

BEFORE THE  
PUBLIC UTILITIES COMMISSION  
STATE OF SOUTH DAKOTA

IN THE MATTER OF THE PETITION OF TRANSCANADA KEYSTONE PIPELINE, LP  
FOR ORDER ACCEPTING CERTIFICATION OF PERMIT ISSUED IN DOCKET HP09-  
001 TO CONSTRUCT THE KEYSTONE XL PIPELINE

DOCKET HP14-001

PREFILED TESTIMONY OF DARREN KEARNEY  
ON BEHALF OF THE COMMISSION STAFF  
ORIGINAL APRIL 2, 2015 – AMENDED JULY 23, 2015



1 **Q. State your name.**

2 A. Darren Kearney.

3 **Q. State your employer and business address.**

4 A. South Dakota Public Utilities Commission, 500 E Capitol Ave, Pierre, SD, 57501.

5 **Q. State your position with the South Dakota Public Utilities Commission.**

6 A. I am a Staff Analyst, which is also often referred to as a Utility Analyst.

7 **Q. What is your educational background?**

8 A. I hold a Bachelor's of Science degree, majoring in Biology, from the University of  
9 Minnesota. I also hold Masters of Business Administration degree from the University  
10 of South Dakota.

11 **Q. Please provide a brief explanation of your work experience.**

12 A. I began my career in the utility industry working as contract biologist for Xcel  
13 Energy, where I conducted biological studies around various power plants, performed  
14 statistical analysis on the data collected, and authored reports in order to meet National  
15 Pollutant Discharge Elimination System (NPDES) permit requirements.

16 After two years of performing biological studies, I then transitioned into an  
17 environmental compliance function at Xcel Energy as a full time employee of the  
18 company and became responsible for ensuring Xcel's facilities maintained compliance  
19 with the Oil Pollution Act of 1990. This involved writing Spill Prevention Control and  
20 Countermeasure (SPCC) plans and also ensuring Xcel facilities maintained compliance  
21 with those plans. During this time I was also responsible for the company's  
22 Environmental Incident Response Program, which involved training Xcel employees on  
23 spill reporting and response, managing spill cleanups, and mobilizing in-house and

1 contract spill response resources. I was also responsible for aboveground storage tank  
2 permitting during this time.

3 I was in that role for approximately three years and then I transitioned to a coal-  
4 fired power plant at Xcel and became responsible for environmental permitting and  
5 compliance for the plant. Briefly, my responsibilities involved ensuring that the facility  
6 complied with all environmental permits at the plant, which included a Clean Air Act Title  
7 V Air Permit, a Clean Water Act NPDES permit, and a hazardous waste permit. I also  
8 submitted reports on the plant's operations to various agencies as required by permit or  
9 law. After three years at the power plant, I left Xcel Energy to work for the South  
10 Dakota Public Utilities Commission (SD PUC).

11 I have been at the SD PUC for just over two years now. During this time I  
12 worked on a variety of matters in the telecom, natural gas, and electric industries. The  
13 major dockets that I worked on were transmission siting dockets, pipeline siting dockets,  
14 and energy efficiency dockets. I also attended a number of trainings on public utility  
15 policy issues, electric grid operations, regional transmission planning, electric wholesale  
16 markets, and utility ratemaking.

17 **Q. On whose behalf was this testimony prepared?**

18 A. This testimony was prepared on behalf of the Staff of the South Dakota Public  
19 Utilities Commission.

20 **Q. Were you involved in the Keystone XL permitting docket, HP09-001?**

21 A. No.

22 **Q. Did you file prefiled testimony in HP09-001?**

1 A. No. However, I adopt the testimony of Staff witness Tim Binder in docket HP09-  
2 001. (Exhibit\_\_\_\_(DK-1))

3 **Q. Did you provide testimony at the evidentiary hearing in HP09-001?**

4 A. No.

5 **Q. Have you thoroughly reviewed all of the information filed in HP14-001?**

6 A. Yes. I also reviewed the following: relevant sections of the Department of State's  
7 Final Supplemental Environmental Impact Statement; relevant background information  
8 included in docket HP09-001; South Dakota Codified Laws and Rules applicable to the  
9 Petition; and discovery requests and responses of all parties.

10 **Q. Were other Staff involved in the review of this petition?**

11 A. Yes. Other Staff members involved in the review consisted of Brian Rounds  
12 (Staff Analyst) and Mary Zanter (Pipeline Safety Inspector).

13 **Q. Explain, in your words, the role of the SDPUC Staff in the Petition**  
14 **proceedings.**

15 A. After initial review of the filing, Staff identified the findings of fact changes  
16 provided by Keystone XL in Exhibit C of the petition that Staff believed could impact the  
17 opinions of Staff's expert witnesses that were provided in docket HP09-001. Staff then  
18 procured consultants, making a good-faith effort to utilize the same witnesses or  
19 consultants used in docket HP09-001, to review the changes identified by Keystone XL  
20 and determine the following: 1) if the changes identified in Exhibit C resulted in a  
21 change to the professional opinion provided by Staff's witnesses in HP09-001, 2) if the  
22 changes identified in Exhibit C comply with the rules and regulations that the witnesses  
23 are subject matter experts of, and 3) whether any other Keystone XL project changes or



1 information in the witnesses' possession resulted in a change to their professional  
2 opinion.

3 In regards to processing the Petition by the Commission, Staff made great efforts  
4 to educate interveners on the process. Specifically, Staff responded to calls and emails  
5 from interveners with questions on a number of matters, including: the role of an  
6 intervener, the procedural schedule, the proper form of discovery, what laws and rules  
7 are applicable to the proceeding, and other miscellaneous information requests.

8 Staff was also active in discovery, where Staff submitted interrogatories to  
9 Keystone XL and responded to interrogatories submitted to Staff by Keystone XL and  
10 other interveners. Upon closure of discovery, Staff reviewed all interrogatories and  
11 responses communicated between all parties in order to understand the issues that  
12 could potentially be contested during the proceeding.

13 **Q. What did Staff focus on during its review of the Petition?**

14 A. In accordance with the Commission's order in this docket to limit the scope of  
15 discovery only to issues relevant to whether the proposed Keystone XL Pipeline  
16 continues to meet the fifty permit conditions set forth in Exhibit A of the June 29, 2010,  
17 Amended Final Decision and Order and the changes identified by Keystone XL in  
18 Exhibit C, Staff focused its review on the fifty permit conditions and Exhibit C changes.  
19 Moreover, Staff's experts focused their review on the project changes identified in  
20 Exhibit C that fell within their areas of expertise.

21 **Q. How many parties were granted party status?**

22 A. The commission granted party status to forty-two parties. All individuals who  
23 filed for party status were granted party status, however it is Staff's recollection that

1 during the hearing it was clarified that Jane KleeB and Benjamin D. Gotschall had both  
2 filed for party status on behalf of Bold Nebraska. Therefore, their applications for party  
3 status were combined and the Commission approved one application of party status for  
4 the Bold Nebraska organization.

5 **Q. How many parties withdrew as interveners?**

6 A. As of the date of writing this testimony, three interveners requested withdrawal of  
7 their party status and the Commission so approved. These interveners were the South  
8 Dakota Wildlife Federation, the Sierra Club, and Jeff Jensen.

9 **Q. Does this conclude your testimony?**

10 A. Yes.

BEFORE THE  
PUBLIC UTILITIES COMMISSION  
STATE OF SOUTH DAKOTA

KEYSTONE XL PROJECT  
DOCKET HP09-001

PREFILED TESTIMONY OF TIM BINDER  
ON BEHALF OF THE COMMISSION STAFF  
SEPTEMBER 2009

BEFORE THE PUBLIC UTILITIES COMMISSION STATE OF SOUTH DAKOTA  
PREFILED TESTIMONY OF TIM BINDER

**Q. State your name.**

A. Tim Binder.

**Q. State your employer and business address.**

A. South Dakota Public Utilities Commission, 500 E Capitol Ave, Pierre, SD.

**Q. State you position with the South Dakota Public Utilities Commission (SDPUC)**

A. I am a Staff Analyst.

**Q. What is your educational background?**

A. I hold a Bachelor's degree in Political Sciences from the University of South Dakota of Vermillion, SD.

**Q. When did TransCanada file the siting application for the Keystone XL pipeline?**

A. The South Dakota Public Utilities Commission received the application on March 13, 2009.

**Q. Did you review the TransCanada Keystone XL siting application?**

A. Yes, along with the company's prefiled testimony, exhibits and data responses.

**Q. Were other SDPUC Staff involved in the review of this application?**

A. Yes, a variety of Staff, each with a different background are "assigned" to each docket the SDPUC considers. In this case, Staff members directly assigned to this application are:

- (i) Nathan Solem, an engineer and a pipeline safety inspector;
- (ii) Stacy Splittstoesser, an engineer and a pipeline safety inspector, with previous experience in the South Dakota Department of Environment and Natural Resources, and;
- (iii) Bob Knadle, a staff analyst with an economics background.

**Q. Was the application considered complete at the time of filing?**

A. Generally, the application was complete. There were several areas, however, that both commission Staff and Staff subject matter experts believed needed additional detail or otherwise were not in strict compliance with the rules or statutes. Attached as Exhibit A are relevant portions of Staff's first two data requests along with applicant's answers. Staff believes this information, along with data request information provided later by expert subject matter witnesses completes the application.

**Q. Explain, in your words, the role of the SDPUC Staff in siting permit applications.**

A. It is our, Staff's, role to ensure that all applicable statutes and administrative rules are addressed. We study the application in order to determine whether the proposed project, in this case the pipeline, presents any overly burdensome threat of harm or impact to South Dakota's resources and citizens. Pipelines, just like cars, airplanes and boats are legal to operate in South Dakota, despite the inherent dangers associated with each. Staff further seeks to determine whether the planned construction, operation and maintenance of this pipeline present any undue or uncharacteristic dangers in comparison to other pipelines of similar type. With that in mind, Staff received the approval of the Commission to engage several independent experts to help identify potential mitigative measures which will lessen any dangers or potential damages presented by this application if the project is approved by the Commission.

**Q. Please explain the burden of proof of applicants involved in siting applications of this nature.**

A. South Dakota Codified Law 49-41-22 lays out four specific burdens for the applicant. Staff reads these burdens as follows:

- (1) The proposed facility will comply with all applicable laws and rules;



- (2) The facility will not pose *an unacceptable* threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area;
- (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
- (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

**Q. Staff has inserted “unacceptable” into burden two (2) above, why?**

A. As the SD Supreme Court recognized in *The Matter of Otter Tail Power Company on Behalf of Big Stone II for an Energy Conversion Facility Permit for the Construction of the Big Stone II Project* (attached as Exhibit B), nothing in SDCL Chapter 49-41B restricts the PUC as to require it to prohibit facilities posing any threat of injury to the environment. Such a standard could potentially eliminate all siting projects in South Dakota. Rather, it is a question of the *acceptability* of a possible threat. As previously stated, Staff engaged several independent experts to help identify any potentially unacceptable threats. The experts also identified potential mitigative measures to lessen any threat.

