

New Mexico Energy Initiatives Symposium

New Mexico's Greenhouse Gas Inventory and Climate Action Plan

November 19, 2025



NM Climate Action Plan



Climate Action Planning Overview

Becky Smith
Community Engagement & Support Program Manager
NMED Climate Change Bureau

November 19, 2025



NM Climate Action Plan



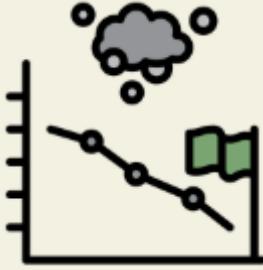
- [1] To reduce climate pollution 45% by 2030 (compared to 2005).
- [2] To lead New Mexico to net zero climate pollution by 2050.



**PROGRAMS, POLICIES AND PROJECTS THAT FOSTER
COMMUNITY HEALTH, WORKFORCE OPPORTUNITIES & ECONOMIC DEVELOPMENT.**

DECEMBER 2025

What Will the CAP Give NM?

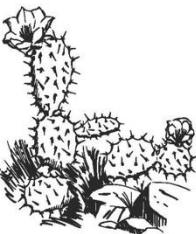
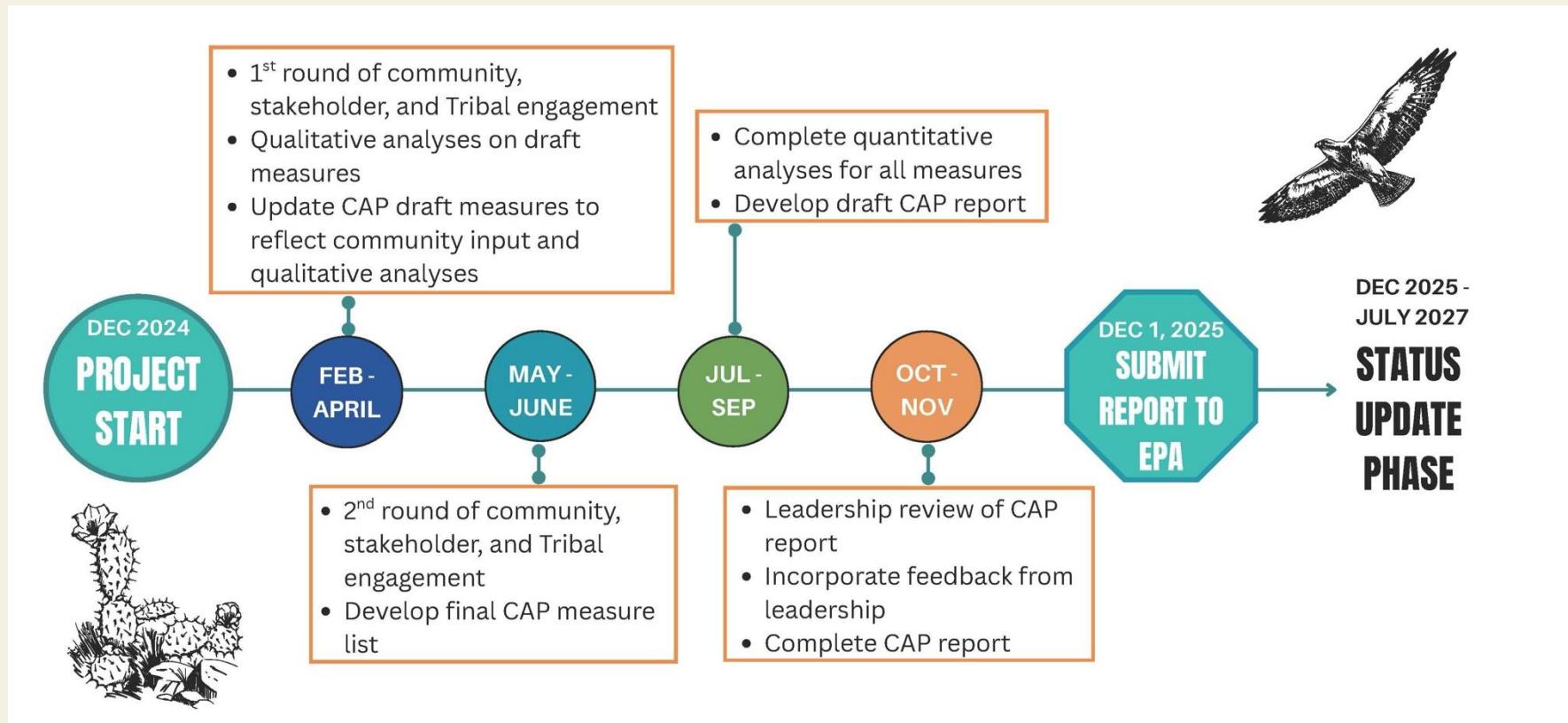


- 1.) 2023 GHG Inventory
- 2.) GHG Emissions Projections
- 3.) Quantified Emissions Reductions by Measure
- 4.) Community & LIDAC Benefits Analysis
- 5.) Review of Authority and Timeline to Implement
- 6.) Cost Estimates and Funding Options
- 7.) Workforce Planning Analysis
- 8.) Stakeholder and Community Engagement
- 9.) Tribal Government Engagement
- 10.) Plan to Meet New Mexico's Emissions Targets





Climate Action Planning Timeline





Measure Selection Criteria



Measures were selected using 5 main criteria.

