

APPENDIX
To Appellee South Dakota Public Utilities Commission’s Brief
Gerald Pesall, Appellant v. Montana Dakota Utilities et al.
#27324

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND OTTER)
TAIL POWER COMPANY FOR A PERMIT TO)
CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345 kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design.

On August 26, 2013, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status (Order). On August 29, 2013, the Commission electronically transmitted notice of the Application and the intervention deadline of October 22, 2013, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On September 13, 2013, the Order was served on the governing bodies of all counties and municipalities in the project area, and notices of the public hearings were published in project area newspapers as provided in SDCL 49-41B-5.2 and 49-41B-15. The public hearings were held as scheduled on October 17, 2013, in Aberdeen and Milbank. On October 18, 2013, Gerald Pesall filed an Application for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on November 5, 2013, the Commission considered Mr. Pesall's Application for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to Mr. Pesall. It is therefore

ORDERED, that Gerald Pesall's Application for Party Status and intervention is granted.

Dated at Pierre, South Dakota, this 6th day of November, 2013

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.	
By:	<u>Joy Lashley</u>
Date:	<u>11-6-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

1	STATE OF SOUTH DAKOTA)	IN CIRCUIT COURT
	) SS	
2	COUNTY OF DAY)	FIFTH JUDICIAL CIRCUIT
	* * * * *	* * * * *
3)
4	GERALD PESALL,	) CIV. 14-53
)
5	Appellant,)
		) ORAL ARGUMENT HEARING
6	VS.	) ADMINISTRATIVE APPEAL
)
7	MONTANA DAKOTA UTILITIES, OTTER)
	TAIL POWER, SCHURING FARMS, INC.,)
8	BRADLEY MOREHOUSE, AND THE)
	SOUTH DAKOTA PUBLIC UTILITIES)
9	COMMISSION,)
)
10	APPELLEES.)
	* * * * *	* * * * *
11	<u>DATE & TIME:</u>	December 23, 2014
12		2:00 p.m.
13	<u>BEFORE:</u>	THE HONORABLE SCOTT P. MYREN
14		CIRCUIT COURT JUDGE
15		Brown County Courthouse
		Aberdeen, South Dakota 57401
16	<u>LOCATION:</u>	Brown County Circuit Courtroom
17		Brown County Courthouse
18		Aberdeen, South Dakota 57401
19		
20		
21		
22		
23		
24		
25		

1 Mr. Smith, can you hear me?

2 MR. SMITH: I can, Your Honor.

3 THE COURT: And did you want to make other
4 identifications on the record?

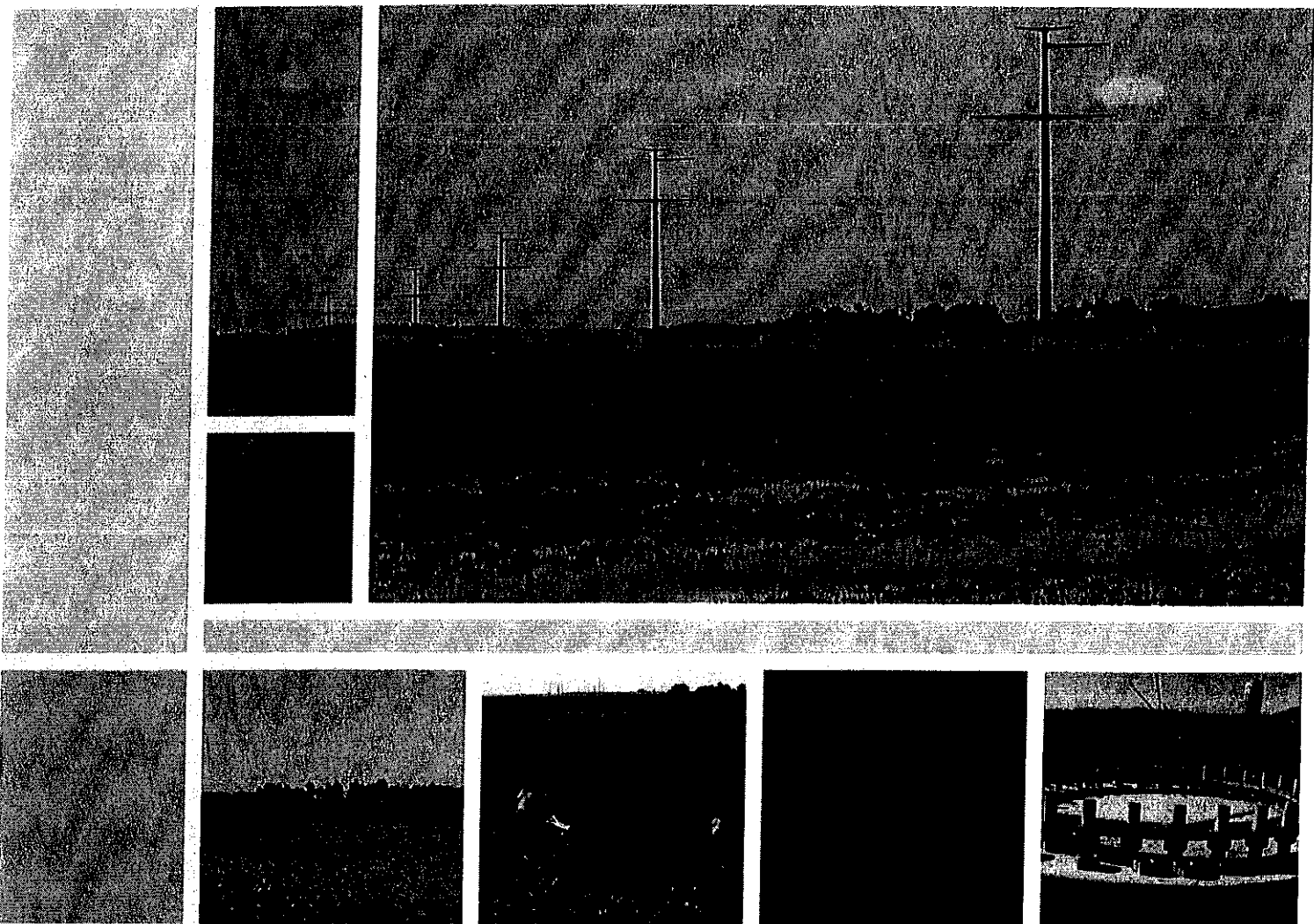
5 MR. SMITH: Well, I'm John Smith, commission counsel for
6 the South Dakota Public Utilities Commission representing
7 the South Dakota Public Utilities Commission this docket.
8 With me in the room today, and we're on speaker phone, is
9 Commissioner Chris Nelson. And that's it.

10 THE COURT: Thank you. And I'll just make sure on the
11 telephone line, was there any other party or any other
12 person that wished to appear before the Court on this
13 matter? If so, just speak up.

14 There are no other appearances being noted on the
15 record.

16 And there is a voluminous record here. I've had the
17 opportunity to review the entire record. And paying
18 particular attention, of course, to the evidentiary hearing
19 and the exhibits that were presented there. And I've also
20 received various briefings from all the parties, which I've
21 had a chance to review.

22 So with the understanding that I've been through all of
23 that material, I will let each of the counsel make their
24 argument. And then as I, I think I explained earlier, I
25 will go back around one additional time for each of the



*Application to the Public Utilities Commission of the
State of South Dakota for a Facility Permit*

**MONTANA-DAKOTA UTILITIES CO. &
OTTER TAIL POWER COMPANY**

Big Stone South to Ellendale Project

AUGUST 14, 2013



BSS+E
Big Stone South to Ellendale

8.0 Alternative Sites (ARSD 20:10:22:12)

8.1 Route Identification and Selection Process

The South Dakota Facility route selection process centered on a multi-faceted approach in which the Applicants considered state and federal requirements, public comments received at public meetings, and extensive analysis of available environmental data. The route development process was primarily driven by extensive public participation and agency coordination programs in both South Dakota and North Dakota. Table 5 provides a general overview of the public involvement efforts undertaken by the Applicants for the Project. Additional information on the public involvement activities conducted for the Project, including materials used during open house meetings, are available on the Project website at www.bssetransmissionline.com. The South Dakota Facility defined in this Application is shown in detail in Exhibit 2.

Table 5. Summary of Public, Agency, and Tribal Involvement Activities

Year	Month	Action
2012	July	<ul style="list-style-type: none"> Project notification letter mailed to North Dakota and South Dakota state and federal agencies
	August	<ul style="list-style-type: none"> Project notification letter mailed to county, state, and local representatives, and non-government organizations in North Dakota and South Dakota Held meetings with North Dakota and South Dakota county zoning and planning representatives (Spink, Clark, Grant, Day, Hamlin, Codington, Brown, Deuel, Marshall, Roberts, Richland, Dickey, and Sargent counties) Held two interagency meetings with state and federal agencies for North Dakota and South Dakota
	September	<ul style="list-style-type: none"> Project website and toll-free Project information line made available to the public (www.bssetransmissionline.com and 888-283-4678) Corridor notification letter for open house meetings mailed to the public, county, state, and city representatives, and non-government organizations in North Dakota, South Dakota, and Minnesota Corridor notification letter for open house meetings mailed to township representatives in North Dakota, South Dakota, and Minnesota

Year	Month	Action
2012	October	<ul style="list-style-type: none"> Meeting with Sisseton Wahpeton Oyate and Standing Rock Sioux Tribal Historic Preservation Offices (THPOs) for Project introduction and study area discussion Corridor notification postcard for open house meetings mailed to landowners within the study corridors Paid advertisements and press releases sent to North Dakota, South Dakota, and Minnesota publications to notify the communities of the study corridor open house meetings Corridor public open house meetings (October 15-18, 2012): <ul style="list-style-type: none"> Wheaton, Minnesota Milbank, South Dakota Webster, South Dakota Aberdeen, South Dakota Ellendale, North Dakota Britton, South Dakota
	November	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter (Issue 1) was posted to the website and hard copies were mailed to stakeholders in the Project open house meeting attendees and those who had commented or signed up for the mailing list
	December	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter from November sent electronically to contact persons above who provided email addresses
2013	January	<ul style="list-style-type: none"> Conducted interagency meetings for North Dakota and South Dakota state and federal agencies. Follow-up letter sent to agencies which included the meeting minutes and letter from the Applicants Hosted an online webinar and conference call with county representatives in North Dakota and South Dakota including Day, Brown, Grant, Dickey, and Marshall counties to describe the routing process and gather input on preliminary routes followed up with meeting minutes and a message from the Applicants
	February	<ul style="list-style-type: none"> Meeting with South Dakota State Historic Preservation Office (SDSHPO) to discuss expected cultural resource identification efforts and tribal involvement Paid advertisements and press releases sent to North Dakota and South Dakota publications to notify the communities of the routing open house meetings Notification letter for routing open house meetings sent to stakeholders including state, federal, and local agencies, elected officials, and non-governmental organizations (NGOs) Notification postcards for routing open house meetings sent to landowners within the preliminary corridors of the Project and active participants who attended a meeting or submitted a comment Routing public open house meetings (February 25-27, 2013): <ul style="list-style-type: none"> Groton, South Dakota Ellendale, North Dakota Britton, South Dakota Webster, South Dakota Milbank, South Dakota

linked together into numerous alternative preliminary transmission line routes. The Applicants evaluated the preliminary routes, measuring them against both the transmission line routing considerations for the State of South Dakota (SDCL 49-41B-22) and input on sensitive and important resources identified by the public. The transmission line route in South Dakota was selected based on several considerations, including the following:

- Minimizing total length and construction costs
- Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services
- Consideration of effects on public health and safety
- Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities
- Minimizing effects on archaeological, cultural properties, and historic resources
- Minimizing impacts to wetlands, surface waters, and rivers
- Minimizing impacts to rare or endangered species and unique natural resources
- Minimizing effects to airports or other land use conflicts

During public open house meetings conducted during the route identification and selection process, the public identified several criteria that were also considered in the routing process. These criteria included:

- Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields
- Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment
- Avoiding a diagonal route across agricultural fields wherever possible
- Preference for mono-pole structures rather than H-frame structures

Upon determination of the preferred route, notifications were sent to federal and state agencies in May 2013, requesting comment on the preferred route, as shown in Table 5. A table outlining agency contact and copies of the agency material correspondences are provided in Appendix C.