**Q. Does Staff have any recommendations regarding an appropriate indemnity bond for damages according to SDCL 49-41B-38?**

A. Yes. Staff reviewed the statute, prior commission action and all information submitted by the applicant (See Exhibit A) regarding the proper bond amount. Based on Staff’s review, we find the applicant’s recommendation of a \$15,600,000 indemnity for 2011 and a second indemnity bond in the same amount for 2012 to be appropriate.

**Q. How many parties submitted a request to intervene?**

A. 15 parties requested intervention.

Mary Jasper (Jasper)

Paul F. Seamans (Seamans)

Darrell Iversen (D. Iversen)

The City of Colome (Colome)

Glen Iversen (G. Iversen)

Jacqueline Limpert (Limpert)

John H. Harter (Harter)

Zona Vig (Vig)

Tripp County Water User District (TCWUD)

Dakota Rural Action (DRA)

David Niemi (David Niemi)

Debra Niemi (Debra Niemi)

Lon Lyman (Lyman)

Ruth M. Iversen (Iversen)

Martin R. Lueck (Lueck)

**Q. Were all those parties granted intervenor status?**

A. Yes, all parties requesting intervention status were granted party status to this proceeding.

**Q. Did Staff communicate with the intervenors? If so, how?**

A. Yes, Staff's first discovery request sent on June 12, 2009, to intervenors included a cover letter outlining the procedural schedule as approved by the Commission on June 9<sup>th</sup>, as well as a brief description of the intervention process. The correspondence is attached as Exhibit C. It was Staff's hope that intervenors would come forward with

concerns that could be vetted by the independent experts, referenced below, as well as through the process of further discovery.

**Q. Did Staff receive any responses or objections from interveners regarding Staff's discovery request?**

A. No, with the exception of Dakota Rural Action, Staff did not receive discovery responses or objections from interveners. Staff asked that initial responses be submitted by July 13, 2009, and with the exception of Dakota Rural Action, Staff received no substantive replies to our discovery request.

**Q. Did Staff receive *any* communication from interveners, other than Dakota Rural Action, regarding the pre-hearing process? (pre-filed testimony, discovery, etc.)**

A. Yes, one intervener, Debra Niemi, responded to Staff's June 12, 2009, communication on August 24, 2009. Staff assisted Ms. Niemi and her brother in filing testimony.

**Q. Has Staff received any other communications from any of the intervening parties other than Dakota Rural Action or Ms. Niemi?**

A. No, as of the filing date of this testimony, September 25, 2009, Staff has not received any communications, replies or responses from any of the other interveners.



**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 1**

---

**1-1**

---

**Data Request:**

Provide a description of the present US demand for crude oil per 20:10:22:10.

**Response:**

U.S. crude oil demand, as represented by U.S. crude oil refinery inputs, averaged about 14.5 million barrels per day (bpd) for the week ending April 17, 2009, up 529 thousand bpd from the previous week's average. Net U.S. imports of crude oil averaged nearly 9.9 million bpd during that same period, up 464 thousand bpd. (EIA Weekly Petroleum Status Report, week ended April 17, 2009 DOE/EIA-0208(2009-16)).

---

Response prepared by: Robert Jones

*Exhibit A*

**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 2**

---

**1-2**

---

**Data Request:**

Provide a map showing cemeteries and places of historical significance adjacent to or abutting the transmission site per 20:10:22:11. The towns of Buffalo and Midland show on the route maps but the cemeteries are not noted.

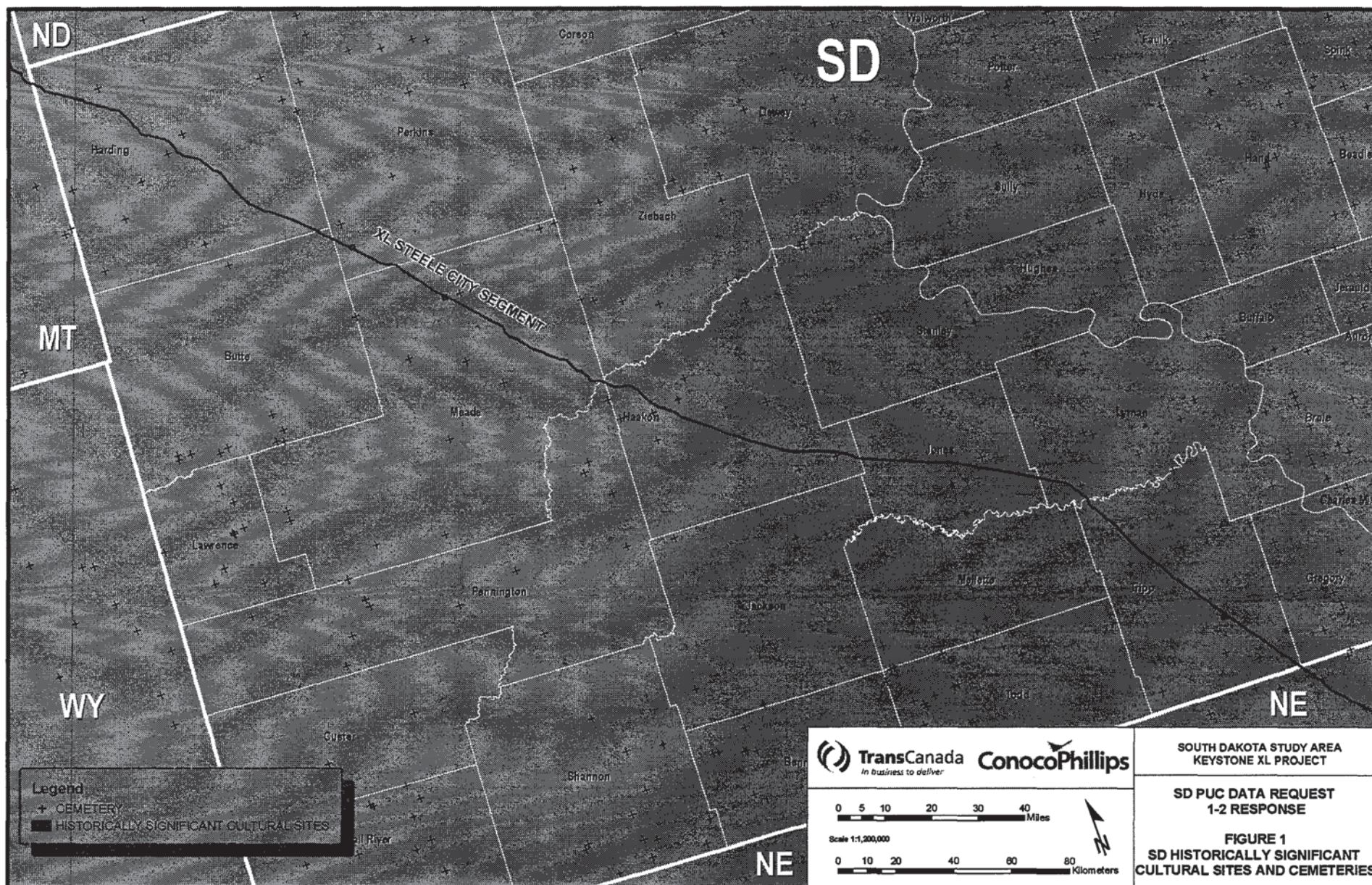
**Response:**

Cemeteries adjacent to or abutting the Project are noted in Exhibit A of the application as labels on Mapbook 1 and as included on the USGS 1:24,000 topographic maps base on Mapbook 2. The cemetery near the Town of Buffalo is located south of town which is not shown on the submitted maps. The cemetery of the Town of Midland is labeled in both mapbooks. Please see the attached **Figure 1** for locations of cemeteries in South Dakota.

Keystone understands "places of historical significance" to mean prehistoric or historic districts, sites, buildings, structures, or objects included in or eligible for the National Register of Historic Places (NRHP). Due to the sensitive nature of these locations, they have only been identified to the Section scale (see attached letter). Please see the attached **Figure 1** for locations of the four identified places of historical significance near the route in South Dakota.

Department of State will assess the information provided and determine eligibility for the NRHP with the South Dakota State Historic Preservation Officer.









## Department of Tourism and State Development

January 15, 2009

The South Dakota Office of the State Historic Preservation Officer encourages State and Federal agencies to protect fragile and non-renewable sacred and cultural resources through the restriction of site location data. The release of this information could result in the vandalism, looting or other damage of sacred and cultural resources. The following laws prohibit the public dissemination of site location data.

### South Dakota Codified Law 1-20-21.2.

Confidentiality of records pertaining to location of archaeological site-- **Exceptions.** Any records maintained pursuant to § 1-20-21 pertaining to the location of an archaeological site shall remain confidential to protect the integrity of the archaeological site. The state archaeologist may make the information from the records of an archeological site available to any agency of state government and any political subdivision of the state or to any tribe, which, in the opinion of the state archaeologist, may conduct an activity that affects any such site. The state archaeologist shall also make the information from the records of an archeological site available to the owner of the land that is an archeological site and may make the information available to any qualified researcher or research entity.

### Section 304 (16 U.S.C. 4702-3)

(a) Authority to Withhold from Disclosure. The head of a Federal agency or other public official receiving grant assistance pursuant to this Act, after consultation with the Secretary, shall withhold from disclosure to the public, information about the location, character, or ownership of a historic resource if the Secretary and the agency determine that disclosure may-

- (1) cause a significant invasion of privacy;
- (2) risk harm to the historic resource; or
- (3) impede the use of a traditional religious site by practitioners.

(b) Access Determination.-When the head of a Federal agency or other public official has determined that information should be withheld from the public pursuant to subsection (a), the Secretary, in consultation with such Federal agency head or official, shall determine who may have access to the information for the purpose of carrying out this Act.

Office of Tourism  
Governor's Office of Economic  
Development  
Tribal Government Relations  
711 E Wells Ave / Pierre, SD 57501-3369  
Phone: 605-773-3301 / Fax: 605-773-3256  
travelsd.com / sdgreatprofits.com /  
sdtribrelations.com

South Dakota Arts Council  
800 Governors Dr. / Pierre, SD 57501-2294  
Phone: 605-773-3131 or 1-800-423-6665 in SD  
Fax: 605-773-6962  
sdac@state.sd.us / sdarts.org

South Dakota State  
Historical Society  
908 Governors Dr. / Pierre, SD 57501-2217  
Phone: 605-773-3458 / Fax: 605-773-6041  
sdhistory.org

South Dakota Housing  
Development Authority  
PO Box 1237 / Pierre, SD 57501-1237  
Phone: 605-773-3181 / Fax: 605-773-5154  
sdhda.org



(c) Consultation with Council.-When the information in question has been developed in the course of an agency's compliance with section 106 or 110(f), the Secretary shall consult with the Council in reaching determinations under subsections (a) and (b).

