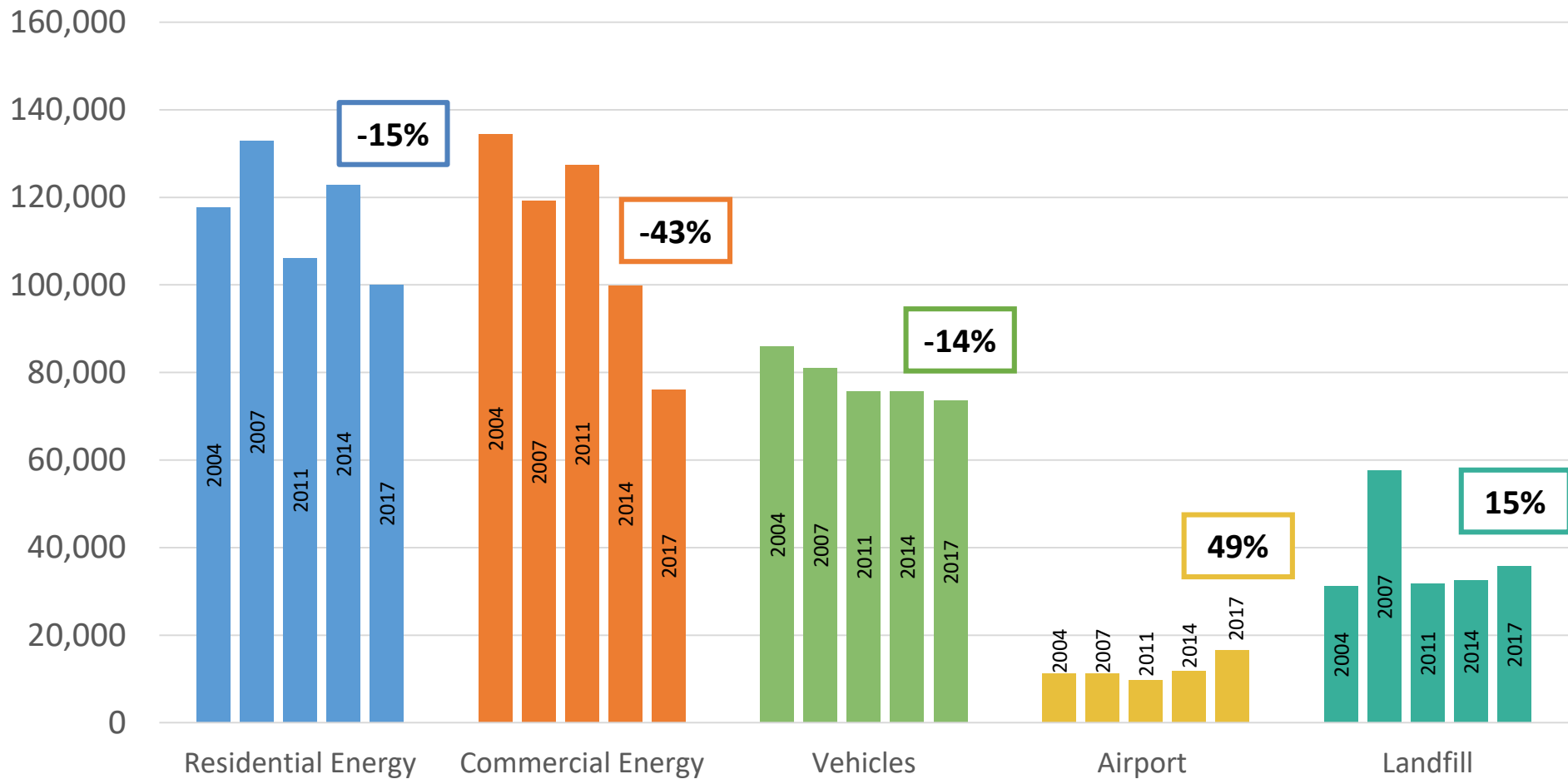
Has this reduced our GHG emissions?

