

Big Stone II Local Review Committee
Steve Bull, Chairman
Summit, SD

September 18, 2005

Pam Bonrud
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Ave.
Pierre, SD 57501

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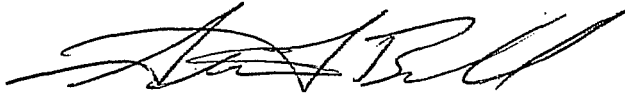
SOUTH DAKOTA PUBLIC
UTILITIES COMMISSION

Dear Ms Bonrud,

The Big Stone II Local Review Committee met on Thursday, September 15, 2005. A proposal (see attached) was presented by Bill Folkerts and Barry Wilfahrt to serve as staff to the committee pursuant to SD State Statute 49-41B-8. The committee voted unanimously to request \$47,959 from the PUC to employ them to assist the Local Review Committee to carry out the local review committee's responsibilities by the February 21, 2006 deadline.

Thank you for your consideration,

Sincerely,



Steve Bull, Chairman
Big Stone II Local Review Committee

cc. Thomas Welk; Boyce, Greenfield, Pashby & Welk, L.L.P.



Social and Economic Effect of the Big Stone II Project

**Local Review Committee Meeting
September 15, 2005**



Big Stone II Project

**Background
(Memo from Terry Graumann
Otter Tail Power Company)**

- **Background: On July 20, 2005, Otter Tail Power Company filed the Energy Conversion Facility Permit Application for the Big Stone II Project with the South Dakota Public Utilities Commission.**



Big Stone II Project

Background

**(Memo from Terry Graumann
Otter Tail Power Company)**

- **South Dakota law has delegated to the Local Review Committee (LRC), as appointed by the PUC, the responsibility to provide the PUC with its assessment of the potential social and economic effect generated by the proposed Big Stone II facility, to assess the area's capacity to absorb the effects, and to formulate mitigation measures. The final report and recommendations must be provided to the PUC within 7 months of the application filing.**



Big Stone II Project

Background

**(Memo from Terry Graumann
Otter Tail Power Company)**

- **Section 5.0 of the Application identifies potential impacts to the community due to the construction, operation, and maintenance of Big Stone II. The information serves as a starting point for further discussion and evaluation by the LRC.**



South Dakota State Law

Local Review Committee Composition

- **49-41B-6. Designation of affected area by commission after notification of intent filed—Local review committee designated, composition. Within thirty days after the filing of the notification of intent to apply for a permit for the construction of an energy conversion facility the Public Utilities Commission shall designate the affected area and a local review committee composed of:**
 - (1) The chairman of the tribal council of each affected reservation;
 - (2) The president of the board of education of each affected school district;
 - (3) The chairman of the county commissioners of each affected county;
 - (4) The mayor of each affected municipality; and
 - (5) A representative of the applicant utility designated by the utilities.



South Dakota State Law

Assessment Factors

- **49-41B-7. Assessment by local review committee—Factors included. The local review committee shall meet to assess the extent of the potential social and economic effect to be generated by the proposed facility, to assess the affected area's capacity to absorb those effects at various stages of construction, and formulate mitigation measures. The assessment of the local review committee shall include but not be limited to consideration of the temporary and permanent alternatives in the following areas:**
 - (1) Housing supplies;
 - (2) Educational facilities and manpower;
 - (3) Waste supply and distribution;



South Dakota State Law

Assessment Factors (continued)

- (4) Waste water treatment and collection;
- (5) Solid waste disposal and collection;
- (6) Law enforcement;
- (7) Transportation;
- (8) Fire protection;
- (9) Health;
- (10) Recreation;
- (11) Government;
- (12) Energy



South Dakota State Law

Committee Staff

- **49-41B-8. Employment of personnel by committee--**
Expenses--Information furnished by commission. The
local review committee may employ such persons as
determined by the Public Utilities Commission which
may be required to carry out the provisions of § 49-
41B-7 and the expenses of said staff shall be paid from
the initial filing fee. The commission shall furnish
copies of the application to the members of the local
review committee and all other information which the
commission determines that the committee should
receive.



South Dakota State Law

Committee Expenses

- **49-41B-9. Financing of committee expenses.**
Expense payments and other authorized payments to members of the local review committee for their service on the committee shall be financed by the unit of government or utility which they represent.



South Dakota State Law

Final Committee Report

- **49-41B-10. Final report of committee.** Within seven months after the application is filed the local review committee shall file a final report with the Public Utilities Commission which includes the recommendations of the committee as to mitigation measures and minority reports.
- **Final Deadline - February 21, 2006**



Big Stone II Project

Scope of Work/Expectations
(Memo from Terry Graumann
Otter Tail Power Company)

- **Expectations:** The Advisory Consultant to the Big Stone II Local Review Committee would provide the following services:
 - To serve in an advisory role to the LRC in their review and evaluation of the existing community information.
 - To serve in an advisory roll to the LRC in their identification of potential data gaps, unanswered questions, or findings requiring additional clarification.



Big Stone II Project

Scope of Work/Expectations
(Memo from Terry Graumann
Otter Tail Power Company)

- **Expectations (Continued):**
 - To assist the LRC in identifying the potential social and economic effect generated by the proposed Big Stone II facility, to assess the area's capacity to absorb the effects, and to formulate mitigation measures as prescribed in SDCL 49-41B-7
 - To develop a final report for submittal to the PUC as directed by the LRC as prescribe in 49-41B-8.



