

**FY01-XLIII-109
LIGNITE VISION 21 FEASIBILITY PROJECT**

CONTRACTOR: Great Northern Power Development L.P.

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PARTICIPANTS

<u>Sponsor</u>	<u>Cost Share</u>
Great Northern Power Development	\$673,250
ND Industrial Commission	<u>\$673,250</u>
Total	\$1,346,500

Phase I Project Schedule – 10 months

Contract Date – 9/14/2001
Start Date – 9/14/2001
Completion Date – 7/31/2002
~~Extended to: 4/30/03~~
~~Extended to: 6/30/03~~
Extended to: 8/31/03

Project Deliverables

Quarterly Report 1–7/26/2002 ✓
Quarterly Report 2–12/13/2002 ✓
Quarterly Report 3– 3/31/2003 ✓
~~Final Report – 4/30/2003~~
~~Final Report – 6/30/2003~~
Final Report – 8/31/2003 ✓

OBJECTIVE / STATEMENT OF WORK

The overall goal of this project is to develop a new 500 MW lignite-fired power plant in North Dakota. This grant application requests matching funding for the feasibility studies leading to a decision point for the construction of a 500 MW power plant and mine. The Phase I feasibility studies include studies of generation technologies, siting, environmental impacts, marketing, transmission and financing. Great Northern Power Development (GNPD) proposes the use of a Project Team, consultants and participation with other Lignite Vision 21 Program (LV21P) participants. Upon favorable feasibility study results in Phase I, GNPD plans to submit a request for additional NDIC funds as part of the \$10 million LV21P funding commitment. The total cost for a 500 MW LV21P GNPD project could be in excess of \$700 million.

STATUS

During Phase I, Great Northern Power Development (GNPD) made significant progress in the areas of generation, transmission, environmental, business development, and power market analysis. GNPD and its contractor completed preliminary drawings and calculations regarding boiler design and target emissions, heat balances, BACT analyses, water balances, and economic modeling. With respect to transmission, GNPD has been studying different transmission alternatives. GNPD submitted a draft air modeling protocol to the North Dakota Department of Health (NDDH) for its review. GNPD's consultant completed preliminary analyses to determine permitting feasibility, location of the project, visibility impacts, and plume impacts, which indicated favorable results. GNPD has been working with the NDDH and Federal Land Managers regarding permitting requirements.

Mine development progress involved analyses of mine equipment, completion of study areas' aerial surveys, drilling program, mine engineering, and preliminary hydrologic analyses. A socio-economic impact study was completed with the results presented at town meetings in South Heart and Dickinson. Venture formation activities to form a "project team" consisted of interviewing, soliciting proposals, and independent power producers (IPP) wherein GNPD and the Kiewit Mining Group would retain as much as 25% interest in the project. GNPD and KMG have been pursuing opportunities to enter into a contract with a utility/IPP project as the final project team member.

GNPD will continue this project in Phase II under a new contract with the North Dakota Industrial Commission.