

Our Energy,
Your Potential

The Incredibly Diverse
Energy Resources of
New Mexico





New Mexico is the fourth largest net energy supplier to the nation.

Kiplinger ranked NM the 8th most tax friendly state.

The San Juan Basin in the Four Corners is one of the largest proved natural gas reserves in the country.

Two DOE national laboratories provide cutting edge research in energy development and storage.

New Mexico is second only to Arizona in days of sunshine.

The Permian Basin is estimated to have 45 billion barrels of residual oil and 30 billion barrels of mobile oil.

The annual wind energy potential of New Mexico is estimated to be 435 billion kWh.

Table of Contents

| | |
|-----------------------------------|----|
| Introduction | 5 |
| Transportation Infrastructure | 23 |
| Industry Incentives | 29 |
| Workforce Development & Education | 32 |
| Research | 34 |
| Lifestyle | 42 |



INTRODUCTION

New Mexico is blessed with plentiful natural resources making it a large net exporter of energy. Total energy generated within the state in 2012 was 2,316.1 trillion Btu. Excluding federal offshore areas, New Mexico ranked sixth in crude oil production in the nation in 2013. New Mexico is the fourth-largest net supplier of energy to the nation, thanks largely to its petroleum and natural gas production.

Mineral extraction has been the primary, sustained economic driver for the state for at least 150 years. New Mexico produces more potash than any other state, is 3rd in copper production, and has the second largest known uranium ore reserves in the nation.

As a resource-rich state, production potential from renewable sources abound. The sun shines in New Mexico for approximately 310 days per year creating opportunities for large-scale solar power. In 2013, the state ranked fifth in the U.S. for utility-scale electricity generation from solar energy. Renewable energy supplied 7.8% of the electricity generated in the state. Wind, geothermal, bio-fuel, and biomass are other sources from which energy is generated here.

The two largest coal-fired electric power plants in New Mexico are the 2,100-megawatt Four Corners plant supplied by the Navajo coal mine and the 1,643- megawatt San Juan plant supplied by the San Juan mine. Electricity from New Mexico is distributed to consumers in Texas, Arizona, California, and Utah. Prices within the state are extremely competitive. (Source: Energy Information Administration (EIA))



Rangeland Energy is constructing the \$200 million Rangeland Integrated Oil System (RIO System) in the Delaware Basin (within the Permian) outside Loving, in Lea County, and 20 miles outside of Carlsbad. The multipart system is designed to transport the basin's crude oil and condensate production to multiple downstream markets across the U.S. via outbound rail and pipeline. The rail facility will provide services for outbound crude oil and condensate and inbound frac sand.

Known as the RIO Hub, the 300-acre rail terminal is in the center of the basin's drilling and production activity. The RIO Hub will serve the Delaware Basin by providing storage, blending and rail loading facilities for outbound crude oil and condensate. The RIO Hub will also provide frac sand suppliers with unloading, storage and truck loading facilities for moving product into the Delaware Basin by rail. The RIO Hub will be served by BNSF Railway.

Rangeland is also pursuing its RIO Pipeline project which will connect the RIO Hub at Loving to market centers in Midland, Texas, and beyond.

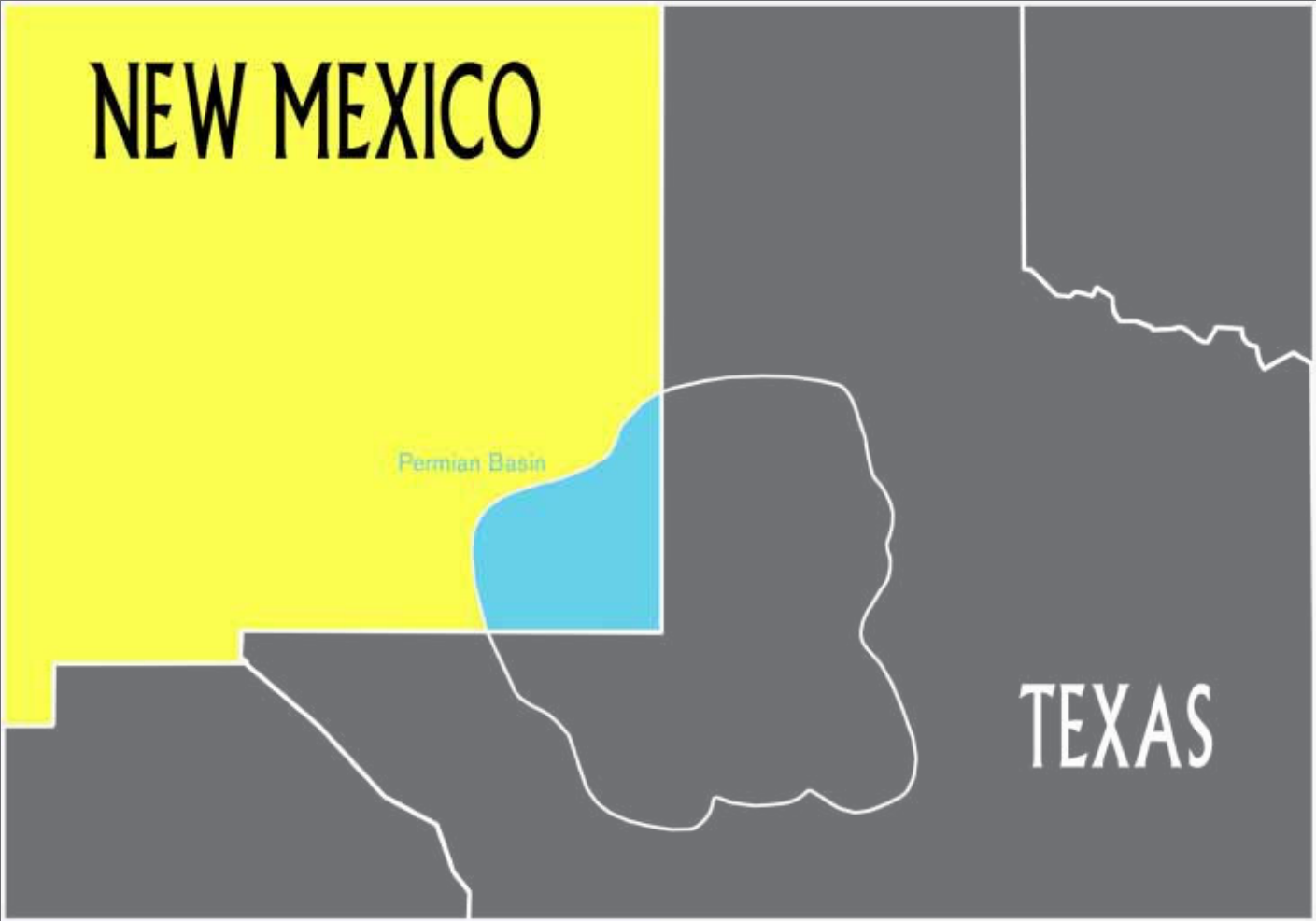


PETROLEUM

New Mexico is the largest petroleum producer in the Mountain West and contributes between three and four of every 100 barrels produced nationwide. New Mexico’s Permian Basin, in the southeastern corner of the state, contains three of the 100 largest oil fields in the United States, and proved reserves are increasing. It is estimated that only 27% of the available resource has been extracted from the Basin, and that there are 45 billion barrels of residual oil and 30 billion barrels of mobile oil available today.

New production has come from applying advanced drilling technologies to shales in the Permian and San Juan Basins, where traditional wells had been in long-term decline. Horizontal drilling technology has also opened oil retrieval in the southeast’s potash mining region. Petroleum output has filled existing pipelines, and some producers are turning to railroads to transport crude oil. Permian Basin Railways serves southeast New Mexico.