Exhibit I

Summary of Big Stone II Project

- **The following information is taken from the application submitted to the South Dakota Public Utilities Commission by Ottertail Power Company on behalf of Central Minnesota Municipal Power Agency (CMMPA); Great River Energy (GRE); Heartland Consumers Power District (HCPD); Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. (MDU); Otter Tail Corporation dba Otter Tail Power Company (OTP); Southern Minnesota Municipal Power Agency (SMMPA); and Western Minnesota Municipal Power Agency (WMMPA).**



Exhibit I

Summary of Big Stone II Project

- **The estimated capital cost of the Big Stone II Project is \$1 billion.**
- **Construction is scheduled to start in the spring of 2007 with commercial operation targeted for the spring of 2011**
- **The Project is projected to employ approximately 1,400 workers during peak construction.**
- **Peak onsite workers would occur starting August 2009**



Exhibit I

Fire Protection

- **The Project will include an integrated fire protection program.**
- **Waste Management**
- **Coal combustion by-products will consist primarily of bottom ash, fly ash, and gypsum from the wet FGD system.**



Exhibit I

Waste Management

- **Coal combustion by-products** will consist primarily of bottom ash, fly ash, and gypsum from the wet FGD system.
- **Onsite Combustion by-products** that cannot be marketed for reuse will be transported by trucks or scrapers to the onsite landfill for disposal
- **Other Solid Waste** Solid wastes other than coal combustion by-products during normal operation and maintenance activities will be trucked by a private contractor to an approved solid waste landfill or treatment facility.



Exhibit I

Chemical Materials and Waste

- **Most materials classified as hazardous under state and federal laws that may be used and stored at Big Stone II have a site Risk Management Plan in accordance with federal, state, and local regulations.**



Exhibit I

Water Supply and Wastewater Management

- **Big Stone II will be a zero liquid discharge (ZLD) facility, which utilizes wastewater concentration equipment designed so that no wastewater will leave the facility.**
- **Big Stone II systems have been designed to reuse water within the facility such that fresh makeup water consumption from Big Stone Lake is minimized.**



Exhibit I

Water Storage

- **Fresh water from Big Stone Lake will be stored in the existing Big Stone Plant unit I cooling pond, in the new Big Stone II makeup pond, and a pipe installed in the dike between the converted ponds will be used to connect the ponds, effectively turning them into a single pond.**



Exhibit I

Key construction milestone dates:

- **Start Sitework and Foundations Construction**
April 2007
- **Start Boiler Steel Erection**
May 2008
- **Complete Sitework and Foundations Construction**
September 2008
- **Start Steam Turbine Erection**
October 2008



Exhibit I

Key construction milestone dates:

- **Start Boiler Erection**
November 2008
- **Start Material Handling System Erection**
December 2008
- **Start Balance of Plant Construction**
February 2009
- **Complete Boiler Steel Erection**
February 2009
- **Complete Material Handling System**
August 2009



Exhibit I

Key construction milestone dates:

- **Energize Substation**
November 2009
- **Complete Steam Turbine Erection**
December 2009
- **Complete Boiler Erection**
March 2010
- **Complete Boiler Hydro**
April 2010
- **Start Boiler Commissioning**
April 2010



Exhibit I

Key construction milestone dates:

- **Start Steam Turbine Commissioning**
May 2010
- **Complete Balance of Plant Construction**
May 2010
- **Complete Steam Turbine Commissioning**
July 2010
- **Complete Boiler Commissioning**
August 2010
- **Initial Energy & Synchronization**
August 2010



Exhibit I

Key construction milestone dates:

- **Start Tuning, Performance & Availability Testing**
September 2010
- **Complete Tuning, Performance & Availability Testing**
March 2011
- **Commercial Operation**
April 2011



Exhibit I

Workforce

- **The onsite worker peak is projected to be around 28 months after mobilization**
- **Peak onsite workers would occur starting August 2009**



Exhibit I

Fuel

- **Fuel Source - Powder River Basin**
- **Maximum Expected Fuel Use Rate (at full load) - 376 tons/hour**



Exhibit I

Solid or Radioactive Waste

- **The South Dakota Department of Environment and Natural Resources regulates solid waste facility activities under the SDCL 34A-6 and the ARSD Chapter 74:27.**
- **Big Stone II may use radioactive sources to monitor coal levels or coal flow and wet scrubber slurry density. Those sources will likely Cesium 137 and are regulated by the U.S. Nuclear Regulatory Commission.**



Exhibit II

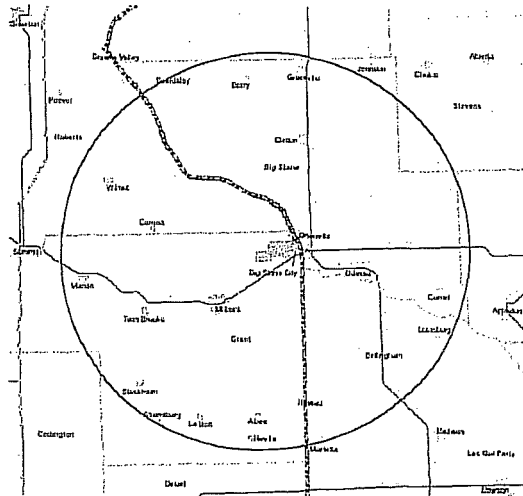
Summary of Social and Economic Impact

- **Review Impact Summary Handout**



- **With LRC review and evaluate the existing community information. Prepare a Summary of Impact for presentation to and discussion with identified entities. 10 hours - October**
- **With LRC identify potential data gaps, unanswered questions, or findings requiring additional clarification. 8 hours - October**
- **Prepare a Survey for each potentially identified entity. 8 hours - October**

20 Mile Radius Study Area





LRC Implementation Plan

Surveys and Interviews

- **Present the Summary of Impact and administer the survey: (Total Interviews) (*Personal Visit*)**
 - Cities – Mayor (11) (2)
 - Cities – Police Chief (2) (2)
 - Cities – Planning Officer – (2) (2)
 - County Commissions (3) (1)
 - County Sheriffs (3) (1)



LRC Implementation Plan

Surveys and Interviews Continued

- County Highway Superintendents (3) (1)
- School Districts – Superintendents (7) (2)
- School Districts – Business Managers (2) (2)
- Tribe – Sisseton-Wahpeton Oyate – Chairman/Council (1) (1)
- Tribe – Sisseton-Wahpeton Oyate – Planning Office (1)
- Fire Departments (11) (2)
- First Planning District (1) (1)