GHGs, Population, Economy '04 – '17

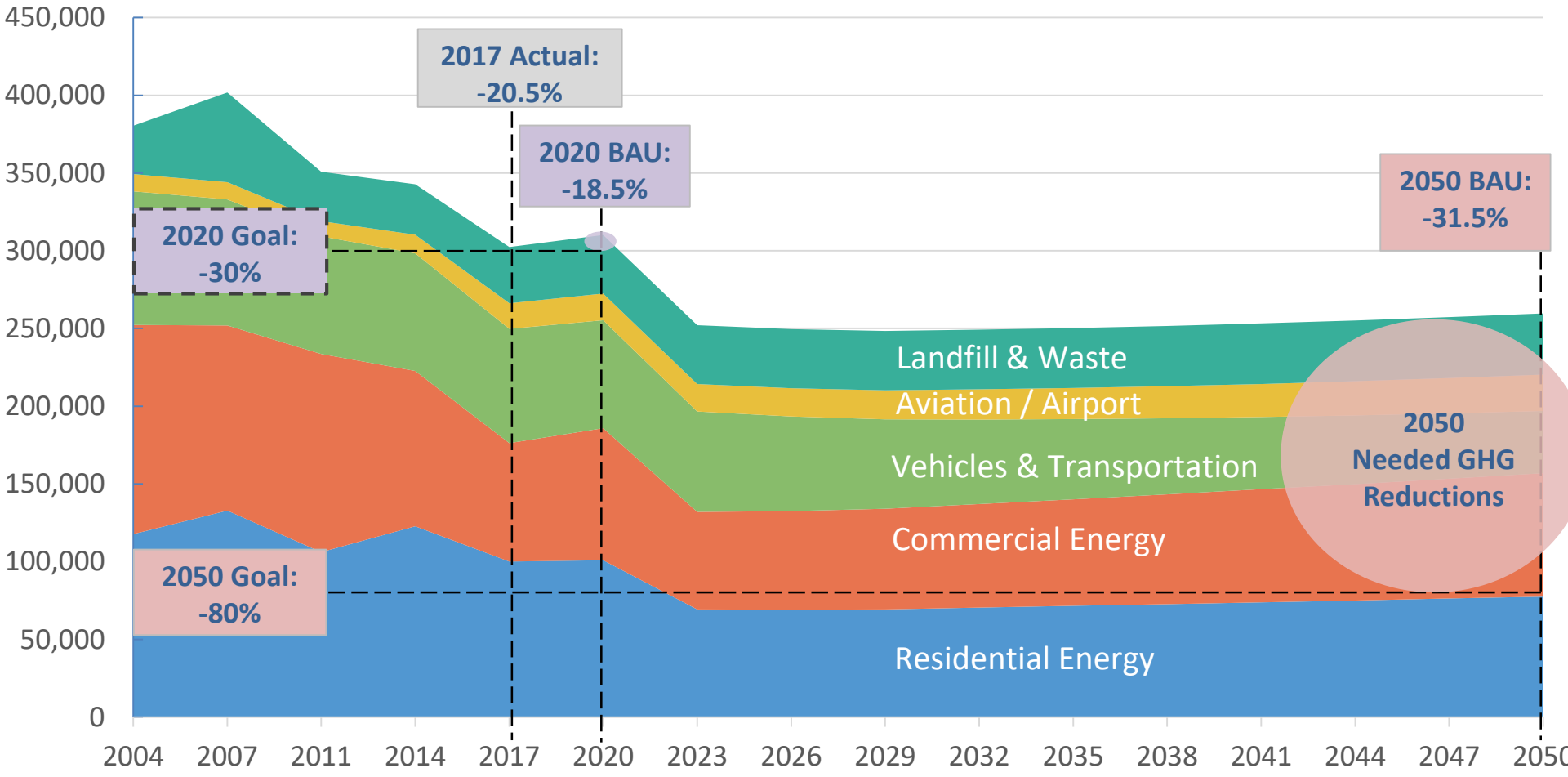
● GHG Emissions ● Population ● Taxable Sales (inflation adj. to 2017)



2017 GHG Inventory – Sector Trends



Forecast – where are we going?



