



New Mexico Climate Strategy & Electricity Sector Implications

EPSCOR Webinar Series
July 22, 2020

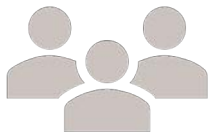
Laura Tabor
Sustainability and Resilience Officer
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Clean Energy Program Manager



Agenda



Overview of 2019 Climate
Strategy Report

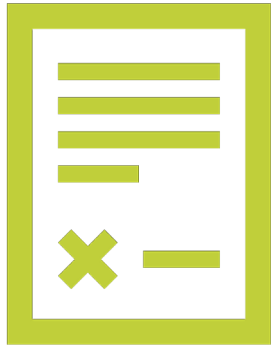


Ongoing Climate Change Task
Force Activity

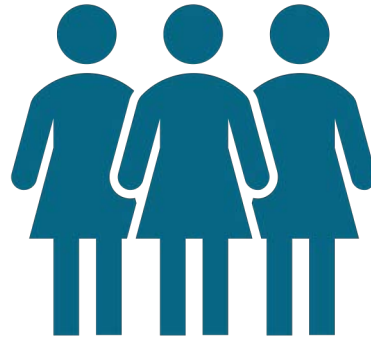


Electricity Sector Actions &
Priorities

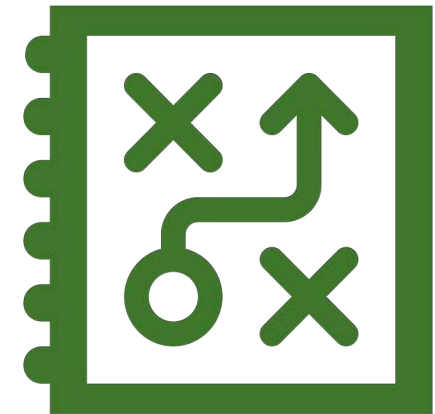
New Mexico Climate Change Task Force



Created by Executive Order
2019-003



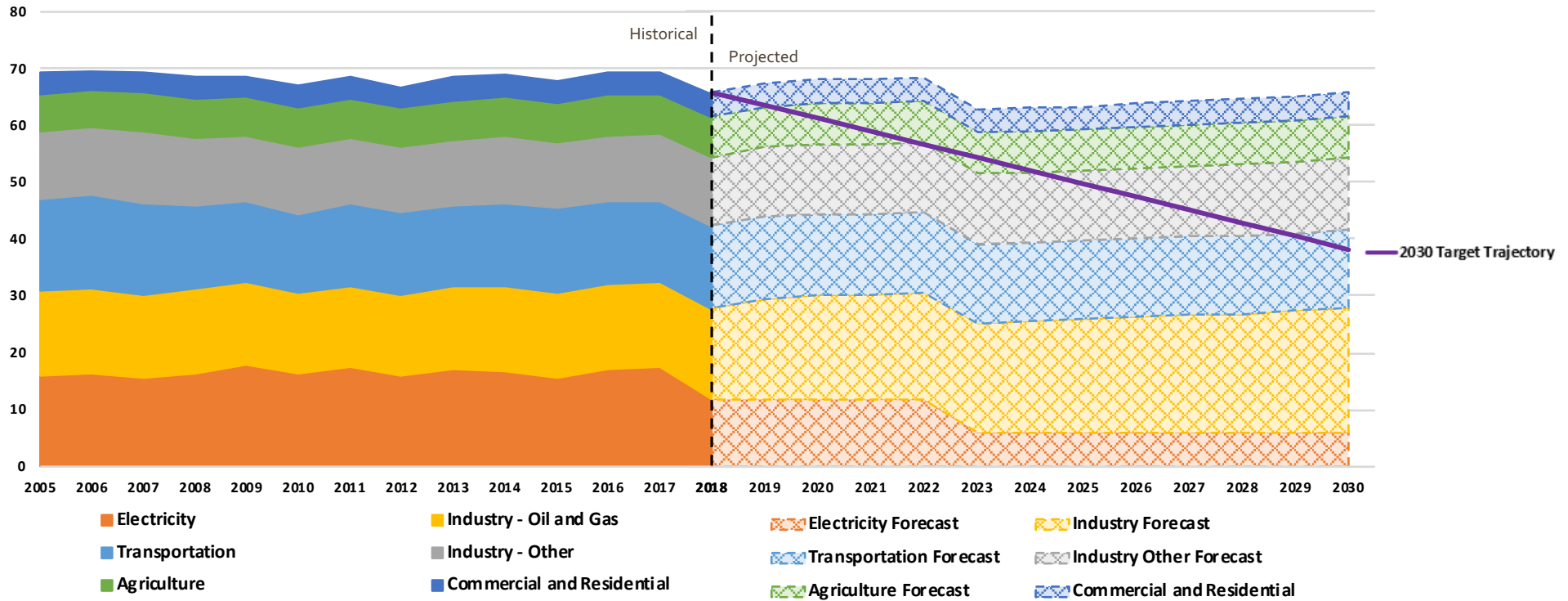
Cabinet secretary or
designate from each agency