IMPACT OF CLIMATE POLLUTION REDUCTIONS

COST AND AVAILABILITY OF FUNDING

FEASIBILITY OF IMPLEMENTATION

TRANSFORMATIVE IMPACT

COMMUNITY VALUES



Community Engagement



Successful climate action planning looks different in different parts of the state. We sought to hear what participants would like it to look like in their community and statewide.



Personal Values



Community Priorities



State Priorities



Round 1 Engagement



2/20 - Gallup



2/27 - Hobbs



3/6 - Tucumcari



3/13 - Silver City



3/20 - Las Vegas



3/27 - Albuquerque



4/3 - Statewide Virtual Meeting

4/10 - Legislator Briefing



Round 2 Engagement



Statewide Virtual Sector Meetings



Electricity Sector
May 13, 2025



Industry Sector
May 15, 2025



Transportation Sector
May 27, 2025



Natural & Working Lands
May 29, 2025



Buildings and Waste & Materials Sectors
June 3, 2025





NM Climate Action Plan



Overview of New Mexico's Greenhouse Gas Emissions

Becky Smith
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NMED Climate Change Bureau

November 19, 2025



Tracking GHG Emissions



- Greenhouse gas emissions inventories (GHG EI) provide a *best estimate* of greenhouse gas emissions for a time and place
- New Mexico has commissioned multiple independent third-party GHG EI for the state:
 - Spanning from 2005 (baseline year) to 2023
 - Covering both the oil & gas sector in detail and entire state economy
- *GHG EI enable us to evaluate progress toward our climate goals*

New Mexico Oil and Gas Greenhouse Gas Emissions Inventory for Year 2020

Prepared for:
New Mexico Environment Department
Colorado State University, Center for the New Energy Economy



Prepared by:
Eastern Research Group, Inc.