How do we apply these insights to advance goals?



CAP Stats

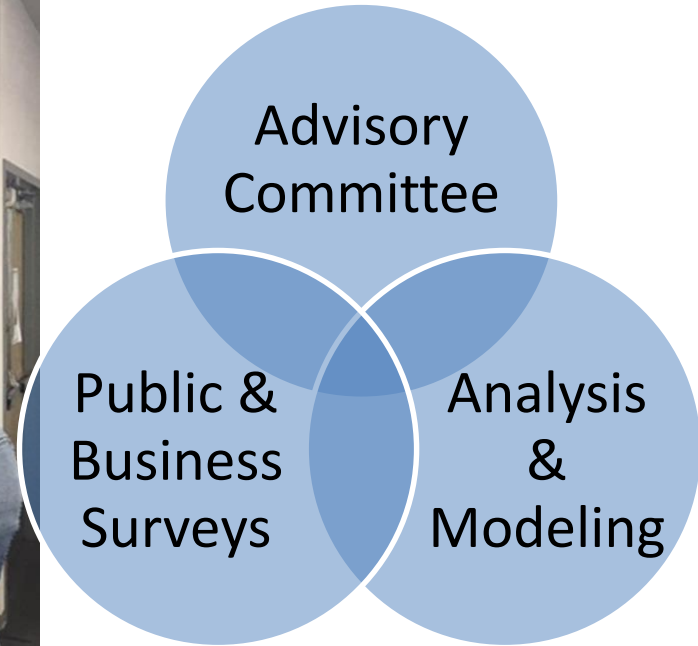
- 6 Sectors
- 46 Actions
- 2018 – 2020
- 40+ Advisory Committee
- Adopted by Council



