

Climate Action Plan Update

Board of Public Utilities Meeting | December 4, 2024

Project Team

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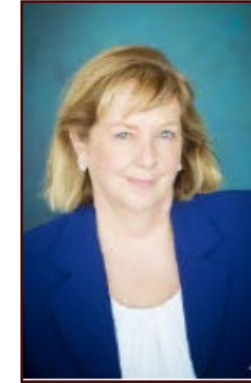
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Meeting Goals



Provide an update on the draft Climate Action Plan (CAP) public comment period.



Provide an overview on the final climate action plan.



Provide an update on Council's recent adoption of the CAP and 2050 target to achieve carbon neutrality.

Project Update

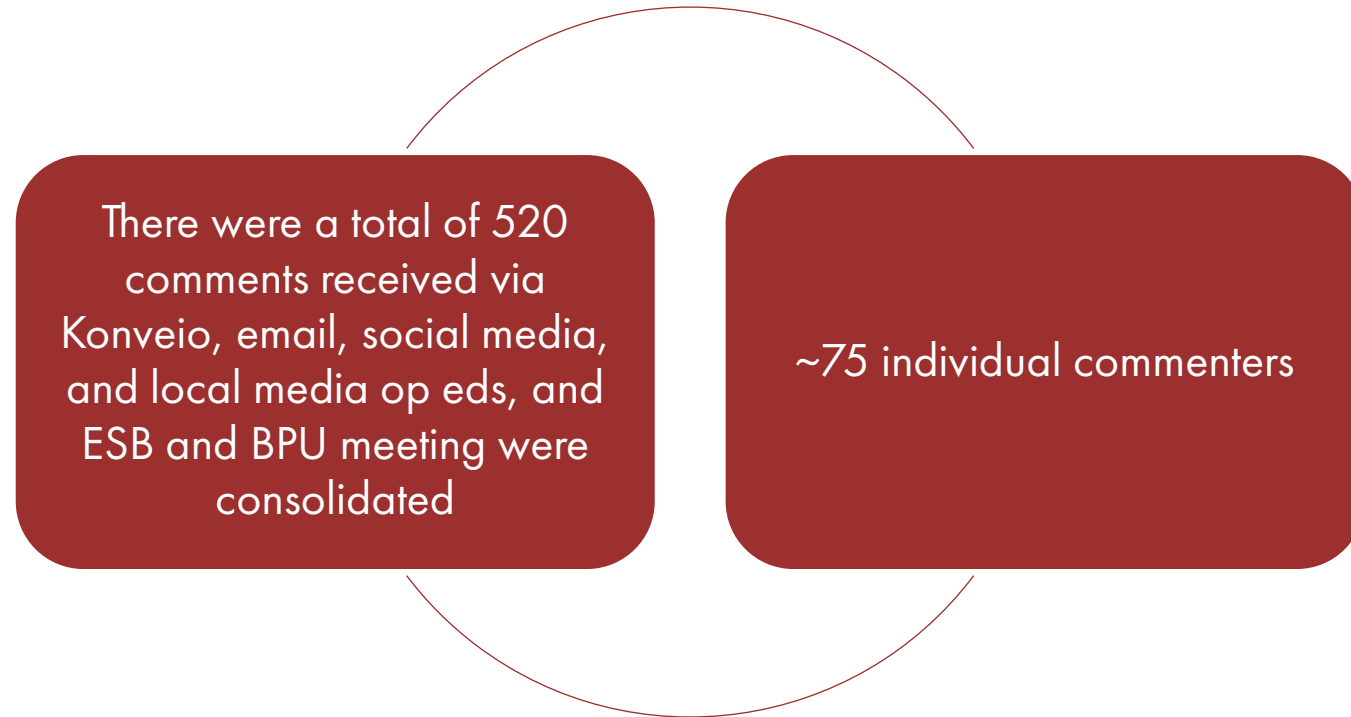
Project Update

- Since the July Council meeting...
 - Public Comment Period was open from July 9th – August 9th
 - Launched Public Awareness Campaign
 - Reviewed public comments
 - Integrated feedback into the final Climate Action Plan
 - Council adopted the climate action plan and 2050 carbon neutrality goal.



Public Comment on Draft CAP

Public Comment Responses



What We Heard

We need dedicated, isolated, safe bike lanes.

This is an excellent plan, developed over years with input from the community. I support it fully. Thank you County Staff and Government, all the Boards and volunteers, for developing our Climate Action Plan.

