TWENTY-NINTH NEW MEXICO FIRST TOWN HALL

NEW MEXICO'S ENERGY, ECONOMICS, AND ENVIRONMENT

Carlsbad, New Mexico • November 14-17, 2002

Our Mission

The twenty-ninth New Mexico First Town Hall convened in Carlsbad, New Mexico, on November 14-17, 2002. The Town Hall's goals were:

- to revisit the topic of energy;
- to agree on its interplay with two vital elements: economics and the environment;
- to use this opportunity to reduce the gap between the opposing views on the subject; and
- to find positive solutions to the challenges posed by these issues.

This report first describes the existing relationship among energy, economics, and the environment in New Mexico. Second, it states the Town Hall's desired future for balancing energy, economics, and the environment. Third, this report focuses on the critical issues involved in establishing this balance, as well as the challenges and opportunities presented by each of these critical issues. Finally, and most importantly, this report lists the Town Hall's recommendations for achieving its vision.

The Existing Relationship Among Energy, Economics, and Environment

1. Energy: The Public Perception

The Town Hall believes that there is a growing awareness of energy issues. These issues include the dependence on oil, natural gas, coal, and foreign resources, and the impact of energy production and consumption on the environment. The Town Hall is concerned that the New Mexico public takes energy for granted. Many people believe that energy resources are infinite and insist they should be affordable. In general, the public seems fairly uninformed about the sources of energy generation. Although the public tends not to view energy issues as a high priority so long as energy is available and cheap, this situation changes in a "crisis," such as a shortage of supply or sudden increase in price.

The Town Hall is concerned that the public may believe energy shortages are someone else's problem. In fact, energy consumption in the United States is perceived by some to be gluttonous and selfish. Some think that we can conserve our way out of any energy shortage. However, not many people are willing to take individual action and responsibility even though they may believe that society in general uses too much energy and causes environmental harm in doing so. In addition to a lack of individual responsibility, it appears that there is a lack of sense of urgency because the public presumes that energy needs will be met in the near-term, thus shifting the problem to future generations.

The Town Hall believes energy is a complicated subject leading to problems in communication and education concerning the related issues. The general public lacks a full understanding of energy issues, including energy production, infrastructure, transportation, indirect costs, and indirect benefits, and about how energy drives the economy. These issues are perpetuated by the lack of consensus on energy issues among experts and a high degree of rhetoric from various sides of the energy debate. The Town Hall seeks to avoid the extremes and to focus instead on the middle ground in which most thought and behavior occurs.

2. Energy and the Economy

The Town Hall believes that energy is a primary driver of the New Mexico economy. Our economy is highly dependent on the energy producing and development sector and will remain so for the foreseeable future. Energy development provides employment and critical revenue for state, local, and tribal governments. In particular, extractive industries fund a significant portion of our state government and public schools through revenues generated by taxes, royalties, rents, leases, and investment fund payments.

There is a lack of understanding about the value of developing New Mexico's energy resources and the environmental impacts that energy development can bring. New Mexico has great potential to realize the full value of its natural resources by increasing development of value-added industries that produce and refine natural resources and harvest renewable energy. New energy development directly contributes to the enhancement, diversification, and expansion of New Mexico's overall economy through creation of new jobs in various sectors, growth of high-tech industries, community development, recruitment of new businesses, and retention and expansion of existing businesses. Additional energy production aids state and local governments by increasing the amount of money deposited in the General Fund for current operations and provides revenue to Permanent Funds for future generations.

Despite the benefits, there are challenges for new energy development. Energy development is highly affected by the land ownership within the state and by the regulatory regime. Inappropriate regulation inhibits energy development and negatively impacts the consumer. Energy security is subject to national and international threats that cause instability. In addition, many areas of energy development are restrained by the diversified and growing demands on the state's water resources. While extractive industries have finite resources, New Mexico has the opportunity to proactively develop additional reserves and alternative forms of energy.

3. Energy and the Environment

The Town Hall believes discussion of the relationship between energy development and the environment is positive and that neither has to be sacrificed to achieve the other. This discussion can be complicated and contentious because of differing stakeholder interests. Energy development is a highly regulated endeavor. There is a need for forums to reach science-based solutions to these conflicts by providing diverse groups the opportunity to discuss the issues at the same table. Federal, state, local, and tribal requirements may not be consistent, leading to additional tensions. On the other hand, these discussions can sometimes foster positive change, such as alternative energy initiatives.