Local San Juan Basin crude is the main feedstock for a small refinery in Gallup, which supplies motor gasoline, diesel, propane, butane, and heavy oils to pipelines serving mainly southwestern markets. A rail line is being considered between the Four Corners and the BNSF TransCon Corridor. The state’s largest refinery, in Artesia, is operated in conjunction with distillation facilities in Lovington, 65 miles away. The complex can process both light crude from the Permian and heavy crudes brought by pipeline from Canada; it serves markets in the southwestern United States and northern Mexico. (Source: Energy Information Administration (EIA))





NATURAL GAS

New Mexico is among the top 10 natural gas- producing states, accounting for about 5% of national output. The San Juan Basin, located in northwest New Mexico and southwest Colorado, is one of the largest proved natural gas reserves in the country. This 26,000 square mile geologic feature is a major source of oil and gas, and it provides approximately 70% of the gas produced in New Mexico. Although New Mexico’s total proved natural gas reserves have declined over the past decade, its proved shale gas reserves have risen significantly. Coalbed methane accounts for nearly three-tenths of New Mexico’s natural gas production, and the state, with one-fifth of the national total, is second only to Colorado in proved coalbed methane reserves. (Source: EIA)

The electric power sector is the largest natural gas consumer, followed by the residential sector. Two-thirds of New Mexico’s households use natural gas as their primary energy source for home heating. Per capita natural gas consumption is among the top one-fifth of states. About one-fifth of the natural gas produced in New Mexico is consumed here. New Mexico sends natural gas through interstate pipelines to Arizona and Texas and on to markets from the West Coast to the Midwest. The Blanco Hub, located in the San Juan Basin, is a major connection and trading point for inter-state pipelines carrying Rocky Mountain natural gas. (Provided by www.eia.gov)

| 2014 Oil and Gas Production by County | | | |
|---------------------------------------|---------------|------------------|--------------------------------|
| Ranking & County | Oil (Barrels) | Ranking & County | Gas (Thousand Cubic Feet, MCF) |
| 1. Lea | 59,457,040 | 1. San Juan | 416,899,223 |
| 2. Eddy | 58,917,053 | 2. Eddy | 287,012,937 |
| 3. San Juan | 2,637,995 | 3. Rio Arriba | 284,564,557 |
| 4. Sandoval | 1,934,417 | 4. Lea | 194,090,505 |
| 5. Rio Arriba | 1,602,790 | 5. Colfax | 23,787,208 |
| 6. Chaves | 1,460,314 | 6. Chaves | 18,182,495 |
| 7. Roosevelt | 221,003 | 7. Sandoval | 9,718,658 |
| 8. McKinley | 70,607 | 8. Roosevelt | 2,572,681 |
| | | 9. McKinley | 180,707 |
| | | 10. Otero | 15,131 |
| Total | 126,301,219 | Total | 1,237,024,102 |

Source: New Mexico Oil Conservation Division (OCD),
Energy, Minerals, & Natural Resources Department



CARBON DIOXIDE

The Bravo Dome carbon dioxide gas field, located in Harding and Union Counties in northeast New Mexico, covers about 800,000 acres. It is estimated to contain more than 16 trillion cubic feet of carbon dioxide. The CO2 is used primarily for enhanced oil recovery.





RENEWABLE ENERGY

New Mexico has tremendous potential for renewable energy production, particularly solar and wind, and the state's grid can connect to all three U.S. grids to export renewable energy east and west. Currently, there are 812 megawatts (MW) of wind and 319 MW of solar operating here. New Mexico has an aggressive Renewable Portfolio Standard that requires investor owned utilities to generate a portion of their energy from renewable sources: 15% by 2015 and 20% by 2020. The state offers tax incentives to encourage the development of renewable energy projects. (Source: EIA and EMNRD)

Solar

New Mexico is second only to Arizona in days of sunshine. In 2013 New Mexico ranked 5th in the nation in utility-scale electricity generation from solar energy. The state's potential is much greater. (Source: EIA)

New Mexico has taken aggressive actions and adopted substantive policy measures to stimulate development of utility-scale concentrating solar power (CSP) projects throughout the state. Those initiatives, combined with New Mexico's second-in-the-nation, world-class solar energy resource, have effectively positioned the state as a focal point for this rapidly emerging industry – both in terms of operating CSP facilities and CSP-related component manufacturing. Straddling the eastern and western transmission interconnects, New Mexico is ideally located to export CSP power to out-of-state markets, driven by other states' renewable portfolio standards and the likelihood of the future need for carbon-neutral electric power generation.

| Utility-Scale (>1MW) Renewable Energy Facilities in New Mexico, 2012 | | | | |
|--|-------|---------------|---------------------|----------------------|
| Name | Type | Capacity (MW) | Commenced Operation | County |
| New Mexico Wind Energy Center | Wind | 204 | 2003 | De Baca, Quay |
| San Juan Mesa Wind Project | Wind | 120 | 2005 | Roosevelt |
| Red Mesa Wind Energy Center | Wind | 102 | 2010 | Cibola |
| High Lonesome Mesa Wind Ranch | Wind | 100 | 2009 | Torrance |
| Aragonne Wind Facility | Wind | 90 | 2006 | Guadalupe |
| Caprock Wind Ranch | Wind | 80 | 2004 | Quay |
| Macho Springs Wind Power | Wind | 55 | 2011 | Luna |
| SPS 1-5 Solar Facilities | PV | 50 | 2011 | Lea, Eddy |
| Cimarron Solar Facility | PV | 30 | 2010 | Colfax |
| Navajo Dam | Hydro | 30 | 1983 | San Juan, Rio Arriba |
| Elephant Butte | Hydro | 28 | 1940 | Sierra |
| Wildcat Wind | Wind | 27 | 2012 | Lea |
| SunEdison EPE 1-2 | PV | 23 | 2012 | Dona Ana |
| Solar Roadrunner | PV | 20 | 2011 | Dona Ana |
| Abiquiu Dam | Hydro | 16 | 1990 | Rio Arriba |
| El Vado Dam | Hydro | 8 | 1990 | Rio Arriba |
| Los Lunas Solar Energy Center | PV | 5 | 2011 | Valencia |
| Las Vegas Solar Energy Center | PV | 5 | 2012 | San Miguel |
| Alamogordo Solar Energy Center | PV | 5 | 2011 | Otero |
| Hatch Solar Energy Center | PV | 5 | 2011 | Dona Ana |
| Deming Solar Energy Center | PV | 5 | 2011 | Luna |
| White Sands Missile Range | PV | 4.5 | 2012 | Dona Ana |
| Albuquerque Solar Energy Center | PV | 2 | 2011 | Bernalillo |
| Llano Estacado Wind Ranch | Wind | 2 | 1999 | Curry |
| Kit Carson/Amalia | PV | 1.5 | 2012 | Taos |
| Mesalands Community College | Wind | 1.5 | 2008 | Quay |
| Questa Solar | PV | 1 | 2011 | Taos |
| Los Alamos | PV | 1 | 2012 | Los Alamos |
| Santa Fe Wastewater | PV | 1 | 2011 | Santa Fe |
| Albuquerque Academy | PV | 1 | 2010 | Bernalillo |
| Source: New Mexico Energy, Minerals, & Natural Resources Department 2014 Annual Report | | | | |



Wind

Wind contributes more than 6% of total New Mexico electricity generation (Source: EIA). The annual wind energy potential of New Mexico is estimated to be 435 billion kWh. New Mexico has the potential to produce many times its own electrical consumption, which puts it in a position to export a great deal more wind electric power than is occurring today. The state has a total of 812 MW of installed wind power capacity. The largest is the New Mexico Wind Energy Center in De Baca and Quay Counties. All of the power produced at the Center is purchased by the Public Service Company of New Mexico (PNM). Wind now comprises 10% of PNM's overall electric energy sold in New Mexico.