Working to integrate climate
adaptation and mitigation
practices into agency policies

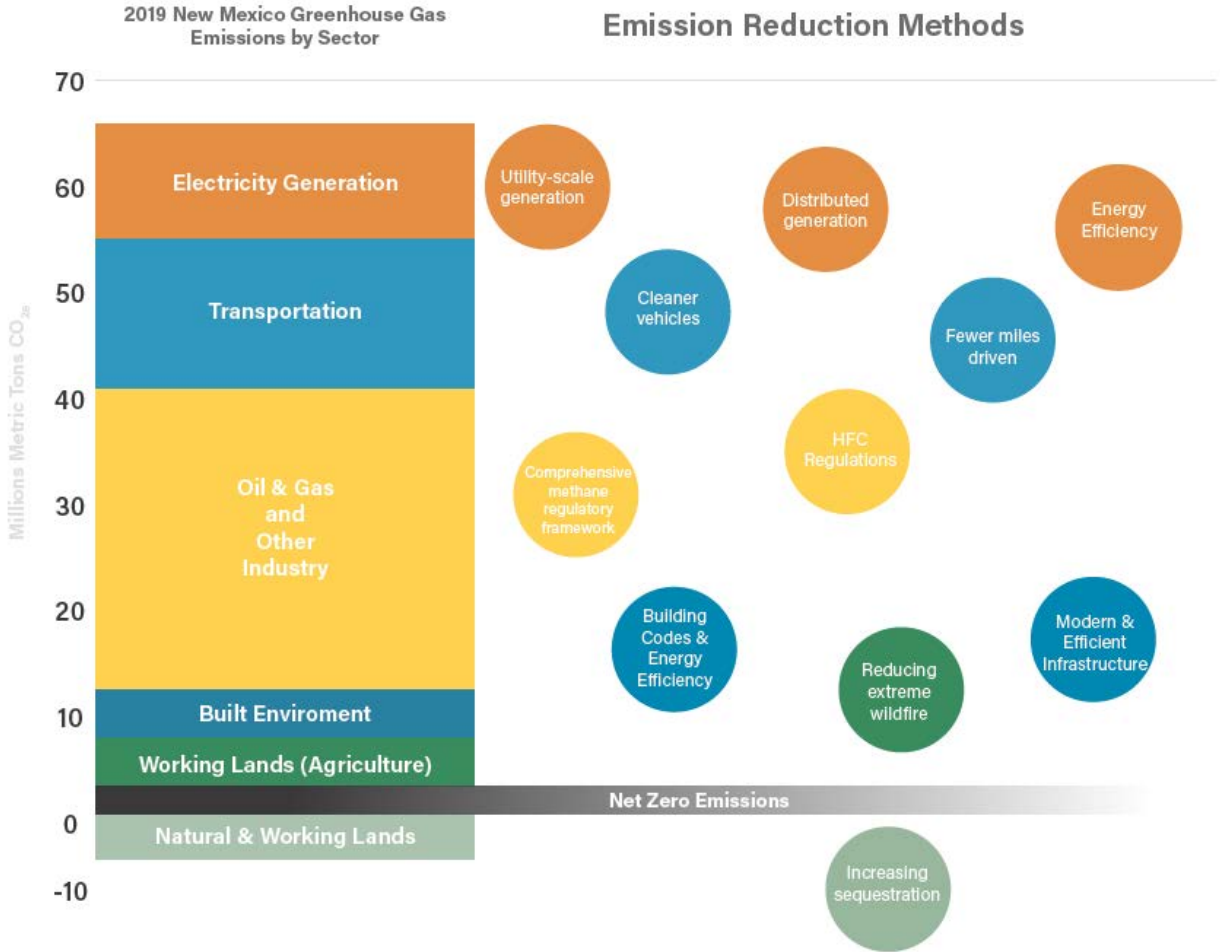
What the Data Tell Us

New Mexico GHG Emissions Trends
Million Metric Tons CO₂e



Data Notes: Electric power plant data from the EPA. All other data is from the Rhodium Group's US Climate Service database. Projections do not include recently proposed and enacted policies, but assume San Juan Generating Station will retire two remaining units by 2023.

What we're doing about it



Electricity Generation

Utility Electricity Generation and Transmission

- Energy Transition Act (2019 SB 489)
- Renewable Energy Transmission Authority transmission and storage study

Distributed Energy Resources

- Solar Energy Improvement Assessments (PACE and C-PACE)
- Microgrids (HM 71)

Leading by Example

- State Buildings Green Energy Project
- State Park Modernization

2020 Legislative Updates: Electricity Generation

HB 233 Energy Grid Modernization Roadmap

- Directs EMNRD to develop a roadmap for grid modernization
- Establishes a grid modernization grant program and fund (administered by EMNRD)
- Allows utilities to submit applications to the PRC to modernize grid transmission and distribution infrastructure and recover certain reasonable costs for grid modernization projects