All energy development impacts the environment. Impacts may include one or more of the following: land use, habitat fragmentation, air quality, water quality, erosion, aesthetics, and noise. On the other hand, it can also be argued that the health, well being, and growth of the energy industry in New Mexico have had some positive impacts on the environment, such as the conversion of oil- and gas-produced water to usable water. The current standards for energy development are significantly higher than in the past, which has led to a decline in negative environmental impacts. A robust economy allows us to have and to expend resources on environmental concerns. The Town Hall is proud of the United States' high level of environmental stewardship. The Town Hall believes that environmentally responsible energy development is essential.

Our Vision

New Mexico has an abundant supply of resources, including wind, solar, biomass, oil, gas, coal, geothermal, and uranium deposits, as well as human capital associated with the national laboratories, research universities, and established energy industries. Given these resources, the Town Hall envisions a future in which the interests of energy, economics, and environment are balanced in a proportion that allows for the responsible development of renewable and non-renewable energy, quality economic development, and protection of human health and the environment. In achieving this balance, the Town Hall looks forward to:

World Energy Leader: A New Mexico that is the repository of intellectual and technical know-how, where other states and nations come to find solutions to their energy challenges, including:

- fully developing all viable natural resources, related infrastructure, and transportation networks in an environmentally sound and culturally sensitive manner;

- expanding sustainable, cost-competitive, profitable, and environmentally responsible extractive and value-added industries;

- maximizing alternative and renewable energy research, development, and implementation, including but not limited to: hydrogen, wind, geothermal, and solar energies; and

- providing the opportunity for New Mexico citizens to benefit both from increased energy-related economic prosperity and from acceptable environmental risk.

Strategic Policy: A New Mexico that sets effective policies and standards for protecting our environmental resources while encouraging development of new domestic reserves and producing economically viable renewable energy, incorporating:

- programs that encourage energy efficiency and conservation and that support all energy production in an environmentally responsible manner while optimizing price stability;

- legislative and administrative processes that are in accord with responsible and sound science, that foster implementation predictability and consistency, that provide necessary access for energy industries on state, federal and tribal lands, and that encourage private enterprises to integrate renewable and alternative energy development; and

- development of industries and a technically trained workforce to produce the manufactured goods required to implement and utilize energy-producing technologies.

Educated Public: A New Mexico populace that understands and appreciates energy issues, including:

- how to make informed decisions on local, state, and national energy initiatives and become knowledgeable consumers of energy products;

- how decisions about resource development affect energy's interdependence with New Mexico's economy;

- how energy's impact on the environment can be mitigated by sound science and direct communication among stakeholders;

- how their personal acts of energy conservation and efficiency can help ensure an adequate supply of energy; and

- how agenda-driven views of stakeholders use various public processes as a forum to promote their agendas that affect the economy as well as the environment of New Mexico.

The Critical Issues, Challenges, and Opportunities

Broadening New Mexico's role as an environmentally responsible world energy leader is the Town Hall's overriding goal. New Mexico has a unique combination of raw material, mature industry, and human resources to help it achieve this goal. To appropriately balance energy, economics, and environment, the Town Hall believes that the following pivotal issues must be addressed.

1. Policy

Energy development is a highly regulated endeavor. Laws, regulations, interpretations, and enforcement actions that are inappropriate, inconsistent, untimely, cumbersome, or not scientifically sound present significant challenges to energy development. Further, laws and regulations can have the unintended effect of stymieing energy development.

a. Regulation and Administration. Regulatory challenges include inefficient regulatory processes; enforcement of inappropriate regulations; inconsistent decisions; energy policies that can be subject to frequent paradigm shifts as new interests come to power; a sluggish regulatory process that slows energy development, increases time to market, increases financial risk, decreases environmental enhancements, and may discourage investment; and regulatory frameworks that are not based on sound science but driven by emotional and political agendas. In addition, there is no accountability or consequence for misuse of environmental statutes or scientific information.

b. Access. Access to land is and will remain a critical issue in New Mexico, where a large proportion of the state's lands are owned and managed by federal, state, and

tribal governments. Access is necessary for the construction of transmission lines and other energy infrastructure as well as for developing and producing resources.

c. **Capital.** New Mexico has limited access to the major U.S. capital markets. While efforts to commercialize technological innovations developed in the New Mexico universities, national labs, and private industries have made great strides in recent years, continued emphasis must be placed on creating wealth in New Mexico by enhancing our access to new and existing financial market networks.