Geothermal

New Mexico is blessed with several low temperature (1000-1900F) geothermal systems. Hot springs have attracted visitors since the 19th century. Today geothermal resources are heating buildings on the campus of New Mexico Tech (formerly known as New Mexico Institute of Mining & Technology), homes, greenhouses, and aquaculture (fish farms).

Temperature-depth, thermal conductivity, bottom-hole temperature, drill-stem test, porosity, permeability, lithologic log, and water chemistry data have been compiled into a database maintained by New Mexico Tech (www.nmt.edu).

In 2014 Cyrq Energy opened the first commercial geothermal electricity facility near Lordsburg, adding 4 megawatts (MW) of baseload geothermal capacity to the state's renewable electricity mix, with another 6 MW planned. The plant represents a \$100 million investment.

Biofuels

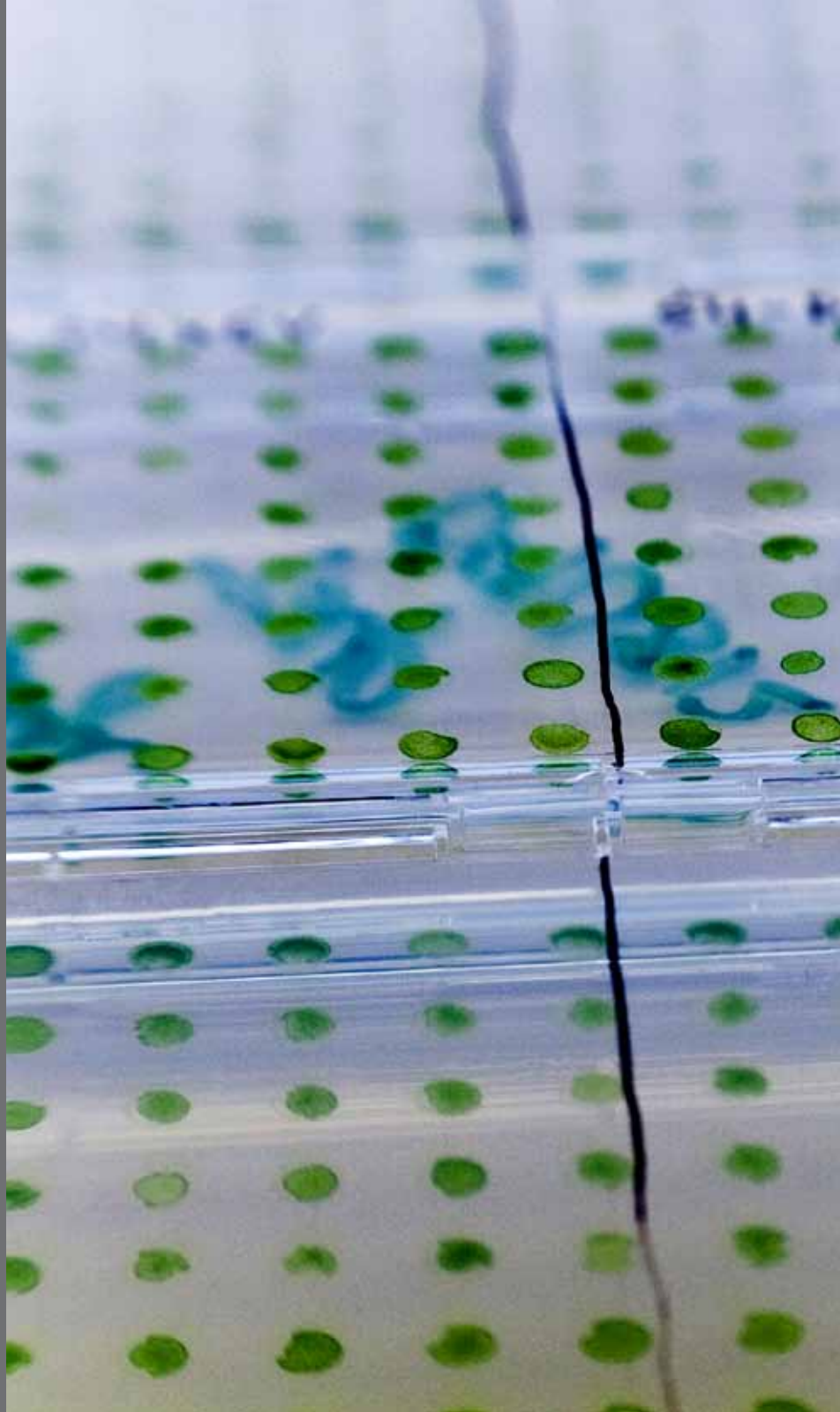
New Mexico has a diverse capacity for enabling the growth of the biofuels industry, from crop production to refining. The climate requires the wintertime use of oxygenated motor gasoline to reduce carbon monoxide emissions in the Albuquerque metropolitan area.

Large expanses of low-value, desert grass and shrub-lands along with untapped underground brackish, saline, and produced waters suitable for algal cultivation but not for food or fiber production has made New Mexico an ideal destination for algae research and production. Low rainfall and cloud cover in the state provide optimal sunlight conditions for efficient, high- density photosynthetic cultivation of microalgae. (Source: EMNRD)

Renewable energy companies in New Mexico include:

- Joule Unlimited Inc. operates a facility in Hobbs, in southeast New Mexico, utilizing a new technology that turns sunlight, saline water, and carbon dioxide into refinery- ready ethanol and diesel.
- Incitor Inc., a new company in Albuquerque, has developed a chemical process which can convert algae, wood and other plants into biodiesel and gasoline for \$2 per gallon.
- Eldorado Biofuels, in Jal, through its research partners and other leaders in biochemical research has developed a model for industrial waste water treatment and the commercialization of algae derived biofuel production. The biofuel is then converted into biodiesel and commercial jet fuel.

Sources: The information provided in this document was taken from the web sites of each entity.



New Mexico State University (NMSU) is part of the National Alliance for Advanced Biofuels and Bioproducts, a consortium of universities and research institutions awarded \$49 million by the DOE to commercialize algae into a biofuel. NMSU's Algal Biofuel Production Facility includes a 4,000-liter Solix BioSystems photobioreactor and four smaller algae raceways. The Solix photobioreactor allows faster and denser production of algae than open raceway systems. The algae culture will grow in enclosed panels suspended in an open 61- by 11-foot water-filled basin. Control of various factors, such as temperature, carbon dioxide content and nutrient supply, is very precise and the panels are designed to optimize solar exposure. The result is a system that can accelerate the rate of CO₂ absorption and therefore the rate of algae growth up to 10 times the rate of open raceways and can produce up to three times the density of algae per liter of water. (Source: NMSU)

Biomass

Several new bioenergy projects are underway in New Mexico. Albuquerque and the City of Las Cruces are using the anaerobic digestion of municipal wastewater sludge to generate methane gas. The gas then fuels the production of electricity and heat to power the wastewater facilities. Los Alamos, Roswell, and Carlsbad are using the resulting methane to heat the digesting process, water or both. Several sawmills burn waste wood to provide heat for wood drying kilns. The waste stream bioenergy resource in New Mexico has been studied in detail. The total potential for energy production in this sector is large, at 35 trillion Btu per year.