**56 hours face to face and 56 hours phone interviews -
December**



LRC Implementation Plan

- **Research, Verify and Confirm the Social and Economic Factors from primary sources. 40 hours - December**
- **Prepare summary of findings for LRC and present identified social and economic effects to the LRC. 16 hours - December**



LRC Implementation Plan

- **Assist the LRC in identifying the potential social and economic effects generated by the proposed Big Stone II facility, to assess the area's capacity to absorb the effects, and to formulate mitigation measures as prescribed in SDCL 49-41B-7. 20 hours - December**
- **Develop a final report for submittal to the PUC as directed by the LRC as prescribed in 49-41B-8. 60 hours – January**
----Deadline to Submit is February 21----



LRC Implementation Plan

- **Total Projected Hours to Implement the Plan - 274 Hours**
- **\$175 per hour x 274 Hours = \$47,959**



LRC Implementation Plan

Initial Recommendation

- **Develop a Big Stone II Resource Web Site - Coordinated one stop location for information.**
 - **Housing Information**
 - **Schools**
 - **Health Care**
 - **Transportation**
 - **Child Care**
 - **Employment**
 - **General Community Information**



LRC Implementation Plan

Summary/Next Steps

- **Approve Scope of Work**
- **Establish Monthly Meeting Schedule**
- **Review Draft Letter from LRC to PUC outlining this process**

**Application
for a
South Dakota Energy Conversion
Facility Siting Permit**



**Prepared for
Big Stone II Co-Owners**

Prepared by
Barr Engineering Co.
Otter Tail Power Company
Burns and McDonnell, Inc.
The First District Association of Regional Governments
The 106 Group, Ltd.

July 2005

5 Community Impact

The potential impacts to the community due the construction, operation, and maintenance of Big Stone II were identified and analyzed by obtaining readily available data from public sources, conducting telephone and/or direct contact surveys with identified community entities with knowledge of the community service or infrastructure, and from Otter Tail Power Company sources. The study area included communities within a 20-mile radius of the Big Stone Plant. The communities were located within Roberts and Grant counties in South Dakota and Big Stone and Lac qui Parle counties in Minnesota. The community impact study area is shown on Exhibit 5-1.

The communities that provided the specific basis and data for this analysis are:

South Dakota

Big Stone City, SD (Grant County)	Corona, SD (Roberts County)
LaBolt, SD (Grant County)	Marvin, SD (Grant County)
Milbank, SD (Grant County)	Reville, SD (Grant County)
Stockholm, SD (Grant County)	Strandburg, SD (Grant County)
Summit, SD (Roberts County)	Twin Brooks, SD (Grant County)
Wilmot, SD (Roberts County)	

Minnesota

Barry, MN (Big Stone County)	Beardsley, MN (Big Stone County)
Bellingham, MN (Lac qui Parle County)	Clinton, MN (Big Stone County)
Correll, MN (Big Stone County)	Graceville, MN (Big Stone County)
Louisburg, MN (Lac qui Parle County)	Nassau, MN (Lac qui Parle County)
Odessa, MN (Big Stone County)	Ortonville, MN (Big Stone County)

During the late winter and early spring of 2005, First District Association of Local Governments (First District) collected data and conducted surveys with the identified communities regarding specific community impacts that may potentially be realized as a result of the Big Stone II facility.

5.1 Economic Impacts

This section summarizes the expected impacts of the Project to the regional economy. Key Project economic projection data are summarized in Table 5-1. These data are based on a Stuefen Research & Business Research Bureau economic study, included as Exhibit C.

Table 5-1 Key Economic Data

Economic Factor	Construction Phase		Operation and Maintenance Phase	
	Direct	Support	Direct	Support
Local Economic Impact	Not estimated	\$675 Million	Not estimated	\$3.6 Million/Year
South Dakota Economic Benefit	Not estimated	\$788 Million	Not estimated	\$3.6 Million/Year
Job Creation	2,550	1,997	35	29
Labor Income	\$92.9 Million	\$51.9 Million	\$2.5 Million/Year	\$3.1 Million/Year
Property Tax Revenues	Not estimated	Not estimated	Not estimated	\$4.7 Million/Year
Land Values	Not estimated	Not estimated	Not estimated	No Anticipated Impact
Agricultural Production	Not estimated	No Anticipated Impact	Not estimated	No Anticipated Impact

5.1.1 Employment/Labor Market

5.1.1.1 Construction Labor

During the construction phase of Big Stone II, the labor force is expected to peak at approximately 1,400 workers onsite. The duration of the peak 1,400 onsite workers could possibly be up to, but probably not exceeding, one year. This projected peak of 1,400 construction personnel is anticipated to occur on about the middle of the third year of construction. This anticipated labor peak of 1,400 workers for the anticipated one-year duration would equate to approximately 3.1 million construction labor-hours and represent about 60 percent of the Project's total labor-hour estimate of 5.1 million labor-hours. The estimated labor requirements distribution by month for the construction phase of the Project is shown in Exhibit 5-2.

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The average number of onsite workers for the duration of the Project (2007-2011) is estimated to be approximately 625. During any phases of the construction project, there is expected to be a heterogeneous profile of the workforce. This profile would include: unskilled labor, skilled labor, technical, and advanced technical. The unskilled labor for the Project will constitute approximately 5 percent of the estimated labor requirement. The projected range for unskilled labor during the various stages of the construction project is from 3.5 to 70 positions.

5.1.1.2 Local Labor Needs and Benefits

The proposed construction project would offer opportunities for local contractors and vendors, and new service jobs will be created to support the influx of workers. The local job growth is estimated at 2,550 full time equivalent positions during the construction phase of Big Stone II for the local four counties (1,997 full- and part-time jobs in the communities for an average of 1,378 per year for four years).