d. **Infrastructure.** Renewing and adding sufficient infrastructure to accommodate new and existing energy resources is vital to improving reliability and security of the energy supply. An added benefit of these improvements would be enhancement of the marketability of our abundant resources, thereby improving the economic base of New Mexico. Specifically, emphasis should be placed on the critical issue of energy security in New Mexico. Our state has the intellectual capital and facilities to become a model for energy security across the nation.

e. **Tax Structure and Business Climate.** The research and development of new technologies carry inherent financial risk and reward that require substantial capital investment. New Mexico's tax structure and business climate can be improved to attract additional investment to and within the state. In addition, New Mexico's tax structure does not encourage the investment of capital funds to build new and upgrade aging infrastructure. Further, there are no tax incentives to improve conservation of resources or the efficiency of their operations. Favorable tax policies, such as industrial revenue bonds and federal production tax credits, can serve to make investment more promising.

f. **Price Stability.** The instability in energy pricing and demand makes capital planning extremely difficult, particularly for smaller companies lacking the capital to absorb losses when markets bottom out. There are very few companies in New Mexico with the necessary size and scale to invest long-term with such uncertainty in price and demand for energy.

g. **Diversification.** There is a need to diversify the New Mexico economy and bring new industries and employment opportunities to the state to reduce the effect of energy price volatility on our state's revenue. There is also a need to diversify our energy portfolio to reduce our dependence on extractive industries and minimize impacts on our environment. Opportunities to diversify our energy portfolio may include:

(i.) **Renewable Energy.** New Mexico has tremendous renewable energy resources that could provide significant economic benefit.

(ii.) **Nuclear Energy.** Nuclear industry growth has been restricted by safety, cost, and waste disposal concerns. With the anticipated availability of disposal facilities and advancements in the design of nuclear plants, New Mexico's abundant uranium reserves and a broad knowledge base in its national labs have improved the opportunities for nuclear energy.

(iii.) **Energy-produced Water.** Energy-produced water is a byproduct of oil and gas extraction. This water is not currently being used as it could be, particularly given New Mexico's limited water resources.

2. Education

a. **General Public Education.** New Mexico's citizens and its leaders need better education about the interrelationship among New Mexico's energy production, sensitive environmental issues, and the economy. The public and the leadership also

b. need more education about New Mexico's available assets, potential technologies, and alternative energy supplies. This education would encourage informed debate. However, there are limited mechanisms to gather this information, to produce neutral, balanced, clear, and concise materials, and then to disseminate this information to all educational and socioeconomic levels of the public, particularly key stakeholders and leaders. Ideally, this information would be integrated with public school curricula.

b. Workforce Development. New Mexico needs to be proactive and to systematically develop an educated and trained workforce. Our state's resources and economy cannot be developed in an environmentally sound manner without improving New Mexico's human capital. Options include improving or developing consistent statewide training materials with common core curricula and increasing the effectiveness of energy-related educational programs at the technical-vocational level, community college level, and university level. Additionally, these training organizations should partner with the New Mexico Department of Labor, tribal governments, and the Workforce Investment Act boards to recruit and assess participants.

Our Recommendations

The Town Hall believes that in order to create the energy future we envision for New Mexico, we as a state must squarely face the challenges posed by the critical issues, seize the opportunities, and efficiently utilize our human and natural resources. The recommendations that follow are not exhaustive, but they attempt to balance sustainable energy development with enhancement of New Mexico's economy and with protection of its exceptional environment.

The Town Hall Policy Recommendations:

1. New Mexico should lead in the reform of regulatory policies at the state and federal levels to assure that:

    a. standards, regulatory requirements, and agency policies are appropriate, reasonable, and based on sound science;

    b. environmental standards are reviewed and updated, if necessary, every five years;

    c. time limits are set and enforced for energy and related environmental permitting, licensing, and right-of-way decisions;

    d. streamlined procedures are established to obtain access to federal, private, and state lands, minimizing delay and providing access for development, production, infrastructure, and transmission of non-renewable and renewable energy resources; and

    e. pueblos and tribal energy development and other related interests are sought and encouraged through consultation and participation.

2. Appropriate interim legislative committees and institutes should be established to review regulatory departments, agencies, and commissions to investigate whether the intent of the law is being properly implemented and to ensure that the tax structures will foster growth of the energy industry and related manufacturing.

3. New Mexico should prudently develop its renewable energy resources through production and other incentives with appropriate sunset provisions to encourage economic development and to foster long-term price stability.