The U.S. Forest Service is working with the State Forestry Division on two wood chip fueled power systems, one at Jemez Mountain schools and the other a steam boiler at Fort Bayard Veterans Hospital, which use lumber mill residues and forest thinning for fuel. Rapid growth of the dairy industry has greatly increased the production of manure in New Mexico. The state and federal governments are partnering with the industry to develop a project involving the use of a bioreactor to produce methane from this waste. The New Mexico dairy industry produces 1.15 million tons of manure annually. (Source: EMNRD)

MINING AND MINERALS

More than \$2.82 billion worth of minerals were extracted from New Mexico mines in 2013 – an all-time high mineral production value for the state and nearly a 1% increase over the 2012 total. In the United States, New Mexico ranks first in potash production, which nearly doubled in 2013. Copper production increased by 18%, a ranking of third nationally. New Mexico also ranks 12th in coal production. (Source: EMNRD)

| New Mexico Summary of Commodity Production, Production Value, Employment & Payroll | | | | |
|--|-------------------------|------------------|-------------------------|----------------------|
| Mineral | Production ¹ | Production Value | Employment ² | Payroll ³ |
| Coal | 21,968,639 | \$ 816,628,814 | 1,623 | \$ 85,145,465 |
| Copper | 266,483,184 | \$ 890,357,625 | 1,885 | \$106,936,573 |
| Gold | 2,943 | \$ 3,994,109 | 59 | \$ 2,392,294 |
| Industrial Minerals ⁴ | 1,248,312 | \$ 91,113,849 | 471 | \$ 17,860,998 |
| Aggregates ⁵ | 9,393,307 | \$ 81,505,531 | 937 | \$ 14,264,197 |
| Other Metals | 512,323 | \$ 2,539,625 | 65 | \$ 1,877,897 |
| Molybdenum | 2,384,509 | \$ 24,739,281 | 461 | \$ 19,028,960 |
| Potash ⁶ | 2,188,874 | \$914,659,051 | 1,600 | \$ 95,988,330 |
| Silver ⁷ | 68,523 | \$ 1,867,207 | | |
| ¹ Production is in short tons for coal, industrial minerals, aggregates; other metals and potash; in pounds for copper and molybdenum; and in troy ounces for gold and silver | | | | |
| ² Employment includes direct and contract employees | | | | |
| ³ Payroll does not include benefits | | | | |
| ⁴ Includes brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite | | | | |
| ⁵ Includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil | | | | |
| ⁶ Potash production is K ₂ O mill production | | | | |
| ⁷ Employment and payroll for silver included in copper and gold | | | | |
| Source: New Mexico Department of Energy, Minerals & Natural Resources, 2014 | | | | |





Potash

Potash production in New Mexico is 70% sylvite and 30% langbeinite. New Mexico is the only producer of langbeinite in the world. The state accounts for roughly three-quarters of U.S. potash production. Most potash is used in fertilizer and the market is driven by agricultural supply and demand. The remainder is used in chemicals and pharmaceuticals, salt substitutes, soap, matches, glass, and storage batteries.

New Mexico potash production is in an area that covers about 425 square miles southeast of Carlsbad and southwest of Hobbs. This area of shallow, high-grade ore was designated the “Potash Area” in 1934 by the Secretary of the Interior. It lies within a larger 58,000 square mile area underlain by lower-grade potash minerals. The Potash Area includes both state and federal lands that are managed by the Bureau of Land Management. Mineral leases are available through competitive bidding. Commercial potash is produced primarily in Eddy and Lea Counties, which contain the three mines and four plants operated today by two companies, Mosaic Potash and Intrepid Potash. (Source: New Mexico Bureau of Geology and Mineral Resources, a Division of New Mexico Tech)

Uranium

New Mexico has the second largest known uranium ore reserves in the U.S. Almost all of the uranium in the state is found in the Grants mineral belt along the south margin of the San Juan Basin in McKinley and Cibola Counties, in northwest New Mexico. Although uranium mining ceased almost entirely in 1998, current prices have resurrected interest and there are 12 mines in the process of licensing or actively developing in the state.

URENCO operates a uranium enrichment facility in Lea County, in southeast New Mexico. It is the first enrichment facility to be built in the U.S. in 30 years and the first ever using centrifuge enrichment technology.

TRANSPORTATION INFRASTRUCTURE

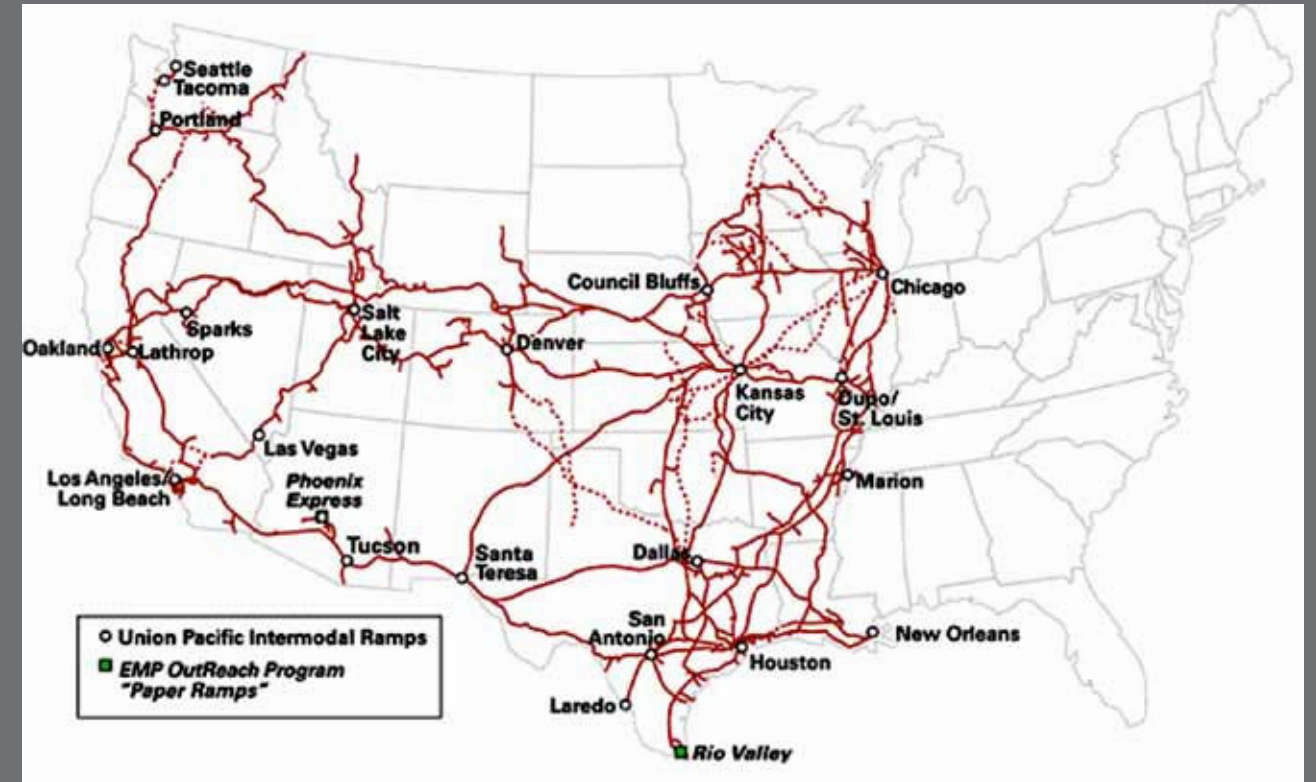
New Mexico is strategically located in the middle of the southwest and the nation's fastest growing states. An excellent highway and rail infrastructure provides direct access to the east and west coasts, Texas, the Midwest, and the international borders of Canada and Mexico. Interstates 10 and 40 connect New Mexico to both the east and west coasts. Interstate 25 connects the state to international borders at Mexico and Canada. From New Mexico goods can be delivered to Texas, Arizona, Colorado, Kansas, and Utah within one day, and California markets in two days. The volume of truck traffic into the state translates into low backhaul rates for goods leaving the state.