New Mexico Greenhouse Gas Emissions Inventory and Forecast

2021 Emissions Inventory and 2030-2050 Forecast

Release Date: December 2024



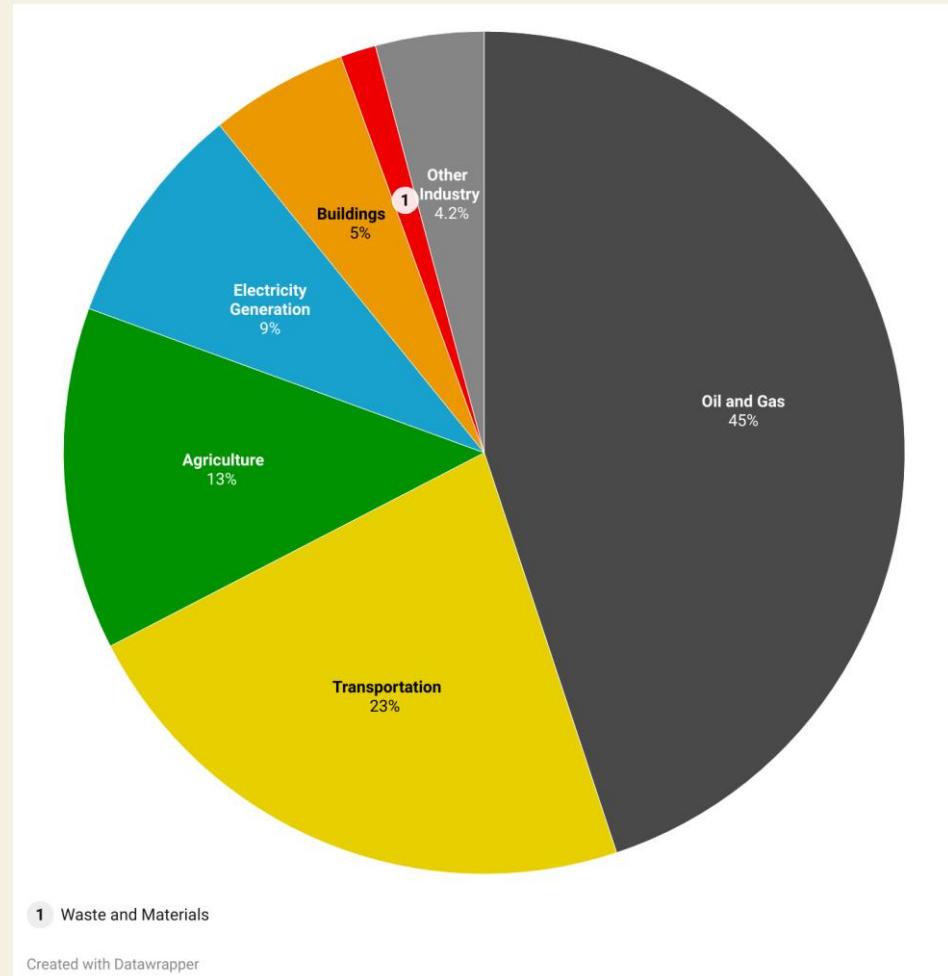
Energy+Environmental Economics

Left: The latest NM GHG EI reports available on NMED's Climate Change Bureau website

NM's GHG Emissions Profile

- The four top GHG-emitting sectors in New Mexico are:
 - ▣ Industry
 - ▣ Transportation
 - ▣ Agriculture
 - ▣ Electricity Generation
- Collectively, these sectors are responsible for nearly 90% of NM's GHG emissions
- This profile is from 2023, and the profiles from other recent years are similar

2023 NM Relative GHG Emissions By Sector

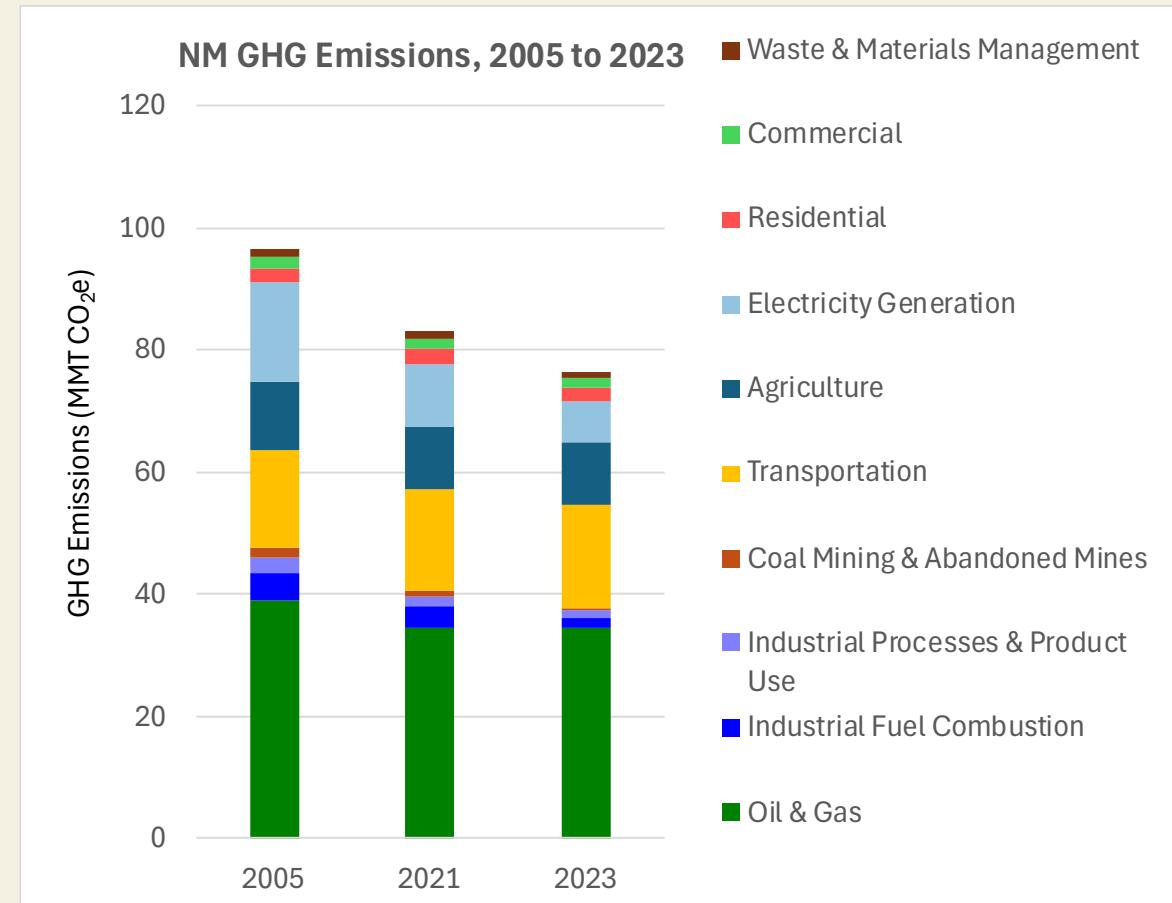




NM GHG Emissions Over Time



- Eastern Research Group developed a 2023 inventory for New Mexico (report is forthcoming)