8.2 Alternatives Considered and Selected

The Applicants initially considered multiple alternatives for the South Dakota Facility. The Applicants evaluated preliminary routes in South Dakota based on the factors listed above and the comments received from the public. The study corridor in Minnesota was considered but not selected for the following reasons:

- Need to complete permitting process in an additional state
- Crossing of the Bois de Sioux and Minnesota Rivers which are classified as Section 10 Rivers, regulated by the United States Army Corps of Engineers (USACE), and requiring additional federal review and permitting
- Increased length resulting in increased potential effects and cost
- Engineering challenges associated with crossing Big Stone Lake north of Ortonville, Minnesota

STATE OF SOUTH DAKOTA)
)
 COUNTY OF DAY)

IN CIRCUIT COURT
 FIFTH JUDICIAL CIRCUIT

GERALD PESALL)
)
 VS.)
)
 MONTANA DAKOTA UTILITIES, OTTERTAIL POWER,)
 SCHURING FARMS INC., BRADLEY MOREHOUSE, SDPUC)

ALPHABETICAL INDEX
 18CIV14000053

NO.	DATE	CHRONOLOGICAL INDEX	PAGE NUMBER
1.	09/23/13	Aberdeen American News' Affidavit of Publication	1068
2.	10/11/13	Aberdeen American News' Affidavit of Publication	1098
3.	04/23/14	Aberdeen American News' Affidavit of Publication	1858
4.	05/20/14	Aberdeen American News' Affidavit of Publication	3830
5.	10/17/13	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Valuation Guidelines for Properties with Electric Transmission Lines distributed by Dean Podoll, Aberdeen, S.D.; Comments, photos, maps from Dean Podoll, Aberdeen, S.D.; Transcript of Public Input Hearing; and Exhibit 1	1100-1102 (Sealed envelope 1103-1108) 1109-1343
6.	05/20/14	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Lyle Podoll's Letter; Transcript; Exhibit 50 - Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; and Exhibit 50A - Revised Potential Route Changes	3560-3563 (Sealed envelope 3564-3566) 3567-3828
7.	08/26/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1040 - 1043
8.	09/13/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1064-1067
9.	08/13/14	Agenda of PUC Ad Hoc Commission Meeting	8292-8293
10.	09/10/13	Agenda of PUC Commission Meeting	1045 - 1048
11.	04/30/14	Agenda of PUC Commission Meeting	3518-3521
12.	08/06/14	Agenda of PUC Commission Meeting	8214-8219
13.	11/05/13	Agenda to PUC Commission Meeting	1501-1506
14.	09/19/14	Amended Certificate of Service	8345-8346

15.	6/20/14	Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Redlined - Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); and Certificate of Service	7949-7972
16.	01/27/14	Amendment to Application Dated January 27, 2014; Certificate of Service; Amended Pages of Application - Redlined ; and Amended Pages of Application	1516-1539

17.	06/03/14	<p>Applicants Montana-Dakota Utilities Co. and Otter Tail Power Company's Exhibit List and Certificate of Service; Exhibit 1 – Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to the Application; Exhibit 2 - Responses to First Set of Staff Data Requests; Exhibit 3 - Responses to Second Set of Staff Data Requests ; Exhibit 4 - Answers to First Set of Pesall Discovery ; Exhibit 5 - Answers to Second Set of Pesall Discovery; Exhibit 6 - BSSE 9 - Map Showing Preferred Route; Exhibit 7 - Route Change Request Form; Exhibit 8 - Pesall's First Requested Route Change; Exhibit 9 - Route Change Matrix (BSSE 29- 31) Confidential (not available to the public) ; Exhibit 10 - MISO Tariff Attachment FF; Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing; Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing; Exhibit 13 - Updated Table of Public Outreach; Exhibit 14 - Danny Frederick CV; Exhibit 15 - Jon Lemman CV; Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014; Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014; Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014; Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014; Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014; Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014; Exhibit 20 - Jon Lemman Pre-filed Testimony Dated April 25, 2014; Exhibit 21A - Pesall Property Photograph - Looking North; Exhibit 21B - Pesall Property Photograph - Looking South; Exhibit 21C - Pesall Aerial Map; Exhibit 22 - Morehouse and Schuring Aerial Map; Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan; Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing; Exhibit 25 - Route Map Dated June 10, 2014; Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing; and Exhibit 50A - Revised Maps of Route Changes</p>	<p>3894-4735 (Sealed envelope 4736-4912) 4913-5002 (Sealed envelope 5003-5005) 5006-5566</p>
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18.	04/14/14	Application for Party Status (Bradley R. Morehouse)	1551
19.	04/14/14	Application for Party Status (Clark T. Olson)	1549
20.	04/14/14	Application for Party Status (James R. McKane III)	1548
21.	04/14/14	Application for Party Status (Kevin Anderson)	1552
22.	04/14/14	Application for Party Status (Schuring Farms, Inc.)	1550
23.	09/26/13	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners ; and Exhibit B - Landowners	1069-1092
24.	4/25/14	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners; Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Map Showing Route Changes; and Exhibit B - Landowners	1889-1900
25.	07/29/14	Comments of Arnold and Darlene Dennert; and Comments of Arnold and Darlene Dennert Confidential (not available to the public)	8148-8149 (Sealed envelope 8150-8151)
26.	08/04/14	Comments of Carol Rydberg ; Comments of Carol Rydberg Confidential (not available to the public); PUC Staff's Response to Carol Rydberg ; PUC Staff's Response to Carol Rydberg Confidential (not available to the public); and August 6, 2014, Agenda of Commission Meeting	8203 (Sealed envelope 8204) 8205 (Sealed envelope 8206) 8207-8212
27.	06/13/14	Comments of Dakota Rural Action	7944-7946
28.	06/16/14	Comments of Grant Manhart; and Comments of Grant Manhart Confidential (not available to the public)	7947 (Sealed envelope 7948)
29.	11/01/13	Comments of Parkshill Farms, LLC to Commissioner Hanson; and Comments of Parkshill Farms, LLC to Commissioner Hanson Confidential (not available to the public)	1497-1498 (Sealed envelope 1499-1500)
30.	04/29/13	Day County Auditor Letter; Farmington Township Board; Highland Township; and Valley Township	1-3
31.	04/25/14	Direct Testimony of Angela Piner; Exhibit 11 - Affidavit of Mailing of Landowner Notice Letter Dated September 24, 2013; Exhibit 12 - Affidavit of Mailing of Landowner Notice Letter Dated April 22, 2014; and Exhibit 13 - Updated Table 5 - Summary of Public, Agency, and Tribal Involvement Activities	3429-3474
32.	04/25/14	Direct Testimony of Danny Frederick; and Exhibit 14 - Curriculum Vitae	3475-3493
33.	04/25/14	Direct Testimony of Gerald Pesall; and Certificate of Service	1859-1864
34.	04/25/14	Direct Testimony of Gregory Tylka and Certificate of Service; Gregory Tylka Resume; and Amended Certificate of Service (was filed on 6/9/14 correcting typo)	1865-1888

35.	04/25/14	Direct Testimony of Henry Ford; Exhibit 1 – Application; Exhibit 1 – Project; Overview; Exhibit 2 - Detail of South Dakota Facility ; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 - Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011) ;Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ;Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to Application; Exhibit 2 - Responses to Staff's First Data Requests; Exhibit 3 - Responses to Staff's Second Data Requests ; Exhibit 4 - Responses to Gerald Pesall's First Set of Discovery Requests to Applicants; Exhibit 5 - Responses to Gerald Pesall's Second Set of Discovery Requests to Applicants; Exhibit 6 - Map of Preliminary Routes ; Exhibit 7 - Landowner Request Form; Exhibit 8 - Map of Pesall Re-Route; Request for Confidential Treatment for Ford Exhibit 9; and Exhibit 9 Confidential (not available to the public);	1901-2759 (Sealed envelope 2760-2936) 2937-3028 (Sealed envelope 3029-3031)
36.	04/25/14	Direct Testimony of Jason Weiers ; and Exhibit 10 - Attachment FF - Transmission Expansion Planning Protocol	3032-3428
37.	04/25/14	Direct Testimony of Jon Leman ; Exhibit 15 - Curriculum Vitae; and Certificate of Service	3494-3517
38.	08/23/13	Docket EL13-028 - Comments and Responses (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/el13-028comments.aspx)	12
39.	08/23/13	Docket EL13-028 - Electronic Docket Filings (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/EL13-028.aspx)	4-11
40.	06/11/14	Docket EL13-028 – Exhibits (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/EL13-028exhibits.aspx)	6134-6135
41.	06/10/14	Evidentiary Hearing - Sign-In Sheet; and Transcript	5662-5828
42.	06/11/14	Evidentiary Hearing - Sign-In Sheet; and Transcript	5829-6133
43.	06/11/14	Exhibit 10 - MISO Tariff Attachment FF	7242-7604
44.	06/11/14	Exhibit 101 - Gerald Pesall Prefiled Direct Testimony	7855-7860
45.	06/11/14	Exhibit 102 - Gregory Tylka Prefiled Direct Testimony	7861-7867
46.	06/11/14	Exhibit 103 - Gregory Tylka CV	7868-7882
47.	06/11/14	Exhibit 104 - Gregory Tylka Prefiled Surrebuttal Testimony	7883-7886
48.	06/11/14	Exhibit 105 - 2014 SCN Distribution Map	7887
49.	06/11/14	Exhibit 106 - 1956 USDA Special Report on SCN	7888-7904