Rail Service

Burlington Northern Santa Fe (BNSF) and Union Pacific railroads both provide direct service to the Ports of Long Beach and Houston, as well as ports of entry at the Mexican and Canadian borders.

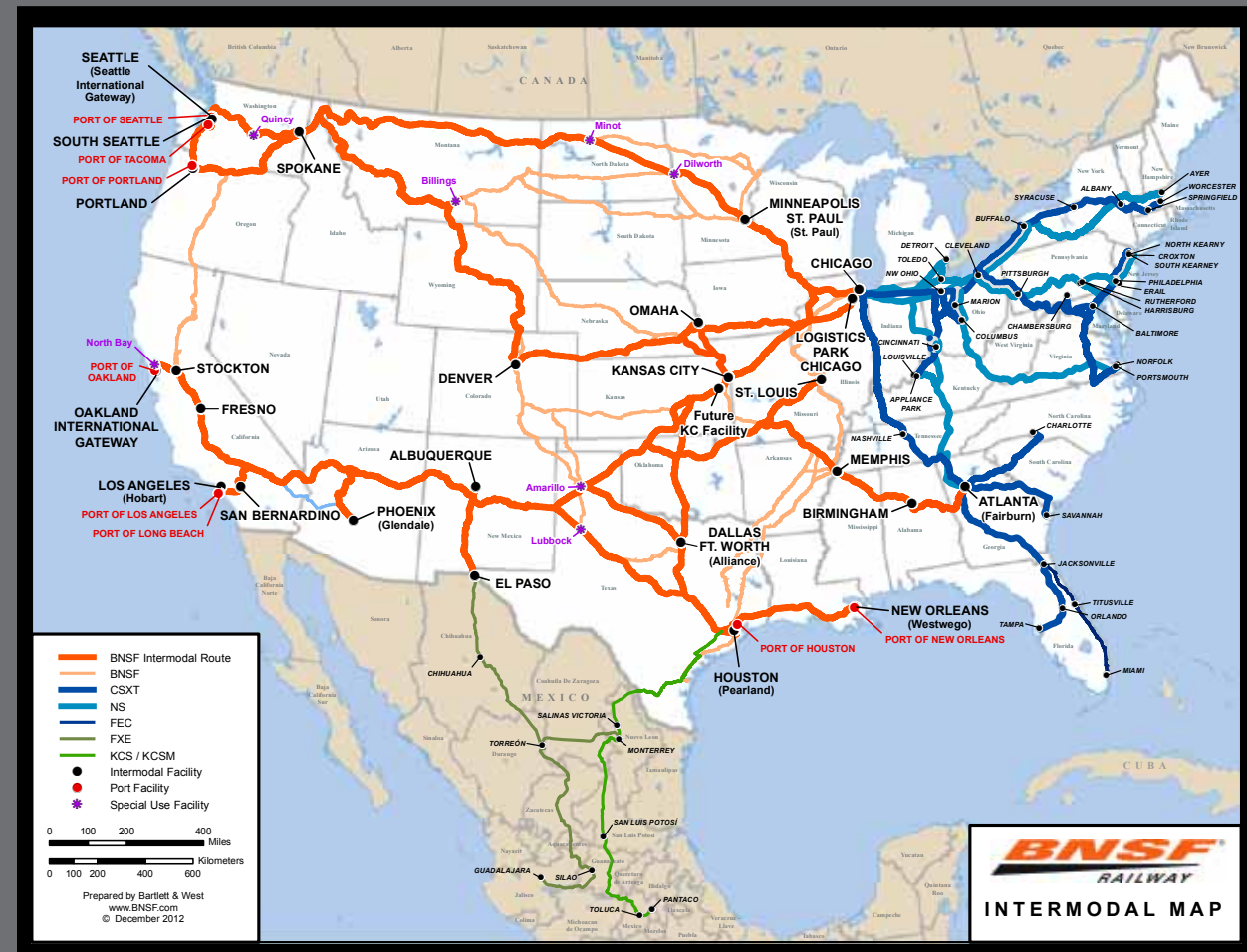
Union Pacific (UP)

Union Pacific serves 25,000 customers in 23 states across the western two-thirds of the U.S. -- a total of 31,900 route miles. The railroad has a \$400 million, 2,200 acre intermodal facility near the Santa Teresa International Port of Entry to Mexico on the Sunset Route. The new facility is located just west of the Santa Teresa Airport and includes fueling facilities, crew change buildings, locomotive inspection tracks, an intermodal ramp, a switching yard, and 200 miles of track.



Burlington Northern Santa Fe Railway (BNSF)

BNSF serves 28 states and two Canadian provinces -- a total of 32,500 route miles. It operates a multimodal rail yard in Belen, 30 miles south of Albuquerque. The railway is investing \$68 million on a double-track project in New Mexico, which is expected to be in service in mid-2015. BNSF is also investing approximately \$1.1 billion on locomotive, freight car, and other equipment acquisitions, many of which will serve New Mexico.



AIR SERVICE

More than 60 airports are located throughout New Mexico. Two international airports serve different regions of the state:

- Albuquerque International Sunport provides nonstop service to 23 cities daily via eight commercial carriers. Three cargo carriers serve the airport: Federal Express, DHL, and UPS.
- El Paso International Airport is served by five commercial carriers with nonstop service to 10 cities. It is served by four cargo carriers: Federal Express, UPS, DHL and Cargo Force.

| ALBUQUERQUE INTERNATIONAL SUNPORT | NONSTOP SERVICE | | | | | | | |
|-----------------------------------|-----------------|----------|-------|---------|---------------------|-----------|--------|------------|
| | Alask Airlines | American | Delta | JorBlue | New Mexico Airlines | Southwest | United | US Airways |
| Atlanta | | | X | | | | | |
| Baltimore-Washington | | | | | | X | | |
| Chicago-O'Hare | | X | | | | | X | |
| Chicago-Midway | | | | | | X | | |
| Dallas/Fort Worth | | X | | | | | | |
| Dallas/Love Field | | | | | | X | | |
| Denver | | | | | | X | X | |
| Houston | | | | | | X | X | |
| Kansas City | | | | | | X | | |
| Las Vegas | | | | | | X | | |
| Los Angeles | | X | | | | X | X | |
| Minneapolis/St. Paul | | | X | | | | | |
| NYC/John F. Kennedy | | | | X | | | | |
| Oakland | | | | | | X | | |
| Orlando | | | | | | X | | |
| Phoenix | | | | | | X | | X |
| Portland | | | | | | X | | |
| Salt Lake City | | | X | | | | | |
| San Diego | | | | | | X | | |
| San Francisco | | | | | | | X | |
| Seattle-Tacoma | | X | | | | X | | |
| St. Louis | | | | | | X | | |
| Tucson | | | | | | X | | |
| IN-STATE SERVICE | | | | | | | | |
| Carlsbad | | | | | X | | | |
| Los Alamos | | | | | X | | | |

Source: Albuquerque International Sunport, updated November 2014

| EL PASO INTERNATIONAL AIRPORT | NONSTOP SERVICE | | | | |
|-------------------------------|-----------------|-------|-----------|--------|------------|
| | American | Delta | Southwest | United | US Airways |
| Atlanta | | X | | | |
| Austin | | | X | | |
| Chicago O-Hare | | | | | |
| Dallas/Fort Worth | X | | | | |
| Dallas Love Field | | | X | | |
| Denver | | | | X | |
| Houston Hobby | | | X | X | |
| Las Vegas | | | X | | |
| Los Angeles | X | | X | | |
| Phoenix | | | X | | X |
| San Antonio | | | X | | |

Source: El Paso International Airport, updated Nov. 2014

Four regional airports offer commercial air service:

- The Santa Fe Municipal Airport is served by both American and United Airlines. American provides nonstop service to Dallas-Fort Worth and Los Angeles. United provides daily nonstop service to Denver.
- Boutique Air offers direct service between Clovis and Dallas-FortWorth and between Albuquerque and Silver City.
- Lea County Regional Airport in Hobbs is served by United with daily flights to Houston.
- Four Corners Regional Airport in Farmington is served by Great Lakes Airlines, a code share partner for United Airlines. Service is available to Denver and Alamosa, Colorado, and to Phoenix and Show Low, Arizona.