SB 29 Solar Market Development Income Tax Credit

- Income tax credit of up to \$6,000 per taxpayer per taxable year for solar thermal and photovoltaic systems

HB 50 Amending the Industrial Revenue Bond Act

- Makes certain electric transmission projects eligible under the Industrial Revenue Bond Act

HB 386 Public Peace, Health, Safety & Welfare Transfer Fire Marshal's Office

- Includes provisions to establish procedures and requirements for nominating Public Regulation Commission Commissioners should ballot measure changing commission from elected to appointed positions pass

Transportation

Increasing Clean Vehicle Adoption

- Seeking legislation to incentivize EV adoption
- Volkswagen Settlement Fund awards
- HB 521: Utility filings
- REV West and Alternative Fuel Corridors
- LEV/ZEV: Clean Car Rules

Reducing VMT*

- Support Metropolitan Planning Organizations in multi-modal investments
- Promotion of and incentives for multi-modal travel

Leading by Example

- \$2.5M for EVs and charging Infrastructure: state fleet from 1 to 30
- State charging stations will be available to public
- Price agreement in place for EVs and charging stations
- Revisions to Alternative Fuels definition

*vehicle miles traveled

Oil & Gas and Other Industry

Reducing Oil and Gas Sector Methane Emissions

- Technical Methane Advisory Panel meetings complete, leading to technical background document that will support 2020 rulemakings at NMED and EMNRD
- NMED and EMNRD rules will complement each other for comprehensive scope

HFC Regulations

- Aiming for 2021

Total New Mexico Greenhouse Gas Emissions by Gas in 2018

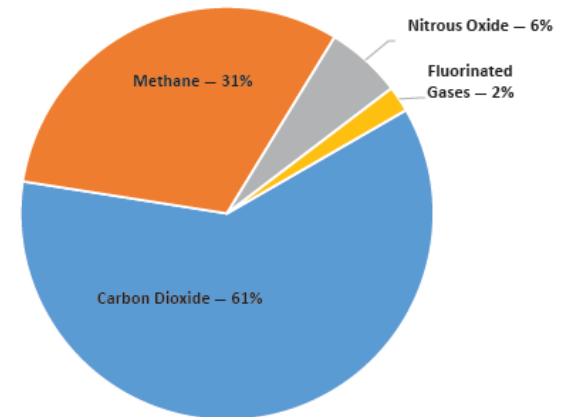
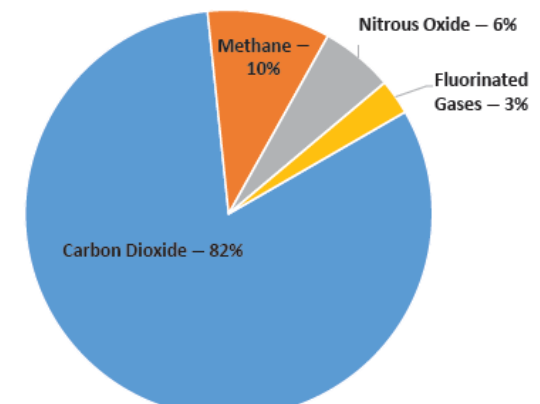


Figure 2

Total United States Greenhouse Gas Emissions by Gas in 2018



Built Environment

Energy Efficiency and Building Codes

- Expand availability for low-income and disadvantaged residents
- Continue to update Efficient Use of Energy Act
- Updating Building Codes

Infrastructure Investment

- Engaging in MPO and RTPO planning processes
- Best practices in NMDOT Long-Range Statewide Transportation Plan
- Support for zoning code updates
- Rural broadband and reliable statewide internet

Leading by Example

- New performance standards for new state buildings and major renovations
- State Buildings Green Energy Project, including DoIT data center upgrades
- Facility and Energy Managers Working Group

Natural and Working Lands

Increasing Sequestration from Natural and Working Lands

- Improving soil health (2019 HB 204)
- Using drought tolerant plants in mine reclamation and other reforestation and revegetation projects

Reducing Potential for Wildfire Emissions

- 2019 HM 42: Studying use of prescribed fire
- Forestry prioritizing climate mitigation and adaptation practice in Forest Action Plan

NWL Challenge: Our Commitments

- Improving inventory methods for understanding how land produces and absorbs carbon;
- Undertaking actions to maintain natural and working lands as a net sink of carbon and balancing near- and long-term sequestration objectives; and
- Integrating top priority actions regarding natural and working lands into state greenhouse gas mitigation plans by 2020.