50.	06/11/14	Exhibit 107 - 1998 Soybean Digest Special Report on SCN	7905-7923
51.	06/11/14	Exhibit 108 - 1996 First Report of SCN in South Dakota	7924
52.	06/11/14	Exhibit 109 - 2007 SCN University Fact Sheet	7925-7928
53.	06/11/14	Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing	7605-7626
54.	06/11/14	Exhibit 110 - 1955 SCN Plant Disease Reporter	7929-7931
55.	06/27/14	Exhibit 111 - Pesall's Insurance Policy Provisions; and Certificate of Service	7981-8031
56.	06/11/14	Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing	7627-7636
57.	06/11/14	Exhibit 13 - Updated Table of Public Outreach	7637-7639
58.	06/11/14	Exhibit 14 - Danny Frederick CV	7640-7644
59.	06/11/14	Exhibit 15 - Jon Leman CV	7645-7655
60.	06/11/14	Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014	7656-7677
61.	06/11/14	Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014	7678-7680
62.	06/11/14	Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	7681-7683
63.	06/11/14	Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014	7684-7717
64.	06/11/14	Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014	7718-7763
65.	06/11/14	Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014	7764-7782
66.	06/11/14	Exhibit 1A - Amendment to Application	7155-7169
67.	06/11/14	Exhibit 2 - Responses to First Set of Staff Data Requests	7170-7178
68.	06/11/14	Exhibit 20 - Jon Leman Pre-filed Testimony Dated April 25, 2014	7783-7804
69.	06/11/14	Exhibit 21A - Pesall Property Photograph - Looking North	7805
70.	06/11/14	Exhibit 21B - Pesall Property Photograph - Looking South	7806
71.	06/11/14	Exhibit 21C - Pesall Aerial Map	7807
72.	06/11/14	Exhibit 22 - Morehouse and Schuring Aerial Map	7808
73.	06/11/14	Exhibit 22A - Revised Morehouse and Schuring Aerial Map	7809
74.	06/11/14	Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan	7810-7811
75.	06/11/14	Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing	7812-7827
76.	06/11/14	Exhibit 25 - Route Map Dated June 10, 2014	7828
77.	06/11/14	Exhibit 3 - Responses to Second Set of Staff Data Requests	7179-7202
78.	06/11/14	Exhibit 4 - Answers to First Set of Pesall Discovery	7203-7224
79.	06/11/14	Exhibit 5 - Answers to Second Set of Pesall Discovery	7225-7235
80.	06/11/14	Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing	7829-7852
81.	06/11/14	Exhibit 50A - Revised Maps of Route Changes	7853-7854
82.	06/11/14	Exhibit 6 - BSSE 9 - Map Showing Preferred Route	7236
83.	06/11/14	Exhibit 7 - Route Change Request Form	7237
84.	06/11/14	Exhibit 8 - Pesall's First Requested Route Change	7238
85.	06/11/14	Exhibit 9 Route Change Matrix (BSSE 29- 31) Confidential (not available to the public)	(Sealed envelope 7239-7241)
86.	08/22/14	Final Decision and Order; Notice of Entry; and Exhibit A	8324-8341
87.	10/18/13	Gerald Pesall's Application for Party Status	1477

88.	06/05/14	Gerald Pesall's Exhibit List; Certificate of Service; Exhibit 101 - Gerald Pesall Prefiled Direct Testimony; Exhibit 102 - Gregory Tylka Prefiled Direct Testimony; Exhibit 103 - Gregory Tylka CV; Exhibit 104 - Gregory Tylka Prefiled Surrebuttal Testimony; Exhibit 105 - 2014 SCN Distribution Map; Exhibit 106 - 1956 USDA Special Report on SCN; Exhibit 107 - 1998 Soybean Digest Special Report on SCN; Exhibit 108 - 1996 First Report of SCN in South Dakota; Exhibit 109 - 2007 SCN University Fact Sheet; and Exhibit 110 - 1955 SCN Plant Disease Reporter	5567-5639
89.	07/18/14	Gerald Pesall's Post-Hearing Initial Brief; and Certificate of Service	8075-8093
90.	08/01/14	Gerald Pesall's Post-Hearing Rebuttal Brief; and Certificate of Service	8160-8168
91.	10/11/13	Grant County Review's Affidavit of Publication	1099
92.	05/20/14	Grant County Review's Affidavit of Publication	3829
93.	05/09/14	Henry Ford Rebuttal Testimony; and Certificate of Service	3526-3530
94.	06/09/14	Joint Motion for Approval of Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Settlement Stipulation; and Certificate of Service	5646-5661
95.	08/04/14	Lyle Podoll's Email regarding Public Hearing on May 20, 2014; and Lyle Podoll's Email regarding Public Hearing on May 20, 2014 Confidential (not available to the public); PUC Staff's Response to Lyle Podell; and PUC Staff's Response to Lyle Podell Confidential (not available to the public) and August 6, 2014, Agenda of Commission Meeting	8187-8190 (Sealed envelope 8191-8194) 8195 (Sealed envelope 8196) 8197-8202
96.	10/17/13	Milbank Public Hearing - Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in sheet Confidential (not available to the public); Presentation; Transcript of Public Input Hearing; and Exhibit 1	1344-1346 (Sealed envelope 1347-1351) 1352-1476
97.	08/13/14	Minutes of PUC Ad Hoc Commission Meeting	8294-8295
98.	09/10/13	Minutes of PUC Commission Meeting	1049-1052
99.	04/30/14	Minutes of PUC Commission Meeting	3522-3524
100.	08/06/14	Minutes of PUC Commission Meeting	8220-8224
101.	11/05/13	Minutes to PUC Commission Meeting	1507-1512
102.	06/11/14	Montana-Dakota Utilities and Otter tail Power Company's Exhibits (Evidentiary Hearing) - Exhibit 1 - Application and Attachments (Exhibit 1 - 10 and Appendix A, B, C, D, and H); Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); and Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public)	6136-6979 (Sealed envelope 6980-7154)

103.	08/23/13	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Application - Cover Pages; Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 - Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information;(Begin confidential in sealed envelope) Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ; Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public) (end confidential sealed envelope); and Appendix H - Preliminary Transmission Structure Typical Drawings	13-851 (Sealed envelope 852-1026) 1027 – 1032
104.	06/06/14	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Letter regarding Commissioner Nelson's Inquiry During the May 20, 2014 Public Input Hearing; and Henry Ford's Letter to Lyle and Catherine Podoll dated June 6, 2014	5643-5644
105.	05/19/14	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Presentation for Public Hearing on May 20, 2014; and Certificate of Service	3534-3559
106.	08/01/14	Montana-Dakota Utilities Co. and Otter Tail Power Company Post-Hearing Reply Brief; and Certificate of Service	8169-8186
107.	10/21/13	Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's First Data Requests Dated September 19, 2013; BSSE 1 - Exhibit 1 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Map; BSSE 2 - Exhibit 2 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Elevation Chart; BSSE 3 - Brown County Water Supply; BSSE 4 - Day County Water Supply; BSSE 5 - Grant County Water Supply; Exhibit BSSE 6 - Resources Providing Information for Water Supply Source; BSSE 7 - Exhibit 1 of Data Request 9 Preliminary Routes Big Stone South to Ellendale 345 kV Transmission Line Project; BSSE 8 - Sample Photograph ; and Certificate of Service	1478-1496

108.	07/18/14	Montana-Dakota Utilities Co. and Otter Tail Power Proposed Findings of Fact and Conclusions of Law; Proposed Order Granting Permit to Construct Facilities; Montana-Dakota Utilities Co. and Otter Tail's Motion for Leave to Submit Documentary Evidence; Exhibit 26 - Big Stone South to Ellendale 345kV Transmission Line Project Route Change Request Denial; Exhibit 26A - Map; Exhibit 301A - Amended Settlement Stipulation; Montana-Dakota Utilities Co. and Otter Tail Initial Post-Hearing Brief; and Certificate of Service	8094-8144
109.	04/15/14	Montana-Dakota Utilities Co. and Otter Tail Power's Request for Confidential Treatment of Information of Documents Produced in Response to Staff's Second Set of Data Requests and Certificate of Service; and Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014; Response 2-11 - BSEE 329 - 331 Confidential (not available to the public); Response 2-11 - BSSE 64-267 Confidential (not available to the public); Response 2-16 - BSSE 268-332; and Certificate of Service	1553-1577 (Sealed envelope 1578-1784) 1785-1845
110.	06/11/14	Morehouse Exhibit - Exhibit 207 - BSSE OVERVIEW Peterson Farms Re-Route (Preliminary)	7932
111.	08/11/14	Motion to be Offered by Commissioner Nelson at the August 13 Ad Hoc Meeting	8291
112.	08/23/13	Motion to Schedule Prehearing Conference	1036
113.	08/23/13	Notice of Appearance (Thomas Welk, Jason R. Sutton, Jennifer O. Smestad, Daniel S. Kuntz)	1037
114.	03/17/14	Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; and Affidavit of Service	1540-1544
115.	03/18/14	Notice of Public Hearing	1545-1546
116.	09/13/13	Order Assessing Filing Fee	1062-1063
117.	06/09/14	Order Changing Hearing Location	5645
118.	05/19/14	Order for and Notice of Hearing	3531-3533
119.	11/06/13	Order Granting Intervention and Party Status (Gerald Pesall)	1513
120.	05/01/14	Order Granting Intervention and Party Status (James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson)	3525
121.	09/19/14	Pesall's Email; Notice of Appeal; and Certificate of Service	8342-8344
122.	06/05/14	Prehearing Conference Order	5640-5642
123.	01/13/14	Procedural Scheduling Order	1514-1515
124.	07/18/14	PUC Staff's Letter regarding Initial Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law	8145
125.	09/11/13	PUC Staff's Letter to Aberdeen American News regarding Notice of Public Hearing; and Notice of Public of Hearing	1059-1061
126.	04/16/14	PUC Staff's Letter to Aberdeen American News regarding Notice of Public Hearing; and Notice of Public Hearing	1855-1857
127.	09/11/13	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public of Hearing	1056-1058
128.	04/16/14	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public Hearing	1852-1854