Archeological Resources Protection Act - Section 9

(a) Information concerning the nature and location of any archaeological resource for which the excavation or removal requires a permit or other permission under this Act or under any other provision of Federal law may not be made available to the public under subchapter II of chapter 5 of title 5 [of the United States Code] or under any other provision of law unless the Federal land manager concerned determines that such disclosure would—

(1) further the purposes of this Act or the Act of June 27, 1960 [the Reservoir Salvage Act, as amended, 16 U.S.C. 469- 469c-1] and

(2) not create a risk of harm to such resources or to the site at which such resources are located.



**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 5**

---

**1-3**

---

**Data Request:**

Provide a written summary of the geological features using a topographical map as a base showing the bedrock geology and surficial geology with sufficient cross-sections to depict the major subsurface variations in the siting area. Current description does not utilize map.

**Response:**

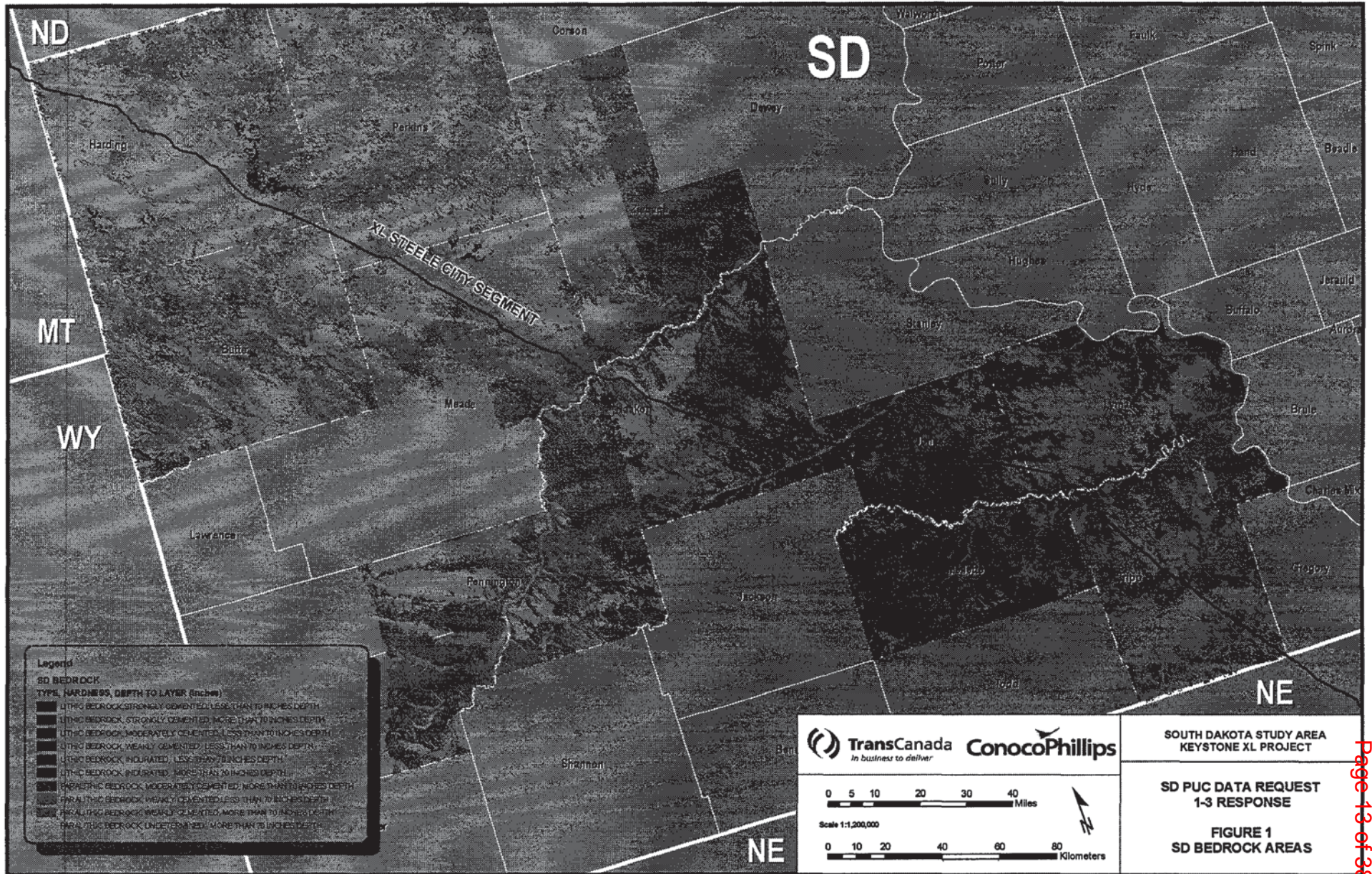
Maps depicting the bedrock and surficial geology of the Project area, along with a figure depicting available geologic cross-sections of the Project area are provided as an attachment to this response. South Dakota Geological Survey 15 minute geologic maps are also provided for reference where available in the Project area.

**Figure 1** depicts the bedrock type, hardness, and depth within counties crossed by or near the route.

**Figure 2** depicts the surface geology of the State of South Dakota according to the SDGS (Martin et al., 2004). Please note, that according to Martin et al. (2004) "This map should not be enlarged or otherwise used in an attempt to interpret more detail than can be seen at the 1:500,000 scale."

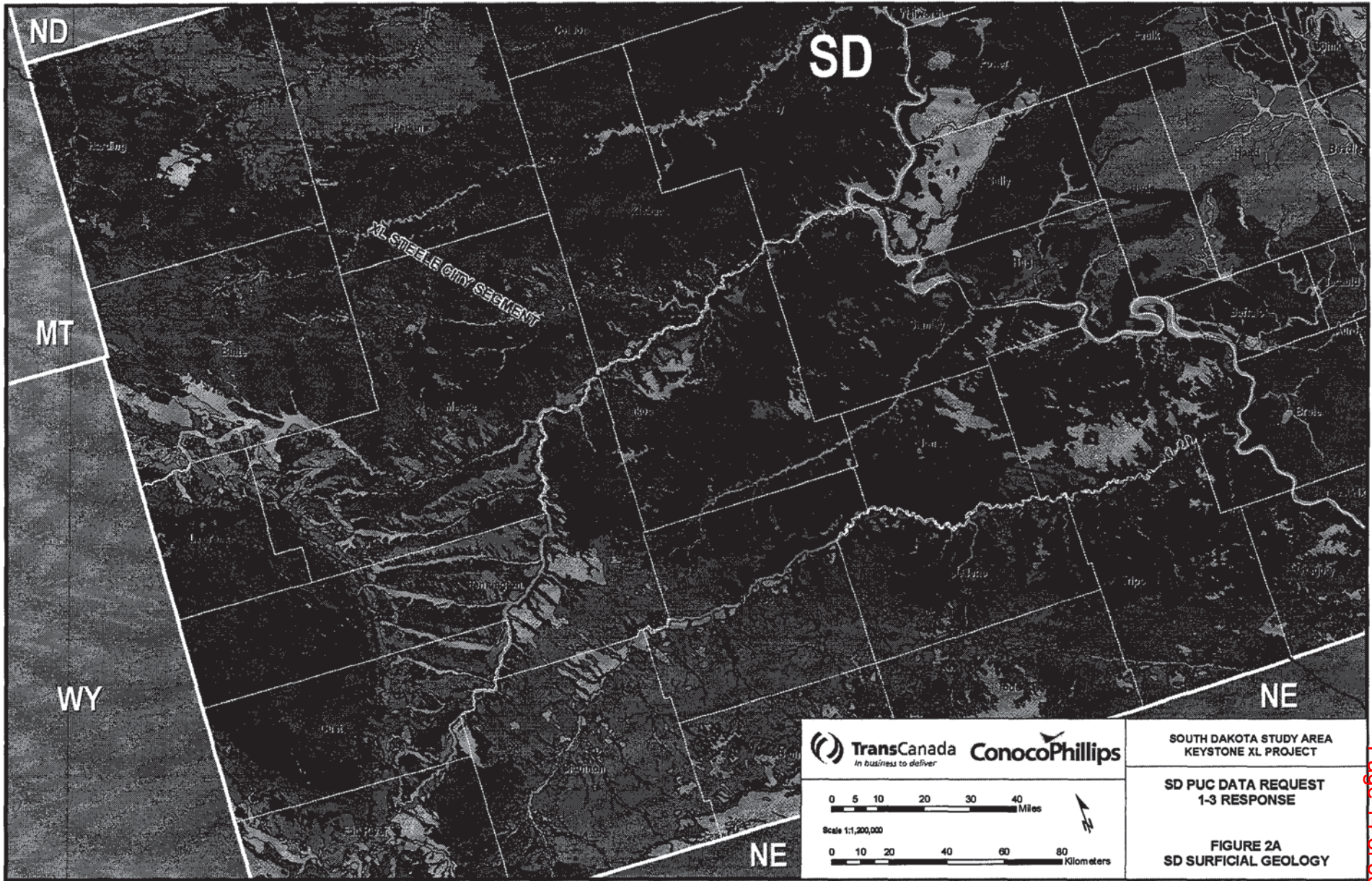
**Figure 3** contains available generalized geologic cross sections that have been modified to reflect the relative location of the Project in the northern portion of the route.





