

NORTH DAKOTA'S ECONOMIC POWERHOUSE

Energy

North Dakota lignite provides energy to 2 million people in the region (including 150,000 farm families) and to 225,000 homes and businesses in the eastern United States.

Tax Revenue

Since 1975, state lignite resources have generated more than \$700 million in local and state tax revenue.

The future of the lignite industry in North Dakota is uncertain. Its importance to the North Dakota economy is not.

Jobs

Almost 18,000 state jobs are supported by the industry — 3,000 directly and 15,000 indirectly.

Income

The industry's annual state payroll exceeds \$135 million. The average lignite industry worker earns \$44,000 annually in wages and benefits.

Economic Development

Inexpensive and plentiful, lignite keeps manufacturers of energy-intensive products competitive globally. Industry-funded research promises new, cleaner, and more efficient uses for lignite.

Business Activity

Firms involved in lignite-related activities generate state business activity of almost \$1.3 billion.

Lignite mining and conversion – creating end products of electricity and synthetic natural gas – are central forces in state economic development, business activity, job and income creation, and government support.

Sales For Export

Lignite energy sales for export comprise 7 percent of the state's total sales for export, generating 5 percent of the state's gross business volume.



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The data in this brochure are 1997-98 numbers, the most recent available at the time of printing. The information on industry challenges and solutions is summarized from the 1999 report "Update to Market Assessment for North Dakota Lignite," prepared for the Industrial Commission of North Dakota by J.E. Sinor Consultants, Inc. For a copy of the Sinor report, contact the Lignite Research Council.

Also Available: "Energy and Agriculture: The Kyoto Protocol and Its High Cost to Farmers," Lignite Research Council, 1999.

Energy and Economics

Fueling the Future

Preserving and Growing the Lignite Industry's Economic Contributions to North Dakota



What's

The North Dakota Lignite Industry

- Valuable regional resource
- Major employer
- Diversifier of the rural economy
- Supplier of low-cost, reliable energy
- Economic stimulator
- Industry with a future

Ahead?

CHALLENGES

A growing force in the state economy since the 1870s, North Dakota's lignite industry has plateaued. Lignite production has leveled off, and no new lignite-fired power plants are planned in the region. Market conditions point to future industry declines:

Unstable Prices

Nationwide, energy prices are unstable. Natural gas prices are especially volatile, destabilizing the market for synthetic natural gas made from lignite.

Greater Competition

Some customers of North Dakota lignite have turned to less expensive Montana and Wyoming coal. This competition may intensify. New railroad links will reduce shipping distances for Powder River Basin coal delivered to North Dakota.

Expensive Pollution Controls

New provisions of the Clean Air Act — such as the requirement for visibility improvements — will drive up costs, making older power plants uneconomical.

The Kyoto Protocol

Implementation of the Kyoto agreement could eliminate North Dakota's lignite industry by 2008. U.S. carbon dioxide emissions might be capped at 7 percent below 1990 levels. Yet developing nations such as China and India would be exempt from emission caps.

Transmission Issues

Existing transmission line capacity limits the export of electrical power from North Dakota. Minimal new transmission lines are planned in the Upper Midwest, limiting industry growth.

SOLUTIONS

Positive action can reverse current trends. The lignite industry can be refueled, preserving and growing its economic benefits:

Lower Coal Taxes

Reducing state coal taxes would help North Dakota lignite compete with Powder River Basin coal from Montana and Wyoming.

Sensible U.S. Regulation

New federal air quality standards must be based on sound science and objectively applied. North Dakota — one of only fourteen states meeting existing federal air standards — should not be held to arbitrary standards.

Alternatives to Kyoto

The lignite industry — not a major source of carbon dioxide — should not be selectively and adversely impacted by international regulation. Global warming concerns can be addressed through voluntary emission reductions, new technologies, education, and research.

New Products, New Markets

Lignite can be converted to synthetic liquid fuels and nonfuel chemicals, replacing synthetic natural gas as a major product. Markets for North Dakota lignite byproducts — including carbon dioxide and ammonia-based fertilizer — can be aggressively expanded.

Intensive Research

Research and development — on topics such as lignite upgrading and advanced generating technology — can yield cleaner, more efficient, and more economical uses for North Dakota lignite. State research funds earn federal and private dollar matches.

What happens to lignite happens to all of North Dakota. Ups and downs in industry-generated jobs, income, and economic activity ripple through the state's economy — through construction, transportation, agriculture, financial services, insurance, retail, and other sectors.

Reasonably preserved and enhanced, this industry that fuels North Dakota today can fuel a better tomorrow — a future of greater business opportunity and economic diversity, greater regional success in the global economy, more jobs, and an ever cleaner environment.

It's Our Choice.