129.	09/11/13	PUC Staff's Letter to Webster Reporter & Farmer regarding Notice of Public Hearing; and Notice of Public of Hearing	1053-1055
130.	04/16/14	PUC Staff's Letter to Webster Reporter & Farmer regarding Notice of Public Hearing; and Notice of Public Hearing	1849-1851
131.	07/31/14	PUC Staff's Response to Arnold and Darlene Dennert; and PUC Staff's Response to Arnold and Darlene Dennert Confidential (not available to the public)	8152-8155 (Sealed envelope 8156-8159)
132.	08/06/14	Randy Schuring's, Schuring Farms, Email regarding August 6, 2014, Commission Meeting	8213
133.	04/16/14	Replacement Page 20 for Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014 which was filed on April 15, 2014; and Certificate of Service	1846-1848
134.	08/23/13	Request for Confidential Treatment of Information	1038 - 1039
135.	07/11/14	Schuring Farms' Common Crop Insurance Policy	8035-8074
136.	06/20/14	Schuring Farms' Email regarding Crop Insurance Policy; AgriDex's Fax; and USDA's Article	7973-7976
137.	06/26/14	Schuring Farms' Insurance Policy Provisions	7977-7980
138.	07/11/14	Schuring Farms' RCIS - MPCl Policy Review/Change Form	8032-8034
139.	06/03/14	Schuring Farms, Inc.'s Prefiled Exhibits; Exhibit 201 - 49-41B-4.4. Trans-State Transmission Facility--Eminent Domain--Acquisition of Fee in Land Contiguous to Right-Of-Way--Divestiture of Agricultural Land; Exhibit 202 - 49-41B-4.2. Trans-State Transmission Line--Criteria Required; Exhibit 203 - ARSD 20:10:22:12. Alternative Sites; Exhibit 204 - ARSD 20:10:22:18. Land Use; Exhibit 205 - ARSD 20:10:22:23. Community Impact; and Exhibit 206 - ARSD 20:10:22:13. Environmental Information	3886-3893
140.	08/23/13	Service List	1033-1035
141.	06/11/14	Staff's Exhibit - Exhibit 301 - Settlement Stipulation	7933-7943
142.	05/23/14	Supplemental Rebuttal Testimony of Henry Ford; and Certificate of Service	3881-3885
143.	05/23/14	Surrebuttal Testimony of Gregory Tylka; Map - Current Presence of SCN in Eastern South Dakota; Historic, Archived Documents; and Certificate of Service	3831-3880
144.	08/13/14	Transcript of PUC Ad Hoc Commission Meeting	8296-8323
145.	08/06/14	Transcript of PUC Commission Meeting of 8/6/14	8225-8290
146.	10/08/13	Webster Reporter & Farmer's Affidavit of Publication; Aberdeen American News' Affidavit of Publication; Grant County Review's Affidavit of Publication; and Certificate of Service	1093-1097
147.	07/18/14	Webster Reporter and Farmer's Affidavit of Publication	8146-8147
148.	08/29/13	Weekly Filing for the Period August 22, 2013, through August 28, 2013	1044
149.	04/14/14	Wiles & Rylance's Letter regarding Applications for Party Status	1547

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

**IN THE MATTER OF THE APPLICATION)
OF MONTANA-DAKOTA UTILITIES CO.)
AND OTTER TAIL POWER COMPANY FOR)
A PERMIT TO CONSTRUCT THE BIG)
STONE SOUTH TO ELLENDALE 345 KV)
TRANSMISSION LINE)**

AFFIDAVIT OF SERVICE

EL13-028

I, Joy Lashley, under oath, do swear, that on August 26, 2013, I by mailing the same to them by United States Post Office First Class Mail and electronically served, Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status and Affidavit of Service to the list of persons below. I further swear that the attached list is a true and correct list of all persons who are parties in Docket EL13-028.

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
Pierre, SD 57501
patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
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Mr. Darren Kearney
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Sioux Falls, SD 57117-5015
jrsutton@bgpw.com

Ms. Jennifer Smestad
General Counsel
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215 S Cascade St.
Fergus Falls, MN 56538-0496
jsmestad@ottertail.com

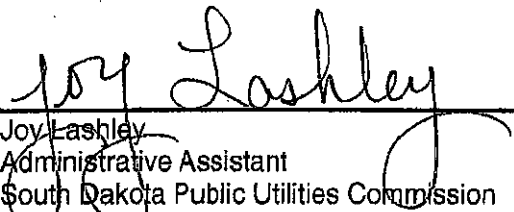
Mr. Daniel S. Kuntz
Associate General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
1200 West Century Avenue
Bismarck, ND 58506-5650
dan.kuntz@mduresources.com

001040

Ms. Maxine Fischer
Brown County Auditor
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Aberdeen, SD 57401
maxine.fischer@browncounty.sd.gov

Ms. Sandra Raap
Day County Auditor
711 W. First St. Ste. 204
Webster, SD 57274
dcaud@itctel.com

Ms. Karen Layher
Grant County Auditor
210 E. Fifth Ave.
Millbank, SD 57252
karen.layher@state.sd.us


Joy Lashley
Administrative Assistant
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501

Subscribed and sworn to
before me this 26th day
of August, 2013.


Notary Public - South Dakota

(SEAL)

My Commission Expires _____, 20____
Pierre, SD 57501

TINA DOUGLAS
My Commission Expires
April 14, 2017

001041

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

IN THE MATTER OF THE APPLICATION OF) MONTANA-DAKOTA UTILITIES CO. AND) OTTER TAIL POWER COMPANY FOR A) PERMIT TO CONSTRUCT THE BIG STONE) SOUTH TO ELLENDALE 345 KV) TRANSMISSION LINE)) NOTICE OF APPLICATION;) ORDER FOR AND NOTICE OF) PUBLIC INPUT HEARINGS;) NOTICE OF OPPORTUNITY TO) APPLY FOR PARTY STATUS) EL13-028
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On August 23, 2013, jointly Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345-kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

Pursuant to SDCL 49-41B-15 and 49-41B-16, the Commission will hold public input hearings on the Application on Thursday, October 17, 2013:

(1) at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. (parking available without permit in the lot along Washington Street between 12th and 14th Avenues - driving directions and map at <http://www.northern.edu/about/pages/directions.aspx> and <http://www.northern.edu/about/PublishingImages/wirelessmap.pdf>)

(2) at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D.

The purpose of these public input hearings will be to hear public comment regarding the transmission line permit Application and the Project. At the hearings, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status will be available at the public input hearings or may be obtained from

the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before October 22, 2013.

Following the public input hearings, the Commission may schedule a formal evidentiary hearings conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts. Absent a contested issue, the Commission will schedule the matter for decision at a regular or special meeting of the Commission.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. It is therefore

ORDERED, that the Commission will hold public input hearings on the Project at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. and at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D. It is further

ORDERED, that pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, applications for party status must be filed on or before October 22, 2013, and that pursuant to SDCL 49-41B-17.1, a party who wishes to receive personal service of all material filed in this matter shall make a specific request to the Commission for personal service, which may be included in the application for party status.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 26th day of August, 2013.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Loy Lashley</u>
Date:	<u>8-26-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

001043

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION
OF MONTAN-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE BIG
STONE SOUTH TO ELLENDALE 345 KV
TRANSMISSION LINE

APPLICATION FOR PARTY

STATUS

EL13-028

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40,

Gerald Pesall

(Name of Applicant)

petitions the Public Utilities Commission to be granted party status in the above-referenced facility permit proceeding.

Gerald Pesall

Signature of Applicant

GERALD PESALL

Print or Type Name

Address: 15062-430th ave
Sib., SD 57274

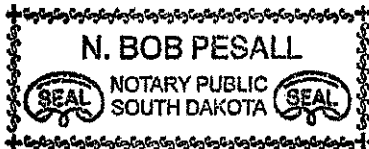
605-359-1039
Phone Number

E-mail Address

Name of Organization (if applicable)

10-17-13
Date

Subscribed and sworn to before me this 17 day of October, 2013.



(Seal)

[Signature]
Notary Public

My Commission expires: 12-20-18

NOTE:

Consistent with SDCL 49-41B-17 and ARSD 20:10:22:40, this application must be filed with the Public Utilities Commission with 60 days from the date the application was filed, unless the deadline is extended by the Commission.

Executive Director
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501-5070
Fax: 866-757-6031
Electronic Filing: <http://puc.sd.gov/EFilingOptions.aspx>

001477

Looking north on Pesall property. Culvert in grass area ahead of photo.



Looking south on Pesall property, from north end of property. Culvert indicated at post in ditch.

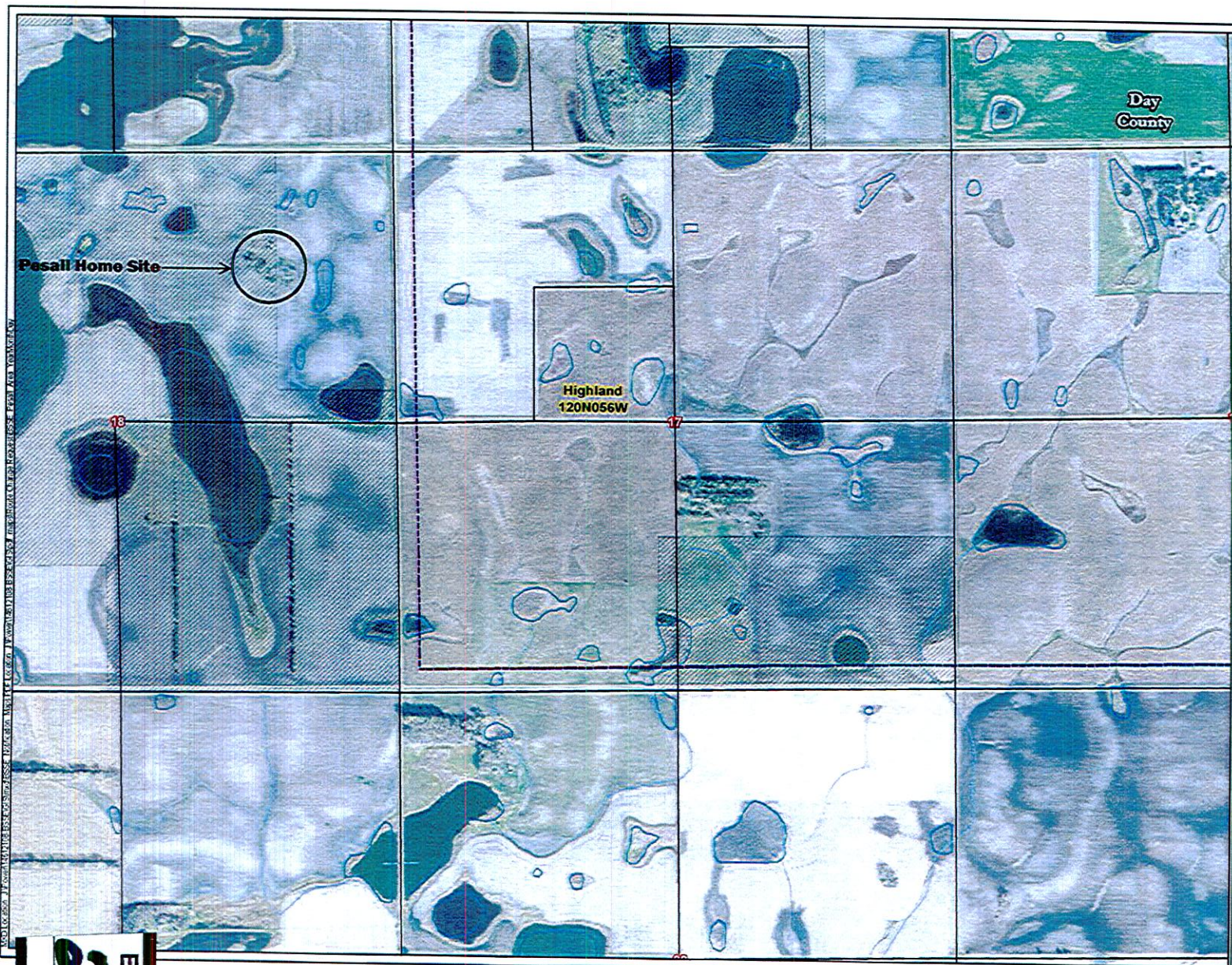
**Structure 457
(off screen)**

Structure 458

Proposed Centerline

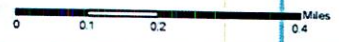
**Pesall Home Site
Approx. 1/4 Mile
West (off screen)**

EXHIBIT 21B



BSS+E
Big Stone South to Ellendale

345 kV Transmission Project



LEGEND

- | | |
|-----------------------|--------------------|
| USFWS Easement | Centerline |
| USFWS Limited NWR | Route (5-15-2014) |
| Grassland | Railroads |
| Wetland | Railroad |
| Geopolitical | Abandoned Railroad |
| Townships | Utilities |
| Counties | Electric |
| Sections | Oil/Gas |

PRELIMINARY DRAFT LOCATIONS

This map was produced by the N.J. GIS Division utilizing ESRI's ArcMap 10.2 and Windows Professional Evaluation. KLL Inc. has compiled this map according to conventional cartographic standards, using what is thought to be the most reliable information available. KLL does not give or warrant freedom from errors or omissions and disclaims any legal responsibility or liability for interpretations made from the maps or documents based thereon.