ASPEN'S CLIMATE ACTION PLAN

A Roadmap to Our Sustainable Future

CAP Update Process 2017 - 18

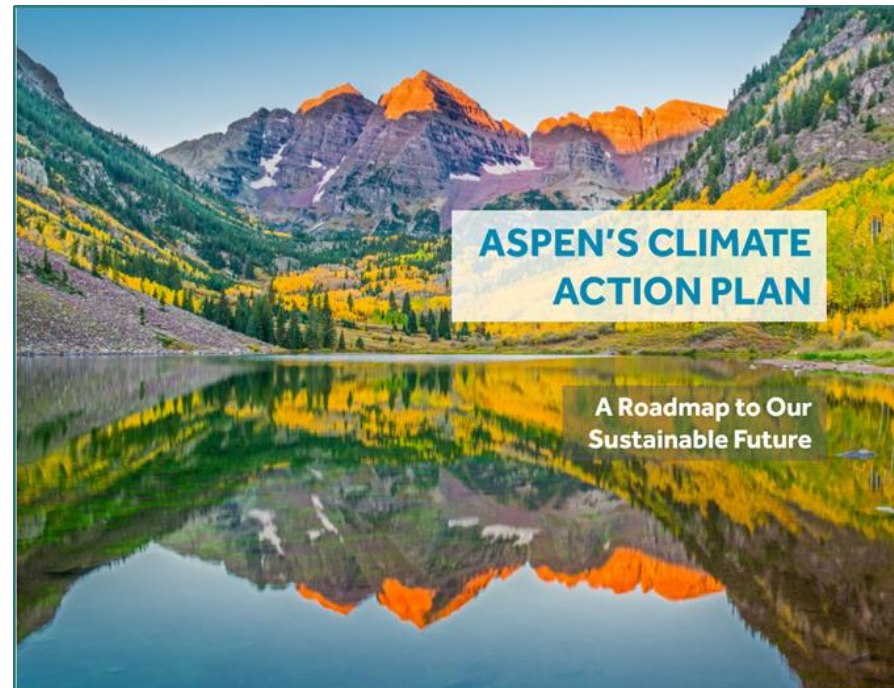


Produced Outcomes – Toolkit & CAP



GREENHOUSE GAS REDUCTION TOOLKIT

How to Take Action in Your Community



- 250 Actions
- Tool for Aspen
- Resource for everyone
- Shortcut for climate action planning

- 46 Actions
- Some foundational
- Some immediate impact
- 2018 – 2020 Implementation

CAP & Toolkit Layout

GHG REDUCTION TOOLKIT: Commercial Energy

OBJECTIVE	GHG REDUCTION POTENTIAL	CO-BENEFITS	TIMEFRAME	PARTNERS
Replace NG heating and appliances with electric and/or renewable systems		Primary Co-Benefits: 		
ACTIONS				
Eliminate natural gas connections for all new commercial developments				
Integrate geothermal heat or ground heat to offset natural gas use				
Promote solar thermal for water heating				
Provide rebates and incentives to replace old or inefficient boilers with electric				
Encourage integration with air conditioning systems if future AC need is anticipated (e.g., dual ground/air-source heat pumps)				
Enhance energy and resource efficiency in new commercial developments		Primary Co-Benefits: 		
ACTIONS				
Strengthen building codes to promote energy and resource efficiency in new commercial developments				
Provide above-code incentives for new commercial developments				



Level of Potential GHG Reduction



Promotes Equity



Fosters Economic Sustainability



Improves Local Environmental Quality



Enhances Public Health & Safety



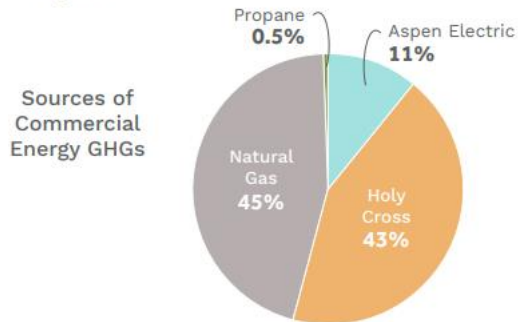
Builds Resilience



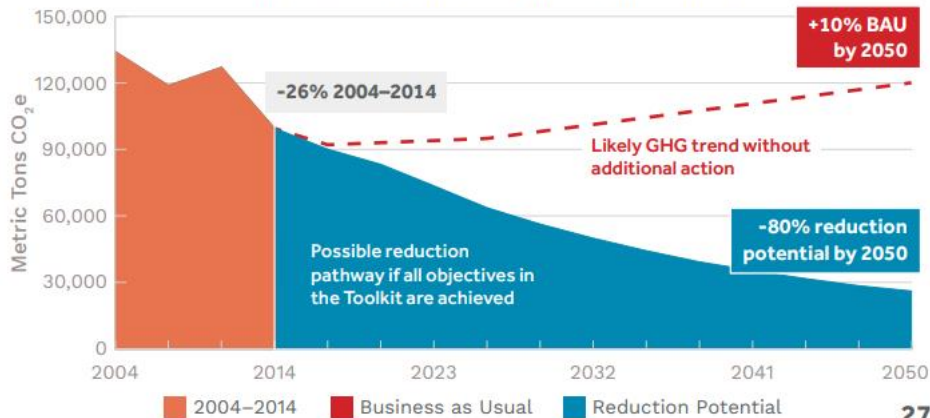
If all objectives in the Toolkit are fully and successfully implemented, Commercial Energy GHGs could be reduced 80% below 2004 levels by 2050.