In 2008 dollars, the estimated value added by all labor (2,550 jobs) on the Project over a four-year period is \$211 million. It is estimated that the labor income for businesses in the four-county area selling goods and services to the Project is \$93 million, which will employ 2,059 people either full- or part-time. Assuming 50 percent of estimated induced expenditures are local, \$51.9 million and 1,263 full- and part-time jobs is the estimated value added by people providing goods and services to the households of the workers on the construction site and in the local businesses identified as indirectly supporting the construction effort.

The wage scales at this juncture are not determined but typically, the nature of construction work is such that the wage scales are competitive. The Big Stone II construction phase should have a wide range of applicants from which to choose. It is expected that the local labor pool would supply a portion of the semi-skilled and skilled project labor personnel.

Long-term local labor benefits are projected to be 35 full-time equivalents employed in the operations. Twenty-nine full-time and part-time positions are projected to be created in the communities. The operation of the Big Stone II will begin in 2011. Otter Tail Power Company estimates that Big Stone II will require an additional 35 employees at a cost in payroll including benefits of approximately \$2.5 million at 2004 wage levels. The 35 new power plant jobs are estimated to create another 28.8 jobs locally. The associated \$2.5

506

million payroll for the additional Big Stone II employees is expected to result in a total economic activity increase of \$3.1 million as these new households purchase goods and services in the area and the money makes its way through the economy.

5.1.1.3 Local Labor Resources

Although many of the full-time employees of Big Stone II will be new residents to the area, much of the plant's operation and maintenance labor force will be hired locally. Five facets of the local and county population will be available to meet the plant's employment needs—those who are currently unemployed, those who are currently underemployed, farmers who are in need of additional seasonal income, and those who are currently not in the workforce but, by the nature of the timeline of the construction, may opt to rejoin the workforce or become chronologically eligible to join the workforce.

Other labor contingencies not included in the survey data are those labor personnel available from areas and communities that are not included in the 20-mile Project radius study, 4-county area. Some of these larger communities would include: Sisseton, South Dakota, Watertown, South Dakota, Webster, South Dakota, Madison, Minnesota, and Benson, Minnesota.

5.1.1.4 Historical Labor Impacts

The existing Big Stone Plant unit I was constructed between 1971 and 1975. The construction of that facility brought a peak of 900 temporary workers into the area. The surrounding communities accommodated the influx of temporary residents by quickly providing low-cost rental housing. The operational phase of Big Stone Plant unit I created different challenges, including the need for a permanent labor supply. Initially, the power plant's labor force was transferred into the area from other plants. However, since that time, approximately half of the operational labor force has been hired locally. The Big Stone Plant unit I manager states that they have never had a problem finding qualified employees to hire.

5.1.2 Agriculture

A total of 3,115 acres will comprise the Big Stone property area. The current Big Stone Plant unit I site comprises approximately 2,200 contiguous acres. Otter Tail Power Company owns a 295-acre parcel adjacent to the existing site and has under option to purchase, on behalf of the Project, an additional 620 acres. Big Stone unit I utilizes approximately 1,000 of these

acres for operations. The majority of the remaining area is currently being used for agricultural purposes; primarily row crops, hayfields, and pasture. Section 4.5.1 provides details on the land types present within the property area.

The construction of Big Stone II will take agricultural land out of production, some areas temporarily and other areas permanently. Agricultural land impacts associated with specific Big Stone II features are summarized in Table 5-2.

Table 5-2 Agricultural Land Impacts

Proposed Big Stone II Project Feature	Approx. Land Requirements (Acres)	Current Land Use	Comments
Cooling Tower Blowdown Pond	32	Pasture/hay, Row Crops	Permanent Impact
Coal Delivery Facility	5	Grasslands/Herbaceous	Existing Coal Delivery Facility will be used.
Power Generation Facility	30	Commercial/Industrial/Transportation	Permanent Impact
Construction Parking Area	12	Pasture/Hay, Row Crops	Temporary (construction) Impact
Construction Laydown Area	76.8	Pasture/Hay, Row Crops	Temporary (construction) Impact
Makeup Storage Pond	500	Grasslands/Herbaceous, Emergent Herbaceous Wetlands, Pasture/Hay, Row Crops	Permanent Impact (Wetland Mitigation Area Proposed)

Big Stone II would require an approximate additional of 530 acres of land to be taken out of agricultural use permanently with an additional 90 acres to be taken out of agricultural use for the construction phase.

5.1.3 Commercial and Industrial Sectors

The construction phase of the Project would offer opportunities for the local commercial and industrial business sectors. In addition to direct construction expenditures contractors and

vendors may benefit from, the commercial and service sectors will benefit from the influx of workers. The local job growth is discussed in Section 5.1.1.2.

5.1.4 Land Values

Otter Tail Power Company has already purchased or secured options for additional land necessary for the Project. At the present time, there appears not to be a significant requirement to purchase additional land for the proposed Big Stone II Project.

Otter Tail Power Company has displayed a proactive approach to land management and acquisition. With their current land “holdings” and options, immediate or near, land acquisitions appear to be remote. Otter Tail’s present position on land holdings, plus an equitable equalization formula in place, forms the basis for stabilization and security in the future land market and a predictability of assessed valuations and taxes.

5.1.5 Taxes

The potential impacts to the primary taxing jurisdictions in the Project study area: The state of South Dakota; Grant County, South Dakota; Big Stone City, South Dakota; Milbank, South Dakota; and Ortonville, Minnesota, are discussed below.

5.1.5.1 South Dakota

The state of South Dakota anticipates an additional \$11,000,000 in sales tax, use tax and contractor’s excise tax during construction of Big Stone II. Once operational, Big Stone II will be paying approximately \$4.7M in property taxes annually. It is estimated that this will reduce the amount of state aid required by the Milbank school district by about \$1.4M. That money would then be available for other schools in the state.

5.1.5.2 Grant County, South Dakota

Once operational, Big Stone II will provide \$300,000,000 of assessed value to the mill levy calculation for Grant County. Local property taxes may go down because the plant will be paying approximately \$4.7M in local property taxes annually. Local property taxes could also go down during construction because the plant will start paying property tax on the plant as parts of it are completed.