X:\Drawings\00300X KEYSTONE XL\00300X\0045SD PUCRequest1







[illegible]

The theoretical framework, *Components of Management and National Performance*, attempts to tie together the relationship and interrelationships among variables. An overview of that process is in effect. These interpretations are unique, but on this one, the theoretical efforts have been made to provide a solid basis for the empirical work. The entire data used is in the appendix. "The map is a solid picture. An artificial dark horizon appears, possibly a representation of the moon and the map may be a picture of the historical future. This map should be a history of the world, and it is a history of the world. The map should be a history of the world, and it is a history of the world." (p. 100)

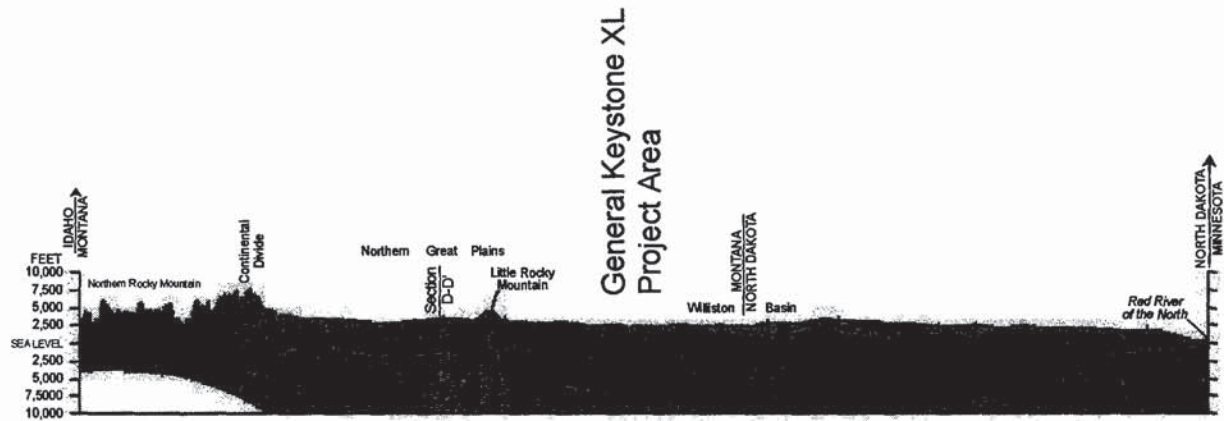
Publication Date: June 10, 2004

**SOUTH DAKOTA STUDY AREA  
KEYSTONE XL PROJECT**

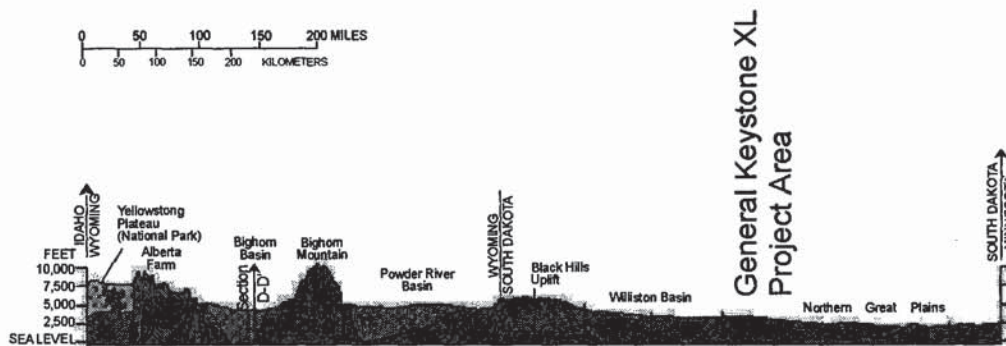
SD PUC DATA REQUEST  
1-3 RESPONSE

**FIGURE 2B**  
**SD SURFICIAL GEOLOGY LEGEND**





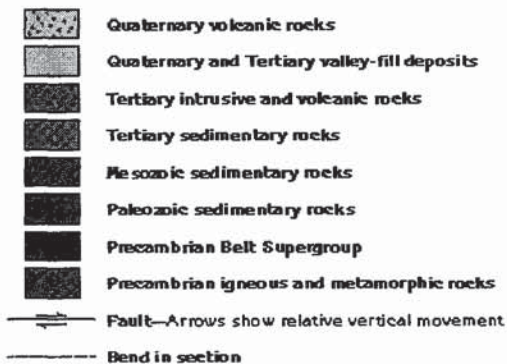
0 50 100 150 200 MILES  
0 50 100 150 200 KILOMETERS



Modified from:

Whitehead, R.L. 1996. Groundwater Atlas of the United States, Segment 8: Montana, North Dakota, South Dakota, and Wyoming. US Geological Survey Hydrologic Atlas 730-I; Figure 11.

#### EXPLANATION



SOUTH DAKOTA STUDY AREA  
KEYSTONE XL PROJECT

SD PUC DATA REQUEST  
1-3 RESPONSE

FIGURE 3  
GENERAL GEOLOGIC  
CROSS-SECTIONS

**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 2**

---

**1-5**

---

**Data Request:**

Provide a table to show breeding times of sensitive SD species and a map to show migration pathways of sensitive SD species. Additionally, provide a map of recorded occurrences of the prairie fringed orchid. (SDCL 20:10:22:16).

**Response:**

Breeding periods of sensitive species potentially occurring within the Keystone XL Project area in South Dakota are listed below.

<b>Species</b>	<b>Breeding Periods</b>
Bald Eagle	February 1 - August 15
Greater Sage Grouse	March 1 - June 15
Interior Least Tern	April 15 - August 15
Whooping Crane	NA – Migrant through the project area only.
River Otter	February 15 - June 15
Swift Fox	April 1 - August 31
Blacknose Shiner	June 1 - July 31
Northern Redbelly Dace	April 1 - June 30
Pearl Dace	June 1 - July 31
Sturgeon Chub	June 1 - July 31
American Burying Beetle	June and August

Consultation with the South Dakota Department of Game, Fish and Parks (SDGFP) indicates that there is no specific information on migration pathways of sensitive South Dakota species (SDGFP 2009). It is assumed that riparian corridors function as pathways for some species.

Comparison of the western prairie fringed orchid historical and extant ranges shows the species apparently has been lost from South Dakota (USFWS 1996), but factors that indicate the species could still be present include 1) incomplete surveys in areas of suitable habitat crossed by the project route on private lands; and 2) erratic flowering patterns and long dormancies make it difficult to detect populations (Phillips 2003). Based on these factors and agency review of the project route through South Dakota, the USFWS recommends surveys for occurrence along the

**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 2 of 2**

---

**1-5**

---

project route south of Hwy 18 in Tripp County (USFWS 2008). Surveys are planned for June 2009 and information will be provided following survey completion.

**References:**

Phillips, L. 2003. Pollination of Western Prairie Fringed Orchid, *Platanthera praeclara*: Implications for Restoration and Management. Restoration and Reclamation Review Student On-Line Journal (Hort 5015/5071). University of Minnesota, St. Paul, Minnesota (USA) Department of Horticultural Science. (<http://hort.agri.umn.edu/h5015/rrr.htm>).

South Dakota Department of Game, Fish, and Parks (SDGFP). 2009. Email correspondence from D. Backlund (SDGFP) to P. Lorenz (AECOM). April 2, 2009.

U.S. Fish and Wildlife Service (USFWS). 2008. Correspondence during a meeting held on June 10, 2008 between C. Besskin (USFWS) and P. Lorenz (AECOM) in Pierre, SD.

USFWS. 1996. Western Prairie Fringed Orchid Recovery Plan (*Platanthera praeclara*). U.S. Fish and Wildlife Service. Fort Snelling, Minnesota. Vi + 101 pp.



**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 1**

---

**1-6**

---

**Data Request:**

Provide a description of the steps you will take to foster positive public relations per ARSD 20:10:22:23 (7).

**Response:**

Please refer to Section 6 of the Keystone XL permit application for discussion of impacts that the construction, operation, and maintenance of the proposed pipeline will have on the affected area. Amelioration of potential adverse community impacts is discussed within the section and throughout other parts of the application. In general, community impacts are expected to be positive and potential negative impacts will be ameliorated through thoughtful design, construction and operation.

Complementing the design, construction and operation of the pipeline, TransCanada's approach to siting and construction fosters positive public relations by striving to:

- Provide information about the project and the company to landowners, communities and other interested parties along the route;
- Gather feedback on the proposed project from interested parties;
- Provide information in response to stakeholder issues and concerns; and
- Build a foundation for the development of long-term relations with key stakeholders and communities.

The approach includes:

- Project open houses /informational meetings;
- Local meetings and briefings with public officials and other interested parties;
- Providing information and responding to queries from local and regional media;
- Meetings and discussions with landowners;
- Establishment of toll-free information lines and project e-mail to facilitate questions about the project;
- Establishment of a project website;
- Development of fact sheets describing the project;
- Issuance of newsletters regarding project developments; and
- Monitoring and additional actions as appropriate.

**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 1**

---

1-7

---

**Data Request:**

Supply more detailed labor estimate by type of position per 20:10:22:24 for:

- a) Number of permanent positions with Keystone XL and estimated annual labor costs
- b) Number of contractor permanent positions and estimated annual labor costs
- c) Number of subcontractor permanent positions and estimated annual labor costs
- d) Number of construction positions with Keystone XL and estimated annual labor costs
- e) Number of contractor construction positions and estimated annual labor costs
- f) Number of subcontractor construction positions and estimated annual labor costs

**Response:**

- a) Permanent staff positions with Keystone XL are planned to be in two locations, one location will have 4 employees (2 technical, 1 manager and 1 administrator), and the second location will have 2 employees (both technical). The total is 6 employees, with an estimated annual labor costs @ \$860,000.
- b) Keystone does not anticipate that any new contractors or subcontractors will form to construct and operate the Project; however Keystone will utilize existing local firms for brush clearing, snow removal, and emergency response contractor personnel.
- c) Please see response to (b).
- d) The number of construction positions associated with the Keystone XL Project is 90 with an annual labor cost of \$13 million over two years.
- e) **Table 16** in the original application reflects the number of contractor and subcontractor construction positions and estimated annual labor costs.
- f) Please see response to (e).

**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 1**

---

**1-8**

---

**Data Request:**

Please provide for each classification in question 1-7 above, the percentage of employees that will remain in the area after construction is completed.

**Response:**

- a) 100%
- b) Although Keystone does not anticipate having permanent positions after construction, the local firms hired as described in the response to 1-7 (b) will be located in South Dakota.
- c) 0% Please see response to DR 1-7 (b).
- d) 0%
- e) 10%-15% It is estimated that approximately 10 to 15 percent of the total construction work force could be hired locally. This same 10 to 15 percent is expected to remain in the area after construction is complete.
- f) Please see response to (e).

**South Dakota Public Utilities Commission  
TransCanada Keystone Pipeline, LP  
Docket HP09-001  
Response to Staff's First Data Request**

**May 1, 2009  
Page 1 of 1**

---

**1-9**

---

**Data Request:**

Provide a flowchart showing design capacity of the transmission system per 20:10:22:38 (1).  
The current flowchart does not show the design capacity.

**Response:**

The Mechanical Flow Schematic provided in the application as Exhibit 3 reflects the nominal design capacity of 900,000 bpd.



## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

**In the Matter of the Application by TransCanada Keystone Pipeline, LP for a  
Permit under the South Dakota Energy Conversion and Transmission Facility Act  
to Construct the Keystone XL Project**

**DOCKET HP09-001**

### STAFF'S SECOND DATA REQUEST

**May 22, 2009**

- 2-1. Please provided estimated time schedules for accomplishment of major events in the commencement and duration of the proposed facility per ARSD 20:10:22:22. Provide the same information for each construction spread in South Dakota.