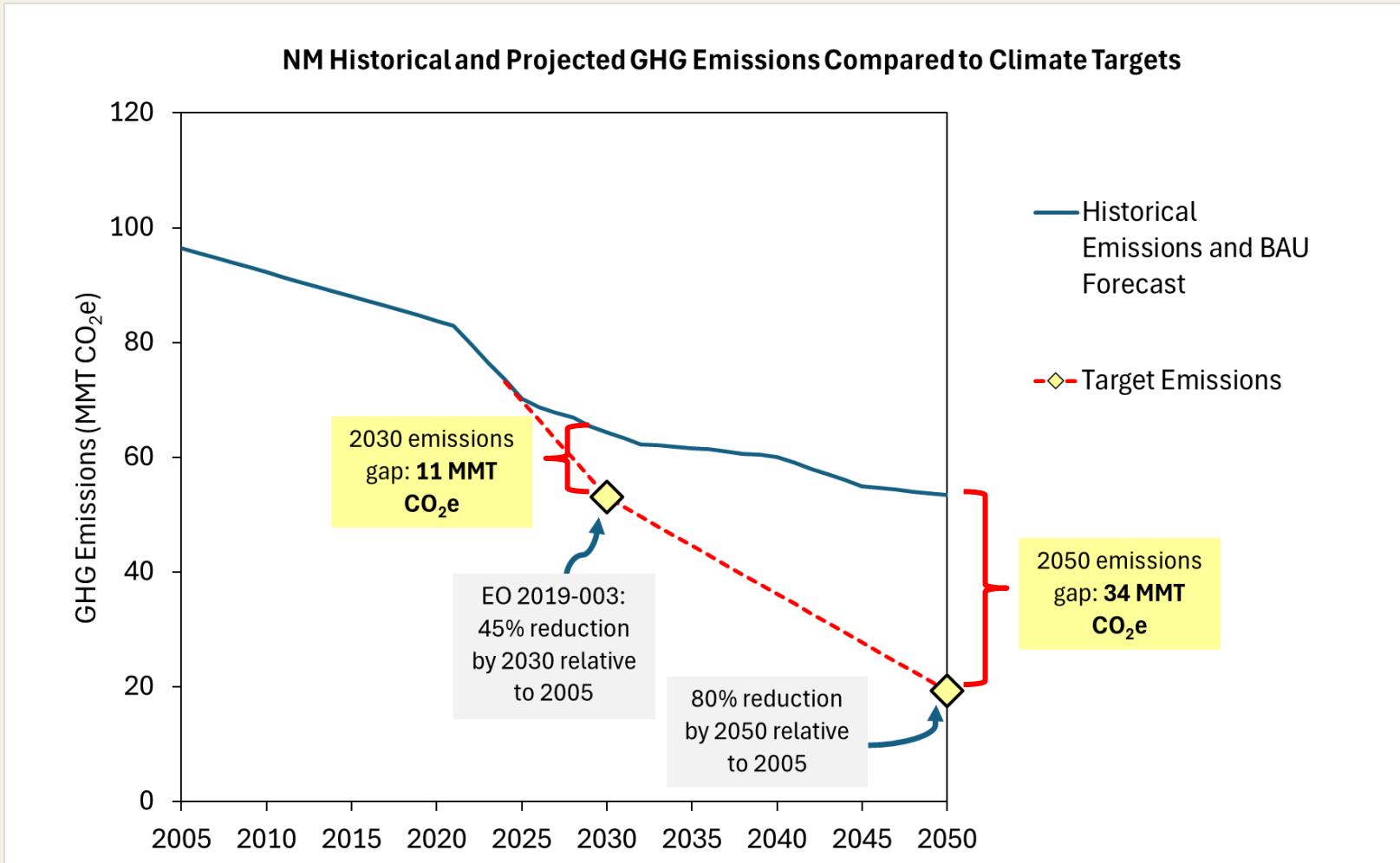


- GHG emissions decreased by 14% from 2005 to 2021
- GHG emissions further decreased by 8% from 2021 to 2023



NM Emissions Forecast

- NM is not projected to achieve climate goals in a “business-as-usual” forecast without additional climate measures:

