## BASIN ELECTRIC POWER COOPERATIVE

1717 EAST INTERSTATE AVENUE BISMARK, NORTH DAKOTA PHONE: 701-223-0441 FAX: 701/224-5336



February 19, 2008

Patricia Van Gerpen, Executive Director Public Utilities Commission 500 East Capitol Avenue Pierre, SD 57501-5070

Dear Ms. Van Gerpen:

### Subject: Notification of Intent Filed Pursuant to SDCL 49-41B-5 Proposed NextGen Project

Basin Electric Power Cooperative (Basin Electric) is filing this Notification of Intent (NOI) to submit an application for a Permit for an Energy Conversion Facility as required by the South Dakota Codified Laws Chapter 49-41B-5 and the Administrative Rules of South Dakota Section 20:10:22:02 *Content of Notification of Intent*.

The information used in the preparation of this NOI represents the best professional judgment of Basin Electric, but is nevertheless preliminary at this time. The final facility description, facility operation methods, quantities, and other items herein are subject to modification as the development progresses to the final stage of design.

### Facility

Basin Electric is proposing to construct and own a 700-megawatt net (MW) baseload energy conversion facility and associated linear facilities (i.e., electric transmission lines and water pipeline) in South Dakota, referred to as the NextGen Project. Basin Electric has identified the Selby site as the preferred location for this facility. This site is located in Walworth County, approximately 2.75 miles to the west of Selby, South Dakota.

The Selby site, and its associated electric transmission lines and water pipeline, is illustrated on Exhibit 1. Basin Electric selected this site because of its proximity to a fuel delivery source, an available water supply, and to facilitate use of the existing transmission system for the delivery of electrical power to its members.

The energy conversion facility would be located on a greenfield (i.e., undeveloped) site of approximately 600 acres within a 2,360-acre plant site. It is anticipated that three transmission segments and one new electrical substation will be required to support the project. A 345-kilovolt (kV) transmission line segment would be constructed to interconnect the generation facility to the new 230/345-kV substation that would be located approximately 4 miles west of the Selby site. The new substation is situated between the existing Western Area Power Administration's (Western's) 230-kV and Basin Electric's Leland Olds Station (LOS) 345-kV transmission line and would provide the interconnection to these transmission lines. The second transmission segment consists of a 345-kV transmission line from the energy conversion facility to the existing Antelope Valley Station (AVS)-Broadland 345/500-kV transmission line located approximately 17 miles east of the Selby site. The right-of-way (ROW) for the 345-kV transmission lines would be up to 200 feet wide.

Preliminary electric system interconnection studies performed by Basin Electric indicates a third transmission line segment (approximately 40 miles of 230-kV transmission line), would also be required. This segment connects Basin Electric's existing Broadland Substation, approximately 3 miles west of Huron, South Dakota, to Basin Electric's existing Storla Substation, approximately 10 miles southwest of



Woonsocket, South Dakota (Exhibit 1). The right-of-way ROW for the 230-kV transmission lines would be up to 150 feet wide. Depending on Western's final transmission studies evaluation process, additional transmission system upgrades may be required.

Lake Oahe on the Missouri River would serve as the water source for the energy conversion facility. The water supply system would consist of a water intake structure and a pumping system situated along on the banks of Lake Oahe and approximately 13 miles of new water pipeline. The typical water pipeline ROW would be up to 150 feet wide. The main consumptive use of the withdrawn water would be from the use of cooling towers to cool and condense the turbine exhaust steam.

The energy conversion facility would be designed as a zero liquid discharge facility with no industrial waters discharged from the facility. An on-site solid waste facility is anticipated to store the coal combustion wastes that would be generated.

The air emissions control technologies that are to be incorporated into the facility will meet the strict requirements of Best Available Control Technology (BACT) as determined by the South Dakota Department of Natural Resources (SDDENR).

Burlington Northern Santa Fe's (BNSF) railroad is immediately adjacent to the site, and would be used to transport fuel, construction materials and equipment and may be used to transport the necessary plant reagents, plant by-products, and other materials to or from the site to support the operation of the facility.

### Project Costs, Social and Economic Impact

Basin Electric estimates the capital cost of the energy conversion facility to be near \$2.5 billion. At the peak of plant construction, up to 1,700 construction workers are anticipated during the four -year construction period. Once the plant is operational, Basin Electric estimates that up to 150 permanent full-time workers would be required.

Positive economic effects are expected from increased work force and wages in the area during construction, operation, and decommissioning phases. The construction phase would result in a slight increase in the ratio of police and firefighter-to-citizen ratios, but would remain below the national average. The additional work force may also affect emergency services and physician-to-citizen ratios, but this can be mitigated by partnering with local health services to coordinate staff increases, and by locating and staffing a medical station on-site during construction.

Due to the magnitude of the influx of workers required for construction, Basin Electric is anticipating the need for a temporary worker camp. The location of this camp will be developed through an analysis of available local infrastructure.

Transportation impacts from the proposed project are not expected to be significant, but would require certain mitigation measures. Such measures may include shuttle bus service to and from the proposed temporary worker camp to reduce the amount of peak hour traffic generated by construction phase activities, the addition of left/right turn lanes at primary intersections with U.S. Highways where project-generated traffic would travel, the addition of shoulders on the local roadways connecting the project site to the primary highway, immediate repair to any road damage caused by project traffic, and temporary traffic control devices (e.g., barriers), warning devices, and special guard structures when transmission conductors are being strung over highways and railroads.

# List of Names and Addresses of County Commissioners, School District Presidents, Tribal Governments, and Municipalities in the Anticipated Affected Area

Please see Exhibit 2.

### Permit Authorization Date, Construction and Operation Schedule

Construction is anticipated to begin in the first quarter of 2010 and would continue into 2014. Commercial operation is expected in 2014.