Cross-Sector Emissions: Market Mechanisms



EO 2019-003 includes directive to explore market mechanisms

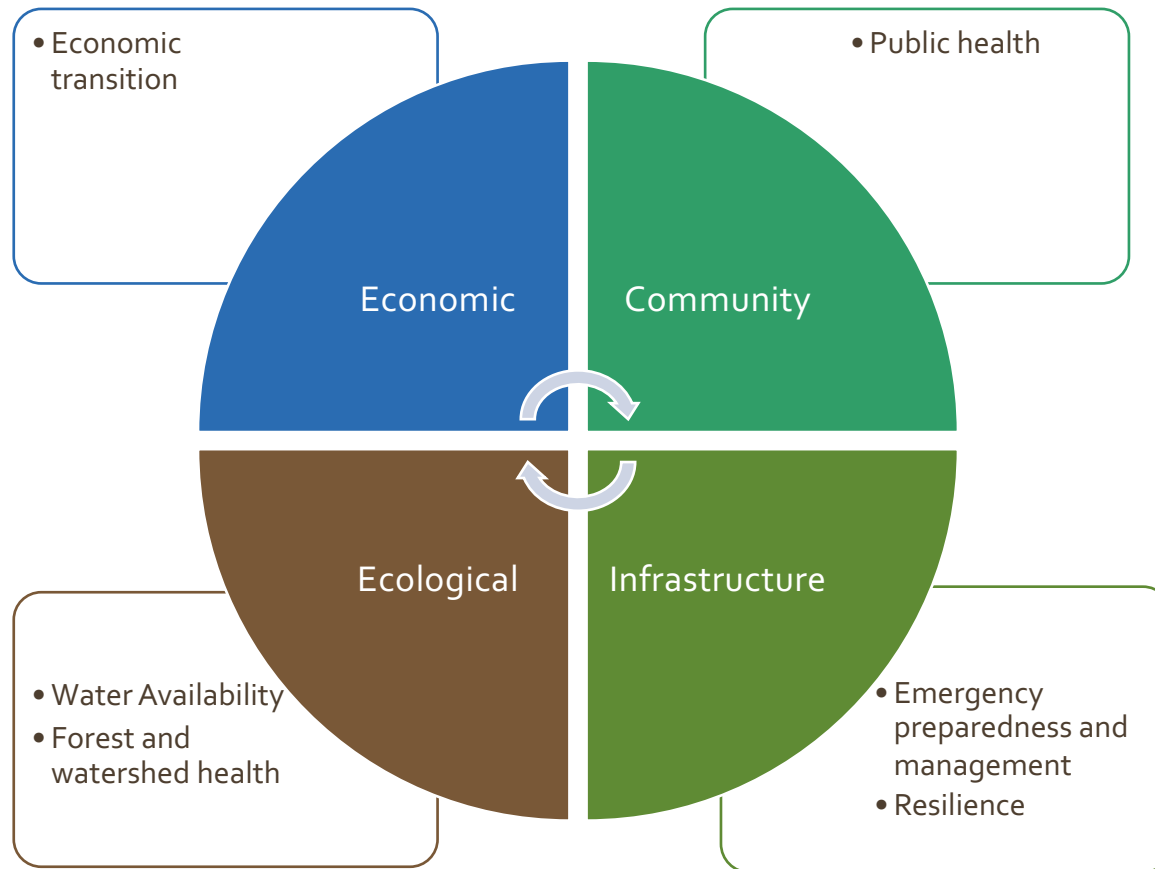


First step for NM is completing a robust inventory and policy analysis to assess gap to reach targets



Economics suggest larger markets can be more successful; assessing regional options takes time

Adaptation and Resilience



Economic Transition

Educational training, degree, and apprenticeship programs

Attract businesses looking for renewable energy sources

Leading by example: green procurement

The **Energy Transition Act** provides four tools to aid economic and energy transition in communities affected by a coal plant closure:

- (1) securitization, a process for private bonding authority for an entity closing a coal plant;
- (2) three new funds (at Indian Affairs Department, Economic Development Department, and Department of Workforce Solutions) to provide transition assistance to tribal communities, displaced workers, and the broader affected community within 100 miles from a closing plant;
- (3) reinvestment in clean energy and property tax base replacement; and
- (4) apprenticeship opportunities in all types of energy development.

Public Health



DOH working through CDC's BRACE framework

- Updated public health advisories for heat
- Developing climate vulnerability index



NMED planning to update Occupational Health and Safety standards



EMNRD and DOH exploring ways to integrate health into low-income energy efficiency programs

Emergency Management and Preparedness

DHSEM State Natural Hazard Mitigation Plan

- Addresses fact that drought, flash floods, extreme heat, wildfire risk, and land subsidence will become more severe with climate change

NMDOT looking into resilient roadways

- Vulnerability assessment ongoing
- Incorporating best practices: Sustainable Infrastructure Envision Framework & Complete Streets

NMED & NMDOT adding climate issues into local government project award criteria

Urban Forestry

- New Mexico Forest Releaf Program will plant 250 trees in urban public spaces

Natural Resource Resilience

- Forest and Watershed Restoration Act provides \$2M for projects that support climate resilience
- EMNRD and DGF preparing for ecosystem impacts on forests, streams, wildlife