Commercial Energy GHG Trends

Commercial Energy GHGs declined 26% between 2004 and 2014 thanks to increases in renewable electricity generation and active energy efficiency programming. A majority of GHGs come from use of natural gas and from electricity on the Holy Cross Energy grid. Under business as usual, GHGs could decline 31% below 2004 levels by 2020 but then rise 10% above them by 2050. If, however, all objectives in the Toolkit are fully and successfully implemented, Commercial Energy GHGs could be reduced 80% below 2004 levels by 2050.



Commercial Energy GHG Past and Possible Futures



How does the CAP impact our approach to City and Community Projects?

CAP Impact: Programs & Policies

CAP Document has led to:

- Formation of new initiatives (e.g. Benchmarking)
- Shaping existing initiatives (e.g. E-Busses)
- Partnerships, both new and strengthened
- Accountability for implementation
- Regional and collective action opportunities
- Understanding of state/local alignment opportunities

CAP Impact: Structural/Governance

Climate and GHGs become a decision metric for most policies and programs as a:

- Standalone guide
- Cross reference resource to contextualize decision making

What about Implementation?

Implementation progress: early 2020

COMMERCIAL ENERGY

Commercial Energy: Recommended Actions

During the CAP process, the Advisory Committee initially brainstormed over 38 potential actions for reducing GHG emissions in the Commercial Energy Sector. **The CAP recommendation is to pursue implementation of the following seven actions** over the next three years. These actions align with the criteria:

OBJECTIVE

Promote energy benchmarking and reporting in commercial buildings

ACTIONS

Support commercial energy benchmarking and incremental EE improvements through policy

Enhance energy and resource efficiency in new commercial developments

ACTIONS

Provide incentives for new and remodeled buildings to build above code

Limit GHG emissions from future development through the use of controlled growth and coordinated land use in and around the Urban Growth Boundary

Delay the need for air conditioning via building design and management



Commercial Energy continues on the next page.

CAP: 46 Actions



25 in progress or completed



65 unique projects or programs



Lessons Learned: CAP Development & Implementation

Insights: CAP Development

- Good process supported by data, lived experiences, community insights, etc.
- It does not need to be complicated to get started:
 - use resources and best practices in community-relevant context.
- Opportunity to strengthen partnerships and create accountability.
- Targets and adopted plans help bridge political terms.

Insights: Implementation

- Move at the speed of trust.
- Anticipate and prioritize time for necessary planning, process and engagement.
- Collect insights to inform subsequent updates.



**2021 CAP:
Where we would like to go**

Priorities for the next CAP

- **Integrated** - with community master plan update
- **Embedded** – into departmental structures
- **Regional** - systems scale action via partnerships
- **Intersectional** – sectors and outcomes (mitigation, resilience, equity)
- **Equitable** – inclusive process, outcomes prioritize those with highest need first
- **Informed** – by additional types of data (not just GHG data)
- **Simpler, higher impact** – fewer, more transformative actions
- **Coordinated** – to leverage State resources and approaches

Biggest reduction opportunities

- Renewable grid
- Electrification – Buildings and Transportation
- Efficient buildings
- Improved waste practices (compost, C&D)
- Policy engagement

All could benefit from equity-centered process/outcomes, regional scale, and integrated strategy accompanied by workforce development.

Thanks/Questions/Contact/Links

- Aspen's Climate Team contact [here](#).
- Aspen CAP [link](#)
- GHG Reduction Toolkit [link](#)
- USDN High Impact Practices [link](#)
- GARE Racial Equity Toolkit [link](#)
- Colorado Communities for Climate Action [link](#)

Q&A

Please leave your questions in the chat

Q&A Facilitator:

Patrick Rondinelli

Department of Local Affairs



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Upcoming Webinars

Climate Smart Land Use Planning & Development

February 3, 2021

12 P.M. - 1 P.M.

Sign up at: www.coresiliency.com/webinars



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THANK YOU!



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