This "climate action" plan is arrogant. To think we have a significant effect on the climate is absurd.

No mandates.
None.

While I'm 120% in favor of electrification and very strong climate action, this will run into issues with homes already having maxed out service panels

This will be a large expense to homeowners due to the cost associated with running additional electrical circuits and potentially sub panels in order to implement these changes. We already struggle to get contractors to work in Los Alamos county for reasonable prices. All these suggested changes just add cost to the residents.

Key Themes and Sentiments



Support for Climate Action



Concerns about Feasibility



Skepticism and Opposition



Request for Clarity and Detail



Concern about Local Infrastructure and Practical Solutions



Health and Equity Concerns



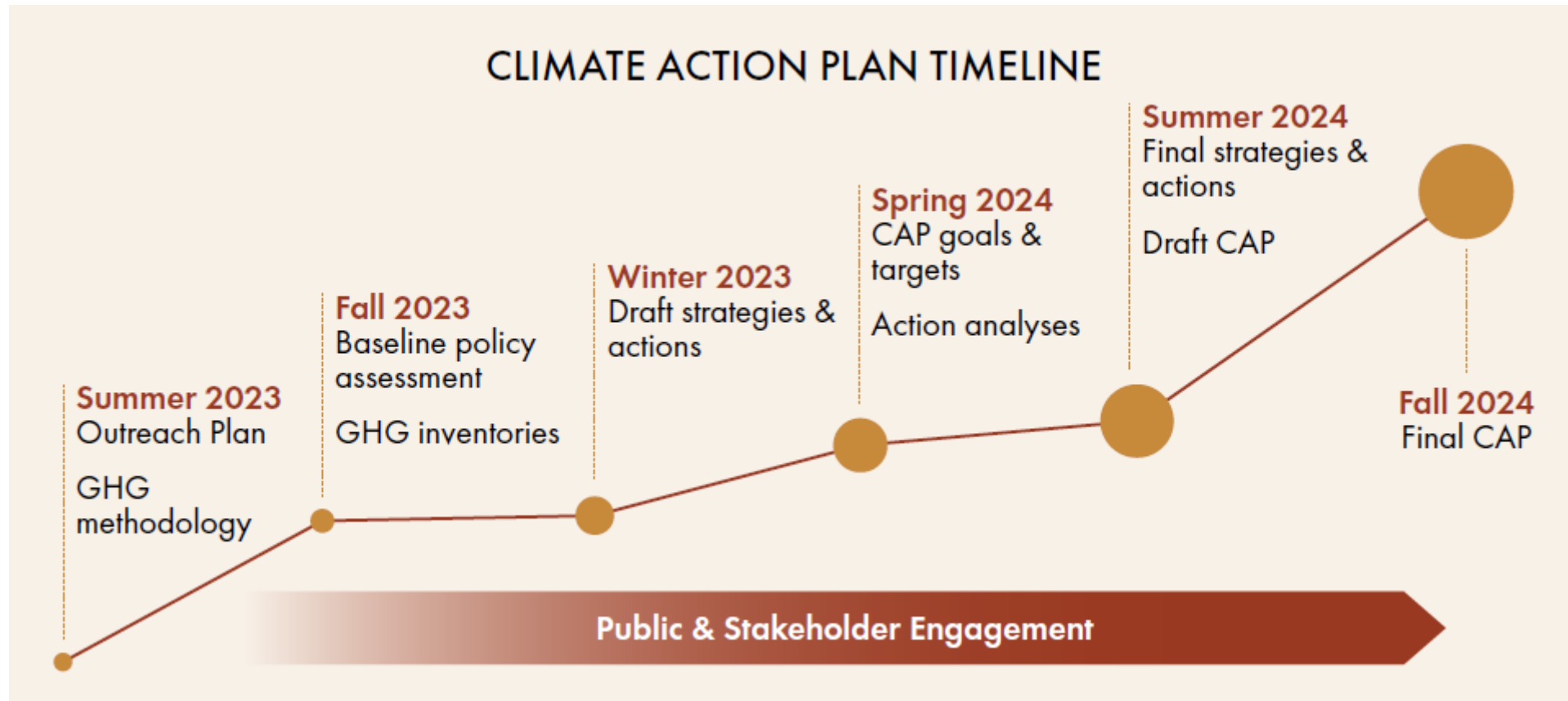
Support for Community Engagement and Education



Concerns regarding Technical and Policy Challenges

Final Climate Action Plan

How it Came Together



Introduction

Why a climate action plan?