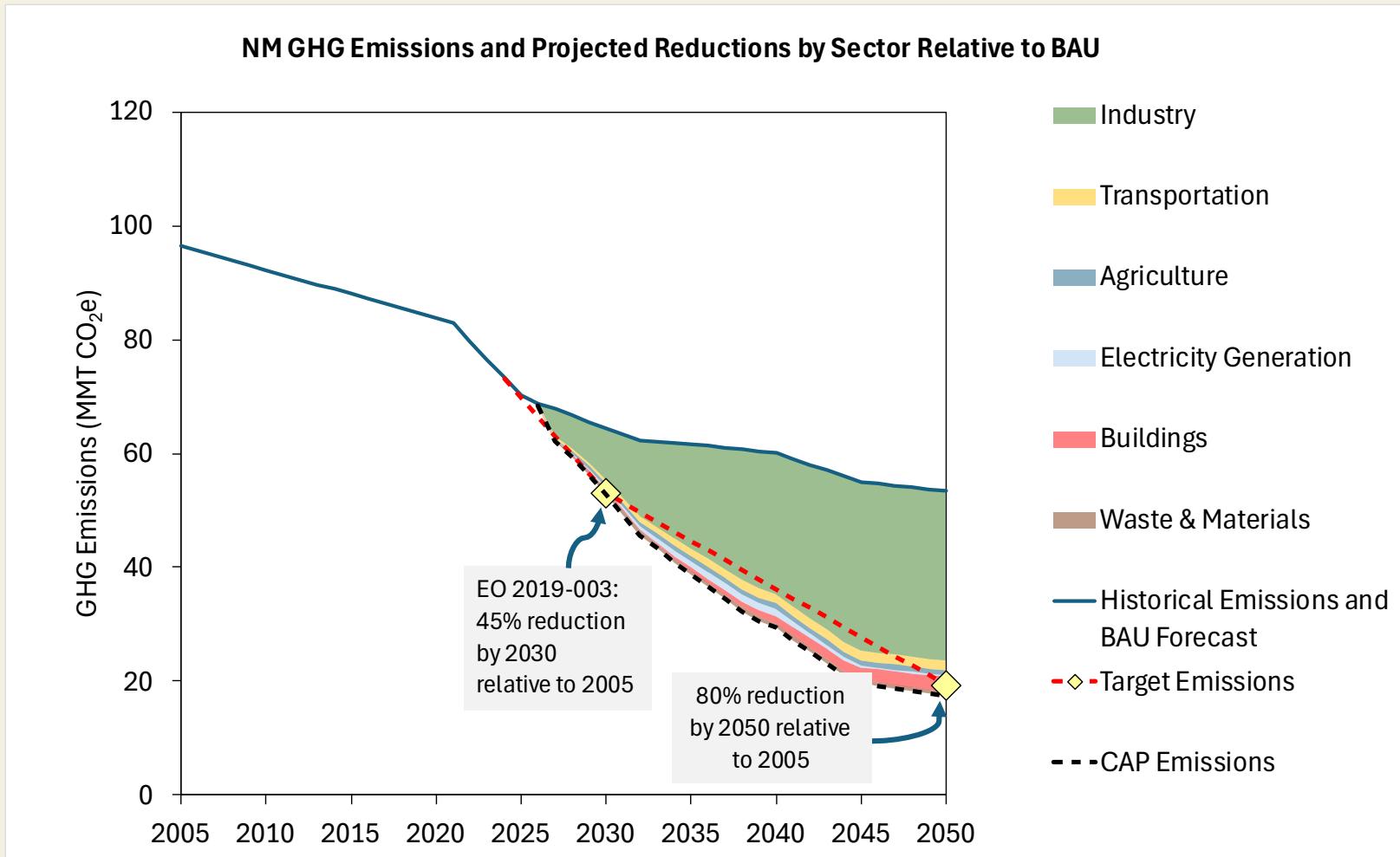




CAP Emissions Reduction Overview



- The CAP contains nearly 50 measures designed to reduce GHG emissions in NM across multiple sectors to achieve climate goals:





NM Climate Action Plan



Industry Sector Measures

Jessica Hejny, Control Strategies Manager
Air Quality Bureau

November 19, 2025

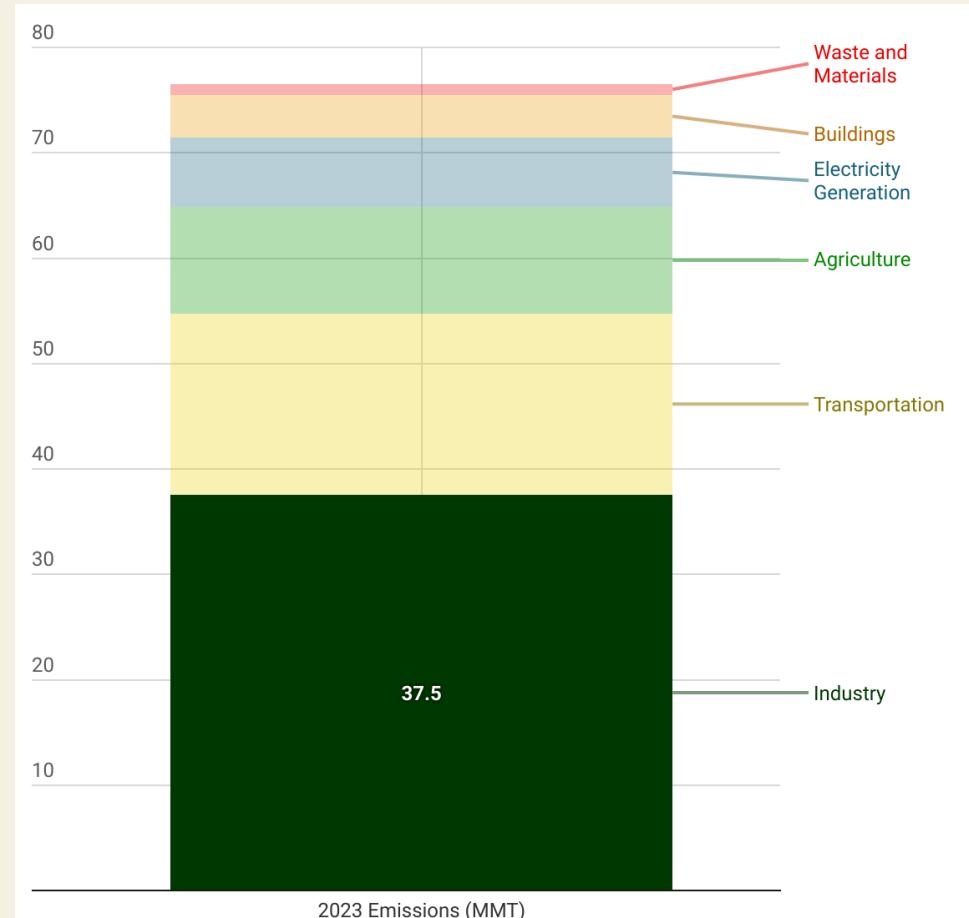


Industry Sector Emissions



- Most industrial emissions are from the **oil and gas industry**
- Oil and gas emissions:
 - natural gas leaks (methane)
 - combusting natural gas to power equipment (carbon dioxide)
- NM has developed detailed O&G emissions inventories due to large share of in-state emissions from sector
- **Other industrial emissions** are from on-site combustion of fossil fuels and from processes that emit greenhouse gases like hydrofluorocarbons (HFCs)

NM Emissions in Million Metric Tons (MMT) CO₂e



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Climate Action Plan



- **Strategy for Comprehensive Climate Action Plan measures:**
 - ✓ Focus on the largest source of industrial emissions (oil & gas)
 - ✓ Build upon existing state regulations
 - ✓ Broadly target both carbon dioxide and methane emissions
 - ✓ Identify specific sources of carbon dioxide and methane
 - ✓ Create measures to reduce emissions
 - ✓ Link measures to existing regulatory authority ("roadmap to implementation")



Oil and Gas Climate Strategy



Oil and Gas GHG emissions

Carbon Dioxide

Combustion

- Electrification
- Carbon Capture

Acid gas units

- Carbon capture

Methane

Wells, leaks, and process and equipment emissions

- Increased monitoring and leak detection
- Plugging inactive/abandoned wells
- Requirements for specific processes (e.g., liquids unloading) and equipment (e.g., compressors) to reduce methane emissions
- Increased enforcement capacity



Measures to Achieve Carbon Dioxide Reductions



GOAL

Reduce carbon dioxide emissions from the oil and gas industry at a level sufficient to meet 2030 statewide GHG emissions goal

SOURCE	MEASURES
Combustion	<p>Requirements or incentives to electrify oilfield combustion equipment (e.g., turbines)</p> <p>Requirements to capture CO₂ from combustion sources, either sequestering the CO₂ or using it for enhanced oil recovery</p>
Acid Gas Units	<p>Requirements to capture CO₂ separated from natural gas stream at acid gas removal units, either sequestering the CO₂ or using it for enhanced oil recovery</p>



Measures to Achieve Methane Reductions

GOAL

Reduce methane emissions from the oil and gas industry at a level sufficient to meet 2030 statewide GHG emissions goal

SOURCE

Inactive/Abandoned Wells

MEASURES

Accelerate the identification and plugging of inactive/abandoned wells:

- Identify responsible parties
- Mandate remediation
- Increase state funding for existing programs
- Change state well bonding requirements

Leaks

- Increase monitoring and leak detection requirements for operators
- Use remote sensing data to identify sources of unintended emissions
- Increase the capacity of State agencies to enforce regulations to reduce methane emissions

Process and Equipment Emissions

- Develop rules that build upon current regulation to further reduce emissions from specific processes and equipment
- Increase enforcement capability



NM Climate Action Plan



Electricity Sector

Richard Kirschner, Climate Action Plan Analyst
Energy, Minerals & Natural Resources Department
Climate Policy Bureau

