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NEW MEXICO'S 20-YEAR ECONOMIC DEVELOPMENT STRATEGIC PLAN:

GREEN & SUSTAINABLE ENERGY SECTOR FEEDBACK

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New Mexico's 20-Year Economic Development Strategic Plan:

Green & Sustainable Energy Sector Feedback

The New Mexico Center for Economic Opportunity, the 501(c)3 foundation of the New Mexico Chamber of Commerce, held the first of nine sector convenings at the end of 2022 focused on the economic growth sectors identified in New Mexico's twenty-year economic development plan, Empower and Collaborate, New Mexico's Economic Path Forward. The targeted sector was green and renewable energy, attended by industry, research institutions, and government representatives. (See Appendix A for participant list.)

The workshop agenda focused on examining the opportunities, challenges, strategies and the metrics for success for the renewable energy industry in New Mexico. Each session included a short overview, sharing of perspectives, and information including follow-up break out discussions on key takeaways. The schedule and prompt questions for panels and breakout groups are included (see Appendix B).

Workshop participants provided views from diverse perspectives and backgrounds; however, there was a a considerable consistency in their responses.

This report is an overview of the information gathered and a summary of key points and recommendations.

KEY ACTION AREAS

New Mexico Opportunities and Strategic Advantage

Stakeholders discussed opportunities and recommendations of how to take advantage of the opportunities identified. Feedback on opportunities gathered from participants centered around three themes: 1) Electricity Generation & Sales, 2) Economic Development, and 3) Partnerships.

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Electricity Generation & Sales Opportunity - Key opportunities for renewable energy focused on the sale of electricity both in and out of state. Location-wise, New Mexico is well situated to benefit from the production and export of electricity to other western states. Moreover, there was a strong consensus that the state is well positioned to attract businesses and companies that desire or require renewable energy to fuel their enterprise, creating a significant driver of potential economic growth.

🔎 **Stakeholders identify** that access to affordable, reliable, renewable energy could attract companies and industry to New Mexico.

> **Stakeholders recommend** building additional new "slack" capacity to increase access to affordable renewable energy generation for new commercial and industrial customers.

New Mexico has several factors related to generation and sales that position the state to be a leader in renewable energy. Given our location, New Mexico is part of the Western Interconnection, which provides electricity to 14 states. A number of these states have carbon reduction policies and long-term goals. These states provide for a ready export market for carbon-free electricity produced in New Mexico.

🔎 **Stakeholders identify** in-state and out-of-state demand for renewable energy as key development opportunities.

> **Stakeholders recommend** participation in a regional transmission organization (RTO) which will enable out-of-state market access for large-scale renewable projects, while also increasing grid reliability and resilience.

Additionally, the geographic location of New Mexico's renewable energy assets coordinates well with west coast states' demand for electricity, giving a potential market for the state during periods of the day when solar or wind is not available on the west coast but plentiful in New Mexico. New Mexico renewable electricity was also cited as being some of the lowest cost per kilowatt hour renewable energy in the west, making our production extremely cost competitive with other generating states like Colorado or Montana.

🔎 **Stakeholders identify** New Mexico's location, including the proximity to Mexico, provides additional opportunities for green energy export.

> **Stakeholders recommend** development of very high voltage transmission lines, storage facilities, and on-demand dispatchable power for grid-balancing.

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Economic Development Opportunity - Coupled with the potential for exports, New Mexico's progressive energy policies provide the opportunity to attract companies to the state that are looking for low or zero carbon energy sources for their operations. New Mexico's energy policies, specifically the Energy Transition Act and renewable energy tax policies, position the state as a potential renewable energy leader and provides for growth of sales in-state by creating an attractive asset for those companies coming to the state because of our renewable energy portfolio.

- **Stakeholders identify** renewable generation projects as providing short-term construction employment and long-term employment through companies utilizing renewable energy to meet environmental goals, which supports economic diversification more broadly.

  - **Stakeholders recommend** "Insourcing" green and renewable energy jobs to New Mexico residents instead of out-of-state workers through investments in apprenticeships and training.