Water Availability

OSE continues implementing Active Water Resource Management

NMED launching several initiatives

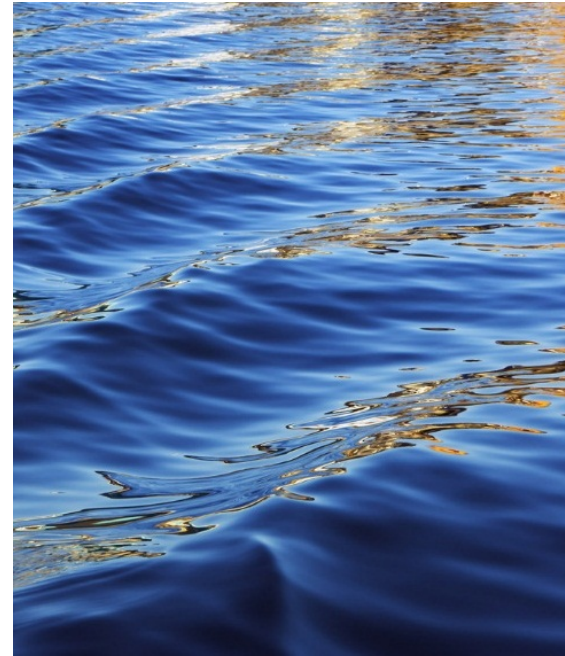
- 2019-2020
 - Baseline ground and surface water supply data
 - Increased action plans for wildfire control and remediation for watershed health
 - Identifying Outstanding National Resource Waters to increase protections
- 2021
 - Assess how climate change is affecting drinking water supply
 - Source Water Plans with Climate Change Impacts

Drought Task Force



Turning Strategy into Action

Ongoing Task Force Activity



Climate Action Teams



Clean Electricity and Grid Modernization



Decarbonizing Transportation



Climate Hub:
Data, Outreach, &
State Leadership



Economic Transition



Emergency Management, Health, and Resilience



Energy Efficiency



Methane



Natural and Working Lands



Sustainable Infrastructure and Planning

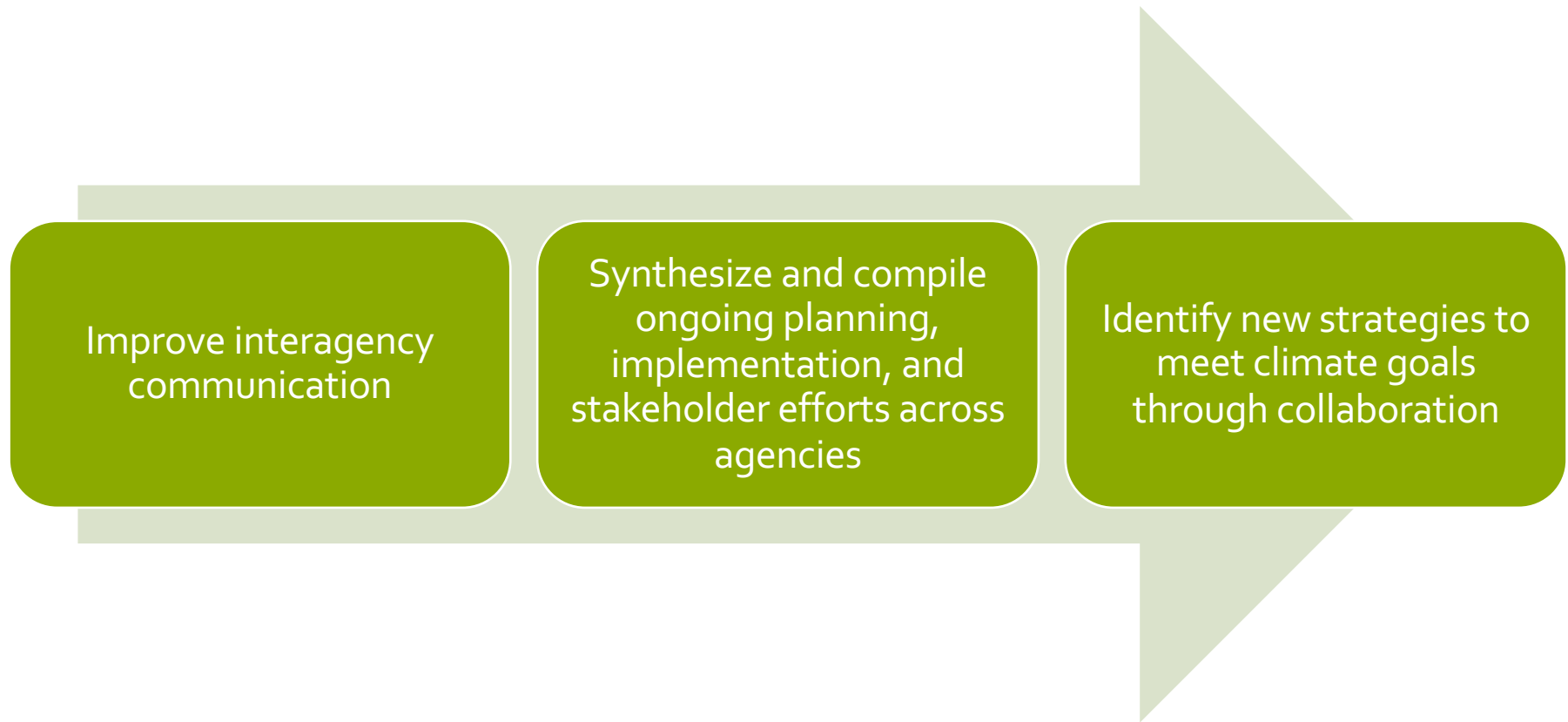


Cultural Heritage

REDUCING GREENHOUSE GAS LEVELS

ADAPTATION AND RESILIENCE

Climate Action Team Goals



Energy Efficiency Goals



Adopt modern, energy efficient building codes across the state



Update the Efficient Use of Energy Act to require use of total resource cost test