The impacts of climate change—including hotter temperatures, reduced precipitation, and increasing intensity of wildfires—are being experienced in Los Alamos County and beyond. While the County has been working on sustainability initiatives for decades, a more formalized and focused effort began in December 2020, when a group of concerned Los Alamos County residents submitted a petition to the County Council requesting action on climate change. This petition led to the formation of the **Los Alamos Resiliency, Energy, and Sustainability (LARES) Task Force and a County Council initiative** to address climate change. In its final report,¹ LARES Task Force wrote:

“Climate change represents an existential threat to our community and the world, with impacts becoming evident at an accelerating rate: hotter temperatures, reduced precipitation, increasing intensity and frequency of wildfires, and more animals seeking food near our homes.”

This **Los Alamos County Climate Action Plan (CAP)** represents the next step in implementing this initiative by outlining a vision and roadmap for **reducing greenhouse gas emissions and increasing climate resilience in Los Alamos County.**

Benefits of Climate Action

Taking action on climate change can bring benefits for Los Alamos County ecosystems, residents, and businesses.



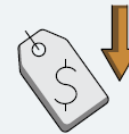
Improved quality of life & public health

Climate action can contribute to our collective health and wellbeing through clean air, clean water, and a healthy environment.



Resilient community

Climate action can enhance our community's ability to withstand and recover from environmental challenges by adopting sustainable practices.



Cost savings

Climate action can save money by reducing waste, being smart with energy and water use, planting native landscapes, and driving less.



Environmental preservation

Climate action can help protect our local ecosystems, wildlife habitats, and natural beauty by conserving resources and reducing pollution.

Community Engagement



Phase 1: Raising Profile & Visioning

Build awareness about the CAP process and gather priorities, ideas, and concerns

- Community survey
- County Council meeting



Phase 2: Collaborative Planning

Vet and refine proposed strategies and actions

- Community workshop
- County Council meeting
- County staff meeting
- ESB meeting
- Focus groups (3)
- Interviews (9)
- Commuter survey for County Staff

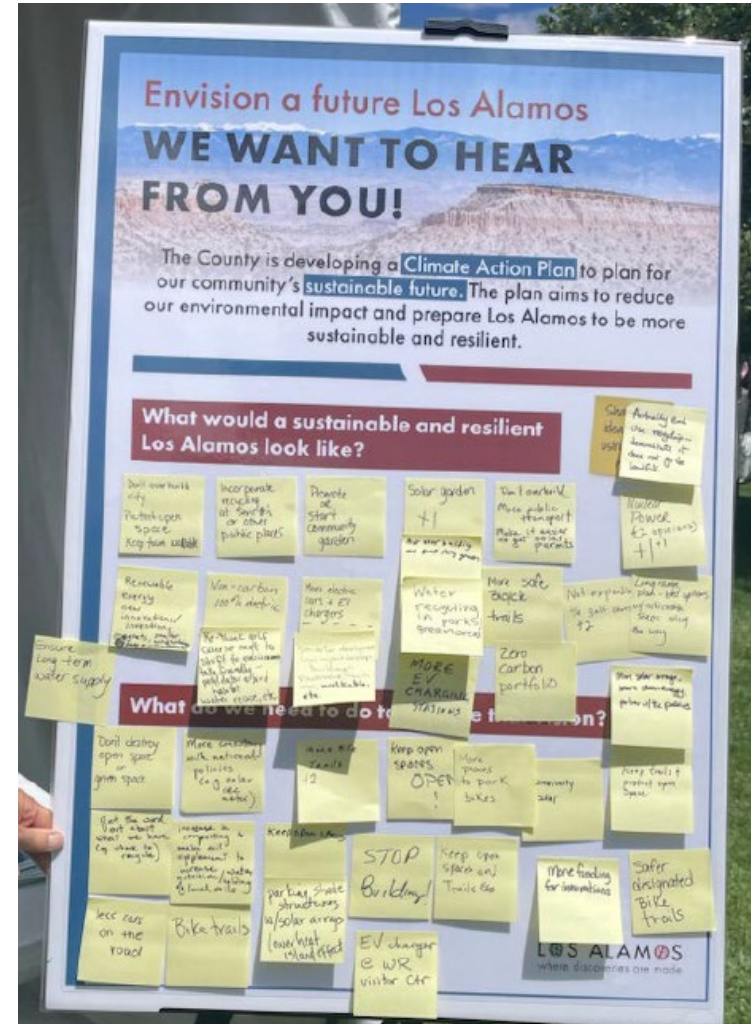


Phase 3: Refinement & Implementation Transition

Solicit feedback on the draft CAP and prepare for implementation

- Public comment review of CAP
- County Council meetings (2)