  - **Stakeholders recommend** leveraging our state's large tracts of open land that are well suited for large scale wind and solar installations.

  - **Stakeholders recommend** public/private partnerships to leverage capital and development opportunities.

  - **Stakeholders recommend** aggressively pursuing federal funding opportunities under current and future programs, such as within FERC or through the Inflation Reduction Act (IRA), that would help expand access to larger energy markets throughout the west.

- **Stakeholders identify** the I-25 and I-40 corridors as important interstate logistics assets.

  - **Stakeholders recommend** utilizing the high-use interstate highway corridors as an opportunity for decarbonizing long-haul trucking through hydrogen.

Partnerships Opportunity - Looking to the future, the relationships being built between the state, the National Laboratories (Los Alamos National Laboratory and Sandia National Laboratory), and the private sector can support a unique ecosystem for energy related start-ups.

- **Stakeholders identify** easy access to Los Alamos and Sandia national laboratories as a unique asset and advantage for New Mexico.

  - **Stakeholders recommend** collaborating with national laboratories to:

    - Enhance educational opportunities in state;
    - Support technology transfers to new and existing companies;
    - Direct technical consulting and support for local companies; and,
    - Provide pilot support and testing for new technologies.

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Barriers to Success

Stakeholders discussed opportunities and recommendations on how to take advantage of the opportunities identified. Feedback on opportunities gathered from participants centered around three themes: 1) Electricity Generation & Sales, 2) Economic Development, and 3) Partnerships.

Partnerships Opportunity - Workforce inadequacy, both in the private sector and in the public sector, are major concerns. Key government agencies lack the number of employees to conduct the work in a timely fashion, but often also lack the key technical talent to do timely, and consistent analysis. Adjusting government pay scales for hard-to-find technical staff was encouraged. For the private sector, community colleges and training programs need to partner with employers to better align with industry training needs. Coordination and cross-training between large scale construction projects could also help build and maintain a long-term New Mexico based energy workforce

Workforce issues were focused not only on the attributes of the current workforce, but also the adequacy of the future workforce and the cyclical nature of large-scale energy construction projects.

🔎**Stakeholders identify** workforce inadequacies such as:

- Lack of skilled trade workers;
- Lack of workers and worker housing in key geographic locations; and,
- Growing shortages in working age population due to out-migration and aging.

> **Stakeholders recommend** community colleges and training programs partner to better align with industry needs and cross-training amongst infrastructure projects.

> **Stakeholders recommend** focusing on staffing shortages in key state agencies. Staffing issues, both in numbers and expertise, at the Public Regulatory Commission (PRC) and State Land Office result in inconsistent decision making and unpredictable permitting delays.

Regulatory & Technical Challenges - Permitting delays were the most often cited obstacles. The comments were not a critique of whether a permitting system was necessary, but rather how the state manages its permitting responsibilities. The critiques were focused on a multi-level review system, carried out by agencies that are understaffed, using antiquated processes and technology which result in time delays that increase development risks, construction and design costs and ultimately project viability. Jurisdictional uncertainty and the inconsistent treatment across projects, exacerbates regulatory risks and costs, making access to capital both harder and more expensive.

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Stakeholders identify jurisdictional challenges. Multiple jurisdictions, from federal, state, county, tribal, as well as interdepartmental conflicts between the Department of Transportation or State Lands, etc., result in uncertainty and questions of who has the authority and to whom should a question or concern be addressed.

> **Stakeholders recommend** permitting reform. Current permitting consists of time delays, authority ambiguity, and multiple layers of permitting at different levels. All can result in delays in construction, increased costs and delays in projects coming online..

> **Stakeholders recommend** assigning one entity as a project lead / ombudsman to facilitate efficient project review and permitting.

Stakeholders identify a lack of prioritization or focus across various state entities. Example: Where does the state want to place their focus: Is it on energy export, energy production for in state use, or state revenue generation through increased taxes and fees? The lack of alignment on economic development goals means that different state agencies or departments may prioritize other short-term fee generation goals over long term economic diversification and environmental goals.