Increase funding for low-income energy efficiency and incorporate health measures in programs or grant offerings



Adopt new energy performance standards for state projects



Accelerate the pace and scale of upgrades



Educational campaign to change behaviors

 **Goal 1: Adopt modern, energy efficient building codes across the state**

- **Approach: Work with Regulations and Licensing Department to issue rules and implement new Energy Conservation Code**

- i. Public notice of proposed rules (complete)

- ii. Issue final rules

- iii. Implement new Energy Code

Hearing for proposed codes is next Wednesday, July 29!

Clean Energy and Grid Modernization Goals



Coordinate grid modernization efforts to reach zero-carbon electricity generation goals



Identify policies to reach ETA goals, while increasing access to renewable energy for low- and middle-income residents.



Provide support and outreach for PACE and C-PACE programs



Identify transmission corridors needed to transport the state's electricity to market



Study smart hybrid microgrids to accelerate the implementation of renewable technologies



Identify funding or financing mechanisms to expand renewable energy, energy storage, and energy efficiency investments.



Goal 1: Coordinate grid modernization efforts to reach zero-carbon electricity generation goals

- **Approach: Implement the Grid Modernization Roadmap and Grant Program Act (2020 HB 233)**
 - i. Convene experts in grid technology, energy finance/economics, and energy policy to help draft Roadmap for New Mexico
 - ii. Secure funding and support grid modernization pilot projects through the grant program

Grid Modernization Roadmap Policy Background

ETA (2019) with state RPS

- 50% of Utilities' retail sales must come from the sale of zero-carbon sources by 2030
- 100% of IOU retail sales must come from the sale of zero-carbon sources by 2045;
- 100% of Cooperative retail sales must come from the sale of zero-carbon sources by 2050

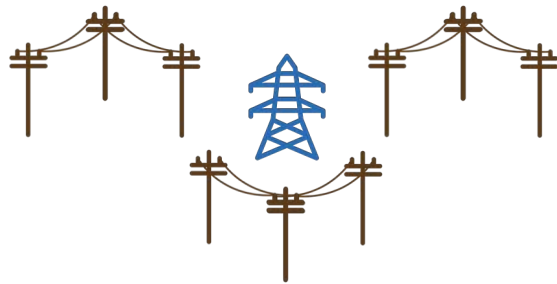
HB 233 (2020) – Grid Modernization Roadmap and Grant Program

Solar Market Development Tax Credit (2020)

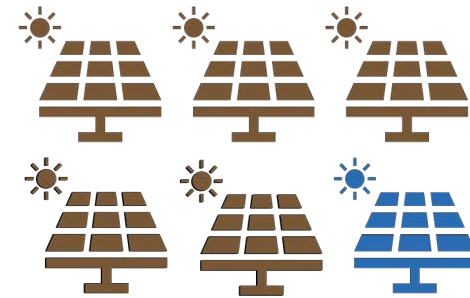
Others



Baseline Data Highlights



Nationally, the electric grid is 7.5% transmission and 92.5% distribution¹



In 2019, according to the Energy Information Agency (EIA), NM added 57 MW of solar capacity, 50 MW of which was distributed

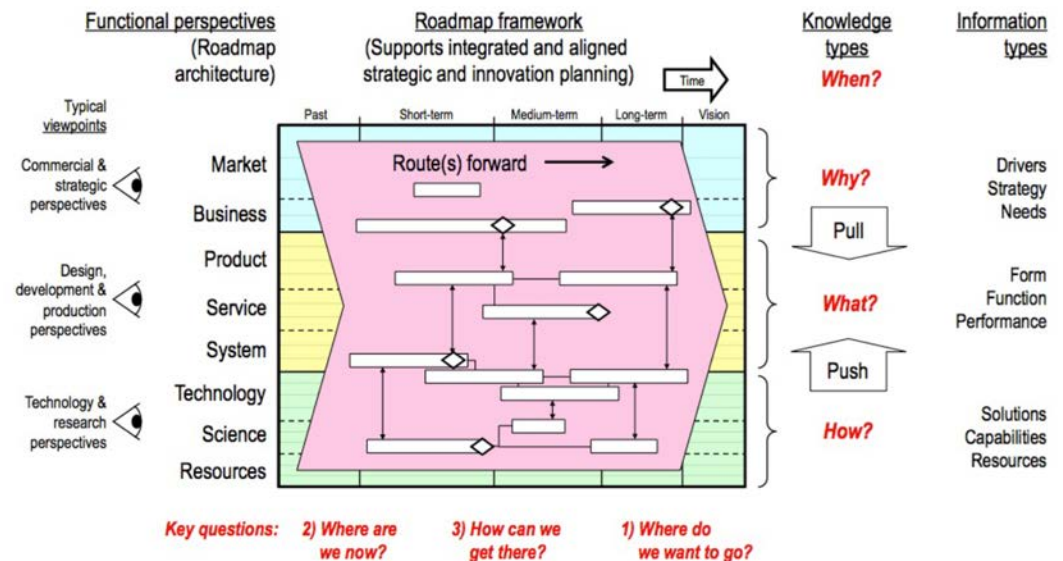
- NM cooperatives are further along in adopting distribution technologies (2020 EMNRD Utility Survey)
- Given the current generation mix, NM can meet its near-term ETA goals