5.1.5.3 Big Stone City, South Dakota

Big Stone City assesses a 1 percent city sales tax. During the construction phase of Big Stone II, they would anticipate additional revenues due to sales taxes on money spent by construction workers and long-term employees. City officials declined to estimate how much the city sales tax revenues would increase as a result of the project. Big Stone City will also benefit from their share of property tax levied against Big Stone II by Grant County.

5.1.5.4 Milbank, South Dakota

Milbank, South Dakota currently assesses a city sales tax of 2 percent. As in the case of Big Stone City, Milbank would also benefit from additional revenues due to sales taxes on money spent during the construction period. Milbank currently receives approximately \$1,200,000 annually from sales tax revenue.

5.1.5.5 Ortonville, Minnesota

Ortonville does not have a city sales tax, so would not receive any direct tax benefit from increased business due to the proposed construction of Big Stone II. The State of Minnesota has a sales tax and should benefit from additional sales.

5.2 Infrastructure Impacts

5.2.1 Housing

5.2.1.1 Temporary Housing for Construction Staff

A survey of available accommodations to evaluate the impacts on housing due to this temporary need for additional housing was conducted in March 2005. The study area encompassed an approximate 60-mile radius from the Big Stone II unit.

South Dakota communities that provided responses to a motel accommodations survey and questionnaire included:

- Big Stone City,
- Milbank,
- Sisseton,
- Watertown,
- Waubay, and
- Webster

Minnesota communities that provided responses to a motel accommodations survey and questionnaire included:

- Appleton,
- Benson,
- Madison,
- Morris,
- Ortonville, and
- Wheaton

A total of 35 motels are located within these twelve communities. The surveyed motels have a total of 2,242 beds (1,653 beds in South Dakota and 589 beds in Minnesota).

The majority of the moteliors surveyed were receptive to the concept of long-term arrangements for large blocks of rooms. The moteliors surveyed were also eager to facilitate and accommodate the lodging requirements necessary for the influx of a new labor force for the construction of the Big Stone II facility. Most of the moteliors have worked with large construction companies in the past and they have a level of expertise and comfort in providing temporary housing accommodations for large construction operations. In the past, each of the individual moteliors has entered into negotiations and agreements with various contractors concerning blocks of rooms, duration, rates, and extras such as continental breakfasts. This negotiating strategy and agreement development process appears to work well for the moteliors and the various contractors and will likely be the method implemented to accommodate temporary housing for the labor influx associated with the construction of Big Stone II facility.

Seasonal availability of accommodations may present some short-term issues but these concerns will likely be managed due to the amount of motel beds available in the 60-mile radius study area.

5.2.1.2 Permanent Housing for Operations Staff and Temporary Housing for Contract Maintenance Workers

After Big Stone II is in operation, it is estimated that 35 additional permanent jobs will be created at the Big Stone facility. Big Stone II also anticipates needing periodic maintenance that will require the assistance of additional contract labor.

A survey of available housing was categorized into two categories Primary and Secondary Impact Areas. The primary impact areas include the communities of Big Stone City and Milbank, South Dakota, and Ortonville, Minnesota. The secondary impact areas include the communities of LaBolt, Stockholm, and Stranburg in South Dakota and Odessa, Clinton, Correll, and Graceville in Minnesota. Real estate agents, local chambers of commerce, resort

owners, and local land developers and managers in the Primary and Secondary Impact Areas were surveyed to assess potential impacts from the Project.

A total of 122 houses were for sale in the Primary Impact Areas in March 2005. Homes for sale in the Primary Impact Areas ranged from two to six bedrooms within a price range of \$20,000 for a two-bedroom home in Milbank, South Dakota to a four bedroom lake home for \$250,000 in Big Stone City, South Dakota. The total number of houses for sale in the Secondary Impact Areas as of March 2005 was 18. Homes for sale in the Secondary Impact Areas were two and three bedroom homes in the \$20,000 to \$35,000 price range or with the selling price negotiable.

Rental units available as of March 2005 in the Primary Impact Areas included 15 homes and 83 apartments. Rental rates for homes in the Primary Impact Areas ranged between \$400 and \$600 per month. Apartment rental rates in the Primary Impact Areas ranged from \$250 to \$650 per month. Rental units available as of March 2005 in the Secondary Impact Areas included 8 homes and 23 apartments. Rental rates for homes in the Secondary Impact Areas were listed as negotiable. Apartment rental rates in the Secondary Impact Areas range were in the \$400 per month range or at a negotiable rate.

The total number of mobile homes for sale in the Primary Impact Areas as of March 2005 was 10. The sale prices for mobile homes in the Primary Impact Areas ranged from \$18,000 to \$45,000 or the sale price was negotiable. There does not appear to be any mobile homes for sale at this time in the Secondary Impact Areas.

The total number of mobile homes for rent as of March 2005 in the Primary Impact Areas was 17. Mobile home rental rates in the Primary Impact Areas ranged from \$300 to \$375 per month. One mobile home was available for rent (price negotiable) as of March 2005 in the Secondary Impact Areas.

The survey also included assessing the availability mobile home pad rentals, recreational vehicle (RV) pad rentals, and housing trailer campgrounds. The total number of mobile home pad rentals in the Primary Impact Areas as of March 2005 was 109. The rental for the mobile home pads was \$160 per month. There were 83 pads available for rent as of March 2005 in the Primary Impact Areas. The rental rate ranged from \$23.75 per day to \$300 to \$385 per month. The number of mobile home pads available for rent in the Secondary Impact Areas as of March 2005 was 10. The rental rate for the mobile home pads in the

Secondary Impact Area was stated as negotiable. There does not appear to be RV pad rentals available in the Secondary Impact Area. The fees for trailer campgrounds at all state parks in South Dakota included a \$20 annual park user fee and electrical trailer hook-up pads for \$13 per day. Non-electrified camping sites are available for \$10 per day.

