

RAI ER-CC-1 Supporting Information

Climate Change & Greenhouse Gases Goals and Laws

Statewide Goals & Laws

The state of New Mexico has established numerous laws within the New Mexico Statutes Annotated 1978 (NMSA)[Ref. 3] and supporting New Mexico Administrative Code (NMAC)[Ref. 2] and Executive Orders (EO)[Ref. 6] that directly or indirectly address climate change and greenhouse gas emission levels. These laws are presented in Table 1.

Table 1: State laws, administrative codes, and executive orders that address climate change and/or GHG emissions.

Statute, Code, Executive Order	Title	Purpose	
NMSA §5-18-1 et. seq.	Renewable Energy Financing District Act (2009)	To promote and encourage citizens and businesses to use, research, and develop renewable energy sources and alternative fuels through alternative financing and tax incentives.	
NMSA §7-2-18.14	Solar Market Development Tax Credit (2009)		
NMSA §7-2-18.18	Renewable Energy Production Tax Credit (PTC) (2007)		
NMSA §7-2A-19	Corporate tax credit		
NMSA §7-2-18.19	Sustainable Building Tax Credit (2013)		
NMSA §7-2A-21	Corporate tax credit		
NMSA §7-2-18.24	Geothermal ground-coupled heat pump tax credit (2009)		
NMSA §7-2A-24	Corporate tax credit		
NMSA §7-2-18.25	Advanced Energy Income Tax Credit (2009)		
NMSA §7-2A-25	Corporate tax credit		
NMSA §7-2-18.26	Agriculture Biomass Income Tax Credit (2010)	Public utilities required to include prescribed amounts of renewable energy in their electric energy supply portfolios and to recover associated costs.	
NMSA §7-2A-26	Corporate tax credit		
NMSA §7-2-18.29	New Sustainable Building Tax Credit (2015)		
NMSA §7-2A-28	Corporate tax credit		
NMSA §7-9J-1 et. seq.	Alternative Energy Product Manufacturers Tax Credit Act		
NMSA §62-16-1 et. seq.	Renewable Energy Act		
NMSA §62-16A-1 et. seq.	New Mexico Renewable Energy Transmission Authority Act		To facilitate the licensing, construction, and financing of high voltage transmission lines and energy storage projects to deliver renewable energy. ⁶
NMSA §62-17-1 et. seq.	Efficient Use of Energy Act (2005)		To better utilize cost-effective energy efficiency and load management resources by public and municipal utilities.
NMSA §70-2-34	Regulation, Conservation, and Prevention of waste CO ₂ , helium, and other non-hydrocarbon gases (2003) (Part of Oil & Gas Act)		As stated.

Statute, Code, Executive Order	Title	Purpose
NMSA §71-6-1 to 71-6-3	Solar Energy Development Act	To promote development and use of renewable energy through research and funding opportunities. *Excludes oil, hydrocarbon gas, and other hydrocarbon substances.
NMSA §71-6-4 et. seq.	Solar Collector Standards Act	
NMSA §71-7-1 et. seq.	Advanced Energy Technologies Economic Development Act	
NMSA §71-9-1 et. seq.	Geothermal Resources Development Act*	
NMSA §74-1-1 et. seq.	Environmental Improvement Act	To improve quality of life.
NMSA §74-2-1 et. seq.	Air Quality Control Act	To prevent or abate air pollution.
NMAC 20.2.1	Air Quality (State-Wide)	To improve air quality for NM as per the Environmental Improvement Act and Air Quality Control Act.
NMAC 20.10.1	Local Air Quality Control Boards	
NMAC 20.11.1	Albuquerque-Bernillo Co. Air Quality Control Board	
EO 2004-019	Declaring New Mexico the "Clean Energy State"	Addresses issues of clean and renewable energy, reduction of greenhouse gas emissions, energy efficiency, sustainable buildings, and related matters. (EMNRD)
EO 2005-033	Climate Change and Greenhouse Gas Reduction	
EO 2005-049	Requiring the Increased Use of Renewable Fuels in New Mexico State Government	
EO 2006-001	State of New Mexico Energy Efficient Green Building Standards for State Buildings	
EO 2006-069	New Mexico Climate Change Action	
EO 2007-053	Increasing Energy Efficiency in State Government by 2015 and Statewide by 2012 and 2020	
EO 2008-028	Establishing a Strong Telework and Flexible Work Hours Program to Help Reduce Fuel Use and Taxpayers' Costs	
EO 2009-002	Expanding New Mexico's Clean Energy Economy	
EO 2009-047	Establishing New Mexico as a Leader in Addressing Climate Change	
EO 2010-001	New Mexico Clean Energy Economy Action	

The New Mexico Energy Roadmap[Ref. 4]

The New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) has developed, in cooperation with diverse energy stakeholders across multiple energy industry sectors, the New Mexico Energy Roadmap. This document outlines a series of goals and strategies to “strengthen and diversify a New Mexico energy economy that is resilient to global changes”, including increasing renewable energy deployment, energy efficiency, and alternative transportation and fuels. If implemented successfully by the target date of 2027, the goals and strategies presented would reduce greenhouse gas emissions, and are presented in Table 2.

Table 2: New Mexico Energy Road Map state-wide goals and strategies that would result in the reduction of greenhouse gas emissions and abate climate change.