Example: *Department of Transportation charging "market rate" Right-Of-Way fees driving up the cost of renewable developments. Similarly, the State Land Office is believed to charge market rate or higher for state land use, because their focus is maximizing revenue for the permanent fund and its beneficiaries.*

> **Stakeholders recommend** development of shared cross-departmental goals that align with growth in the sector.

Stakeholders identify the lack of energy storage capacity as a barrier for growth and potential reputational risk for the sector. Without sufficient storage, balancing the grid with intermittent renewables becomes very challenging and could endanger reliability, which would hurt the reputation of renewables (see Texas).

> **Stakeholders recommend** prioritizing the development of energy storage and low-carbon peak load mitigation projects.

Stakeholders identify that the lack of a western RTO limits access to out-of-state markets and reduces grid resilience.

> **Stakeholders recommend** continuing efforts to create and join a western RTO.

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Measuring Success of the Green & Renewable Energy Sector

Stakeholders discussed various targets and measures that could be utilized to measure whether the state is successfully growing the green and renewable energy sector and what impacts are on the overall economy and efforts to diversify.

🔎 **Stakeholders identify** the importance of developing a definition of success and for the monitoring of specific metrics in order to measure progress. Stakeholder consensus for how to measure progress focused on setting targets that could be evaluated objectively. The ability to demonstrate success through tangible metrics available at a local level is considered important. Participants suggest the following targets and metrics:

TARGETS	METRICS TO MEASURE SUCCESS
Job growth: both within industry and in jobs that moved to New Mexico based on access to renewable energy	Increased revenue
Track impacted **tax revenue**	Increased wages
Average application time (application to decision)	New companies investing in NM (Locating and re-locating)
Carbon footprint education	Average application time Green energy and overall energy job growth Number of energy projects applications, approvals, and completions Amount of Kwh capacity developed Amount of dispatchable stored energy available Reliability of energy production Cost of energy

> **Stakeholders recommend** tracking sector contributions to the state's land use permanent funds.

> **Stakeholders recommend** developing a database that allows an assessment of impact at a local level by zip code such as: what is the impact on jobs, on economic activity, etc.

> **Stakeholders recommend** developing a state road map that includes vision, mission, and strategy that aligns different agencies.

> **Stakeholders recommend** deploying and assessing pilot projects for large scale deployment.

> **Stakeholders recommend** an assessment of the impact of resources and the different types of resources. For example, demonstrate how state or federal funding impacts on timelines, profitability, job growth, etc.

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Conclusion & Next Steps

New Mexico has assets the public and private sector must take advantage of during this window of opportunity. New Mexico must break down barriers and ensure New Mexico companies and workers participate in the demand for green and renewable energy and the economic opportunities it presents. This series of workshops and reports are designed to capture feedback and provide recommendations directly from EDD's target industries to state leaders.

Thank you to Economic Development Department Secretary Alicia J. Keyes and Deputy Secretary Jon Clark, and Department of Workforce Solutions Secretary Sarita Nair for their support and leadership in supporting the Green and Renewable Energy Sector Convening. Without their leadership and support, the convening would not have happened.

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APPENDIX A: LIST OF WORKSHOP PARTICIPANTS

NAME	COMPANY
Alexander Pugh	Hecate Energy
Andrew Swapp	Mesalands Community College
Arthur Martinez	Workforce Connection of Central NM - Local Workforce Development Board
Beth Elias	Eastern Area Workforce Development Board
Brady Borcherding	FuelCell Energy
Brian Sarantos	EDF Renewables
Carrie Robin Brunder	EDF Renewables
Chad Matheson	AREA
Chelsea Canada	New Mexico Chamber of Commerce
Christopher Fortson	Positive Energy Solar
Dana Slade	Presbyterian Healthcare Services
Danny Obeler	Solariant Capital, LLC
Erika Hecht	Erika Hecht
Evan Sanchez	Department of Workforce Solutions
Glory Juarez	Southwestern Area Workforce Development Board
Janae Amparan	New Mexico Chamber of Commerce
Janie Chermak	Department of Economics, University of New Mexico
Jeffrey Barrett	Apex Clean Energy
Jeremy Turner	Pattern Energy
John Casado	NM Dept. of Workforce Solutions
John Tysseling	Energy, Economic & Environmental Consultants
Jon Clark	NM Economic Development Department
Joseph Weathers	Northern Area Local Workforce Development Board
Julia Wise	Los Alamos National Laboratory
Keith Dennis	ABQ Business First
Lisa Ortiz	Northern Area Local Workforce Development Board
Margarito Aragon	NM Dept. of Workforce Solutions
Meghan Whitley	D. E. Shaw Renewable Investments
Michael Erickson	Los Alamos National Laboratory

