

# EMPOWER North Dakota

## COMPREHENSIVE STATE ENERGY POLICY

### EXECUTIVE SUMMARY

North Dakota is poised to be a model for America in the development of innovative, long-term energy resources to meet our nation's growing demand for energy in a clean, environmentally friendly, and sustainable way.

North Dakota's energy resources are more diverse than any other state in the nation. North Dakota:

- ♦ Is home to the largest deposit of lignite coal in the world.
- ♦ Is the 5th largest oil producing state in the nation.
- ♦ Is the top producer of 16 different agricultural commodities.
- ♦ Has great wind energy potential.
- ♦ Boasts the nation's only National Center for Hydrogen Technology.
- ♦ Has a university system with world-class energy research and training programs.
- ♦ Has a positive business climate and fair regulatory environment for energy development.
- ♦ Has a talented workforce with a strong work ethic.

Recognizing the incredible potential of these energy assets, in 2001 Gov. John Hoeven initiated the development of the state's first multi-resource state energy policy as part of his statewide economic development strategy.

### Key ND Energy Policy Initiatives, 2001-2008

- ♦ Creation of Renewable Energy Development Fund to promote North Dakota-produced energy.
- ♦ A sales and use tax exemption for construction of co-generation power plants in conjunction with value added agriculture projects, and waste heat electric generating facilities.
- ♦ The Governor's Counter-cyclical Ethanol Production Incentive makes up to \$7.3 million available to ethanol plants in the 2007-2009 biennium.
- ♦ Biofuels PACE and Biodiesel PACE programs to provide interest buy-down for ethanol and biodiesel facilities, livestock operations, renewable fuel pumps and grain storage.
- ♦ A property tax reduction for wind generation.
- ♦ Creation of a North Dakota Transmission Authority to promote new investment in transmission lines in North Dakota. A property tax exemption for new or expanded capacity electric transmission lines.
- ♦ Continuation of the Lignite Vision 21 incentives including up to \$10 million in matching funds demonstration project.
- ♦ Expanded funding for the Lignite Vision 21 program.
- ♦ Creation of the Oil and Gas Research Fund to stimulate the production and development of oil and gas in North Dakota.
- ♦ A tax exemption for the first two years on any new shallow natural gas well developed in North Dakota to stimulate the production of natural gas.
- ♦ An expanded tax incentive for tertiary recovery of oil





and gas using CO<sub>2</sub> gas. The incentive provides a use and sales tax exemption for carbon dioxide that is used for enhanced oil recovery.

- ♦ Creation of a Pipeline Authority to help private industry construct additional capacity to ship crude oil, natural gas, carbon dioxide ethanol, biodiesel and other energy products to market.
- ♦ Tax reduction for new drilling in the Bakken Formation.

### **A New Approach**

Partnerships between traditional energy industries and the emerging renewable industries are a central component of North Dakota's approach to energy development. This strategy recognizes that meeting our nation's long-term energy needs in an environmentally and sustainable way requires all players in the energy industry to be engaged and successful.

Examples abound of these partnerships at work in North Dakota. Blue Flint Ethanol joined forces with Great River Energy to use waste energy from the coal-fired power plant to produce ethanol. North Dakota oil companies are interested in using captured CO<sub>2</sub> from coal-fired facilities such as power plants, coal gasification and liquefaction facilities and ethanol plants, to enhance oil recovery.

North Dakota's broad-based energy policies have helped

trigger more than \$5.1 billion in new energy-related investments since 2005.

- ♦ The oil industry produced a record 215,000 barrels a day in November 2008.
- ♦ Four years ago, North Dakota had only two small ethanol facilities and no biodiesel facilities. Today, existing facilities have the potential to produce a half billion gallons of ethanol and 85 million gallons of biodiesel.
- ♦ A few years ago North Dakota produced less than 1 megawatt of wind power. Today, current and projected projects will produce more than 5,000 megawatts of wind power.
- ♦ Three major projects are under construction or being planned as a result of the state's Lignite Vision 21 program. Construction has started on a combined-use energy plant in Spiritwood and planning is occurring for a potential coal gasification plant in South Hearsh and a coal liquefaction facility in McLean County.
- ♦ Great River Energy is implementing a coal-drying system at its Coal Creek Station power plant that promises to significantly increase the efficiency of lignite and reduce emissions.
- ♦ Basin Electric is undertaking a major CO<sub>2</sub> capture and sequestration project in North Dakota.
- ♦ The oil and gas industry is constructing four new natural gas processing plants.
- ♦ Pipeline companies are planning to nearly double oil pipeline export capacity.



## EmPower ND Commission

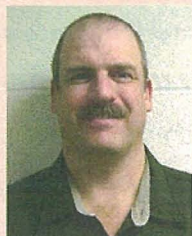
The 2007 Legislature approved House Bill 1462 which established an energy policy commission to take a comprehensive look at the state's energy industry with the goal of enhancing overall energy policy.

Governor Hoeven appointed the 14-member EmPower ND Commission, which includes representatives from all sectors of the energy industry. Shane Goettle, Commissioner of Commerce, chairs the committee.