¹Pacific Northwest National Laboratory, Electricity Distribution system Baseline Report. 2016. p. 11. Units = miles of wire

Icon credit: Power Lines by Zach Bogart from the Noun Project

Roadmap Development Process

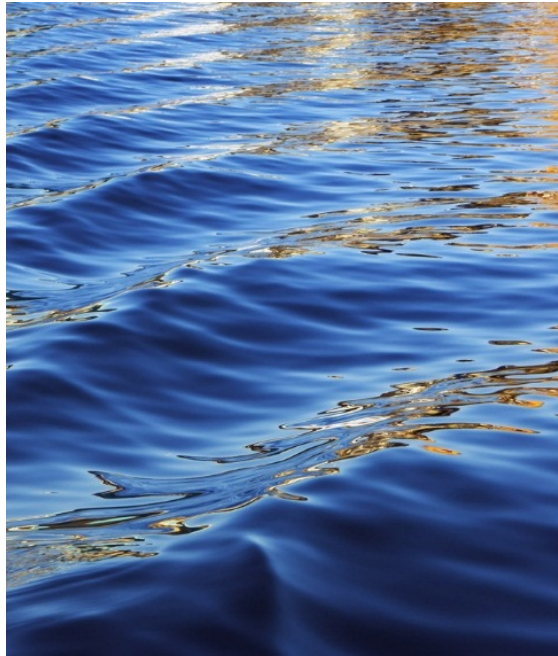
- Robert Phaal, et al. (2007) Technology Roadmapping
 - Where are we going?
 - Where are we now? (Baseline Report)
 - How do we get there?
- US DOE (2017) *Modern Distribution Grid, vols I-III*
 - *Attributes of a modern grid*
 - *Technology inventories*
 - *Design configurations*
- Grid Modernization Advisory Group (GMAG)
 - Virtual meetings (August - October 2020)
 - Technical, economic, and policy whitepapers
- Roadmap drafted by end of 2020