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NAME	COMPANY
Rikki Seguin	Interwest Energy Alliance
Rikki-Lee Chavez	Capitol Counsel & Consulting
Rob Black	New Mexico Chamber of Commerce
Ryan Eustice	New Mexico EDD
Scott Lopez	Lopez Enterprises
Selah Cantwell	New Mexico Chamber of Commerce
Steve Kiziuk	Mountain Vector Energy
Steve Stringer	Los Alamos National Laboratory
Todd Frodley	PNM
Vicki Davis	Eastern Area Workforce Development Board
William Consuegra	Invenergy Transmission LLC
Yolanda Montoya-Cordova	NM Dept. of Workforce Solutions

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APPENDIX B: SCHEDULE & QUESTIONS

SUSTAINABLE & GREEN ENERGY CONVENING
INDIAN PUEBLO CULTURAL CENTER
FRIDAY, OCTOBER 21, 2022

Panel One Questions - Opportunities

9:15 AM – 9:45 AM Panel: Opportunities
Rikki Seguin, Interwest Energy Alliance; Todd Fridley, VP Operations PNM; Steve Stringer, Business Development Executive, LANL

- Panelists provide a brief overview of opportunities in the state
- Facilitated Q&A

Questions For Panel

- How would you rank these opportunities from most to least certain?
- What would be the biggest game changer to enhance these opportunities?
- What are the opportunities for partnerships?

9:45 AM – 10:05 AM Break Out Groups - Discuss Opportunities

Questions for Break Out Group Discussion

- What are key growth opportunities for the sector? Examples: Storage, grid development, generation, transmission, transportation, new fuel development
- Are there areas that New Mexico has a unique competitive opportunity for growth?
- How does growth in this sector impact New Mexico and its economy?

Panel Two Questions – Barriers to Growth

10:45 AM – 11:00 AM Barriers to Growth and Breaking Down Barriers
Rob Black President and CEO, NM Chamber

- Provide a brief overview of barriers and potential solutions to consider in small groups.

11:00 AM – 11:35 AM Break Out Groups

- Discuss barriers and potential solutions

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APPENDIX B: SCHEDULE & QUESTIONS

Questions for Small Group Discussions

- What are the technical challenges?
- What are the resource challenges?
- Are there policy gaps or policy inhibitors?
- Are there regulatory gaps regulatory inhibitors?
- Are there workforce gaps?

Questions for Panels

- Based on the opportunities and barriers, which were the focus of the morning, coupled with your overview of success, where do you see things in alignment for success and where do you see disconnects in success?
- How can we use metrics to develop a road map for success, by starting with our metrics that identify strengths to build on and weaknesses to correct?

1:15 PM – 1:45 PM Break Out Groups

- Discuss success and metrics

Questions for Break Out Group Discussion

- Success could be measured by setting and meeting a target goal. But if the goal is too lofty, success may be elusive. Similarly, a goal that does not change the status quo may easily be met, but may not affect change. Success may also depend on your point of view (e.g., private versus public).
- With that in mind, consider potential metrics for success (e.g., job creation, energy affordability, reliability, profitability, future expansion possibilities, environmental impact, etc.).
- How do we measure success with the metric?
- Is this a metric that is success for industry, the public, or both, and if not both, are there ways to transform a project that makes it a win-win?
- Based on your above discussion, what does your group's roadmap for green energy look like?