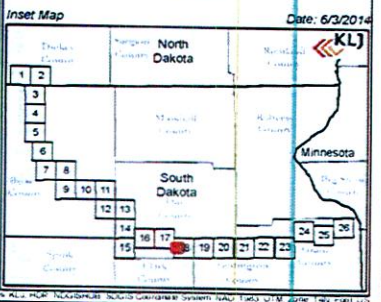


EXHIBIT
21C

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND)
OTTER TAIL POWER COMPANY FOR A PERMIT)
TO CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a division of MDU Resources, and Otter Tail Power Company (jointly, Applicants) filed an application with the South Dakota Public Utilities Commission (Commission) for a permit to construct a 345 kV transmission line of approximately 150 to 160 miles in Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City (Project). On October 18, 2013, an Application for Party Status was filed by Gerald Pesall. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 27, 2014, Applicants filed a First Amendment to Application. Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants have served notice on such landowners, and the Commission has scheduled an additional public input hearing on May 20, 2014, at Aberdeen, S.D. An intervention deadline of April 16, 2014, was set.

On April 14, 2014, James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson filed Applications for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on April 30, 2014, the Commission considered James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson. It is therefore

ORDERED, that James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status and intervention are granted.

Dated at Pierre, South Dakota, this 1st day of May, 2014.

CERTIFICATE OF SERVICE
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.
By: <u>Joy Lashley</u>
Date: <u>5.1.14</u>
(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Gary Hanson

GARY HANSON, Chairman

Chris Nelson

CHRIS NELSON, Commissioner

Kristie Fiegen

KRISTIE FIEGEN, Commissioner

003525

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
FIRST DATA REQUESTS DATED
SEPTEMBER 19, 2013

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
First Data Requests dated September 19, 2013, states as follows:

- 1) Per ARSD 20:10:22:10, please "provide a description of present and estimated consumer demand and estimated future energy needs of those customers to be directly served by the proposed facility."

RESPONSE: The Big Stone South – Ellendale 345 kV project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint the infrastructure needed to support the renewable energy mandates for all the states in the MISO footprint. The need for the proposed Big Stone South – Ellendale 345 kV line is driven by demand across the MISO footprint.

The planning study for the MVP portfolio included transmission projects covering all the states in the MISO footprint. The generation assumptions in this study included about 890 MW of future generation in South Dakota by the year 2021, and over 1400 MW by the year 2026 that could be delivered anywhere within MISO through the proposed MVP projects, which includes the Big Stone South – Ellendale 345 kV line. The Big Stone South – Ellendale 345 kV line will allow future generators to interconnect to the transmission system.

Due to the interconnected nature of the transmission system, the project will also support the transmission system outside of MISO in South Dakota and North Dakota by providing a new high voltage source to the existing transmission system.



- 2) Please provide cross sections of the bedrock geology and surficial geology to depict the major subsurface variations in accordance with ARSD 20:10:22:14(3). An example from docket EL09-015 is attached.

RESPONSE: In accordance with ARSD 20:10:22:14(3), "A written summary of the geological features of the plant, wind energy, or transmission site using the topographic 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" is provided as BSSE 1-2. The geologic cross section of the South Dakota Facility was prepared using publically available data for surface elevation, depth to bedrock, surficial geology, and bedrock geology. Since borehole data has not yet been collected for the Project, detailed geologic information was not available to construct the cross section. Therefore, the cross section provides a generalized view of the underlying geology along the South Dakota Facility (BSSE 1-2). Limitations to the cross section that may exist including small, localized variations in bedrock geology are not shown. The overlying unconsolidated material also varies locally along the South Dakota Facility from silts and clays to sand and gravel, but for simplicity, these materials have been shown as one unit, called Unconsolidated Deposits (BSSE 2). In addition, information on thicknesses of the underlying bedrock units along the South Dakota Facility was not available. Because of this and to avoid a large vertical exaggeration, the thicknesses of the units are not accurately shown on the cross section (these unknowns are shown with question marks or a dashed line on BSSE 2). This is not considered a significant limitation since the proposed structure foundations will likely be 50-feet deep or less.

Areas of shallow bedrock (less than 50 feet) were identified in two distinct areas along the South Dakota Facility. The first is located in the vicinity of Mile 4, where the underlying Pierre Shale is approximately 30 feet from the surface (BSSE 2). The second occurs near Mile 55 to Mile 65, where the underlying bedrock is also the Pierre Shale and can be less than 20 feet from the surface (BSSE 2).

Sources:

1. Bedrock Geology and Bedrock Contours, South Dakota Department of Environment and Natural Resources, Geological Survey. Link to the file - http://www.sdgs.sd.edu/pubs/pdf/esd/bedrock_20040630.zip
2. Quaternary Surficial Geology, United States Geological Survey, Quaternary Map of the Dakotas: <http://pubs.usgs.gov/imap/i-1420/n1-14/downloads/dakotasGIS/>
3. Elevation Contours, USGS National Elevation Dataset

- 3) Are drainage patterns in Exhibit 8 representative of both before and after construction drainage patterns?

RESPONSE: The drainage patterns as shown on Exhibit 8 of the Application represent both before and after construction drainage patterns. The Applicants do not anticipate changes to drainage patterns after construction.

- 4) Per ARSD 20:10:22:18(1)(c), please provide a map with the municipal water supply and water sources for organized rural water districts.

RESPONSE: See attached water supply maps for Day, Grant and Brown Counties numbered BSSE 3-5. The attached maps were developed by KLLJ Engineering. The resources that were used to develop these maps are found on attached BSSE 6.

- 5) Per ARSD 20:10:22:23(2), please provide forecasts on the immediate and long-range impact of property and other taxes of the affected taxing jurisdictions.

RESPONSE: Property taxes in South Dakota for a transmission line project such as this are paid to each county where the project will be located. The tax bill as prepared by each county is based on that county and/or township's mill levy. The value basis used by the County is determined by the State of South Dakota through a central assessment process for projects of this type. The assessment that the State applies to the project is based on a number of criteria including the total investment in the project as well as indicators on how the company stands on a financial basis. Indicators such as Market, Cost, and Income are all used in this determination. The assessed value in each county is then calculated on a per mile basis for the project within each county. The State then provides this assessed value to each affected County who then applies the appropriate mill levy in effect at the time. Based on the current effective composite tax rates for South Dakota, we estimate a yearly property tax bill in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

The Applicants' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

- 6) Provide further support that transmission lines do not affect land/property values as identified in section 19.1.2.

RESPONSE: Section 19.1.2 of the Application states, among other things, that "The South Dakota Facility is not expected to have significant short- or long-term effects on land values." The Application does not state that the transmission line will not affect land/property values. Applicant continues to believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

- 7) Per ARSD 20:10:22:23(6), please provide Applicant's plans to coordinate with local and state office of disaster services in the event of an accidental release or emergency.

RESPONSE: The risk of accidental release of contaminants related to this transmission project is, as described in further detail in the Application, limited to small-scale environmental exposures arising from construction or significant maintenance work. As referenced in the Application, the Applicants will adopt Best Management Practices to prevent, monitor, contain and report the contaminants. Due to the nature of this project, the Applicants do not anticipate any large-scale releases of contaminants that would give rise to the need for disaster services from any local or state offices.

- 8) Per ARSD 20:10:22:24, please provide more detailed employment estimates than what is found in section 20.0 of the application. Specifically, please provide the estimated annual employment expenditures of the Applicant, the contractors, and subcontractors during the construction phase of the proposed facility.

RESPONSE: It is anticipated that the number of workers who will be involved with the various tasks leading up to and directly involved with the construction of the BSSE Project will range from 75-150. These tasks include surveying, geotechnical studies, material deliveries, Right-of-Way clearing, and line construction. The actual number of workers will fluctuate as various tasks are initiated and completed during the course of the Project. It is anticipated that most of the workers will be from outside the local area; therefore, the impact to the local economies will be through costs such as workers' expenditures for hotel rooms, travel trailer site rentals, meals, gas and miscellaneous supplies. The impact to the local economies, not including property taxes, from the BSSE Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

9) Per ARSD 20.10.22.35(3), please provide a map of the major alternative routes.

RESPONSE: Please see BSSE 7, "Major Alternative Routes," as an illustration of the preliminary routes, which are the major alternative routes considered for the Project.

10) How is ongoing maintenance (e.g., vegetation management, annual inspections) of the transmission line going to be split between the Applicants?

RESPONSE: A decision on how ongoing maintenance will be split has not been decided. It is anticipated that one company will likely perform that type of maintenance on the entire line and the costs would be shared between Otter Tail Power Co. and Montana-Dakota Utilities.

11) In addition to the EMP concerns addressed in section 23.4, are there any known safety concerns with regard to farming around structures (e.g., collisions)?

RESPONSE: Yes. Accidental collision with a structure would be a safety concern with regard to farming around structures. The use of single-pole structures minimizes the risk of collisions.

12) Please describe, in greater detail, the two proposed fiber optic regeneration stations.

RESPONSE: The requirements for the fiber optic regeneration stations will be determined through joint consultation between the communications departments of the Applicants. The purpose of the fiber optic regeneration station is to monitor and amplify the fiber optic signal between the two substation endpoints when the distance between the substations exceeds approximately 75 miles. Typical fiber optic regeneration facilities consist of a small prefabricated building, approximately 8 ft x 8 ft, or 8 ft x 12 ft. A slab foundation will be required to support the building. The building will house electronic equipment and vehicle access will be required as well as a power source. The buildings are typically located on or near the transmission line right-of-way, near a road access, and near an overhead distribution line. The installation may also include a backup generator. It is anticipated that two fiber optic regeneration stations will be required for the BSSE Project, located at the approximate one-third points along the route. See attached sample photograph numbered BSSE 8.

13) Per ARSD 20.10.22.05, notwithstanding those mentioned in Table 24 of the Application, is the Applicant aware of the need to notify any additional governmental entities?

RESPONSE: To the best of Applicants' knowledge at this time, no additional governmental entities need to be notified other than what is contained in the Application.