Moving Forward

Next steps for Climate Change Task Force



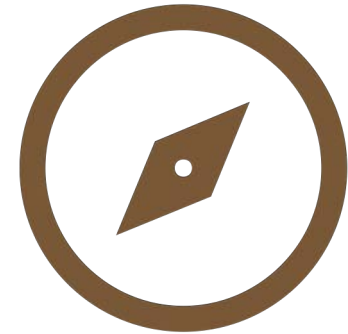
Building Back Better



Integrating climate
priorities into
recovery actions



Centering racial
justice considerations
in priorities and policy



Investing in
tomorrow, delivering
today

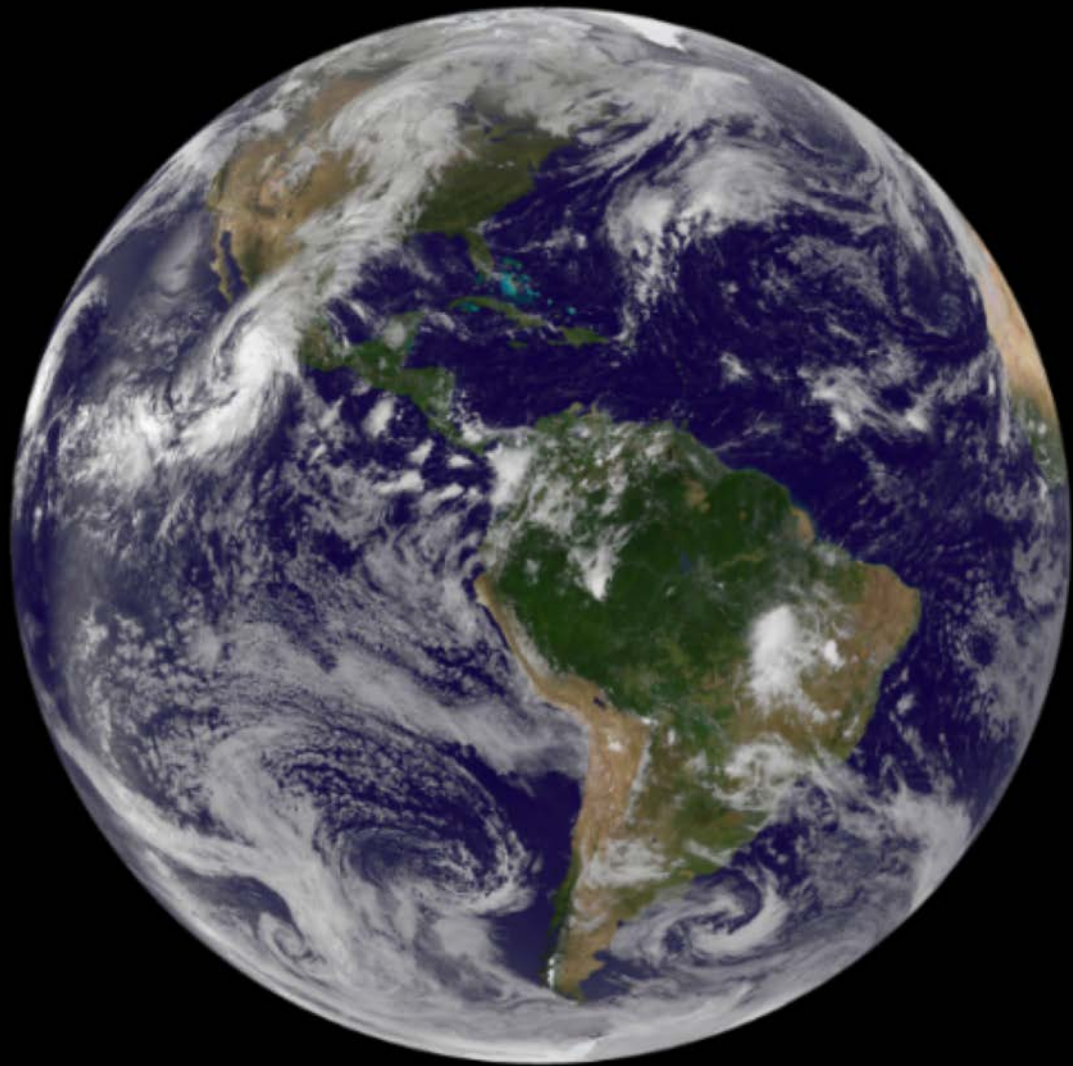
On the Horizon

Preparing for fall
2020 Climate
Strategy update
report

Delivering on EO
2019-003 directives

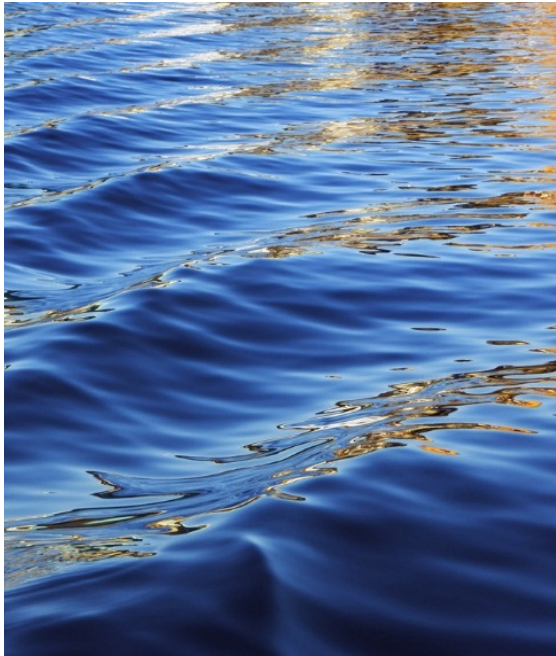
Identifying research,
policy, and projects
to advance towards
2030 targets

Planning
stakeholder and
community outreach
opportunities





Questions?



NEW MEXICO



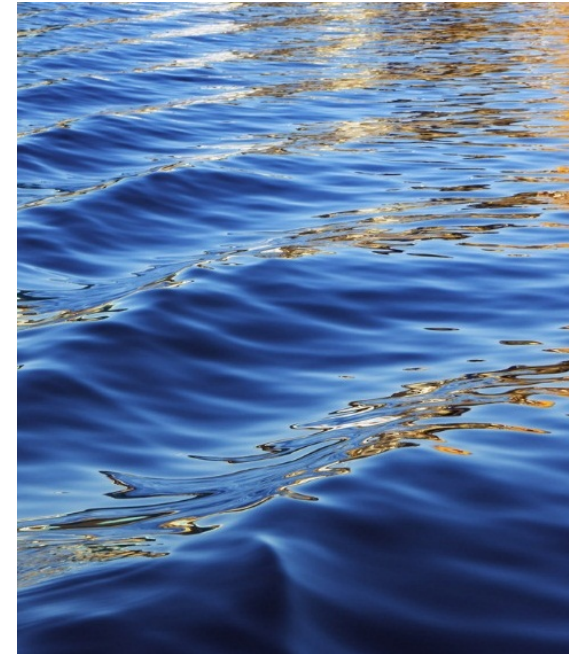
Energy, Minerals and Natural Resources Department



Thank you!

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N E W M E X I C O



Energy, Minerals and Natural Resources Department