Description	Start	End
<b>2011 Mobilization</b>	<b>04/15/11</b>	<b>05/15/11</b>
Spread 5	04/15/11	05/14/11
Spread 7	04/15/11	05/14/11
<b>2012 Mobilization</b>	<b>04/16/12</b>	<b>05/15/12</b>
Spread 4	04/16/12	05/15/12
Spread 6	04/16/12	05/15/12
Spread 8	04/16/12	05/15/12
<b>2011 Construction</b>	<b>05/16/11</b>	<b>10/12/11</b>
Spread 5	05/16/11	10/12/11
Spread 7	05/16/11	10/12/11
<b>Final Clean Up for 2011 Spreads</b>	<b>08/29/11</b>	<b>10/12/11</b>
Spread 5	08/29/11	10/12/11
Spread 7	08/29/11	10/12/11
<b>Complete T&amp;E Species Exclusion Windows &amp; HDD Crossings</b>	<b>09/15/11</b>	<b>12/15/11</b>
Spread 4	09/15/11	12/15/11
Spread 6	09/15/11	12/15/11
Spread 8	09/15/11	12/15/11
<b>2012 Construction</b>	<b>05/16/12</b>	<b>10/12/12</b>
Spread 4	05/16/12	10/12/12
Spread 6	05/16/12	10/12/12
Spread 8	05/16/12	10/12/12
<b>Final Clean Up 2012 Spreads</b>	<b>10/13/12</b>	<b>11/30/12</b>
Spread 4	10/13/12	11/30/12
Spread 6	10/13/12	11/30/12
Spread 8	10/13/12	11/30/12

- 2-2. Please provide the total number of open cuts across public gravel and the total across public paved roads.

*Keystone does not anticipate the open cutting of any public gravel or paved road. Site visits confirm that successful road bores should be achievable at all public roads. Private roads will likely be crossed by open cutting.*

- 2-3. Please provide the total estimated cost of the road restoration for all public road open cuts and the total estimated cost for road restoration of all public paved road open cuts.

*This is not applicable, as Keystone will not open-cut any public roads.*

- 2-4. What is the average width of an open cut across a road? (Not road width but length of road disturbed by the open cut.)

*Again, Keystone does not anticipate open cutting of any public roads. Open cutting of private roads is a function of the pipe diameter. For the 36-inch Keystone XL project, it is anticipated that the length of disturbance along the private road would be 12 feet.*

- 2-5. SCDL 49-41B-38 requires an indemnity bond for damage to roads and bridges. Propose an equitable amount for said bond and provide the basis for determining that amount.

*In the Keystone Pipeline proceeding, the Commission adopted an indemnity bond amount based on 10 percent of the value of construction in South Dakota for each year of construction, as recommended in Witness Muehhausen's testimony and report. For the Keystone XL project, the total construction costs for South Dakota are approximately \$312,000,000. Accordingly, using the Commission's Keystone approach, Keystone suggests a \$15,600,000 indemnity bond each for 2011 and 2012.*

- 2-6. Provide an estimate of the number of miles of gravel or stone surfaced roads that may require grading and/or replenishment of the surface materials due to deterioration from pipeline construction traffic.

*The total estimated number of miles of gravel or stone surfaced roads that will be utilized during construction is approximately 600 miles. Based on experience from a previous project in North Dakota, approximately 50% or 300 miles of the roads may require grading and/or replenishment of the surface materials due to deterioration from pipeline construction traffic.*

- 2-7. Provide an estimate of the cost of the grading and replenishment in the previous question.

*An estimate of the cost of the grading and replenishment in question 2-6 is in the range of \$3,168,000 to \$3,326,400*



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

**C**

Supreme Court of South Dakota.  
In the Matter of OTTER TAIL POWER COMPANY  
on Behalf of **BIG STONE II** co-Owners for an En-  
ergy Conversion Facility Permit for the Construction  
of the **Big Stone II** Project.  
No. 24485.

Argued on Nov. 7, 2007.  
Decided Jan. 16, 2008.

**Background:** Electric utility applied for a permit to construct a coal-fired conversion facility. The Public Utilities Commission (PUC) approved the permit, and environmental organizations appealed. The Circuit Court of the Sixth Judicial Circuit, Hughes County, Lori S. Wilbur, J., affirmed, and environmental groups appealed.

**Holdings:** The Supreme Court, Konenkamp, J., held that:

- (1) the PUC's decision to grant the permit would not be reviewed de novo, and
- (2) evidence was sufficient to establish that the facility would not pose a threat of serious injury to the environment, though it would emit 4.7 million tons of carbon dioxide annually.

Affirmed.

West Headnotes

**[1] Public Utilities 317A ⚡194**317A Public Utilities317AIII Public Service Commissions or Boards317AIII(C) Judicial Review or Intervention317Ak188 Appeal from Orders of Commission

317Ak194 k. Review and Determination in General. Most Cited Cases  
Findings of fact by the Public Utilities Commission (PUC) are reviewed under the clearly erroneous standard, while its conclusions of law are reviewed de novo. SDCL § 1-26-36.

**[2] Public Utilities 317A ⚡194**317A Public Utilities317AIII Public Service Commissions or Boards317AIII(C) Judicial Review or Intervention317Ak188 Appeal from Orders of Commission317Ak194 k. Review and Determination in General. Most Cited Cases

In an appeal of a decision by the Public Utilities Commission (PUC), a reviewing court must consider the evidence in its totality and set the PUC's findings aside if the court is definitely and firmly convinced a mistake has been made. SDCL § 1-26-36.

**[3] Electricity 145 ⚡8.6**145 Electricity145k8.6 k. Environmental Considerations in General. Most Cited Cases

Supreme Court would not review decision by Public Utilities Commission (PUC) to issue electric utility a permit to construct a coal-fired conversion facility de novo, and instead would review the decision under the clearly erroneous standard, despite contention by environmental groups that the PUC erroneously applied statute, requiring a permit applicant to establish that a proposed facility did not pose a serious threat to the environment, by approving the permit when the PUC also found that the facility would emit 4.7 million tons of carbon dioxide annually; no matter how grave the Court's concerns were on global warming, the Legislature designated the PUC as the responsible agency for the question of granting a permit, and the Legislature and Congress were the government bodies which had to balance the competing interest of economic development and protection of the environment. SDCL §§ 1-26-36, 49-41B-22.

**[4] Public Utilities 317A ⚡194**317A Public Utilities317AIII Public Service Commissions or Boards317AIII(C) Judicial Review or Intervention317Ak188 Appeal from Orders of Commission317Ak194 k. Review and Determina-



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

tion in General. Most Cited Cases

In an appeal of a decision by the Public Utilities Commission (PUC), while a reviewing court gives due regard to the agency's well-reasoned and fully informed decision, the court will not uphold clear errors of judgment or conclusions unsupported in fact. SDCL § 1-26-36.

#### [5] Electricity 145 8.6

##### 145 Electricity

145k8.6 k. Environmental Considerations in General. Most Cited Cases

Evidence was sufficient to establish, in permit proceeding before the Public Utilities Commission (PUC), that electric utility's proposed coal-fired conversion facility would not pose a threat of serious injury to the environment; though the PUC found that the facility would emit 4.7 million tons of carbon dioxide annually, environmental groups opposing the facility did not dispute there was a need for additional wattage and did not present a viable alternative to the facility, no carbon dioxide emission standards had been enacted by Congress, and there was evidence that the facility would only increase carbon dioxide emissions by 0.0007 percent nationally and that the facility would produce 18% less carbon dioxide than existing coal-fired plants. SDCL §§ 1-26-36, 49-41B-22.

**\*595** Janette K. Brimmer of Minnesota Center for Environmental Advocacy St. Paul, Minnesota, John H. Davidson, Vermillion, South Dakota, Attorneys for appellants **\*596** Fresh Energy, Izaak Walton League of America-Midwest Office, Union of Concerned Scientists & Minnesota Center for Environmental Advocacy.

Thomas J. Welk, Christopher W. Madsen of Boyce, Greenfield, Pashby & Welk Sioux Falls, South Dakota, Attorneys for appellee **Big Stone II** Co-Owners.

John J. Smith, Assistant Attorney General, SD Public Utilities Commission, Pierre, South Dakota, Attorneys for appellee SD Public Utilities Commission.

KONENKAMP, Justice.

[¶ 1.] Otter Tail Power Company, on behalf of several utilities, applied for a permit to construct **Big Stone II**, a coal-fired energy conversion facility. Cer-

tain non-profit environmental organizations intervened to oppose the application. They asserted that the carbon dioxide (CO<sub>2</sub>) emissions from **Big Stone II** would contribute to global warming, thereby posing a threat of serious environmental injury. The South Dakota Public Utilities Commission (PUC) concluded that although the facility will emit CO<sub>2</sub>, the amount will not pose a threat of *serious* injury to the environment. It found that CO<sub>2</sub> emissions are not currently regulated by Congress or South Dakota and that **Big Stone II** would only increase the national amount of emissions by seven hundredths of one percent. Because the PUC followed existing legal guidelines in approving the permit, and its findings were not clearly erroneous, we uphold its decision.

#### Background

[¶ 2.] The South Dakota Legislature acknowledged the significant impact energy development has on "the welfare of the population, the environmental quality, the location and growth of industry, and the use of the natural resources of the state." SDCL 49-41B-1. It enacted legislation to "ensure that [energy conversion and transmission] facilities are constructed in an orderly and timely manner so that the energy requirements of the people of the state are fulfilled." *Id.* The Legislature deemed it "necessary to ensure that the location, construction, and operation of facilities will produce minimal adverse effects on the environment and upon the citizens of this state by providing that a facility may not be constructed or operated in this state without first obtaining a permit from the [PUC]." *Id.*; SDCL 49-41B-4.

[¶ 3.] A permit application must include:

- (1) The name and address of the applicant;
- (2) Description of the nature and location of the facility;
- (3) Estimated date of commencement of construction and duration of construction;
- (4) Estimated number of employees employed at the site of the facility during the construction phase and during the operating life of the facility. Estimates shall include the number of employees who are to be utilized but who do not currently reside



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

- within the area to be affected by the facility;
- (5) Future additions and modifications to the facility which the applicant may wish to be approved in the permit;
- (6) A statement of the reasons for the selection of the proposed location;
- (7) Person owning the proposed facility and person managing the proposed facility;
- (8) The purpose of the facility;
- (9) Estimated consumer demand and estimated future energy needs of those consumers to be directly served by the facility;
- \*597 (10) The potential short and long range demands on any estimated tax revenues generated by the facility for the extension or expansion of public services within the affected areas;
- (11) Environmental studies prepared relative to the facility;
- (12) Estimated construction cost of the facility.

SDCL 49-41B-11.

[¶ 4.] After a request for a permit is filed, the PUC must enlist a local review committee, which "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." SDCL 49-41B-7. This committee issues a final report to the PUC with its findings and "recommendations of the committee as to mitigation measures and minority reports." SDCL 49-41B-10. The PUC may also "prepare or require the preparation of an environmental impact statement[.]" SDCL 49-41B-21. An applicant is required "to establish that: (1) The proposed facility will comply with all applicable laws and rules; (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area; (3) The facility will not substantially impair the health, safety or welfare of the inhabitants;

and (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government." SDCL 49-41B-22.