- 14) In section 8.1, it is identified that the transmission line route was selected based on several considerations. Please provide an analysis or demonstration that compares the preferred route to the alternative routes for each of the considerations listed, using measures that the Applicant deem appropriate.

RESPONSE: In response to this data request, the "preferred route" would refer to the South Dakota Facility as filed in the Facility Permit Application and shown in Data Response No. 9 numbered BSSE 7. In addition, the "alternative routes" as referenced in this data request would refer to the preliminary routes through Dickey and Sargent counties in North Dakota and which then proceed south through western Marshall and the northwestern portion of Day counties to roughly Bristol, South Dakota where there is a commonality in the routing. See BSSE 7.

A route through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length and may have better soils from a constructability perspective for the structure foundations. The Applicants received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands. No homes are located within the right-of-way, and no homes are expected to be displaced by the South Dakota Facility. The Applicants are committed to working with homeowners and other landowners along the route to address concerns.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

In addition, the Applicants have been working with Native American tribes agencies who expressed that the preferred route was more desirable than the alternative route due to the higher percentage of the preferred route that crosses tilled land compared to the alternative routes which crossed larger percentages of pasture/prairie land. The tilled land in general has a lower probability of containing intact, undisturbed areas of importance to the tribes.

Both the preferred and the alternative routes minimize effects to Federal Aviation Administration airports and other land use conflicts.

Route development involves the analysis of many diverse criteria and the preferred route minimizes effects to populated areas and the natural environment, while also taking engineering constraints, overall length, and cost into account. The Applicants have addressed concerns expressed by stakeholders during the routing process and selected a single-pole structure to minimize potential effects with the smallest structure footprint and longer spans to reduce the number of structures.

STATE OF NORTH DAKOTA)
)
COUNTY OF BURLINGHAM) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

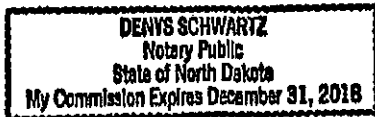
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests; but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 21 day of October, 2013.

MONTANA-DAKOTA UTILITIES CO.

By [Signature]
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 21st day of October, 2013.



[Signature]
Notary Public - South Dakota
(SEAL)

My Commission Expires: 12/31/18

STATE OF MINNESOTA)
)
) SS,
)
COUNTY OF OTTER TAIL)

Jason Waters, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response,

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 18th day of October, 2013.

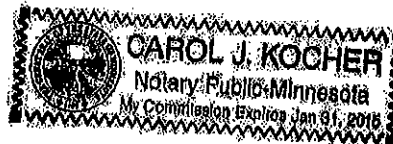
OTTER TAIL POWER COMPANY

By Jason J. Waters
Jason Waters
His Manager, Delivery Planning

Subscribed and sworn to before me this 18th day of October, 2013.

Carol J. Kocher
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015



BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
SECOND DATA REQUESTS DATED
MARCH 10, 2014

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
Second Data Requests dated March 10, 2014, states as follows:

- 2-1) Referring to page 103 of the Aberdeen Public Hearing transcript, what criteria eliminated a route from Ellendale, ND to Havana, ND, then cutting diagonally across the Coteau Hills to Sisseton, and then following the slope rail line from Sisseton to Milbank?

RESPONSE: Page 103 of the transcript contains a general potential route as suggested by Mr. Lyle Podoll. Based on the general route description of Mr. Podoll, the following explanation is provided as to why the final preferred route did not follow Mr. Podoll's proposed route corridor:

- A study corridor and preliminary routes were considered from Ellendale, ND to the general Havana, ND area, but eliminated as the preferred route due to constraints as described in the third paragraph of the Applicant's response to Question 14 of the first set of SDPUC data requests. As stated from the response to data request 1-14 of the Staff's first data requests: "The alternative routes through Dickey and Sargent counties require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the land. The South Dakota Game, Fish, and Parks Department also had concerns with the alternative routes in Marshall County being located



close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.”

- The Coteau Hills area was eliminated from consideration during the study corridor development phase, because of concerns expressed by several state and federal agencies and Native American tribes due to the relatively high density of protected species, high quality prairie habitat, federally and state owned and managed lands, and potential cultural resources. In addition, there were engineering concerns with the steep, rolling topography and numerous bodies of water and drainage ways.
- The slope rail line from Sisseton to Milbank was not considered for several reasons, including the fact that it crosses through several towns and a relatively high density of federally owned and managed lands. Additional information on why active railroads were not carried forward for the final preferred route is included below in the response to the Staff’s Data Request 2-31.

- 2-2) Referring to pages 69-75 of the Aberdeen Public Hearing transcript, Mr. Jones proposed an alternate route with the Applicant. Did the Applicant review Mr. Jones’ alternate route? If so, what was the outcome of the route review?

RESPONSE: Yes, the Project has reviewed Mr. Jones’s requested changes to the proposed route. The Project has been working to try to develop a change to the proposed route through the Jones Family properties and is in discussions with him. Three potential routes options have been discussed, including route proposals by Mr. Jones and his son. The Project continues to evaluate these proposed routes with Mr. Jones.

- 2-3) Please explain what factors eliminated the options of overbuilding or reconductoring existing transmission lines that are located in the siting area.

RESPONSE: Using existing transmission corridors to double circuit high voltage transmission lines were excluded from the routing criteria due to concerns relating to degradation of the system reliability, operational challenges, and a higher cost, as discussed more fully below. Furthermore, most existing transmission lines are not owned by either of the Owners and thus Owners do not have the right to use many of these existing lines.

Reliability Concerns

Double-circuiting ("overbuilding") the Big Stone South to Ellendale 345 kV line with portions of other existing transmission lines may be feasible, but benefits of the Project are diminished. Generally, double circuiting high voltage transmission is not preferred due to the possible degradation of system reliability. For example, if a structure with two transmission lines is compromised (or both lines are out of service because of a lightning strike or other event), the reliability of the transmission system is compromised. Building the Project on separate structures and within a separate route is important for making sure the existing and the new circuits are both available, don't interfere with each other, and provide back-up transmission paths for outages of other area transmission circuits.

Furthermore, an interim challenge with overbuilding an existing transmission line is the extended outage time of existing transmission lines associated with the construction period of the Project. This extended outage time of existing transmission circuits can last several months thus jeopardizing the reliability of the system. The transmission system is generally planned and operated to provide reliable service without an interruption of service for single (N-1) contingencies. Having an existing transmission line de-energized for an extended period of time puts the transmission system in a vulnerable state due to the increased likelihood of another outage concurrent with the existing circuit being overbuilt (N-2) with the new Project. Outages of 2 or more circuits simultaneously raises significant reliability concerns that could lead to an interruption of service to customers due to depressed voltages or overloaded facilities. Therefore, extended outages of existing transmission lines causes interim operating concerns when overbuilding existing lines with the Project.

Operational Challenges

Maintenance activities would be challenging when overbuilding existing transmission lines. Maintenance related activities on a line that is adjacent to an energized circuit is dangerous. It requires special equipment, specially trained personnel, and extraordinarily rigorous safety measures. These special requirements also increase the cost of maintaining the system.

Higher Cost

Double circuit construction or reconductoring existing circuits is also more costly than single circuit construction. Having two separate circuits on a common structure requires more robust structures to safely handle increased mechanical loadings due to wind and ice. These robust structures typically require stronger foundations. Reconductoring existing lines is also problematic given the design voltage of the Project (345 kV) and operating voltage of existing lines in the area (highest voltage of 230 kV). Reconductoring existing lines to a higher voltage would require converting several existing substations to a higher voltage (from 230 kV to 345 kV), which would require installing new equipment at these existing substations.

The factors discussed above lead to diminished reliability benefits, more operational challenges, and a higher cost when considering the options of overbuilding or reconductoring existing lines than by building the Project along an entirely new corridor. As a result, the Owners have adopted design and routing criteria that, except in extraordinary circumstances, exclude these options from consideration.

- 2-4) Please explain the MISO MTEP planning process and summarize the findings of the MTEP 11 report, clearly stating in language that the public can understand the need for the transmission line. In addition, please clearly identify what transmission grid constraints will be resolved, what NERC contingencies will be mitigated, what public policy objectives will be achieved, and what wholesale electric market benefits are expected as a result of constructing the line.

RESPONSE:

MISO MTEP Planning Process

MISO's planning process is based on an annual cycle that is referred to as the MISO Transmission Expansion Planning (MTEP) process. The MTEP process adheres to the nine planning principles outlined in FERC Order No. 890.¹ These planning principles result in an open and transparent regional planning process with interaction from a broad stakeholder group, which results in recommendations for transmission expansion that are reported in the MTEP report and submitted for approval to the MISO board of directors. The annual planning process typically concludes with MISO board of director approval occurring in December of each year.

Findings of MTEP11 Report

The MVP portfolio analyses evaluated the expected future conditions on the MISO regional transmission grid. The analysis found that the Project will be needed in order to ensure the continued reliable operation of the Otter Tail Power Company and Montana-Dakota Utilities Co. transmission systems into the future. Furthermore, the MVP portfolio allows for a more efficient dispatch of generating resources, spreading the benefits of low cost generation to South Dakota and throughout the MISO footprint. These benefits were outlined through a series of studies that quantified the economic benefits of the low cost generation resources that can be reliably delivered with the addition of the MVP transmission.

¹ Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, FERC Stats. & Regs. ¶ 31,241, order on reh'g, Order No. 890-B, 123 FERC ¶ 61,299 (2008), order on reh'g, Order No. 890-C, 126 FERC ¶ 61,228 (2009), order on clarification, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

Transmission Constraints Resolved

The construction of the Project will enable Otter Tail Power Company and Montana-Dakota Utilities Co. to reliably deliver the energy this area needs today and into the future. The Project improves the reliability of the bulk electric system in the area. Reliability studies performed by MISO for the Project have identified the following transmission issues are mitigated as a result of the Project during contingencies prescribed in the NERC transmission planning standards (referred to as single contingency (N-1) and double contingency events (N-2)):

- Oakes – Ellendale 230 kV Line
- Aberdeen – Ellendale 115 kV Line
- Oakes – Forman 230 kV Line
- Forman 230/115 kV Transformer
- Aberdeen Jct. – Aberdeen 115 kV Line
- Forman 230 kV Bus Tie
- Ellendale 230/115 kV Transformer
- Heskett 230/115 kV Transformer

The construction of the Project will address these loading issues by providing an alternative transmission path for energy to flow during contingencies.

Public Policy Objectives

Throughout the course of the MVP studies, public policy objectives were considered as state Renewable Portfolio Standards (RPS) that are in place across the MISO footprint. The MVP portfolio is a group of seventeen transmission projects distributed across the MISO footprint that enables the reliable delivery of the aggregate of current state RPS within MISO. The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across MISO. As determined through the MVP studies, this amount of wind energy is anticipated to meet state renewable energy mandates across the MISO region beyond 2026.