The costs of lots for new home construction in the community of Corona, South Dakota were free and also included 2 years of tax breaks to build a new home in Corona. Lake lots and property on Big Stone Lake are in the \$85,000 range.

The temporary housing needs for contract workers performing maintenance activities at the Big Stone II appears to be easily accommodated by the available motels in the area around the facility. If accommodations are required on a more long-term basis, the apartment and home rental units could likely be leased by the contractors.

5.2.2 Energy

Big Stone II will not detract from the energy needs in the area. Big Stone II would only enhance power production and, thus, by the nature of the Project, enhance the regional energy setting. Section 3.1 discusses the demand for the Project in detail.

5.2.3 Sewer and Water

5.2.3.1 Sanitary Sewer

Big Stone Plant unit I utilizes an onsite sanitary sewer facility. The addition of 1,400 onsite construction personnel would put a "strain" on the existing sanitary sewer system. Portable toilets could be utilized for the warmer construction periods, but the current proposal is to add a temporary onsite sanitary sewer system to accommodate additional personnel during the construction period.

Any influx of additional labor personnel to communities in the study area would not, based on survey results, have an impact on existing sanitary sewer services.

5.2.3.2 Potable Water

The water needs and sources for the Big Stone unit I and proposed Big Stone II operation are discussed in Section 2.2.8.

Grant-Roberts Rural Water supplies all of the water needs for plant personnel and is expected to be able to accommodate the increased personnel during construction. Local municipal water systems, wells, aquifers, etc., will not be impacted.

5.2.4 Solid Waste Management

The construction of Big Stone II will require that materials be transported to regional landfills. The anticipated amount of waste from the construction project will be significant. Big Stone Plant unit I currently has a contract with a waste management firm, which is located in North Dakota. During the construction phase, all contractors will be required to remove their own solid waste materials and transport them to regional solid waste management sites.

Management of coal combustion by-products generated from Big Stone Plant unit I and Big Stone II is discussed in Section 2.2.7.1.

5.2.5 Transportation

The information described in this section regarding the increases in increased roadway traffic and rail traffic during the construction phase of Big Stone II was communicated to transportation representatives in the Primary Impact Areas. The Chiefs of Police in Milbank, South Dakota and Big Stone City, South Dakota and Ortonville, Minnesota; the Grant County, South Dakota Highway Superintendent; the Sheriff of Big Stone County, Minnesota; and the Traffic Facilitator for the Northern Lights Ethanol plant in South Dakota responded to the weighted questionnaire. The roadway and rail line corridors in the Study Area are shown on Exhibit 5-3.

5.2.5.1 State and County Roadways

During the construction phase of the Big Stone Plant unit I facility, which came online in 1975, the immediate road infrastructure to and from the facility consisted of a series of gravel roads. Since the construction of Big Stone Plant unit I, all the local and immediate ingress and egress corridors have been upgraded to hard-surface roadways.

Traffic counts were conducted in 2003 at two locations in Grant County near the Big Stone Plant unit I, specifically on U.S Highway 12 and County Road 109. The average daily traffic

counts were 287 vehicles per day at the U.S. Highway 12 location and 40 vehicles per day at the County Road 109 location.

The Project Co-Owners are fully aware of the increased utilization of local roadways by construction workers' private vehicles to get to and from the Big Stone II construction site and will be providing off-road private parking in designated onsite parking areas.

Anticipated truck traffic to the Big Stone II construction site will vary during the various phases of construction. Additional truck traffic during construction would consist of periods of increased traffic over relatively short time periods (days and weeks) rather than the approximately 50 trucks per 24-hour day, seven days per week experienced at the Northern Lights Ethanol plant (Electronic Communication with Northern Lights Ethanol, May 31, 2005). Construction timetable deliveries and drop-offs by contractors and vendors will ultimately flow with the progress of the construction project.

At the peak of the construction project (approximately May through June 2009), it is estimated that the worker force will reach 1,400 maximum personnel. One of the Project Co-Owners' initiatives to mitigate any possible parking impacts is to designate off-road onsite parking facilities to accommodate worker's private vehicles. It is also highly unlikely that 1,400 workers vehicles would arrive simultaneously at any given time. Work shift schedules will help diffuse traffic and parking problems. It is also likely that the labor force will practice some form of car-pooling, thus further mitigating any traffic or parking impacts.

Law enforcement will be more visible during the construction phase of the project and will increase patrol activities. Traffic counters could be temporarily installed on corridors that may present some transportation issues and provide law enforcement and other transportation specialists opportunities for proactive solutions to mitigate potential impacts. Portable radar signs to inform drivers of their speed or the presence of a South Dakota Motor Carrier Enforcement official are among the possible actions that could be taken to mitigate potential traffic problems.

In the unlikely event that worker traffic and parking becomes an issue, an independent private transportation vendor could provide transportation to and from the construction site.

Potential transportation issues or problems do not appear to be significant issues with law enforcement, the Grant County Highway Superintendent, or the Northern Lights Ethanol

plant Traffic Facilitator. The transportation corridors are sound and have been significantly improved since the construction of Big Stone Plant unit I in 1975. County corridors have recently been improved, are being improved, and are scheduled for long-term maintenance and improvements

5.2.5.2 Railroad Traffic

Otter Tail Power Company currently utilizes railroads and the corridor of roads and highways to augment the operation of Big Stone Plant unit I. Currently, the Burlington Northern Santa Fe (BNSF) railroad provides three to four coal train deliveries per week to the Big Stone Plant unit I. Each of these coal train deliveries consist of approximately 115 coal cars. Increasing the number of coal cars per train to accommodate the operation of Big Stone II does not appear to be feasible. Therefore, the number of individual coal train deliveries per week will increase when Big Stone II comes on line in 2011. The Project Co-Owners estimate that there will be an increase from the current coal train deliveries (115 coal cars each) of three to four per week to six to eight deliveries per week to accommodate the additional fuel demands for Big Stone II.