[¶ 5.] On November 8, 2004, in accord with SDCL 49-41B-5, the Otter Tail Corporation, doing business as Otter Tail Power Company, submitted a proposal to the PUC for permission to construct an energy conversion facility. Otter Tail submitted the proposal on behalf of Central Minnesota Municipal Power Agency, Great River Energy, Heartland Consumers Power District, Montana-Dakota Utilities Company, a division of MDU Resources Group, Inc., Southern Minnesota Municipal Power Agency, and Western Minnesota Municipal Power Agency (Applicants).<sup>FN1</sup> As proposed, the facility would be a 600 megawatt (MW) coal-fired electric generating plant to be located in Grant County, South Dakota, east of Milbank and Northwest of Big Stone.<sup>FN2</sup> The facility would be named **Big Stone II** and be situated next to an older facility, Big Stone I.

FN1. As confirmed by counsel at oral argument, some utilities have since pulled out of the project. Otter Tail and Montana-Dakota Utilities Company indicate that they will proceed with a smaller facility.

FN2. In 1972, various electrical utilities and other electrical industry participants voluntarily joined Mid-Continent Area Power Pool (MAPP), an association organized to promote efficiency and reliability in the industry by pooling power generation and transmission. MAPP noted that by the summer of 2011, the MAPP United States region would have an 819 megawatt deficit. To alleviate the forecasted deficit, MAPP concluded that members would need to construct power generators, purchase additional capacity, and/or reduce the growth in demand.

[¶ 6.] Several organizations sought to intervene: Clean Water Action; South Dakota Chapter Sierra Club; Union of Concerned Scientists; Mary Jo Stueve; Minnesotans for an Energy-Efficient Economy; Izaak Walton League of America, Midwest Office; and Minnesota Center for Environmental Ad-



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

vocacy (Intervenors). The Intervenors opposed the application on multiple grounds related to the environmental impact of **Big Stone II**. \*598 The PUC granted intervention to all parties.<sup>FN3</sup>

FN3. Clean Water Action and the Sierra Club later withdrew.

[¶ 7.] The Applicants' petition to the PUC triggered SDCL 49-41B-6, and a local review committee was established to prepare a social and economic assessment of **Big Stone II**. The assessment (1) examined the potential impacts of **Big Stone II**; (2) addressed the area's ability to absorb those impacts; (3) identified a list of actions needed to ensure a smooth project; and (4) prepared a list of recommended mitigation measures. The committee's findings relate to issues not implicated in this appeal, and therefore, will not be discussed.

[¶ 8.] An environmental impact statement was also prepared. Among many other things, the impact statement assessed the air quality effects of **Big Stone II**. In so doing, the statement first identified the applicable regulations, stating

The Clean Air Act, and its amendments (CAA), requires the Federal U.S. Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standard (NAAQS) for pollutants considered harmful to public health and the environment.... The USEPA Office of Air Quality Planning and Standards has set NAAQS for six principal pollutants, which are called "criteria" pollutants.<sup>FN4</sup>

FN4. These include: carbon monoxide (CO), lead, nitrogen dioxide, two types of particulate matter, ozone, and sulfur dioxides.

Draft Environmental Impact Statement May 2006 at 3-1, 3-2. The statement also recognized applicable regulations from Prevention of Significant Deterioration (PSD), New Source Performance Standards (NSPS), Best Available Control Technology (BACT), and the Clean Air Mercury Rule (CAMR). *Id.* at 4-2.

[¶ 9.] Although CO<sub>2</sub> is not regulated, the statement recognized that **Big Stone II** was estimated to emit

approximately 4.7 million tons of CO<sub>2</sub> per year. It remarked, however, that "[p]rojected emissions of all hazardous air pollutants from the existing and proposed plants would be reduced by approximately 41 [million] tons/year (from approximately 63 [million] tons/year by the existing plant to approximately 22 [million] tons/year by the combined existing and proposed plant operations)." *Id.* at ES-18. Moreover, the statement noted that "[t]he proposed super-critical combustion technology for the proposed Project is three-to-four percent more efficient, and would result in lower CO<sub>2</sub> emissions per MWh [megawatt hours] of electrical energy output as compared to the sub-critical boiler technology." *Id.* at 4-11.

[¶ 10.] The statement summarized the air quality effects of **Big Stone II**:

Overall, no air quality impacts exceed significance criteria for air resources. The long-term impacts from the proposed Project for NAAQS and PSD increment would be less than significant. The Grant County, South Dakota area is in attainment or is unclassifiable for all criteria pollutants. Emissions from the proposed project would not conflict with or obstruct implementation of any applicable air quality plan. Since the increase in criteria pollutant emissions would either be less than the PSD significance levels or well within the NAAQS and PSD increments, the proposed Project long-term and short-term emissions impacts on distant air quality areas that are not in compliance with NAAQS is unlikely. In addition, visibility impacts to Class I and Class II areas would be less than significant....

\*599 *Id.* at 4-13. Nevertheless, according to the statement, "[t]he proposed **Big Stone II** plant would generate unavoidable emissions of air pollutants that would be an adverse impact." *Id.* at 5-1. This was determined notwithstanding that **Big Stone II** "would operate under [an] appropriate air emission permit from the state of South Dakota that requires operation of the plant under regulatory limits.... Even with the permit requirements and air emission control equipment, these impacts would be adverse and unavoidable." *Id.*

[¶ 11.] In accord with SDCL 49-41B-16, the PUC is required to hold a public hearing near the proposed facility's location. Two public hearings were held. At



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

the first hearing, fifteen people provided testimony. At the second hearing, twenty people attended, with twelve giving testimony. In addition to the public hearings, the Applicants, Intervenor, and the PUC exchanged substantial written discovery, with the Applicants answering more than 500 discovery requests and making available more than 47,000 pages of documents. All parties submitted pre-filed testimony and a formal evidentiary hearing was held on June 26-29, 2006. Oral argument was heard by the PUC on July 11, 2006.

[¶ 12.] Through their testimony, the Applicants asserted that **Big Stone II** would provide the energy necessary to serve consumers in South Dakota, North Dakota, Minnesota, Iowa, Montana, and Wisconsin. **Big Stone II** is projected to produce 4.6 million MW hours of electricity per year. The estimated cost to construct **Big Stone II** is \$1 billion in 2011 dollars. The Applicants claimed that if construction of **Big Stone II** was delayed or prohibited, the member companies would not be able to generate sufficient energy, which would affect the reliability of their systems and harm consumers.

[¶ 13.] The Intervenor, opposed construction of **Big Stone II**. They asserted that **Big Stone II** would pose a threat of serious injury to the environment under SDCL 49-41B-22 and should not be constructed. The threat of serious injury, the Intervenor alleged, would be caused by the amount of CO<sub>2</sub> **Big Stone II** would emit. These emissions, according to the Intervenor, would contribute to global warming, which they contend seriously harms the environment.

[¶ 14.] To support their contention that global warming harms the environment and CO<sub>2</sub> emissions contribute to global warming, the Intervenor submitted expert testimony from Dr. Ezra Hausman. Dr. Hausman is employed with Synapse Energy Economic, Inc., a company specializing in energy and environmental concerns. Dr. Hausman holds a Ph.D. in Atmospheric Science from Harvard University, a master's degree in Applied Physics from Harvard, and a master's degree in Water Resource Engineering from Tufts University.

[¶ 15.] Dr. Hausman testified that "[h]uman induced climate change is a grave and increasing threat to the environment and to human societies around the globe." According to Dr. Hausman, an increase in

many greenhouse gases has caused a 0.6° C increase in global temperature in the twentieth century. More notably, he opined, "This means that the planet as a whole does not lose heat to space as efficiently as it otherwise would, so the system as a whole is warming up. This is the phenomenon commonly referred to as 'global warming.'"

[¶ 16.] According to Dr. Hausman, the increase in global temperature "has come primarily from the burning of fossil fuels (coal, oil, and natural gas), and also from changes in land use such as deforestation." Of the fossil fuels, he stated that "coal \*600 emits the most CO<sub>2</sub> per unit of energy obtained." Dr. Hausman said that "[t]here is an unequivocal scientific consensus on many aspects of the issue of global climate change." Specifically, according to Dr. Hausman, there is a consensus that:

- (1) "the CO<sub>2</sub> content of the atmosphere is increasing rapidly;"
- (2) "this rate of increase, and resulting abundance of CO<sub>2</sub> in the atmosphere, is unprecedented in at least the past 200,000 years and probably much longer;"
- (3) "the primary source of the increase is the combustion of fossil fuels by human industrialized societies, i.e., that is the anthropogenic CO<sub>2</sub>;" <sup>FN5</sup>

<sup>FN5.</sup> According to Dr. Hausman, the term "anthropogenic" refers to human caused emissions of CO<sub>2</sub>.

- (4) "the increased abundance of CO<sub>2</sub> has a direct radiative forcing effect on climate by altering the heat transfer characteristics of the atmosphere;"
- (5) "this change in the heat transfer properties of the atmosphere will have an impact on the climate of the planet;"
- (6) "the climate of the earth is currently changing in ways that are consistent with model predictions based on the increased radiative forcing due to the anthropogenic increase in the atmospheric CO<sub>2</sub>;"
- (7) "the magnitude of climate impacts will increase with increasing atmospheric CO<sub>2</sub> content;" and



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

(8) "once the atmospheric abundance of CO<sub>2</sub> has been increased, it will only return to equilibrium levels through natural processes on a timescale of several centuries."

[¶ 17.] In regard to coal-fired power plants in general, Dr. Hausman testified that the ones "in the United States already emit almost one-third of the U.S. emissions, or 8% of all the world's anthropogenic CO<sub>2</sub> into the atmosphere, a staggering contribution to the global buildup of greenhouse gases." Moreover, he testified that because "base load coal plants in the United States are built to produce electricity for decades, as long as 70 years in the case of some of the older plants still operating today", the threat to the environment "is becoming increasingly obvious and severe."

[¶ 18.] With respect to **Big Stone II**, Dr. Hausman testified that it would "add over 4.5 million tons of CO<sub>2</sub> to the atmosphere every year of its operational life, inexorably and significantly contributing to the buildup of greenhouse gases in the atmosphere." This amount represents a 34% increase in South Dakota's emission record from the EPA in 2001. Further, he said that "[a]t 4.5 million tons per year, emissions from **Big Stone II** would be equivalent to emissions from almost 670,000 cars." The emissions from **Big Stone II**, Dr. Hausman explained, "would cause irreversible damage to the environment, especially considering its expected lifetime of 50 years or more and the slow recovery time for atmospheric CO<sub>2</sub>." He stated, "Human societies and ecosystems will find themselves poorly adapted to their local climate and this will result in disruption of ecosystems[.]" He also predicted that the warming in a region like South Dakota will cause increased temperatures in the summer, resulting in more droughts and reduced crop yields.