4. New Mexico should prudently develop and provide incentives for production of alternative transportation fuels.

The Town Hall Diversification Recommendations:

5. New Mexico should be a strong energy leader in the future through fostering existing energy industries, nurturing new energy industries, and developing energy-related industries by:

   a. Attracting investment capital to expand existing energy industries, enhance research and development for new and improvement energy technologies, and expand development of new energy sources in New Mexico. Actions to be taken include:

      (i.) requesting the state and federal governments to support stable prices that encourage development of energy sources by encouraging conservation and renewable energy development;

      (ii.) creating performance-measured incentives such as lower tax rates and tax benefits for investment in the state;

(iii.) leveraging existing financial resources to increase energy development; and

(iv.) amending State Investment Council "return on investment" criteria to include all monies returned to the state, such as employment taxes and revenues to state trusts.

b. Diversifying New Mexico's energy industry and energy-related industries by:

(i.) broadening performance-based incentives and support for renewable, alternative, and transitional energy sources to assure eventual independent profitability;

(ii.) supporting incentives for development of safe nuclear power and related industries in New Mexico, given major design improvements and waste disposal availability; and

(iii.) attaining legislative support and utilizing research and development to establish viable treatment of energy-produced water for various uses, while maximizing conservation of all water resources.

The Town Hall Planning Recommendations:

6. By June 2004, New Mexico should establish a comprehensive, long-term (through 2024), state-wide energy policy and strategic energy plan that incorporates continued environmentally responsible energy development, encourages emerging energy technology, and increases public awareness by including:

a. a broad-based, coordinated, open process that includes key constituencies and technical experts such as consumer interests, conventional energy interests, alternative energy interests, utilities, environmental interests, commercial and industrial interests, and state and federal resource, economic development, and environmental agencies;

b. public notification, education, consumer forums, dialog and collaboration among the public, industry and regulatory participants, and a regular update procedure;

c. optimization of all New Mexico's energy resources to produce economic and environmental benefits through sustainable industries and their associated products;

d. improved job opportunities and economic stability through comprehensive workforce development designed to meet the needs of New Mexico's energy future;

e. increased access to public lands through streamlined regulatory and permitting process reform; and

f. programs to leverage existing financial resources to increase energy development and maintain, improve, replace, and expand existing energy infrastructure.

7. To support development of a state energy plan, New Mexico should undertake a comprehensive raw energy asset inventory.

8. The Governor should broaden and commit to an energy agenda that includes all energy sources and incorporates mitigation of adverse environmental impacts by:

a. directing the Secretary of the Energy, Minerals, and Natural Resources Department to be the advocate for energy development, to promote environmentally friendly energy development, to identify key problems, and to shepherd solutions to completion; and

b. coordinating New Mexico's energy plan with other state and federal agencies.

9. The legislature should identify and appropriate funds to develop and implement the energy plan.

Town Hall Education Recommendations:

10. New Mexico should improve its citizens' understanding of the energy industry, related environmental concerns, and their interplay with the economy by:

    a. creating a consortium of government officials, university and community college leaders, and experts in the environment, economic development, and the energy industry to identify areas of tension, energy development issues, conservation opportunities, efficiency improvement strategies, and regulatory reform concerns;

    b. identifying key issues and background information to present to state and federal leadership and legislators;

    c. conducting a series of informational meetings or town halls with recognized leaders to inform and solicit potential solutions from citizens at the local level;

    d. encouraging direction to the Department of Education to include a statewide curriculum section covering New Mexico's energy heritage; and

    e. developing a comprehensive workforce-training plan designed to meet the needs of New Mexico's energy future.

11. New Mexico should create a Center of Energy, Economics, and Environment run by a coalition of the academic institutions, government agencies, private industry, and the national labs.

    a. The Center would bring new knowledge, education, and understanding to the environmental and economic issues involved in assuring that the state continues to meet its energy needs.

    b. The Center would engage domestic and multi-national industries, governments, academics, and the general public in the formulation of new forms of analysis; balanced, multidisciplinary education and technology development; and innovative visions that will expand the range of future possibilities and opportunities.

    c. The Center would link state and federal regulatory agencies, research and development facilities, industry information centers, and teacher resource centers in sharing technical data, new inventions, proven industry technologies, and other information on energy as it is becomes available.

    d. The major components of this Center would be education, technology development and deployment, public outreach, and public policy.

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