The current schedule projects a final ruling from the PUC no later than the end of the fourth quarter 2009. Construction would begin following PUC approval and all other required Federal, State and Local permits.

Site work would begin by focusing on site clearing and access. Heavy construction earthmoving equipment, including bulldozers, scrapers, graders, trucks, and backhoes, would be used to prepare the site to construct foundations, site roadways, and storm drainage. Suitable topsoil would be salvaged and stockpiled for use in site grading, interim reclamation, and final reclamation as part of the final plant site decommissioning phase. Where appropriate, gravel would be used for temporary roads, equipment storage and laydown areas, and work areas. Precautions would be taken during these operations to contain erosion runoff, in accordance with the developed Stormwater Pollution Prevention Plan requirements, and to minimize fugitive dust emissions on the plant site.

After completing the site preparation, the installation of the substructures (i.e., support pilings, foundations, etc.) and structures would begin. This effort would include the power block substructure. Foundation construction would consist of buried piping installation, foundation excavation, form erection, reinforcement installation, concrete placement, and foundation backfilling. These activities require delivery of materials to the site and the use of an onsite concrete batch plant.

Major construction equipment used during this stage would consist of medium-sized mobile cranes, backhoes, dump trucks, concrete pumps, and concrete delivery trucks. The on-site rail system would be designed so that heavy material and equipment deliveries can be made by railroad car during future construction phase.

Structural steel erection would begin when foundations are sufficiently complete. Large cranes would be used to unload the steel members and raise them to their final location. The pressure parts of the boiler would be shipped to the site and installed when the structural steel is sufficiently complete. Construction equipment used during this phase would consist of large mobile cranes, lowboy trucks, specialized hauling and rigging equipment, and material delivery trucks.

Other major equipment for the proposed project would consist of a steam turbine generator, main transformer, fans, condenser, selected air pollution control equipment, and other items. The main power building would be enclosed by siding and roofing after the major boiler and other equipment have been moved into place.

Major equipment would be set into place and interconnected mechanically and electrically during the final construction stage. These activities would result in the peak construction worker period for the proposed project, and would overlap the equipment erection stage and the startup and testing stage. Major construction equipment used during this stage consists of medium-sized mobile cranes, flatbed trucks, welding machines, portable power generators and air compressors, and cable-pulling equipment.

### Federal, state, and local permits

The following permits or approvals are required for the construction and operation of the proposed project.

Government Level	Agency	Permits/Approvals/Consultations	Timing
Federal	Western Area Power Authority	Approval through a Record of Decision on an Environmental Impact Statement	Prior to Construction
Federal	U.S. Fish and Wildlife Service	Threatened and Endangered Species, Section 7	Prior to Construction

Government Level	Agency	Permits/Approvals/Consultations	Timing
Federal	U.S. Army Corps of Engineers (USACE)	Section 10 and Nationwide Permit	Prior to Construction
Federal	USACE	Water Storage Permit	Prior to Operation
Federal	Federal Aviation Administration	Approval of Stack Construction	Prior to Construction
Federal	U.S. Environmental Protection Agency	Spill Prevention, Control and Countermeasure Plan	Prior to Operation
Federal	Nuclear Regulatory Commission	License for Instrumentation Containing Radioactive Materials	Prior to Operation
State	SDPUC	Energy Conversion Facility and Transmission Facility Permits	Prior to Construction
State	South Dakota Department of Environment and Natural Resources (SDDENR)	Clean Water Act, Section 316(b)	Prior to Operation
State	SDDENR	Water Appropriation for Non- Irrigation Uses	Prior to Construction
State	SDDENR	Prevention of Significant Deterioration Air Permit	Prior to Construction
State	SDDENR	Title IV Acid Rain Air Permit	Prior to Construction
State	SDDENR	Title V Operating Air Permit	Prior to Operation
State	SDDENR	Sewage Disposal Permit	Prior to Construction
State	SDDENR	Construction Stormwater Discharge Permit	Prior to Construction
State	SDDENR	National Pollution Discharge Elimination System Operational Stormwater Discharge Permit	Prior to Operation
State	SDDENR	Solid Waste Disposal Permit	Prior to Construction
State	SDDENR	Drinking Water Operator Certification Certificate of Approval	Prior to Construction
State	SDDENR	Registration of Aboveground Tanks	Prior to Operation
State	SDDENR	No Exposure Certification (for exclusion from Stormwater Discharges associated with Industrial Activities)	Prior to Construction
State	SDDENR	Temporary Water Use Permit for Construction Activities, Drilling or Testing Purposes.	Prior to Construction
State	South Dakota Game and Fish Department	State-listed Endangered Fish and Wildlife	Prior to Construction
State	State Historic Preservation Office	Cultural and Historic Resources Review	Prior to Construction
Local	Walworth County	Building Permit	Prior to Construction

#### Summary

The addition of 700 MW of base load generation to Basin Electric's east service area by 2014 is an essential component that will allow Basin Electric to meet the capacity and energy requirements of our membership service area.

Basin Electric is very excited about fostering additional economic development in South Dakota by constructing the NextGen Project. We look forward to working with the Commission and its staff in bringing the NextGen Project to a reality.

If you need additional information for the NOI, or have any project specific questions, please feel free to contact Cris Miller, Sr. Environmental Project Administrator at (701) 355-5635 or email at cmiller@bepc.com).

Sincerely,

Ronald R. Harper CEO & General Manager Basin Electric Power Cooperative

cc: Clyde Bush Cris Miller Casey Jacobson Lyle Witham Claire Olson Wayne Backman Gene LeBrun, Lynn, Jackson, Schultz & LeBrun This Page Intentionally Left Blank.