Furthermore, construction of the Project will contribute to a robust transmission system across MISO that will be available to provide needed transmission capacity to maintain reliable service in the event that legislation or environmental regulation leads to the retirement of some coal-fired generating plants and the addition of gas-fired generating plants. This Project, along with the rest of the MVP portfolio offers a versatile transmission plan that will be effective regardless of future generation fuel-types.

Wholesale Electric Market Benefits

The wholesale electric market benefits that are expected as a result of constructing the Project in conjunction with the rest of the MVP portfolio are primarily associated with savings realized by reduced transmission congestion and increased fuel savings. As mentioned previously, the MVP portfolio allows for a more efficient dispatch of generation resources, opening markets to competition, and spreading the benefits of low cost generation throughout the MISO footprint.

In addition to congestion and fuel savings of an estimated \$12.4 - \$40.9 Billion in present value benefits, the MISO studies have also shown quantifiable benefits as a result of the MVPs for the following generation and transmission aspects as well.

1. **Operating Reserves**
 - a. The MVP portfolio decreases congestion on the system, increasing the transfer capability into several key areas that would otherwise have to maintain additional operating reserves under certain system conditions.
 - i. A reduction in operating reserves results in estimated present value benefits of \$28M - \$87M.
2. **System Planning Reserve Margin**
 - a. The MVP portfolio reduces congestion across MISO thereby reducing the amount of generation required to meet the planning reserve margin for a one day in 10 years loss of load expectation.
 - i. A reduction in the system planning reserve margin results in estimated present value benefits of \$1.0B - \$5.1B.
3. **Transmission Line Losses**
 - a. The MVP portfolio reduces the overall system losses, which also reduces the generation needed to serve the load and losses on the system.
 - i. A reduction in transmission line losses results in estimated present value benefits of \$111M - \$396M.
4. **Wind Turbine Investment**
 - a. The MVP portfolio allows a balance of wind turbine investment between remote generation placement relying on transmission for delivery to load and local generation closer to load. Placing wind regionally to leverage the best available wind resources requires a robust transmission system.
 - i. Leveraging wind turbine installations in optimal locations across MISO results in estimated present value benefits of \$1.4B - \$2.5B.
5. **Transmission Investment**
 - a. The MVP portfolio will eliminate some future reliability upgrades.
 - i. Eliminating future transmission upgrades results in estimated present value benefits of \$226M - \$794M.

The analysis performed by MISO has found that the MVP portfolio overall will produce an estimated \$15.5 to \$49.2 Billion in present value benefits to the aggregate MISO footprint under existing energy policies (See Figure 1). This range of savings is derived based on the period over which benefits are calculated, discount rates applied, and assumptions about growth rates of energy and demand.²

² See MVP Report.

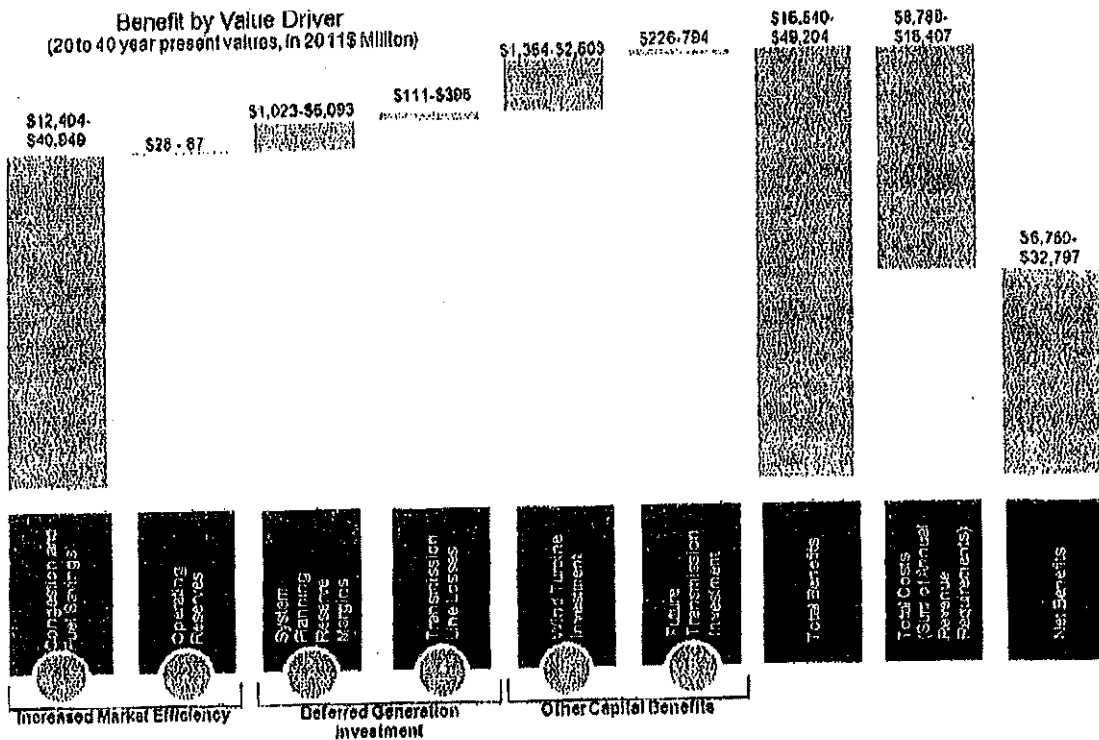


Figure 1 – Estimated Present Value Benefits of MVP Portfolio

When compared to the present value of the revenue requirements for the MVP portfolio, the portfolio produces total benefits of between 1.8 to 3.0 times the costs on a present value basis, under existing policies. When these system-wide benefits were evaluated for their distribution within the MISO footprint, benefits to Local Resource Zone 1 were between 1.6 and 2.9 times the portfolio costs to Local Resource Zone 1. Zone 1 is comprised of MISO member companies within Minnesota, South Dakota, North Dakota, and parts of Wisconsin and Montana.³ (see Figure 2)

³ See MVP report – Benefit-Cost ratios are shown on page 6 of the publicly available document.

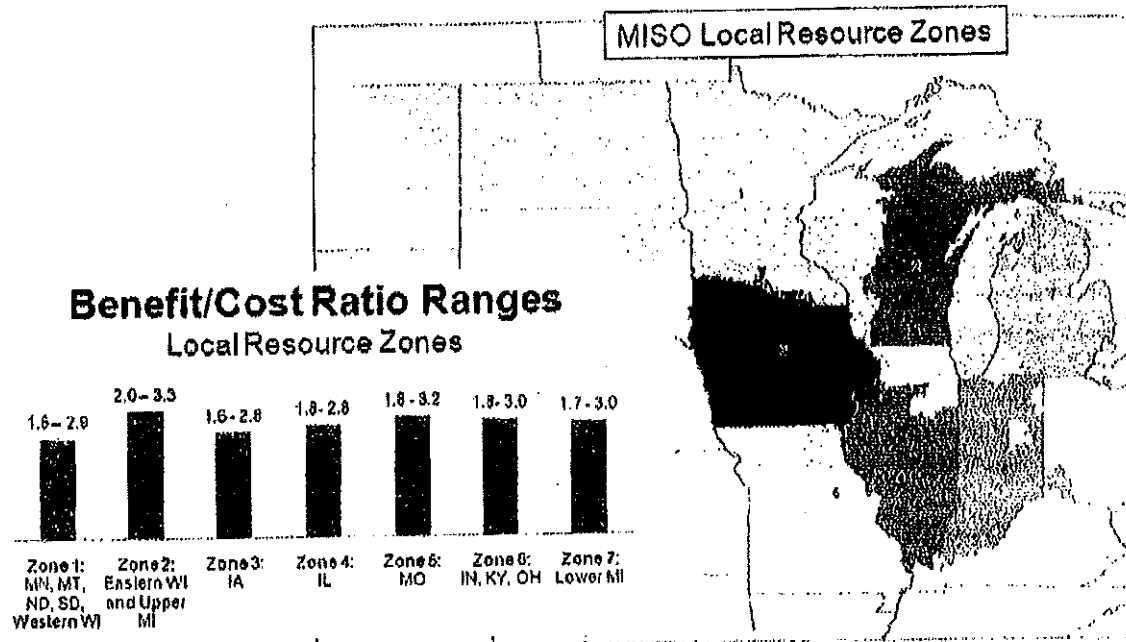


Figure 2 – Benefit-Cost Ratios to Local Resource Zones Across MISO

- 2-5) The application provides L50 audible noise, which means that 50% of the expected data points are greater than the stated value. Please provide the worst-case (i.e. maximum) noise level landowners can expect to be exposed to during the life of the facility, as well as the L10 (if available), for both fair and foul weather conditions.

RESPONSE: Only L50 audible noise values were calculated for the transmission line. The noise exposure of an individual depends on their position with respect to the transmission line and weather conditions. The transmission line noise levels at the edge of the right-of-way are shown on Table 17 contained in Section 14.3.2 of the Application, as amended.

- 2-6) Footnote 1 of amended Table 17 (pg. 59 of the Application) identifies that the Noise levels are representative of a current of 500 amps. Footnote 3 of amended Table 22 (pg. 94 of the Application) identifies the Maximum Operating Condition is based on ~2,000 amps. What is the maximum amount of current that will flow on the line during the life of the facility? Further, please explain how any expected additional current flow (beyond 500 amps) will affect noise levels if not already answered in response to data request 2-5.

RESPONSE: Current flow is not expected to exceed 2,000 amps during the life of the facility. Audible noise of transmission lines is not a function of the current

flowing in the conductors. Therefore, higher current will not cause higher audible noise levels nor will lower currents reduce the audible noise levels.

- 2-7) Please provide a list of requested route changes that includes: 1) location of the requested route change, 2) a brief description of the request, 3) current status of the request, 4) how the Applicant responded to the request, and 5) a justification for either approving or denying the request. Further, ensure the list includes the following requested route changes that PUC Staff is aware of:

- i. Three miles east of Garland Township, 9-125-63, (120th Street and 390th Ave), and
- ii. ¾ of a mile east out of Westport.

RESPONSE: See BSSE 329 to 331, which describes the proposed route "changes," the location of the route change, a brief description of the route change request, current status of the request, how the Owners responded to the request, and a justification for either approving or denying the request. The Owners request confidential treatment of this document pursuant to ARSD 21:10:01:41. Owners are separately filing a request for confidential treatment.

- 2-8) If not already provided in response to data request 2-7, please provide any known route changes that deviate from the route set forth in the initially filed application.

RESPONSE: None, other than the route changes identified in response to data request 2-7.

- 2-9) Please provide any known landowner concerns, how the Applicant is addressing the concerns, and when the Applicant believes the concerns will be resolved.

RESPONSE: It is unclear what is meant as landowner "concerns." Concerns could include requests for route changes, questions about the Project, and comments relating to the Project. The Owners have in the past and will continue in the future to work to address landowner concerns and comments through continued public meetings, posting frequently asked questions on the Project website, sending newsletters, communicating with landowners through the website and hotline, having personal meetings with the landowners, and written and telephonic communications with landowners. Due to the size of the Project, Owners believes that landowner concerns will continue to be raised prior to permitting, after permitting, before, during and after construction, and post-

construction. Some landowner concerns can and have been resolved. Some landowner concerns may not be able to be resolved. Once construction commences, the Project anticipates developing a process for the landowners affected by the construction to submit comments or concerns.

