

## FY07-LVIII(58)-149

### “Spirit Energy Power Plant Project”

Submitted by: Great River Energy

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### PARTICIPANTS

<u>Sponsor</u>	<u>Cost Share</u>
Great River Energy	\$ 155,000,000
NDIC	<u>\$ 2,000,000</u>
Total Cost	\$ 157,000,000

Project Schedule - 30 Months  
Contract Date – 2/21/07  
Start Date – 5/1/06  
~~Completion Date – 12/31/09~~  
Completion Date – 10/31/10

Project Deliverables  
Status Reports:  
4/1/07(✓); 12/31/07(✓);  
6/1/08 (✓); 4/1/09 (✓);  
Final Report 10/1/10( )

### OBJECTIVE / STATEMENT OF WORK:

Construct and operate a beneficiated lignite-fired combined heat and power plant near Spiritwood that would provide steam for a new ethanol plant and an expanded malting facility, while producing 35-50 MW of electric power.

### STATUS

Through April 30, 2007

Major changes include an increase in the size of the power plant from 50 MW to 56 MWe net of baseload and 35 MWe net of peaking capability. Other significant work completed/initiated:

- Process Flow Diagrams and Stream Catalogs
- Electrical Single Line Diagram and Electrical Loads List
- Area & Site General Arrangement Drawings
- Pre-engineered building, tanks, pumps, boiler, exhaust stacks, water treatment system, large power transformer, cooling tower, and continued permitting

#### May 1, 2007 – December 31, 2007

Significant items completed/initiated during this reporting period include:

- The air permit-to-construct was received from the North Dakota Department of Health in September.
- A formal ground-breaking ceremony was conducted on November 6.
- Earthwork was 80% complete at the end of the 2007 construction season.
- Piling placement began in November for the main boiler and turbine building foundations.
- Underground utility work continues and is now at approximately 40% complete.
- Foundations are complete for the Multi-Purpose Building and the General Services Building.
- Work continues for the wastewater discharge permit and water treatment definition support.

#### January 1, 2008 – May 31, 2008

Significant items completed/initiated during this reporting period include:

- Erection of the Multipurpose Building is at approximately 80%.
- Erection of the Auxiliary Building is at approximately 50%.
- Earthwork is at 90% complete.
- Piling placement is complete for the main boiler and turbine building foundations.
- Underground utility work continues and is now at approximately 70% complete.
- The contractor for general construction was chosen and is set to begin work in late June.
- Work continues for the wastewater discharge and discussions are in progress with Stutsman Rural Water and the City of Jamestown.

#### June 1, 2008--April 2009

Items completed during this reporting period:

- Erection of multipurpose building is at 100%
- Erection of the Auxiliary Building is at ~100%
- Earthwork is at 95%
- Main boiler and turbine building erection is at 90%
- Underground utility work continues and is now at approximately 95% complete
- The turbine and generator have been delivered and set on the foundations
- The steam drum has been set in the boiler building structure.
- Boiler erection is at 30%.
- Cooling tower erection is at 10%.
- All transformers have been delivered to the site and are set on foundations.

Work continues for the Wastewater Discharge and discussions are in progress with Stutsman Rural water and the city of Jamestown.