INDUSTRY INCENTIVES

Advanced Energy Deduction & Tax Credit

Receipts from selling or leasing tangible personal property or services that are eligible generation plant costs to a person that holds an interest in a qualified generating facility are deductible from gross receipts and compensating tax. In addition, a taxpayer who holds an interest in a qualified generating facility in New Mexico that files a corporate income tax return may claim a credit for 6% of the eligible generation plant costs of a qualified facility.

Alternative Energy Product Manufacturers Tax Credit

Manufacturers of certain alternative energy products may receive a tax credit not to exceed 5% of qualified expenditures for the purchase of manufacturing equipment used in the manufacturing operation. This credit is designed to stimulate the development of new alternative energy manufacturing facilities.

Biodiesel Blending Facility Tax Credit

An operator of a refinery in New Mexico, any person who blends special fuel in New Mexico, or the owner of special fuel stored at a pipeline terminal in New Mexico, who installs biodiesel blending equipment for the purpose of establishing or expanding in a facility to produce blended biodiesel fuel is eligible to claim a credit against gross receipts tax or compensating tax. A certificate of eligibility must be obtained from the Energy, Minerals, and Natural Resources Department to apply for this credit.

The credit is equal to 30% of the purchase cost of the equipment plus 30% of the cost of installing that equipment. The credit cannot exceed \$50,000 with respect to equipment installed at any one facility. The credit may be applied against the taxpayer's gross receipts tax liability or compensating tax liability. The credit may be carried forward for four years from the date of the



Renewable Energy Production Tax Credit

A corporate or personal taxpayer who owns a qualified energy generator is eligible for a tax credit in an amount equal to one cent per kilowatt hour of electricity produced by the qualified energy generator using a qualified energy resource in the tax year. A variable rate of credit is added for electricity produced using solar energy.

The rate starts at one and a half cents in the first year of operation and increases in increments of a half cent each of the next five years, to a maximum of four cents, and then will decline by a half cent per year in the next four years to two cents in the 10th year of operation. The one cent per kilowatt hour rate applies for all other qualified energy generation facilities. The facility must generate a minimum of one megawatt. The total amount of electricity that can qualify for the corporate and individual income tax credits is two million megawatts for wind and biomass with an additional 500,000 megawatt hours allowed for solar-generated power.

Biomass-Related Equipment & Materials Deduction

The value of equipment such as a boiler, turbine-generator, storage facility, feedstock processor, interconnection transformer, or biomass material used for bio-power, bio-fuels, or bio-based products may be deducted in computing the compensating tax due.

Solar Market Development Tax Credit

Taxpayers who purchase and install a solar thermal system or a photovoltaic system in a residence, business or agricultural enterprise owned by that taxpayer may apply for a solar market development tax credit of up to 10% of the purchase and installation cost of the system. The total tax credit cannot exceed \$9,000 per system. The taxpayer may carry forward an unused portion of the credit for up to ten consecutive tax years following the tax year in which the credit originates.

(Source: New Mexico Taxation & Revenue Department, www.tax.newmexico.gov)

Governor Martinez has worked with the New Mexico Legislature to make significant changes to improve the state's business climate, including reducing the corporate income tax rate by 22%. In August 2014 Kiplinger named New Mexico the 8th Most Tax Friendly State, up from 9th in 2013.



WORKFORCE DEVELOPMENT & EDUCATION

Mining and related service industries employ more than 28,000 statewide. There is a skilled and experienced workforce available to new business. Workforce and education programs offered statewide support the business community.

New Mexico's Job Training Incentive Program (JTIP) has been recognized as one of the best in the nation (ranked 5th by Business Facilities). JTIP funds three types of customized training for newly-created jobs:

- Custom classroom training at a public education institution
- Structured on-the-job training
- A combination of the two

Reimbursable expenses include 50 to 75% of the trainee's wages for up to six months and/or the cost of custom classroom training. Eligibility for JTIP funds depends on the company's business, the role of the newly-created jobs in that business, and the trainees themselves.

The Step Up Program is an aspect of JTIP that serves incumbent employees and their employers through training and reimbursements. Training and development results in new knowledge and skills in the workforce that increases employee engagement, satisfaction, and loyalty. A well trained and developed workforce reduces costly turnover and delivers higher performance for the business.

New Mexico Tech, originally the New Mexico Institute of Mining and Technology, offers both undergraduate and graduate degrees in Petroleum Engineering. The petroleum and natural gas engineering curriculum is focused on the development, exploration, and conservation of oil and gas resources.

New Mexico Junior College offers several degree and certificate programs in energy including an Associate of Applied Science in Energy Technology, Nuclear Technician Certificate, Radiological Control Technician Certificate, Energy and Alternative Energy Technician Certificates. Petroleum industry training programs cover various aspects of production (surface equipment, supporting and operations), well service, work over, and safety.

San Juan College School of Energy was built with an investment of \$4 million from BP North America. The School of Energy offers accredited Natural Gas Compression and Lease Operator programs, as well as the largest CDL training and test program in the state. The School of Energy is partnering with other colleges and universities to offer advanced degrees, recently with New Mexico Highlands University to offer a bachelor's degree and MBA in Oil and Gas Management.



RESEARCH

New Mexico is home to two Department of Energy (DOE)-funded laboratories: Los Alamos and Sandia. New Mexico Tech and New Mexico State University also conduct research in many fields of energy.

Sandia National Laboratories (SNL)

The Energy Security program area works to reduce the risks of transformative energy solutions that will enhance the nation's security and economic prosperity. Energy security research at Sandia seeks to address key challenges facing our nation and the world. Sandia works with the energy industry to improve current hardware and develop the next generation of technologies to extract or produce energy.

The Energy, Climate, and Infrastructure Security (ECIS) Strategic Management Unit (SMU) spearheads research in energy alternatives that will help the nation reduce its dependence on oil and coal and to combat the effects of climate change. Sandia's long history with geothermal, solar, and wind energy research has seen a vast increase in effort and intensity over the past 15 years, and has also been supplemented in recent years with efforts in biologically based fuels: biomass from nonfood plant sources and algae—both of which can be grown on land unsuitable for farming.