The number of trains that pass through Milbank, South Dakota will increase from the current three to four per week to six to eight per week. The overpass and underpass system in Milbank mitigates any train transportation impacts.

5.3 Community Services

5.3.1 Health Services and Facilities

The nine surveyed health facilities within the 20-mile radius of Big Stone II provide a variety of total health services and technology for the area's citizens.

All health facilities, including satellite clinics operated by Milbank and Ortonville, provide a network of outreach physicians and technology to provide for services that may not be available at local health care facilities during the pre- and post-construction phase of the Big Stone Plant unit I. The medical advances that have been attained during the last 30 years (1975-2005) will provide and maintain an excellent level of health services through a series of proactive health facilities for the impact study area.

An interesting proposal suggested by the Ortonville, Minnesota medical community is the exploration and planning of a Big Stone II mobile, onsite outreach clinic. If this concept comes to fruition, it would be a tremendously valuable asset by providing immediate, emergency onsite medical services to project personnel.

There were no real or perceived health facilities impacts indicated from this survey. Any possible health facilities amelioration issues would possibly be categorized in the "insurance/workman's compensation" area. Current "state-of-the-art" computer technology, which was not available 30 years ago, provides instant and accurate data on patients' claims, processing and disbursements. Communications and accurate records would provide the foundation for resolution of most issues.

5.3.2 Schools

The seven South Dakota and two Minnesota school districts in the Project community study area are anticipating future growth and are looking forward to the opportunity of providing quality education to a possible influx of new students.

While it is difficult to determine the specific demographic and "family unit" data on the projected increased labor force, depending on geographical distribution and location, it would be prudent to assume that the majority of new students could be enrolled in one of the three following attendance centers: Milbank, Ortonville, and Big Stone City. Based upon information obtained via phone surveys to the respective superintendents of schools in March 2005, these three schools have the projected ability to accommodate an additional 510 new students. The projected new student maximum peak could be expected to be in the 300 range. These three schools alone should be capable of providing more than adequate educational opportunities and accommodations for new students.

All surveyed superintendents reported no recollection of Big Stone Plant unit I construction having had an impact on their school system.

5.3.3 Recreation

Northeastern South Dakota is blessed with a plethora of recreational opportunities including swimming, boating, open water fishing, ice fishing, hiking, camping, hunting, exploring, biking, sightseeing, photography. The area lakes provide yearly recreational opportunities to residents and visitors alike.

A variety of non-lake recreational opportunities are provided, not only in the primary study communities, but also in the secondary study communities. Many communities in the primary and secondary survey areas provide special events. There appears to be something happening—somewhere—most of the time.

There were few real or perceived recreational impacts indicated from a survey of community officials. The projected influx of temporary construction workers is not expected to overtax the many recreational facilities in the area.

5.3.4 Public Safety

5.3.4.1 Fire Protection

A total of 163 South Dakota volunteer firefighters and 150 Minnesota volunteer firefighters comprise the nucleus of fire services/fire protection for the regional community survey area. All of the fire services provided in the fire services impact survey are unpaid, volunteer firefighters.

The individual community volunteer fire departments work closely with one another and, through mutual aid agreements, have the ability to augment and “team” firefighting emergencies that would tax the resources and personnel of an individual agency. 62.30 percent of the total 313 firefighters in the survey area are trained firefighters.

A survey of the area fire departments indicated no real or perceived fire services impacts from the Project. Any fire services amelioration issues that might arise would ultimately be resolved by the local elected officials and the membership of the local fire district.

5.3.4.2 Law Enforcement

The seven surveyed law enforcement agencies in the community survey area include 36 full- and part-time law enforcement officers. The additional labor personnel required by Big Stone II will probably result in a minor short-term increase in workload.

5.4 Other Impacts

5.4.1 Population and Demographics

Big Stone II will be located immediately adjacent to Big Stone unit I in Grant County in northeast South Dakota. Milbank, South Dakota is the largest community in Grant County

and had a population of 3,640 recorded for the 2000 census. The total population recorded for the 2000 census for Grant County was 7,847. The population of Roberts County, South Dakota was recorded at 10,016 according to the 2000 census. The largest community in Roberts County included in the study area is Wilmot, South Dakota with a population of 543 recorded in the 2000 census. The total population of Big Stone and Lac qui Parle Counties in Minnesota according to the 2000 census was 5,820 and 8,067, respectively. The largest community in Big Stone County included in the study area according to the 2000 census is Ortonville, Minnesota with a population of 2,158. The largest community in Lac qui Parle County included in the study area according to the 2002 census is Bellingham, Minnesota with a population of 205. A summary of the population by County and community within the study area is presented in Table 5-3.

Table 5-3 Regional Population Summary

Entity	Estimated Population
Grant County, SD	7,847
Roberts County, SD	10,016
Big Stone County, MN	5,820
Lac qui Parle County, MN	8,067
Big Stone City, SD	605
Corona, SD	112
LaBolt, SD	86
Marvin, SD	66
Milbank, SD	3,640
Reville, SD	147
Stockholm, SD	105
Strandburg, SD	69
Summit, SD	281
Twin Brooks, SD	55
Wilmot, SD	543
Barry, MN	25
Beardsley, MN	262
Bellingham, MN	205
Clinton, MN	453
Correll, MN	47
Graceville, MN ¹	605
Louisburg, MN	26
Nassau, MN	83
Odessa, MN ²	147

Entity	Estimated Population
Ortonville, MN ³	2,158
Construction Work Force Peak/Including Families ⁴	1,400/3,556
Full Time Employment Gain/Including Families ⁵	35/108

¹Graceville City only. Graceville Township has a population of 205.

²Odessa City only. Odessa Township has a population of 147.

³Ortonville City only. Ortonville Township has a population of 2,287.

⁴Assumes 50 percent of work force relocates with their families. North Dakota and Minnesota combined average family size is 3.08.

⁵Assumes that the full time Big Stone II employees relocate their families. North Dakota and Minnesota combined average family size is 3.08.