ATTACHMENT A



Climate Risk and Resilience

Wildfire and Air Quality



Higher temperatures and drought are likely to increase the severity, frequency, and extent of **wildfires**, which could harm property, livelihoods, and human health.



Wildfires are likely to make **air quality** unhealthy, especially affecting those with asthma and other health complications. Wildfires also impact drinking water supplies through contamination.



Wildfire and higher temperatures will also stress urban forests and expose them to greater risk of disease outbreaks and mortality.

Extreme Precipitation and Flooding



In New Mexico, climate change is likely to reduce **precipitation** while increasing the intensity of extreme precipitation events and likelihood of rain versus snow. This shift will increase the risk of flooding on soils hardened by drought and altered by wildfires.



Flooding and extreme precipitation events may damage transportation routes, affect energy systems such as power lines, impact ecosystems and groundwater resources, and disrupt emergency response services.

Drought and Water Systems



Climate change is projected to exacerbate **drought** conditions in the southwest, leading to water scarcity and challenges with providing water services, protecting water quality, and preserving healthy ecosystems.⁵



Projections indicate a 25% decrease in **surface water runoff and groundwater recharge** over the next 50 years, affecting agriculture and ecosystems across New Mexico.⁶

Extreme Heat



Average **temperatures** in New Mexico will likely rise, leading to more frequent and extreme heat waves. Annual average temperatures across New Mexico have risen by about 3 degrees F over the last 5 years.⁷



More frequent and intense **heat waves** will strain electricity systems and increase the demand for energy, which can lead to brownouts and power outages. Existing health conditions may lead to higher susceptibility to heat-related illnesses.

Greenhouse Gas Emissions



Community-wide sector-based

Estimates emissions produced by actions from residents, visitors, schools, County operations, and businesses within the county's geographic bounds.



County operations sector-based

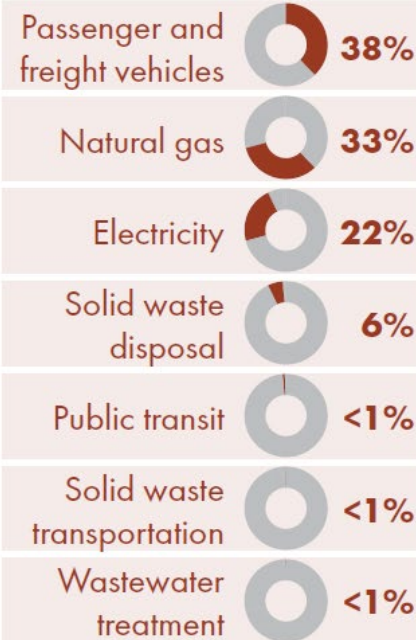
Estimates emissions produced by County-owned and -operated facilities and activities.



Consumption-based

Estimates emissions associated with the consumption activity of all households of a geographic area.