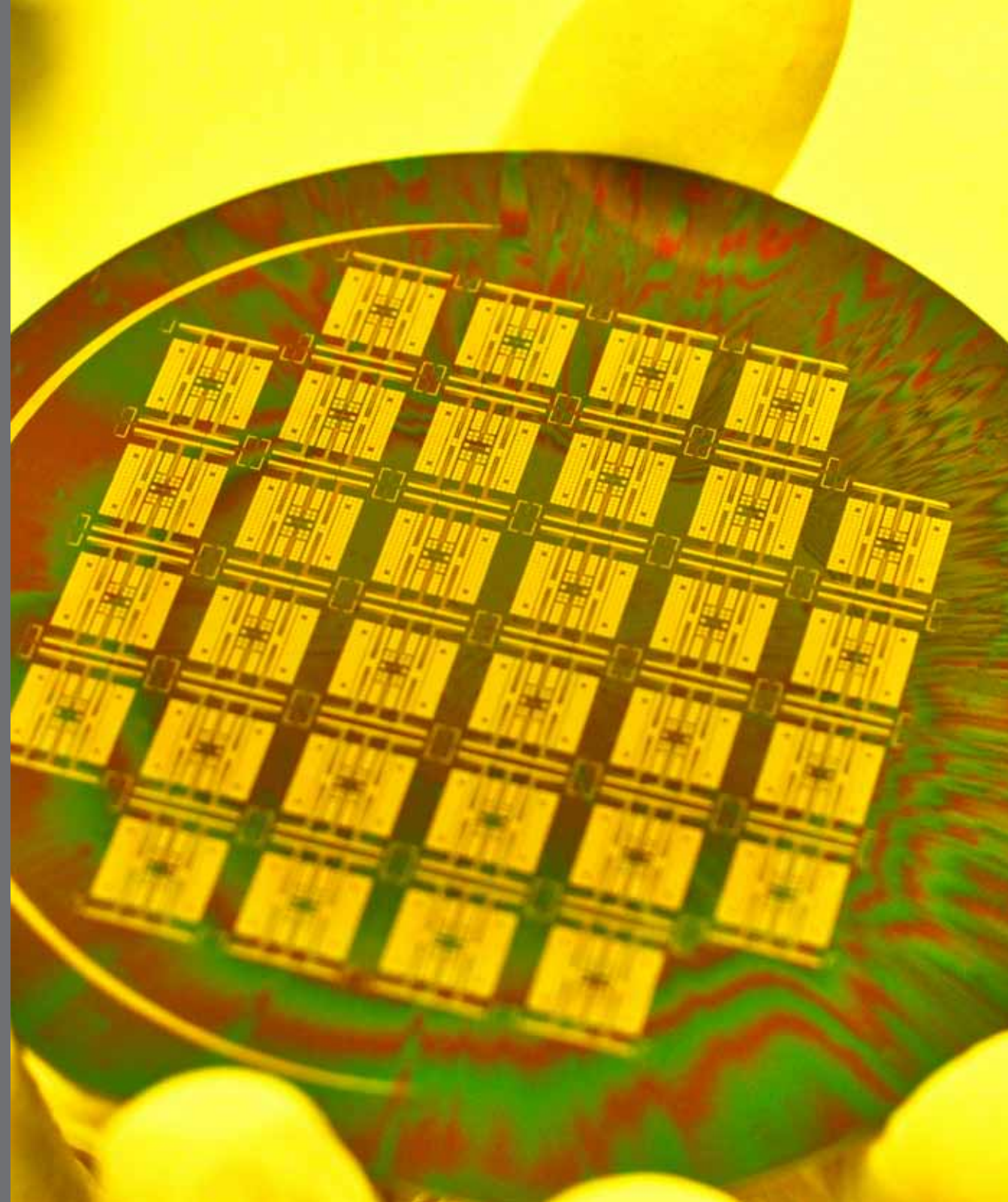
Sandia's Wind Energy Technologies program conducts applied research to increase the viability of wind technology by improving wind turbine performance, reliability, and reducing the cost of energy. Sandia specializes in all aspects of wind-turbine blade design, manufacturing, and system reliability.

Sandia's solar photovoltaic (PV) work is focused on developing cost-effective, reliable photovoltaic energy systems and accelerating the integration of PV technology. The lab's PV department provides the technical lead for systems integration and balance-of-systems manufacturing technologies.

SNL's Vehicles Program includes 36 highly specialized labs and over 100 resident researchers. Partners include Ford, GM, Detroit Diesel, Caterpillar, John Deere, Cummins, Chrysler, Mack, ConocoPhillips, ExxonMobil, Chevron, BP and Shell. Current research is focused in a number of areas: engine performance and emissions studies; experimental and computational work; pioneering of laser-based diagnostics to understand combustion science; co-evolution of advanced biofuels and engines; and conceptual designs of new engine-fuel combinations. Within the Biomass Program Sandia specializes in advanced multi-spectral imaging for the analysis of plant cell walls in dynamic environments and the analysis of advanced biofuel combustion at the Combustion Research Facility.

Sandia's Sunshine to Petrol (S2P) team seeks to address the many issues associated with growing energy consumption amid increased vulnerability and price volatility of petroleum supplies and climate change risks. The S2P solution is based on a novel continuous flow, recuperating thermochemical heat engine powered by concentrated solar irradiation. The engine converts either carbon dioxide or water to two products, oxygen and carbon monoxide or hydrogen, respectively, and spatially separates the products.

The Concentrating Solar Technologies Department develops solar thermal electric technologies for the DOE Solar Thermal Electric Program. Working in conjunction with the Photovoltaics Systems Department and the National Renewable Energy Laboratory, the department has developed parabolic trough, power tower, and dish/engine technology to support virtually every major solar thermal electric activity in the United States.



As a national security laboratory Sandia has a long history of leading energy storage technology research and development. SNL has cradle-to-grave responsibility for all power sources for DOE defense programs. Sandia provides leadership to the DOE Office of Electricity Delivery and Energy Reliability's Energy Storage Systems program through advanced technology development, device testing, technology demonstrations, and grid analysis, and plays the lead role in evaluating the safety and reliability of energy storage devices for transportation systems. The lab applies fundamental scientific expertise in electrochemistry, materials science, advanced diagnostics, and modeling and simulation to advance the energy storage programs. Facilities such as the Center for Integrated Nanotechnologies, Advanced Materials Laboratory, the battery safety and abuse testing laboratory, Power Sources Technology Group (which houses 6,700 ft² of dry room space with advanced diagnostics and prototyping facilities) and the Red Sky computing platform provide unique capabilities for fundamental science and university and industry partnerships. (Source: www.sandia.gov)

Los Alamos National Laboratory (LANL)

LANL's Applied Energy Program Office conducts research in fuel cells, hydrogen storage and production, hydrogen safety codes and standards, carbon sequestration, unconventional fossil fuels, carbon dioxide separation and capture, superconductivity, infrastructure analysis, biofuels, energy storage, and geothermal energy. The Technology Transfer Office assists industry in accessing LANL research.

Safire™ is an oil field sensor technology that is being used in marginally producing oil fields in order to optimize recovery of the last oil reserves within a century-old field. The technology was developed at LANL through a collaboration between Chevron and General Electric Corp. It has received the R&D 100 Award, and was named most innovative technology by the Richard P. Feynman Center's annual OutSTANDING InnOVATION celebration, which honors the top achievements in technology transfer. (Source: www.lanl.gov)



New Mexico Tech (NMT)

Formerly the Institute of Mining and Technology, NMT's extensive research programs include the Petroleum Recovery and Research Center and the New Mexico Center for Energy Policy. The Petroleum Recovery Research Center (PRRC) is regarded both nationally and internationally as one of the nation's leading petroleum research centers. PRRRC was established by the New Mexico State Legislature in 1977 to conduct both basic and applied research designed to improve recovery of petroleum and natural gas. PRRC's research program emphasizes the development of improved oil recovery processes that can be applied to many of the older oil fields.