The increase in the population due to the influx of construction workers and their families and the full-time employees hired to operate Big Stone II and their respective families will be absorbed into the surrounding communities.

5.4.2 Cultural Resources

During March and April of 2005, The 106 Group Ltd. conducted a cultural resources survey of the Big Stone II Project area. The purpose of the cultural resources investigation was to determine whether the Project area contains previously recorded or unrecorded historic and/or archaeological properties that may be eligible for listing on the National Register of Historic Places (NRHP). The complete archaeological assessment and architectural history survey report prepared by The 106 Group is included as Exhibit D.

As an initial step in the assessment of cultural resources, the appropriate Area of Potential Effect (APE) is determined. The area of potential effect (APE) for archaeology is the same as the Project area, and it includes all areas of proposed construction activities or other potential ground disturbing activities associated with construction of the new components of the Big Stone II Project. The APE for architectural history accounts for any physical, auditory, or visual impacts to historic properties, and it includes an area that extends from one-half mile to one mile from Project components.

The archaeological investigation consisted of a review of documentation of previously recorded sites and an assessment (windshield survey) of the Project area. The architectural history investigation consisted of a review of documents of previously inventoried properties and of previously conducted surveys that included the Project area, as well as a field survey to identify and document properties that are 49 years of age or older within the APE. The architectural history survey area includes approximately 3,599 acres (1,456 hectares).

The archaeological assessment results are presented in Exhibit 5-4. The Level I archaeological assessment identified two areas of high potential, only one of which is recommended for Level III Survey *if* it will be impacted by future development. The architectural history survey results are presented in Exhibit 5-5. During the Phase I architectural history survey, The 106 Group identified three properties 49 years in age or older within the APE. Two buildings, the Rabe Round Barn (GT-004-00001) and the Rabe Livestock and Hay Barn (GT-004-00002), are recommended as eligible for listing on the NRHP.

The effects of the Big Stone II Project on two properties recommended as eligible for listing on the NRHP was analyzed. The 106 Group recommends a finding of *no adverse effect* for the Big Stone II Project on the Rabe Round Barn (GT-004-00001) and the Rabe Livestock and Hay Barn (GT-004-00002).

5.5 Amelioration of Potential Adverse Community Impact

Amelioration of potential adverse community impacts are discussed in this Section 5, in Section 2, and throughout the remainder of this application. In general, community impacts are expected to be positive and any potential adverse effects will be ameliorated through thoughtful design, construction execution and operation.

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6 Other Information

The Big Stone II Project has strong community support as evidenced by Resolutions of Support passed by the following area units of government:

<u>Governmental Unit</u>	<u>Resolution No.</u>	<u>Date</u>
City of Big Stone City, South Dakota	2004-12	December 6, 2004
County of Grant, South Dakota	2005-03	February 7, 2005
City of Milbank, South Dakota	--	February 7, 2005
School Board of Milbank School District, South Dakota	--	February 7, 2005

Copies of these resolutions are included as Exhibits E, F, G and H.

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Barry Wilfahrt, CCE

Barry has a B.S. degree from St John's University in Collegeville, MN and an M.A. in Urban Studies from Minnesota State University in Mankato, MN. He is also a graduate of the Colorado Institute for Organization Management and is a Certified Chamber of Commerce Executive (CCE).

A 24 year Chamber of Commerce President & CEO, he also served as the Executive Director for the Watertown SD United Way for 20 years in addition to his chamber responsibilities.

Barry's organizations have always been at the leading edge of technology, leaders on key community issues and leaders in strategic community and organization direction. Membership and total dollars increased every year in every organization under Barry's leadership.

Barry has facilitated more than 125 strategic planning sessions and has made more than 1,000 presentations. Barry has served on over 50 National, Regional, State and Local Boards of Directors, typically 20 in any given year.

Barry coordinated 5 successful bond issues and initiated measure elections. When Barry left Chamber work his organization was one of only a handful of US Chamber of Commerce 4 Star Accredited Chamber's of Commerce in the US.

Barry has also attended and presented at countless United Way and Chamber of Commerce national, regional and state meetings on a variety of topics.

Barry has served as a lobbyist, consultant and recently started the Virtual Business Association of South Dakota with business leaders from throughout SD.

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VENERTS INVESTMENTS, INC.

William J. Folkerts

William (Bill) J. Folkerts is co-owner and Vice-President/Secretary of Venerts. He is a native of South Dakota, born and raised on a farm south of Mitchell. He graduated from Mitchell High School and went on to South Dakota State University where he received his BS degree in Agriculture and his MS degree in Economics.

He was employed in the public sector for over 25 years working in the areas of business development, loan packaging, loan serving and technical assistance to local units of government. His specialty was community and economic development and providing management assistance to businesses and industrial clients.

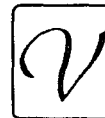
Folkerts and his wife have been active in the residential rental business for over 30 years. Their holdings have included single-family homes and multi-family complexes. Folkerts has also been instrumental in forming limited partnerships, "s" corporations and LLC's to own and manage real estate.

He served on and was Chairman of the Watertown City Planning Commission; served on Watertown Chamber of Commerce committees, served many years on the Board of the Watertown Development Company and was its Vice President and Treasurer. He served on the Board of Directors of the National Association of Development Organizations for over ten years, SD Population Task Force and was appointed to several State commissions by SD Governors.

He was Vice Chair of Region 13 International Operators Council (IOC) and served as its Chair twice. On the National IOC, he was Treasurer for two terms and was the Secretary. He chaired the IOC Audit Committee and other IOC committees.

Folkerts has served on the SD Innkeeper Association Board for many years and served as its Vice President. Currently, he is the President of the SD Innkeepers Association.

Folkerts is also active on the South Dakota State University Foundation Board where he is on several committees and is the Board's Audit Committee Chair. He is also on the SD Enterprise Institute Board of Directors and the SD III (Inventor's Institute) Board.



WILLIAM (BILL) FOLKERTS
Co-Owner/Vice President

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