November 19, 2025

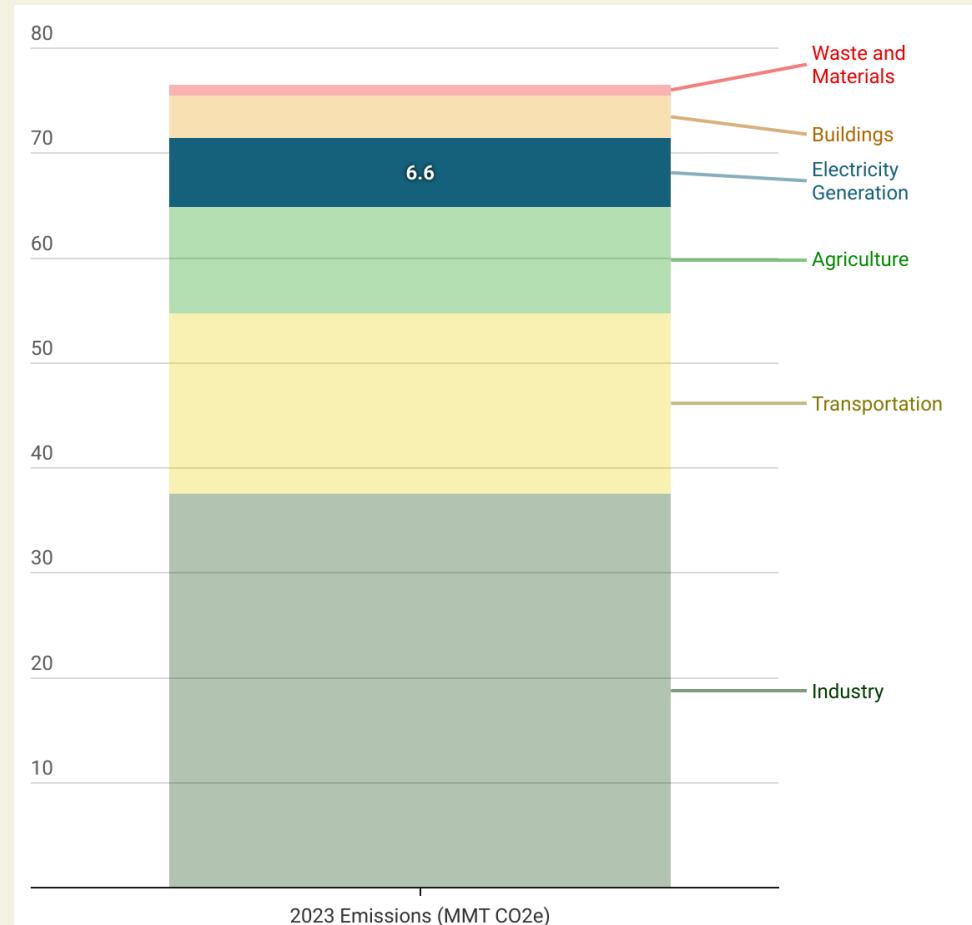


Electricity Sector Emissions



- Electricity sector emissions come mostly from combusting fuel (like natural gas) at power plants to generate electricity
- For our inventory, emissions from Tribal sources such as the coal-fired Four Corners Power Plant are not included
- Electricity sector measures will build upon the Energy Transition Act (2019 SB 489) and Energy Grid Modernization Roadmap (2020 HB 233)