Goals	Strategies
Reduce vented and flared gas emissions by 50% (as percentage of transported gas) by 2027 by incentivizing operators.	<ol style="list-style-type: none"> 1) Create a collaboration among involved agencies to create a pilot program for incentivizing flare gas capture technology deployment and demonstration. 2) Identify the top five challenges to reducing flare gas and address them.
Increase the use of alternative fuel vehicles (AFV) registered in NM to 15% by 2027.	<ol style="list-style-type: none"> 1) Increase alternative fuel infrastructure. 2) Increase AFV availability and service. 3) Electrification of major thoroughfares. 4) Develop a road tax structure based on vehicle fuel type and weight. 5) Develop incentive programs for AFV and infrastructure.
Reduce single occupancy vehicle miles traveled by 15% by 2027.	<ol style="list-style-type: none"> 1) Increase government investments into alternative modes of transportation. 2) Create incentive programs to increase the use of multi-modal transportation options. 3) Require major developments to offer bike-, ride-, and car-sharing. 4) Adopt a state-wide complete streets policy (roads that accommodate all users).
Reduce emissions from mobile sources by 10% by 2027.	<ol style="list-style-type: none"> 1) Promote alternative transportation fuels, including heavy-duty trucks of all types, off-road machinery, large vehicles, rail. 2) Evaluate regulatory or statutory efficiency and emission standards. 3) Facilitate technology transfer from labs, universities, incubators, and others.
Rank in the top 20 states for energy efficiency by 2027.	<ol style="list-style-type: none"> 1) Upgrade all NM building codes to at least national standards, and develop a process for maintaining current codes. 2) Require LEED certification of all new school, hospital, higher-education, and government buildings over 20,000 square feet. 3) Research opportunities and initiate policy action to allow public-private partnerships for commercial buildings energy efficiency and low-income multi-family housing. 4) Extend the Efficient Use of Energy Act past 2020 – incorporating policies to address energy efficiency disincentives.
Measurably increase energy efficient behaviors by New Mexicans by 2027.	<ol style="list-style-type: none"> 1) Implement a public campaign to increase awareness and educate consumers about energy efficiency and conservation. 2) Research and implement tools that allow customers to better understand and manage their energy use.

Regional Goals

Western Regional Climate Action Initiative [Ref. 6]

New Mexico's former governor, Bill Richardson, committed the state to achieving a collective reduction of GHG emissions as part of the Western Regional Climate Action Initiative with the states of Washington, Oregon, Arizona, and California. This initiative set forth several broad goals, including:

- Regional goals for the reduction of GHG emissions
- Market based incentives for reduced GHGs
- Participating in a multi-state GHG registry
- Promoting development of renewable energies
- Increasing energy efficiency
- Advocating regional and national climate policies

Local Goals

City of Carlsbad, NM Long Term Plan [Ref. 1]

The City of Carlsbad, NM developed, through citizen input, a broad-based vision for the city's future. The plan is intended to ensure that Carlsbad is a well-planned and maintained community environment, with the ultimate goal of increasing the population through sustainable growth. In receiving community input, a number of concerns regarding further development and its effects on quality of life, and energy and natural resources were brought up. Common themes were energy conservation, the development of alternative energy sources, and the "greening" of the city. To address these concerns, potential projects were devised and prioritized, each of which would help to reduce overall GHG emissions by encouraging the use of alternative energy sources and increasing green areas to act as carbon sinks. These projects are presented below.

Green Energy Development	Beautification/Landscaping
<ul style="list-style-type: none"> • Install micro hydroelectric plant near riverwalk recreation center 	<ul style="list-style-type: none"> • Install green-scape on major streets
<ul style="list-style-type: none"> • Join U.S. EPA Landfill Methane Outreach Program (LMOP) 	<ul style="list-style-type: none"> • Create community gardens through urban agriculture program
Incentives for businesses: <ul style="list-style-type: none"> • Green Roof • Wind/solar installation 	<ul style="list-style-type: none"> • Replace dying palm trees with natives such as yuccas and Spanish Daggers
<ul style="list-style-type: none"> • Replace street lights with solar powered lights 	<ul style="list-style-type: none"> • Require businesses to plant trees or install landscapes in large parking lots
<ul style="list-style-type: none"> • Improve energy conservation of existing structures 	<ul style="list-style-type: none"> • Green-scape more of the city's common areas.
<ul style="list-style-type: none"> • Promote, incentivize, or change city codes to attract green energy developers 	

Sources:

- 1 City of Carlsbad, New Mexico Long Term Plan. 2012. City of Carlsbad, New Mexico Long Term Planning Committee.
- 2 New Mexico Administrative Code (NMAC). 2019. New Mexico State Records Center and Archives. Commission of Public Records.
- 3 New Mexico Compilation Commission. 2019. <http://public.nmcompcomm.us> Website accessed January 2019.
- 4 New Mexico Energy Roadmap Final Report. 2018. New Mexico Energy, Minerals and Natural Resource Department (EMNRD) and New Mexico First.
- 5 New Mexico Renewable Energy Transmission Authority (RETA). <https://nmreta.com> Website accessed January 2019.
- 6 Science of Climate Change and New Mexico Projections. 2018. New Mexico Environment Department (NMED).