[¶ 19.] He concluded that the emissions from **Big Stone II** will cause "a significant and irreversible impact on the environment, both globally and in South Dakota.... My opinion is that this facility will have a cumulative effect, in combination \*601 with other operating energy conversion facilities, both existing and under construction, of causing the level of atmospheric carbon dioxide to be significantly elevated relative to what it would be without this plant.... In my opinion, the environmental effects of this facility will pose a threat of serious injury to the

environment in South Dakota and in the broader region."

[¶ 20.] In response to Dr. Hausman's testimony, the Applicants presented the rebuttal testimony of Ward Uggerud, Otter Tail's senior vice-president. Uggerud testified that Dr. Hausman's opinion that **Big Stone II** will have a significant adverse impact on South Dakota "lacks perspective, to say the least." Although he conceded that "**Big Stone II** will emit approximately 4.7 million short tons of carbon dioxide per year," Uggerud explained:

The Energy Information Administration (EIA) reports that U.S. anthropogenic carbon dioxide emissions for 2010 are projected to be 6,365 million metric tons.... This means that **Big Stone II's** share of total U.S. anthropogenic carbon dioxide emissions in 2010 (assuming the plant came on line then) would be 0.0007 (0.07%, or seven hundredths of one percent). According to EIA, global anthropogenic CO<sub>2</sub> emissions in 2010 will be 30,005 million metric tons. **Big Stone II's** share of this amount will be 0.00014 (0.014% or less than two one-hundredths of one percent).

Moreover, Uggerud asserted that "[c]arbon dioxide is not the only greenhouse gas. Other gasses, such as methane and water vapor, also trap heat in the atmosphere. Water vapor is by far the most dominant greenhouse gas." He thought, therefore, that "the evidence is simply insufficient to conclude that CO<sub>2</sub> emissions associated with the proposed **Big Stone II** will cause [a] 'costly adverse impact on the environment both in South Dakota and throughout the region, the continent and the planet.' "

[¶ 21.] After considering Dr. Hausman's and Uggerud's testimony and the voluminous record, the PUC issued a thirty-four page letter decision, which, among other things, identified the applicable rules and regulations, the site description, alternative locations, and the impact of the plant on the environment. It also evaluated the regulatory and environmental costs associated with construction of **Big Stone II**. The PUC found that **Big Stone II** complied with all rules and regulations under SDCL Chapter 49-41B and ARSD Chapter 20:10:22. As for alternative energy sources, the PUC considered a study submitted by the Applicants from Burns & McDonnell Engineering Co. It examined alternative baseload genera-



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

tion technologies, such as wind, biomass, hydro-power, solar, landfill gas, geothermal energy, distributed generation, atmospheric circulating fluidized bed, combined cycle natural gas turbine, and integrated coal gasification combined cycle. The PUC concluded that “there were no renewable generation options available to address the need for 600 MW of baseload power within the timeframe required, and that other fossil fuel sources were more expensive and less desirable.” Further, according to the PUC, there was no single next best alternative source where the Applicants could obtain the needed energy and the “Intervenors have not proposed an alternative to provide base load capacity through natural gas or oil instead of coal” and “have not suggested any specific alternative to **Big Stone II**....”

[¶ 22.] The PUC also addressed an issue that arose at the hearing where the Intervenors argued that the Applicants should pay the costs associated with possible future regulation of CO<sub>2</sub> emissions. Because neither Congress nor South Dakota\*602 has regulated CO<sub>2</sub> emissions, and the PUC found it speculative whether such regulations would be established, it concluded that imposing costs would be unwarranted.

[¶ 23.] The PUC considered the environmental impact statement filed by the Applicants. The statement indicated that **Big Stone II** would emit approximately 4.7 million tons of CO<sub>2</sub> each year and over 225 million tons of CO<sub>2</sub> over the expected life of the plant. But the plant would “produce about 18% less CO<sub>2</sub> than other existing coal-fired plants because the super-critical boiler proposed here is more efficient than other forms of coal-fired technologies.” Thus, the PUC found that **Big Stone II** “will not contribute materially to the increase in the production of anthropogenic carbon dioxide[.]” The PUC also found that **Big Stone II** “would increase U.S. emissions of carbon dioxide by approximately .0007, or seven-hundredths of one percent[.]”

[¶ 24.] In sum, considering the voluminous record, including the pre-filed testimony, the committee report, the environmental impact statement, and the applicable rules and regulations, the PUC concluded that “if constructed in accordance with the terms and conditions” set forth in its decision, **Big Stone II** “will not pose a threat of serious injury to the environment or to the social and economic conditions of the inhabitants or expected inhabitants in the siting

area.”

[¶ 25.] Accordingly, the PUC granted the Applicants a permit to construct **Big Stone II** in compliance with the terms and conditions of the PUC's decision. In circuit court, the Intervenors' appeal was affirmed. They now appeal to this Court asserting that the PUC's decision (1) violated the plain language of SDCL 49-41B-22; and (2) was clearly erroneous in light of the evidence as a whole.

### Standard of Review

[1][2] [¶ 26.] Our review of the PUC's decision granting the Applicant's request for a permit to construct **Big Stone II** is controlled by SDCL 1-26-36. See Tebben v. Gil Haugen Const., Inc., 2007 SD 18, ¶ 15, 729 N.W.2d 166, 171 (quoting Wells v. Howe Heating & Plumbing, Inc., 2004 SD 37, ¶ 9, 677 N.W.2d 586, 590 (quoting SDCL 1-26-36)). The PUC's findings of fact are reviewed under the clearly erroneous standard, while its conclusions of law are reviewed de novo. See *id.* “A reviewing court must consider the evidence in its totality and set the [PUC's] findings aside if the court is definitely and firmly convinced a mistake has been made.” *Id.* (citing Sopko v. C & R Transfer Co., Inc., 1998 SD 8, ¶ 7, 575 N.W.2d 225, 228-29).

### Analysis and Decision

[3] [¶ 27.] According to the Intervenors, the PUC erroneously applied SDCL 49-41B-22, and therefore, our review must be de novo, and we should accord no deference to the PUC's decision that **Big Stone II** will not pose a threat of serious injury to the environment. They argue that the PUC “was duty-bound to recognize” the findings by the scientific community concerning the impact of CO<sub>2</sub> emissions on global warming. Moreover, they argue that the PUC's finding that **Big Stone II** will emit 4.7 million tons of CO<sub>2</sub> each year clearly demonstrates that the plant will pose a threat of serious harm to the environment.

[¶ 28.] The Applicants respond that there are no regulations governing the emission of CO<sub>2</sub>, and thus there are no standards by which to conclusively establish what amount of emission constitutes a threat of serious injury to the environment. According to the Applicants, the PUC was required to determine if **Big Stone II**, not all coal-fired facilities, will \*603 pose a



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

threat of serious injury to the environment. Because **Big Stone II** is calculated to increase U.S. emissions by 0.0007, or seven hundredths of one percent, the Applicants contend that the PUC's conclusion is not clearly erroneous in light of all the evidence. Moreover, the PUC required that the Applicants report annually on any CO<sub>2</sub> regulations and their efforts to bring **Big Stone II** into compliance.

[4][5] [¶ 29.] We review the PUC's decision and decide whether, based on the evidence as a whole, we are left with a definite and firm conviction that a mistake has been made. See *Sopko*, 1998 SD 8, ¶ 6, 575 N.W.2d at 228. While we give due regard to an agency's well-reasoned and fully informed decision, we will not uphold clear errors of judgment or conclusions unsupported in fact. Our task in this appeal is to decide the narrow question of whether the PUC's conclusion that **Big Stone II** will not pose a threat of serious injury to the environment was clearly erroneous in light of all the evidence. See *id.*

[¶ 30.] There were over 1,400 pages of documentary evidence submitted in this case. The Applicants offered evidence of studies conducted concerning the effect **Big Stone II** might have on the environment and the community. They also submitted evidence regarding the alternative sources of energy they considered, but ruled out. The Intervenor's do not dispute the Applicants' need for the additional wattage. Nor do they present an argument that there exists a viable alternative to **Big Stone II**'s coal-fired facility. More significantly, the Intervenor's suggest no standards by which the PUC may assess what amount of CO<sub>2</sub> emissions are tolerable. Rather, they maintain that CO<sub>2</sub> emissions, at any measurable level, seriously harm the environment.

[¶ 31.] Global warming presents a momentous and complex threat to our planet. A resolution for this problem, critical though it is, cannot be made in the isolation of judicial proceedings. The social, economic, and environmental consequences of global warming implicate policy decisions constitutionally reserved for the executive and legislative branches. To date, no CO<sub>2</sub> emission standards have been enacted by our political leaders. "Congress has recognized that carbon dioxide emissions cause global warming and that global warming will have severe adverse impacts in the United States, but it has declined to impose any formal limits on such emis-

sions." *Connecticut v. American Elec. Power Co., Inc.*, 406 F.Supp.2d 265, 268-69 (S.D.N.Y.2005) (citing The Global Climate Protection Act of 1987, PL 100-204, Title XI, §§ 1102-03, reprinted at 15 U.S.C § 2901 note).<sup>FN6</sup>

FN6. Recently, the United States Supreme Court ruled that the EPA was authorized to regulate CO<sub>2</sub> when the Court interpreted the phrase "any air pollutant" in the Clean Air Act to include automobile carbon dioxide emissions. See *Massachusetts v. E.P.A.*, 549 U.S. 497, 127 S.Ct. 1438, 1460-61, 167 L.Ed.2d 248 (2007). The Court reasoned that the use of the word "any" indicated that the statute was intended to require regulation of all air pollutants. *Id.*

[¶ 32.] As members of the judiciary, we refrain from settling policy questions more properly left for the Governor, the Legislature, and Congress. No matter how grave our concerns on global warming, we cannot allow personal views to impair our role under the Constitution. In South Dakota, the Legislature designated the PUC as the responsible agency for this question of granting a permit. We must uphold the PUC's decision unless we conclude that the ruling was "clearly erroneous in light of the entire evidence in the record or arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion." See \*604 *Korzan v. City of Mitchell*, 2006 SD 4, ¶ 12, 708 N.W.2d 683, 686 (citing SDCL 1-26-36).

