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Community and Public Health Benefits of Renewable Energy Generation IN OUR NEW MEXICO COMMUNITIES

KEY CONCEPT

Renewable energy comes from naturally replenishing sources such as the sun and wind. They have a regenerative energy cycle. By replacing fossil fuels, including coal, oil, and fossil gas (commonly called methane or natural gas), **renewable energy helps reduce air pollution and mitigate climate change.**

EXECUTIVE SUMMARY

Renewable energy facilities, including wind farms, solar arrays, battery storage installations, and geothermal projects can deliver a range of economic, environmental, infrastructure, and public health benefits to the communities where they are built. Research from government agencies and energy institutions shows that, when carefully planned and regulated, these projects can generate local revenue, create jobs, improve public health, and strengthen energy resilience.

When responsibly developed, renewable energy projects can provide multiple community benefits, including:

- **Economic development and job creation**
- **Stable tax revenue for public services**
- **Income for farmers and landowners**
- **Increased local business activity**
- **Infrastructure upgrades and community investments**
- **Improved air quality and public health**

These benefits make renewable energy a critical component of public health policy, local economic development, and long-term energy resilience. Although health considerations are often overlooked in energy debates, the growing health costs of fossil fuel pollution and climate change make clear that health must be central to future energy decisions. *This document focuses specifically on the public health benefits of renewable energy development in New Mexico communities to make the case that supporting responsibly sited renewable energy projects in local communities is a direct opportunity for policymakers to improve air quality, protect water resources, and reduce long-term health risks for residents.*

HEALTHY CLIMATE NEW MEXICO
Health Professionals for Climate Action

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Improved Public Health and Environmental Quality

Renewable energy generates electricity without combustion, reducing emissions that contribute to air pollution. As a result, communities can experience:

- Lower levels of particulate matter and smog-forming pollutants.
- Fewer asthma attacks and reduced respiratory and cardiovascular risks.
- Decreased emissions of sulfur dioxide and nitrogen oxides, which contribute to smog and respiratory illness.
- Asthma is one of the common chronic diseases in New Mexico, with an estimated 175,000 adults currently having the disease.
- A 2025 study analyzing CDC data found that by 2023, New Mexico had the highest age-adjusted asthma mortality rate among all 50 states, at 2.28 deaths per 100,000.
- Reducing reliance on fossil fuels leads directly to improved air quality and better health outcomes. Fossil fuel combustion releases harmful pollutants that drive respiratory and cardiovascular disease. Expanding solar and wind energy reduces these emissions and improves overall community health.

Prevention of Premature Death and Illness

Research analyzing U.S. wind and solar generation between 2019 and 2022 found that reductions in air pollution helped prevent an estimated 1,200–1,600 premature deaths annually, while also generating billions of dollars in climate and health benefits. New Mexican adults suffer from asthma at higher rates compared to the rest of the nation. Adult asthma prevalence in New Mexico is 10.6% versus only 9.7% for the United States as a whole.

Protection of Water Resources and Reduction of Toxic Exposure

New Mexico is facing a **multi-dimensional water crisis:**

- **Declining supply** (climate change, reduced snowpack)
- **Increasing drought severity and variability**
- **Competing demands from agriculture, cities, and energy production**

At the same time, **energy development choices are tightly linked to water outcomes:**

- Water-intensive energy (fossil fuels) **exacerbates scarcity**
- Low-water energy (wind, solar) **helps relieve pressure on limited supplies**

For New Mexico, renewable energy development is not just a climate or economic strategy—it is a **water strategy:**

- *Billions of gallons of water saved annually*
- *Reduced stress on rivers and aquifers*
- *Improved drought resilience*
- *Lower ecological impacts on waterways*
- *Enhanced water system reliability*

Renewable energy, particularly solar and wind, are far less water-intensive overall, generating electricity without fuel combustion, avoiding these pollution pathways and helping protect water resources.

In addition, fossil fuel extraction and energy production place significant demands on water supplies. Coal mining and gas drilling can contaminate drinking water sources, while most thermal power plants—including coal, gas, oil, and nuclear—withdraw and consume large volumes of water. Renewable energy avoids many of these impacts.

A multi-state analysis of the Southwest (including New Mexico) found that **replacing thermoelectric generation with solar, PV, and wind significantly reduces water consumption and withdrawals.** Additionally, *renewable development improves drought conditions* by reducing competition between energy production and water resources. This is especially valuable in New Mexico, where water scarcity is a structural constraint on economic growth.

Safer Working Conditions

Renewable energy systems generally pose fewer occupational risks than fossil fuel industries. Across the energy lifecycle—from extraction to generation and maintenance—renewables reduce worker exposure to hazardous materials and dangerous conditions. As a result, they are associated with lower rates of occupational injury and fatality.

Long-Term Health Benefits

National modeling studies show that large-scale deployment of solar energy could significantly reduce emissions from the U.S. power sector. Over time, these reductions could **prevent tens of thousands of premature deaths and generate billions of dollars** in avoided health care costs due to improved air quality and reduced pollution exposure.

Conclusion

Expanding renewable energy is not only a climate, energy, and economic growth strategy, but it is also a powerful public health investment.

Fossil fuels continue to impose serious health burdens for New Mexicans, particularly on communities located near power plants, extraction sites, and waste facilities. These impacts fall disproportionately on low-income communities and communities of color due to a long history of inequitable siting of fossil fuel infrastructure.

Transitioning to renewable energy offers a meaningful opportunity to reduce these disparities, improve environmental quality, and protect the health of New Mexico communities for generations to come.

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