PRRC program studies include:

- Fundamental research on rock/fluid interactions and their influence on oil recovery, with emphasis on studies of wettability alteration and asphaltenes
- Enhanced CO₂ flooding with emphasis on the mechanisms that control injectivity
- Using gels to reduce water production and increase reservoir sweep efficiency
- Using artificial intelligence and geostatistics for improved reservoir characterization
- Using a modified reverse osmosis system for treatment of produced water
- Development of a Geographical Information System to include produced water quality data, pipeline infrastructure and corrosion information, site risk assessment tools, and other operational information via the Internet
- Photonic and fiber optic physical and chemical sensors for energy generation, environmental management, chemical process control, and homeland security

(Source: www.nmt.edu)

New Mexico State University (NMSU)

NMSU has developed an international track record in the study and development of photovoltaic and other sources of alternative energy, including fuel cell design. Additionally, the Carlsbad Environmental Monitoring and Research Center, administered by NMSU, provides expertise on nuclear waste disposal, an issue of concern nationwide. By creating an Institute for Sustainability of Water, Energy, and Land, NMSU will ramp up its multidisciplinary energy research and technology development programs in renewable and nuclear sources of energy to serve the entire Southwest. Specifically, NMSU will carry out research on the following:

- Development, testing, and validation of photovoltaic energy including flexible solar cell systems
- Education and training of students in technologies related to sustainable energy
- Educational and outreach services to energy, telecommunications industries, and regulatory commissions across the U.S.
- Provision of an adequate and secure energy supply
- Electric delivery systems technology development and implementation
- Fuel cell design, hydrogen storage, and membrane durability
- Organic waste utilization
- Distributed energy
- Nuclear energy research and application
- Education of the public in the use of alternative sources of energy
- Education and training of students in technologies related to sustainable energy

(Source: www.nmsu.edu)

Air Force Research Laboratory (AFRL), Kirtland Air Force Base

The Directed Energy Directorate is the U.S. Air Force's center of excellence for directed energy technology. With an annual budget exceeding \$300 million, the workforce of 800+ people develop and transition research technologies into military systems used by operational commands.

There are four technical competencies at the center of all research and development at the Directorate:

- High power microwaves
- Lasers
- Beam control
- Effects, modeling, and simulation

There are four technology divisions within the Directorate:

- High Power Microwave Division
- Laser Division
- Optics Division
- Technology Applications Division

(Source: http://www.kirtland.af.mil/afrl_de/)





LIFESTYLE

Few places on earth offer the rich history and cultural diversity found in New Mexico. Native American culture has been present in the state for more than 2,500 years, and is home to 22 Native American tribes. Their rich history is celebrated today in museums, ceremonial dances, arts and crafts, language, and traditional villages. Visitors can celebrate on the pueblos year round during designated feast days, and partake in native homemade cuisine and tradition. The annual SWAIA Santa Fe Indian Market is held the 3rd weekend in August and features more than 1,000 Native artists.

Chaco Culture National Historic Park dates to 850AD and is considered the most exceptional concentration of pueblos in the American Southwest. It is one of only 20 World Heritage sites in the U.S. Chaco is probably the best representation of the first art ever created in New Mexico. Follow the Trail of the Ancients to visit more historic and cultural sites in the Four Corners.

Spanish colonial culture arrived in the state in the late 1500's, contributing over 500 years of Hispanic influence to the New Mexican way of life. The Annual Traditional Spanish Market displays this influence through food and art in Santa Fe during the summer and in Albuquerque during the winter. The combination of Native and Hispanic elements results in a strong culture found in every aspect of the state from food and fiestas to architecture and art.

The Taos Art Colony and Taos Society of Artists began in 1898 when Ernest L. Blumenschein and Bert Geer Phillips broke a wagon wheel while headed to Mexico to sketch and paint. Both eventually made Taos home and would be joined by many others in the years to come. Taos is still the residence of many talented artists. New Mexico is known as The State of the Arts because it is home to more working artists, open studios, artist-owned galleries, and specialty and artisan-oriented shops than any other state per capita. Visitors can schedule studio tours, which is a great way to explore New Mexico by finding new and traditional art, meeting the artists, and eating local food.

While local events are common, New Mexico has just the perfect environment to host international events every year. Every visitor, no matter where they are from, will find the relaxed lifestyle charm-

ing and endearing, while also experiencing other worlds at their fingertips. The Santa Fe International Folk Art Market is the largest of its kind bringing in cultures from more than 40 countries for over 20,000 visitors to experience at the height of New Mexico's beauty in the summer. Other colorful events include the Roswell UFO Festival, the Great American Duck Race in Deming, the Lincoln County Cowboy Symposium, and Whole Enchilada Festival in Las Cruces.

Visitors are also drawn to the state's many historical sites, museums, and celebrations every year. The State of New Mexico operates eight museums covering a range of interests, from Space History to Folk Art. There are over 40 museums, and hundreds of art galleries throughout the state covering anything from local artisan art to globally-known fine art. Summer is the season for art in New Mexico, including performance art. Thousands come to New Mexico for the Santa Fe Opera season in the world-renown venue that is like no other. The annual Blues Festival held Memorial Day weekend each year draws hundreds of blues enthusiasts to Silver City, a beautiful town in the Gila Wilderness with its own rich history and, today, home to many art galleries. New Mexico's beautiful historic theaters offer a variety of performing arts, symphonies, chamber music, concerts, and plays.

For those who want to experience the beauty of nature, the state operates 36 parks, 3 national parks, and 12 national monuments. The most famous of these is Carlsbad Caverns National Park, with some of the largest underground caves and chambers in the world. During the summer, stay until



dusk and watch as nearly 400,000 bats fly out of the cave for their evening adventure. Nearby Lechguilla Cave, explored to depths of 1,593 feet, is the nation's deepest cave, and the Gila Wilderness, an area of mountainous beauty and ancient cliff dwellings, was the first wilderness area to be so designated by Congress. Viewers will be struck by White Sands National Monument, which is 275 square miles of pure white sand.

Hiking and biking trails are for you to discover from Angel Fire to Las Cruces, or you can rock climb in Diablo Canyon or see the natural sights at Tent Rocks near Cochiti Pueblo. After a long day of outdoor activity, soak in any one of the hot mineral springs throughout the state in Jemez Springs, which offers both hot and cool, primitive and luxurious pools; Truth or Consequences, whose springs heat up to 115 degrees Fahrenheit; or the 145 year-old Ojo Caliente Mineral Springs, which are known for their healing powers.

Boating on any of the 20 lakes in our state parks from Elephant Butte in the south to Navajo Lake in the northwest is a great way to enjoy the fresh air and beautiful scenery, and the quality trout waters of the San Juan River are well known to fly fishermen everywhere. Go rafting or kayaking in any one of New Mexico's rivers, totaling 200 miles of waterway, or dive into the Blue Hole in Santa Rosa, a natural 80 foot deep pool, for scuba diving.

Or if you'd rather take a day trip, nearly any town you visit has its own story of life in the wild 'old west' and getting there is an experience in itself. This is especially true of the many ghost towns you may encounter along any one of New Mexico's 25 magnificent scenic byways, which equal over 2,900 miles across a diverse landscape. You can follow one of these paths to take a tour of Georgia O'Keefe's Ghost Ranch in Abiquiu, then visit the museum dedicated to her life and work in Santa Fe. You can also follow the Film Trails and tour the scenes from films and television shows made in New Mexico.

New Mexico hosts all four seasons and fall is one of the most beautiful. The smell of roasting chile in the air, the taste of freshly picked and roasted pinon, and the golden sight of the aspen leaves changing colors on the mountain tops bring warmth to you as the breeze turns cooler. Fall is also a season for fiestas! The International Balloon Fiesta attracts visitors from all over the world to see the Albuquerque sky decorated with colorful and special-shaped hot air balloons. Santa Fe kicks off the harvest season with Fiestas de Santa Fe and continues the celebration with the Wine and Chile Festival, Hatch hosts their chile festival, and the Whole Enchilada Fiesta in southern New Mexico. This is the 3rd largest event in the state and one of the top 100 events in the nation.

From the stark, arid beauty of southern New Mexico's deserts to some of the country's finest ski slopes located on over 20 mountain ranges, this land of breathtaking contrasts offers a myriad of outdoor activities year-round. Each season New Mexico slopes average 300 inches of snow, the Kachina lift at Taos Ski Valley is one of the highest in North America, and Angel Fire is the only New Mexico resort with night skiing. If you are not a skier, there are plenty of other snow activities inner tubing, snowshoeing, snowmobiling, sleigh rides, ice fishing, and ice skating.





505 827 0300 . WWW.GONM.BIZ