NM Emissions in Million Metric Tons (MMT) CO₂e



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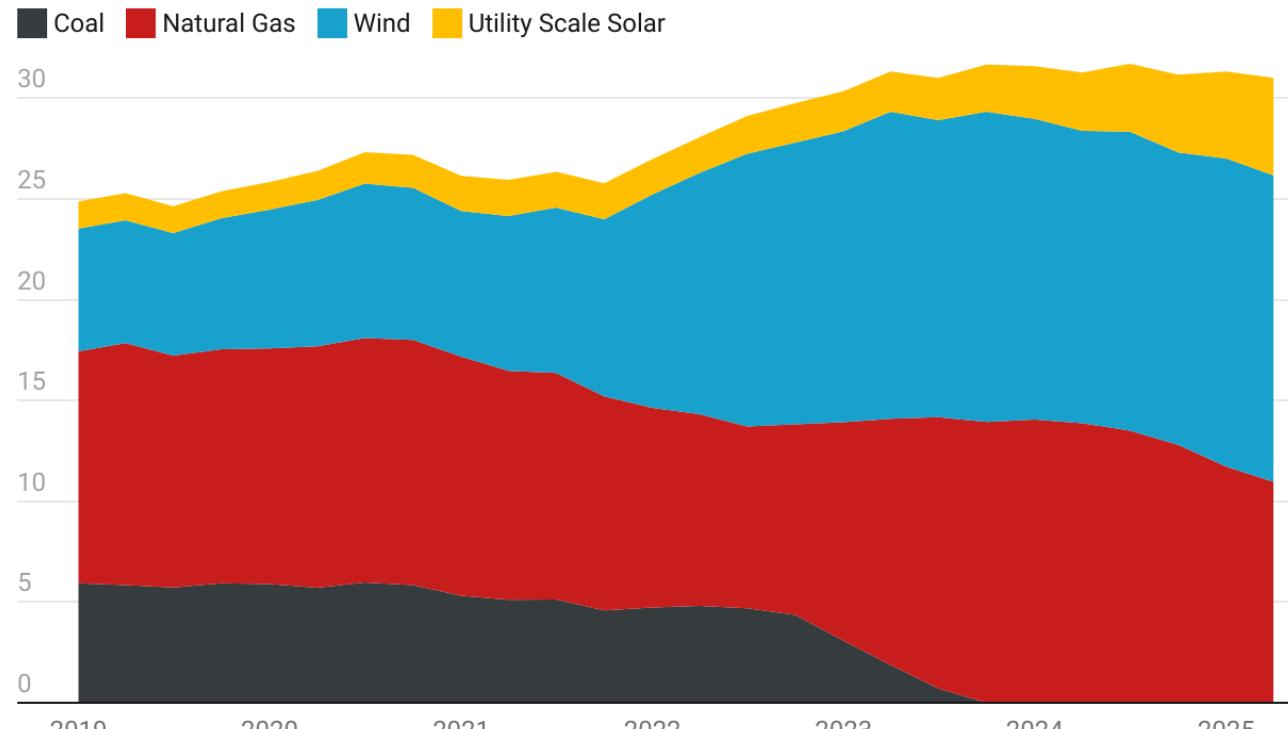


Electricity Sector Power Generation Mix



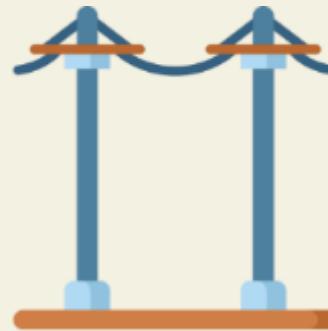
- New Mexico's generation mix has rapidly changed:
 - In 2015, coal and natural gas comprised 88% of in-state generation
 - Today, wind and solar comprise 65% of in-state generation, natural gas contributes 35%, and coal contributes 0%

**New Mexico: Net Generation of Electricity by Source
(12-month rolling total, terawatt hours, EIA)**



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Barriers to Decarbonization



Transmission Capacity & Interconnection Queues



Increase in Peak Demand



Technology like Long-Duration Energy Storage (LDES)



Electricity Sector Measures



E-4: Long-Duration Energy Storage (LDES) Pilot

- ❑ **Technology Scope:** Establishes a program to evaluate emerging LDES technologies
- ❑ **Evaluation Criteria:** Pilot will assess site-specific factors, storage duration, round-trip efficiency, capacity, lifecycle emissions, cost, and community impacts
- ❑ **Strategic Importance:** LDES enables higher integration of variable renewable energy while maintaining grid reliability

E-9: Transmission, Storage, and Generation Targets

- ❑ **Capacity Targets:** Deploy 6GW of transmission, 11 GW of renewable generation, and 12 GWh of storage, including 3GWh of LDES (10+ hour)
- ❑ **Modeling Evidence:** 6 GW transmission goal aligns with RETA's 2020 Transmission Study, which proposed collector plans supporting 5.9GW by 2030.
- ❑ **Energy Diversification:** Insulates New Mexico's already diversified energy portfolio from market volatility and geopolitical events.



Electricity Sector Measures



E-11: Demand Response

- ❑ **DER & VPP Integration:** Ensures distributed energy resources (DERs) and virtual power plants (VPPs) are incorporated into PRC energy planning processes.
- ❑ **Compensation:** PRC updates will support payments to VPPs for services such as peak demand reduction.
- ❑ **Modeling Evidence:** ECAM's 2025 Energy Grid Update suggests a hypothetical VPP could meet over 1,600 MWh of annual peak load.

E-6: Energy Storage Grants

- ❑ **Grant Program:** Creates a funding mechanism for community-scale distributed energy storage systems
- ❑ **Resilience:** Supports the integration of DERs into new or existing microgrids to improve reliability and affordability, especially in rural or underserved areas
- ❑ **Program Benefits:** Reduces household energy burdens, and decreases reliance on fossil fuel backup generation



Contact Us



We are here to help support implementation of
the Climate Action Plan:

NMED & EMNRD joint climate action
planning resources:

Website: <https://www.climateaction.nm.gov/cap/>

Email: nm.cprg@env.nm.gov