Sector-based Community-wide Emissions

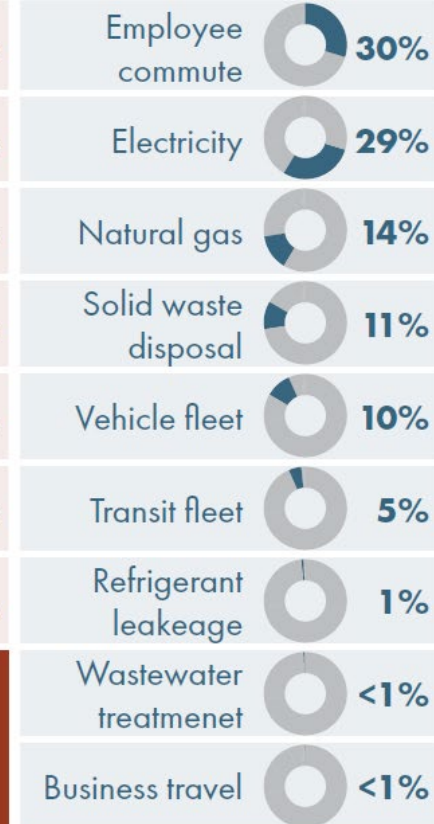


TOTAL Emissions:
137,670 MTCO₂e

Per Capita:
7 MTCO₂e

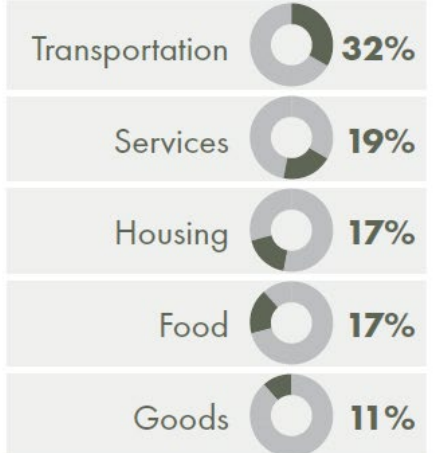
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Sector-based County Operations Emissions



TOTAL Emissions:
15,031 MTCO₂e

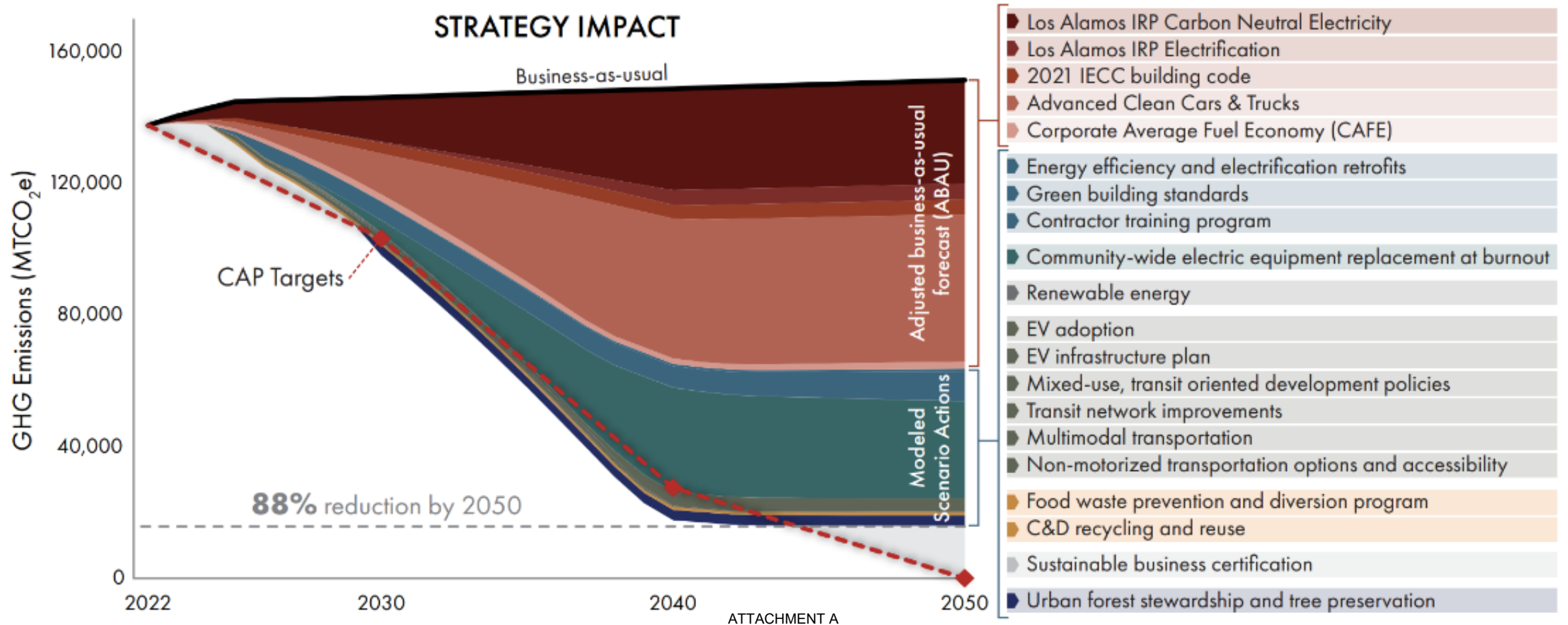
Consumption-based Community-wide Emissions