[¶ 33.] The PUC, in its thirty-four page decision, entered several findings of fact concerning the issue of global warming and CO<sub>2</sub> emissions. It recognized that despite the asserted scientific consensus on the harm caused from global warming, neither Congress nor the South Dakota Legislature has chosen to regulate CO<sub>2</sub> emissions. Therefore, the PUC addressed the potential harm from **Big Stone II** by comparing the projected level of CO<sub>2</sub> emissions from **Big Stone II** to the level of emissions nationally. Because **Big Stone II** would increase CO<sub>2</sub> emissions by 0.0007, or seven hundredths of one percent, the PUC concluded the threat of harm would not result in serious injury. Nonetheless, as a condition on the permit, the PUC required that the Applicants submit annual reviews of any regulations on CO<sub>2</sub> emissions and their efforts to comply with those regulations.<sup>FN7</sup>



744 N.W.2d 594, 2008 SD 5  
(Cite as: 744 N.W.2d 594)

FN7. The Applicants must “submit an annual report to the [PUC] on CO<sub>2</sub>” which “shall review any federal or state action taken to regulate carbon dioxide, how the operator plans to act to come into compliance with those regulations, the expected costs of those compliance efforts and the estimated effect of such compliance on rate-payers. The report should also evaluate operational techniques and commercially-available equipment being used to control CO<sub>2</sub> emissions at pulverized coal plants, the cost of those techniques or equipment, and whether or not the operator has evaluated the prudence of implementing those techniques or equipment.”

END OF DOCUMENT

[¶ 34.] Our review of the record shows the PUC entered a well-reasoned and informed decision when it concluded that **Big Stone II** would not pose a threat of serious injury to the environment. It addressed the parties' contentions regarding global warming and CO<sub>2</sub> emissions and also provided a detailed explanation of why it rejected the findings proposed by the Intervenor.

[¶ 35.] While global warming and CO<sub>2</sub> emissions are considered harmful by the scientific community, what will pose a threat of *serious* injury to the environment under SDCL 49-41B-22 is a judgment call initially vested with the PUC by the Legislature. Nothing in SDCL Chapter 49-41B so restricts the PUC as to require it to prohibit facilities posing any threat of injury to the environment. Rather, it is a question of the acceptability of a possible threat. Resolving what is acceptable for the people of South Dakota is not for this Court. The Legislature and Congress must balance the competing interests of economic development and protection of our environment. Based on all the evidence and our limited scope of review, the PUC's decision was not clearly erroneous.

[¶ 36.] Affirmed.

[¶ 37.] GILBERTSON, Chief Justice, and SABERS, ZINTER, and MEIERHENRY, Justices, concur.  
S.D.,2008.

In re Otter Tail Power Co. ex rel. Big Stone II  
744 N.W.2d 594, 2008 SD 5



Dustin Johnson, Chair  
Steve Kolbeck, Vice Chair  
Gary Hanson, Commissioner

## **SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

500 East Capitol Avenue  
Pierre, South Dakota 57501-5070  
[www.puc.sd.gov](http://www.puc.sd.gov)

Capitol Office  
(605) 773-3201  
1-866-757-6031 fax

Warehouse  
(605) 773-5280  
(605) 773-3225 fax

Consumer Hotline  
1-800-332-1782

TO: HP09-001 Interveners  
FROM: Public Utilities Commission Staff

DATE: June 12, 2009

Thank you for intervening in the TransCanada Keystone XL pipeline siting docket. At its June 9<sup>th</sup> meeting, the Commission approved the following schedule:

- Final discovery requests served by July 31, 2009, with replies due by August 24, 2009
- Additional Applicant (TransCanada) prefiled testimony due September 1, 2009
- Intervener prefiled testimony due September 8, 2009
- Staff prefiled testimony due September 25, 2009
- Applicant (TransCanada) rebuttal testimony due October 19, 2009
- Hearing in the Capitol Building, Pierre, South Dakota November 2 through 6, 2009

You are considered an "Intervener" and may provide testimony and participate in discovery if you wish. You must, however, submit your testimony in writing by September 8, 2009, if you intend to testify in the November live hearing. "Prefiled" testimony is a mechanism whereby all parties are put on notice, through written submissions, regarding his or her position in the case. You then must appear at the November hearing for your testimony to be placed into the formal record.

The Commission also approved consultant contracts at its June 9th meeting. PUC Staff will work with environmental, engineering and socio-economic experts. To properly complete our research, we now ask for your input. Please answer the questions on the attached page. We ask that you submit your answers by July 13, 2009. You may submit answers electronically to Kara Semmler at: [kara.semmler@state.sd.us](mailto:kara.semmler@state.sd.us) or send them to the PUC offices at 500 E. Capitol, Pierre, SD 57501. Thank you for your research assistance. Please contact Kara Semmler at 605-773-3201 with any questions.

*Exhibit C*



**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

IN THE MATTER OF THE APPLICATION	)	INTERROGATORIES AND
BY TRANSCANADA KEYSTONE	)	REQUEST FOR PRODUCTION
PIPELINE, LP FOR A PERMIT UNDER THE	)	OF DOCUMENTS
SOUTH DAKOTA ENERGY CONVERSION	)	
AND TRANSMISSION FACILITIES ACT TO	)	HP09-001
CONSTRUCT THE KEYSTONE XL	)	
PROJECT	)	

**SOUTH DAKOTA PUBLIC UTILITIES COMMISSION STAFF'S FIRST SET OF  
INTERROGATORIES AND REQUEST FOR DOCUMENTS TO ALL INTERVENERS  
EXCEPT DAKOTA RURAL ACTION**

The Staff of the Public Utilities Commission ("Staff"), by and through its Staff Attorney, hereby submits the following Interrogatories and Requests for Production of Documents to you. Responses should be received on or before July 13, 2009.

**INSTRUCTIONS**

1. You are required to stipulate in writing that your responses may be treated exactly as if they were filed under oath.
2. A verification or signature of the answering individual or counsel is requested with the answers for these requests as an indication of the genuineness and completeness of the responses and documents provided.

**DEFINITIONS**

1. "Commission" refers to the South Dakota Public Utilities Commission.
2. "Request" includes any and all interrogatories, requests for production of documents, information requests or other document request.
3. "Person" or "Persons" shall mean any individual, association, partnership, corporation, firm, organization, or entity.

4. “Refer,” “referring to,” “relate” and “relating to” shall mean having a legal, factual or logical connection, relationship, correlation, or association with the subject matter of the request.

5. Words of gender shall be construed as including all genders, without limitation.

6. Words in the singular shall be construed to mean the plural or vice versa as appropriate.

REQUEST 1: State your name, address and telephone number.

REQUEST 2: State whether you own land crossed by the pipeline, own land on which a pumping station is planned or believe your property is otherwise affected by the pipeline. Provide detail regarding the pipeline and associated facilities location relative your property.

REQUEST 3: If you do not own land or have an interest in land crossed or affected by the Pipeline, please state any perceived impacts the pipeline will have upon yourself, your property, or your interests.

REQUEST 4: The applicable applicant burden of proof reads as follows:

*49-41B-22. Applicant's burden of proof. The applicant has the burden of proof to establish that:*

*(1) The proposed facility will comply with all applicable laws and rules;*

*(2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area;*

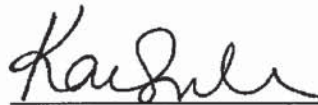
*(3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and*

*(4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.*

Specify particular aspect(s) of the applicant's burden of proof for which you have specific concerns.

- REQUEST 5: If your property is crossed by the pipeline, specify and explain any unique characteristics or conditions on your property that could affect the analysis of the pipeline siting.
- REQUEST 6: Generally what issues do you have with the pipeline relative to PUC jurisdiction?" Examples would be sensitive wildlife, reclamation, roads, emergency services, etc. Please do not include non-jurisdictional issues such as easements, pipe wall thickness and the 80 % waiver. (If you have questions about what is jurisdictional, please contact Kara Semmler.)
- REQUEST 7: Do you intend to submit prefiled testimony? If so, of whom?
- REQUEST 8: As an ongoing request, provide Commission Staff with a copy of all data, documentary or interrogatory requests you send any party to this docket along with its complete answer to such request.
- REQUEST 9: Please specify any other information that may be useful as we begin our research and analysis of this pipeline siting application.

Dated at Pierre, South Dakota, this 12th day of June, 2009.



---

Kara Semmler  
Staff Attorney  
South Dakota Public Utilities Commission  
500 East Capitol  
Pierre, SD 57501  
(605) 773-3201



BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION ) HP 09-001  
BY TRANSCANADA KEYSTONE PIPELINE, )  
LP FOR A PERMIT UNDER THE SOUTH )  
DAKOTA ENERGY CONVERSION AND )  
TRANSMISSION FACILITIES ACT TO )  
CONSTRUCT THE KEYSTONE XL )  
PROJECT )

**CERTIFICATE OF SERVICE**

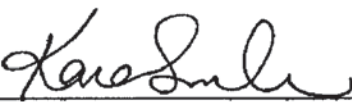
I hereby certify Interrogatories and Requests for Production of Documents were served upon all of the parties listed below on the 12th day of June, 2009, either electronically or by mailing a true and correct copy thereof to them by first class mail, postage prepaid, at their last known addresses, to-wit:

MS MARY JASPER - [maryjasper@hotmail.com](mailto:maryjasper@hotmail.com)  
MR. PAUL SEAMANS - [jackknife@goldenwest.net](mailto:jackknife@goldenwest.net)  
MS CAROL MOYER - [dakotamum@yahoo.com](mailto:dakotamum@yahoo.com)  
MS JACQUELINE LIMPert - [slimbuttes@hughes.net](mailto:slimbuttes@hughes.net)  
MR JOHN HARTER - [johnharter11@yahoo.com](mailto:johnharter11@yahoo.com)  
MS ZONA VIG - [dvig@gwtc.net](mailto:dvig@gwtc.net)  
MR CRAIG COVEY - [tcwud@gwtc.net](mailto:tcwud@gwtc.net)  
MS CAITIN F. COLLIER - [collierlawoffice@gmail.com](mailto:collierlawoffice@gmail.com)  
MR FRANK JAMES - [fejames@dakotarural.org](mailto:fejames@dakotarural.org)  
MR DAVID NIEMI - [niemiranch@sdplains.com](mailto:niemiranch@sdplains.com)  
MS DEBRA NIEMI - [niemi@knology.net](mailto:niemi@knology.net)  
MS. RUTH IVERSON - [sue-iversen@goldenwest.net](mailto:sue-iversen@goldenwest.net)  
MR. MARTIN R. LUECK - [mrlueck@rkmc.com](mailto:mrlueck@rkmc.com)

MR. DARRELL IVERSON  
PO BOX 467  
MURDO SD 57559

MR GLEN IVERSEN  
PO BOX 239  
MURDO SD 57559-0239

MR LON LYMAN  
PO BOX 7  
OKATON SD 57562

BY:   
Kara Semmler  
SD Public Utilities Staff Attorney  
500 E. Capitol  
Pierre, SD 57501  
(605) 773-8182