## EmPower ND Commission Members



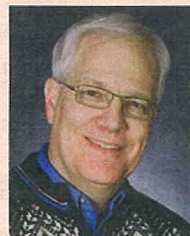
**Chairman**  
Shane Goettle,  
Commissioner of  
Commerce



**Refining Industry**  
Ron Day,  
Tesoro



**Agriculture Industry**  
Terry Goerger,  
Farmer



**Petroleum Marketers**  
Paul Goulding,  
Goulding's Oil



**Biodiesel Industry**  
Eric Mack,  
Archer Daniels Midland



**Oil and Gas Industry**  
Ron Ness,  
North Dakota  
Petroleum Council



**Generation/Transmission  
Electric Coops**  
Curtis Jabs,  
Basin Electric  
Power Cooperative



**Wind Industry**  
Mark Nisbet,  
Xcel Energy



**Ethanol Industry**  
Randy Schneider,  
North Dakota Ethanol  
Producer's Association



**Investor-Owned  
Utilities**  
Andrea Stomberg,  
MDU



**Lignite Coal Industry**  
David Straley,  
North American Coal  
Corporation



**Transmission**  
Sandi Tabor,  
North Dakota  
Transmission Authority



**Biomass Industry**  
John Weeda,  
Great River Energy

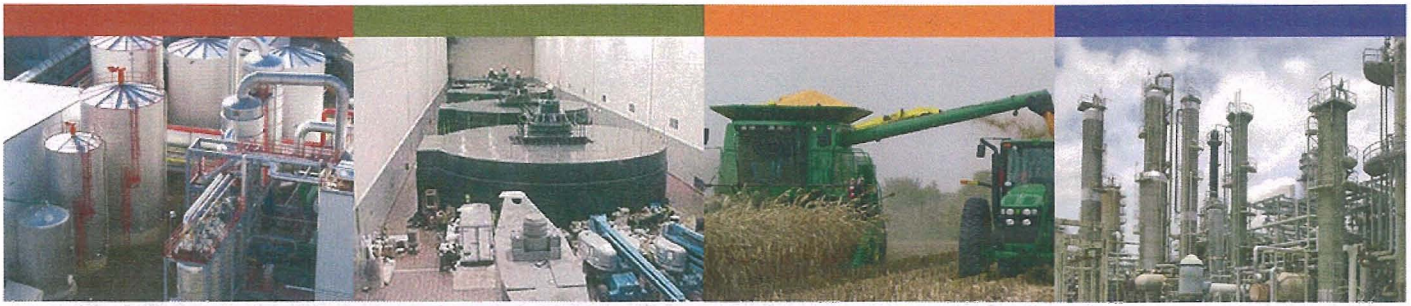


**Ex officio member**  
Chuck MacFarlane,  
Ottetail Power  
Company

The group held its first meeting in Bismarck in September 2007, and seven subsequent public meetings throughout the state. Developing this policy consisted of three phases: information gathering and public input as mentioned via the eight public meetings, analysis of the information, and development of the policy.

The EmPower ND Energy Policy includes 21 goals, 40 policy statements and 98 action items. The policy offers a balanced approach to encourage growth in all energy sectors, emphasizing energy efficiency, environmentally friendly policies and practices and strongly supporting research and development of cleaner technologies.





## EMPOWER ND GOALS

The full EmPower ND Commission plan outlines 40 policy statements that reflect positions the state needs to take in order to achieve 21 energy goals. Action items provide a roadmap for getting there and include items that require immediate attention, issues that should be addressed by the state legislature and long-term initiatives that may require further policy development and/or study. The EmPower ND plan also makes recommendations for actions at the federal level that require attention from our state's Congressional delegation.

1. Double North Dakota's energy production from all sources by the year 2025 to drive economic growth and help the nation achieve greater energy independence.
2. Support the nation's 25X25 Initiative to derive at least 25 percent of all energy produced from renewable sources by 2025.
3. Increase installed capacity of wind generation to 5,000 megawatts by 2020 assuming it is cost effective to do so.
4. Increase North Dakota's export capacity to 7,500 megawatts.
5. Build one, and possibly more, clean-coal electric generation plants in North Dakota.
6. Produce 450 million gallons of ethanol by 2011 and develop both in-state and out-of-state markets for ethanol and associated byproducts.
7. Build new biodiesel plants in North Dakota to produce 135 million gallons by 2015.
8. Encourage development of economically feasible refining projects in North Dakota.
9. Be recognized as the 6th largest oil producing state nationally, up from current position as the 8th largest oil producing state.
10. Increase the amount of natural gas processed in North Dakota by 64% to 75 billion cubic feet per year by 2012.
11. Retrofit existing electric generation units to meet new environmental standards.
12. Facilitate the development of new lignite gasification/liquefaction facilities in North Dakota to produce lignite-to-liquid fuels, hydrogen, and other chemicals or natural gas.
13. Develop commercial biomass production and use in North Dakota. This would include, but not be limited to, efforts in biomass for heating and processing, co-firing of biomass with coal and other fossil fuels, anaerobic digestion, landfill and other waste gas recovery and perennial grass.
14. Become a national leader in the development of economically viable, production-scale cellulosic ethanol production facilities.
15. Increase energy efficiency in North Dakota through education and promotion of energy savings best practices and programs.
16. Exceed North Dakota's 1984 historic peak production of 148,000 barrels of oil a day by producing 175,000 barrels a day.
17. Sustain a level of oil production of at least 150,000 barrels a day for 10 years.
18. Support a market for all energy products driven by consumer demand.
19. Attract a sufficient number of workers to fill energy related jobs due to retirements, attrition and growth within the energy industries.
20. Ensure adequate water, power, and infrastructure for energy development and for the communities in which energy development exists.
21. Encourage research and development programs that deal with solar, geothermal, hydrogen, hydro power, pumped storage and other alternative energy sources.