TOTAL Emissions:
374,000 MTCO₂e

Per Capita:
20 MTCO₂e

Emission Reduction Targets



Focus Areas and Strategies

	FOCUS AREA & STRATEGIES	EXAMPLE ACTIONS
	Buildings & Energy <ul style="list-style-type: none"> • Increase building efficiency and decarbonization • Increase renewable energy generation 	<ul style="list-style-type: none"> • Encourage energy efficiency and electrification retrofits • Expand electric energy resiliency
	Transportation & Land Use <ul style="list-style-type: none"> • Expand EV infrastructure and adoption • Expand and promote multi-modal connectivity and sustainable land use planning 	<ul style="list-style-type: none"> • Develop EV infrastructure plan • Expand mixed-use, transit-oriented development policies • Encourage multimodal transportation
	Materials & Consumption <ul style="list-style-type: none"> • Maximize waste diversion 	<ul style="list-style-type: none"> • Expand and refine waste data tracking, reporting, and goals
	Natural Systems & Water <ul style="list-style-type: none"> • Increase urban green space • Conserve water resources 	<ul style="list-style-type: none"> • Promote urban forest stewardship and tree preservation • Provide greywater reuse education
	Community Resilience, Adaptation, & Wellbeing <ul style="list-style-type: none"> • Enhance community understanding of climate change • Prepare the community for climate impacts 	<ul style="list-style-type: none"> • Invest in public climate education campaigns • Encourage adaptation upgrades
	Cross-cutting <i>(actions that focus on outreach, engagement, partnership, and leadership across sectors)</i> <ul style="list-style-type: none"> • Encourage sustainable businesses • Promote climate education outreach 	<ul style="list-style-type: none"> • Develop a sustainable business certification • Expand community partnerships

Implementation Matrix

Leadership and Accountability

Because of the interdisciplinary nature of climate change, the County will work across departments to implement the CAP. Key accountability approaches for implementation of the CAP are summarized below, to ensure that the County is making progress toward CAP goals.

Progress reporting and monitoring

- Report on CAP progress, challenges, and next steps to County Council and the ESB (brief reports and presentations annually; more detailed reports and presentations every 3-5 years). If needed, form new County staff and/or County advisory groups to guide and oversee CAP implementation.
- Share progress with the community (Action CC2.2).
- Update the community-wide sector-based GHG inventory every 3-5 years.




Plan adjustments and updates

- Work with County Council and the ESB to update CAP actions as needed to ensure adequate progress toward emission reduction goals.

The "Implementation Matrix" on the following pages represents the beginning of an ongoing and evolving implementation plan, which will kick off after CAP adoption.

Phasing

- Ongoing**
 Continuation of County or regional initiatives without significant changes.
- Immediate**
 1-2 YEARS (2025-2026)
 Priority actions for meeting the County's emissions reduction goals and foundational actions that pave the way for future work.
- Near-term**
 3-6 YEARS (2027-2030)
 Actions that continue moving the needle for Los Alamos to achieve its goals and establish more foundational infrastructure, partnerships, and regulations.
- Mid-term**
 7-11 YEARS (2031-2035)
 Actions that require longer-term or more complex planning, coordination, and investments or may be less strongly supported by the community.

Timeframe	Lead	Funding	Relative Cost & Impact	Scope	Immediate Next Steps & Other Considerations
BE2.2: Expand electric energy resiliency					
	DPU	<ul style="list-style-type: none"> • IRA • IIJA • House Bill 233, Energy Grid Modernization Roadmap 			<ul style="list-style-type: none"> • Identify staff time and capacity needed to implement action • Continue to expand electric energy resiliency by investing in a diverse set of renewable energy sources such as wind, solar, geothermal, and nuclear, as well as energy storage • Work with DPU staff to align with existing initiatives and increase energy resiliency for the community through the Integrated Resource Plan (IRP) and by providing redundancies within the circuit systems • Research options, steps, and potential challenges to increase battery storage usage so that energy from renewables can be stored and used during peak hours • Explore establishment of microgrids within the systems for energy redundancy and security

County Council Action

County Council Action

On November 12, 2024, County Council adopted the climate action plan and the GHG emission reduction target to achieve carbon neutrality by 2050; and further moved to maintain BPU's and Council's goal in the strategic plan to phase out natural gas by 2070 for residents and businesses, while accelerating the natural gas phase out target for County Facilities to 2050 in alignment with CAP recommendations.

Thank you! Questions?

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ATTACHMENT A