As to some of the specific concerns or comments raised by landowners, some of these concerns or comments were made at the public input hearings in Aberdeen and Milbank on October 17, 2013. Some of the comments are indicated in the discussion of the route change requests discussed in the response to Staff's Data Request 2-7. Regarding Gerald Pesall, his concerns are addressed in his answers to the Owners' interrogatories. The Project met with Mr. Pesall and his counsel on April 10, 2014, in an effort to address his concerns. The discussions with Mr. Pesall during this meeting are confidential settlement discussions. Finally, additional comments and concerns are discussed in response to Staff's Data Request 2-29 addressing why landowners have not yet signed options.

- 2-10) Please explain the Applicant's average response time for inquiries that were submitted by the general public through the BSSE's toll-free information line and website written inquiry processes.

RESPONSE: The Project has a variety of channels through which the general public can submit comments, including a toll-free information line, a comment form on the project website, an email address, comment forms at open houses, and a mailing address. Response time data through all channels shows that the overall average time from when the Project received a comment to the first response to the commenter was approximately 10 days.

- 2-11) Referring to page 93, line 9, of the Aberdeen Public Hearing transcript, please provide the study referenced by Mr. Fasteen that determined the easement prices being offered.

RESPONSE: Mr. Fasteen was referring to countywide appraisal documents, which are produced at BSSE 64 to 267. The Owners request confidential treatment of these documents pursuant to ARSD 20:10:01:41. The Owners are separately filing a request for confidential treatment. Mr. Fasteen also was referring to USDA/NASS, South Dakota Field Office, South Dakota 2012 County Level Land Rents and Values ("USDA Survey"). Mr. Fasteen viewed the USDA

survey previously, but no longer has it in his possession, and he can no longer access the version of USDA study viewed on line.

- 2-12) Referring to page 95, line 9, of the Aberdeen Public Hearing transcript, please provide a summary of any follow-up discussions that occurred between the Applicant and Mr. Sperry regarding irrigation center pivot plans and plans for installing a corner system.

RESPONSE: The Project had multiple communications with Mr. Sperry regarding this matter in December of 2013. The Project evaluated placing structures to adjust the span length such that the transmission line structures could be installed without impacting the anticipated center pivot unit of the corner system. Currently, a potential route change is being evaluated by the Project that would eliminate the need to cross the applicable property.

- 2-13) Please explain how residences that are located within 500 feet of the transmission line, yet not required to sign an easement as the line does not cross their property, are compensated for any potential future losses to property values.

RESPONSE: Only landowners from whom an easement is needed to encumber their property to construct the Project receive compensation. As stated in response to data request 1-6 from the Staff's first set of data requests, the Owners do not expect that the Project will have significant short or long term effects on property values.

- 2-14) Please provide a description of setback requirements for each township road, county road, or state road the preliminary route parallels. If no set back requirements will be of factor, please identify such.

RESPONSE: The preferred route parallels various roads, including township roads, county roads, and state roads in each of three counties: Brown, Day, and Grant. Pursuant to SDCL Ch. 11-2, the regulations of the set back from the right-of-way of all highway, roadways, roads, and streets, including state and township roads, are established by the respective county's commission and/or planning commission. Each of the counties through which the preliminary route is located employs county ordinances relating to zoning and certain use regulations. The setback requirements vary by county and also, to a lesser degree, by zoning districts within each county. Roads the preferred route is anticipated to parallel in Brown County are located in Ag Preservation and Mini-Ag Zoning Districts, which have a one hundred foot (100') setback

requirement as required in Sections 4.0606 and 4.0706 of the Brown County Zoning Ordinances. In Day County, pursuant to Section 2601 of the Day County Ordinances, the preferred route is required to be setback fifty feet (50') from all roads designated by Day County to be part of the Day County Highway System. This fifty foot (50') requirement does not apply to other roads located in Day County. In Grant County, pursuant to Section 1101.04(2) of the Zoning Ordinances for Grant County, there is a requirement for a one hundred foot (100') front yard in property zoned "A" Agricultural District.

- 2-15) Please explain the factors that resulted in the need to parallel an existing transmission line located along the south side of 148th St, beginning at the Hwy 12 and 148th St split, as shown on Exhibits 2.33 through 2.35 of the Application. Does paralleling an existing transmission line create any additional risk to public safety?

RESPONSE:

The reason to be on the south side of 148th Street (Exhibit 2.33 and 2.34) was to maximize the distances from the largest number of homes possible. Furthermore, there is also a cemetery located on the north side of 148th Street east of 472 Ave. that was also avoided. In this location, the line being paralleled is not a transmission line but a distribution line. The paralleling of the Project with a distribution line does not create a safety issue. In some instances, paralleling a transmission line can create reliability concerns for the transmission system as discussed in the response to the Staff's second set of data requests number 2-3. The paralleling of this distribution line does not, however, create such reliability concerns or other safety concerns.

- 2-16) Please provide a list of all units of local government that have formally expressed concern regarding the project. Please include any related record of correspondence.

RESPONSE: See BSSE 268 to 320 which includes correspondence from Farmington Township, Highland Township, and Valley Township, and the Project's correspondence with the board of supervisors or board chairman for those townships and the board chairman.

Prior to filing the Facility Permit Application, the concerns raised by Farmington, Highland and Valley Townships were incorporated into the application. Agricultural concerns raised by Farmington, Highland, and Valley Townships were addressed in sections 14.4 and 19.2. The application also addressed the concerns of Highland and Valley Townships regarding safety and property valuation in sections 23.4 and 19.1.2 respectively. The website also

includes answers in our FAQs related to agriculture and health and safety. One time payments were addressed in the October 2013 Power Delivered newsletter, which is contained at BSSE 321 to 322.

2-17) Has the Applicant, or its agents, trespassed on private property?

RESPONSE: To the best of the Owners' knowledge at this time, no trespassing has occurred.

2-18) How will the Applicant ensure soil and plant-borne pests are not transmitted from field to field?

RESPONSE: As stated in the answer to interrogatory number 9 in Gerald Pesall's Second Set of Discovery to Applicants: "The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Applicants' experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields."

2-19) Has the Applicant, in its experience in building and operating high voltage transmission lines ever experienced complaints of radio, TV, communications (e.g. CBs, two way radios, cell phones, etc.), dairy electronics, or GPS (including GPS, differential GPS and RTK) surveying or navigation interference? Please specify to what extent and how the Applicant handled such interference.

RESPONSE: The Owners operate approximately 5,700 miles of transmission lines and are not aware of any complaints in regards to interference with to TV, communication, dairy electronic, or GPS systems. The Owners have had occasions where AM radio reception is impacted, but after passing under the line reception is immediately restored. The general public will notice this momentary interference in their vehicle radio in some instances when traveling under or near transmission facilities.

2-20) Referring to page 115 of the Aberdeen Public Hearing transcript, did the Applicant follow up with Ms. Seurer regarding her question about dairy electronics? How was this resolved?

RESPONSE: The Project communicated with Ms. Seurer at the Aberdeen Public Hearing. The Project also is continuing to work to schedule a meeting with Ms. Seurer to review and better understand her technology. In owning and maintaining over 5,700 miles of transmission lines, the Owners have not experienced any negative affects of the transmission line on dairy electronics.

2-21) Will the proposed facility increase the potential for liability of the affected landowners? Why or why not?

RESPONSE: The proposed facility will not increase the potential for liability for the affected landowners. The Owners maintain property, casualty, and liability insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

2-22) How will the Applicant mitigate lost agriculture production associated with the project's operation, specifically as a result of farming around poles placed within fields?

RESPONSE: The anticipated lost agricultural production associated with farming around poles is being included as part of the easement payment provided by the Project.

2-23) Please provide a description of how the Applicant intends to monitor and mitigate construction impacts on roadways.

RESPONSE: As stated in answer to interrogatory number 8 to Gerald Pesall's Second Set of Discovery Requests to Applicant: "As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (i.e, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond

required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.”

- 2-24) Please provide an explanation of how pole placement is discussed with affected landowners, including who contacts the landowner, when the contact is made (specifically in relation to the timing of the landowner signing an easement), and how the landowner’s feedback is taken into account in the final placement.

RESPONSE: The discussion of pole placement varies from landowner to landowner. Initially, when land agents for the Project first started contacting landowners, the preliminary pole locations had not been determined. As a result, the Project did not discuss the placement of pole locations with the landowners. The land agents instead showed a map indicating the proposed route, without any indication of pole placement. The land agents communicated to landowners that they could reasonably expect approximately 5 pole structures per mile. Some landowners signed options based on these initial communications, and thus, the Project may not have discussed pole placement with the landowners.

Later, when the Project determined the preliminary placement of the pole structures, land agents were provided a map detailing the proposed route and the preliminary structure location. The scale on the map prevents determining the exact pole location on a parcel of property. During face to face meetings with landowners, land agents would show them the preliminary pole placements if requested. Land agents also provided copies of maps showing preliminary pole placements to requesting landowners. The final pole locations are not reflected on these preliminary maps. Additional landowners have signed the options after seeing the preliminary pole locations.

If requested by a landowner, the Project also has offered and will provide staking of preliminary pole locations on landowner property once the Project is able to survey the property.

The final pole structure location will not be determined, however, until the final design stage. If the landowner has expressed concerns about the pole placement during the option discussions, their input would be considered in the final location. The timing of the final design stage vis-à-vis signing of easements has not been determined but the Project has and will continue to discuss pole placement with landowners.

2-25) If landowners prefer to have poles placed along a fence line rather than out in a field, how does the Applicant accommodate such a request? Has the company made any route changes as a result of such requests to date?

RESPONSE: Each proposed route change is analyzed to see what, if any, impacts could result from the landowner's request. A design goal is to run the centerline as straight as possible between the dead-end structures, which are approximately five (5) miles apart. Therefore every route change request goes through a standard review process. This review process involves a committee consisting of a company representative from each Owner, design engineer, environmental, right-of-way, and legal teams. This committee considers the following review criteria when evaluating route changes:

- Safety, proximity to state, county township roadways
- Zoning restrictions
- Effect of other existing easements or encumbrances, if any
- Other option agreements that have been obtained with the adjoining landowners
- Whether the affected landowners within 1-2 miles along the route on either side of the property agree with the proposed route change
- ~~Whether there are any environmental impacts caused by the proposed route change~~
- Whether any cultural resource impacts are caused by the proposed route change
- Whether the line be constructed and maintained at the requested location
- Economic considerations

If it appears there are no identifiable impacts with the request after this review is completed, the right-of-way land agents will visit the neighboring landowners to obtain their opinion of a route change on their property as well. If practical to honor the request to move the route change, the Project will attempt to do so. If the impacts are too great, or if the route change is not mutually agreed upon by adjacent landowners, the requested relocation might not be possible. The Project has made some route and pole changes to honor requests placing the structures near fence lines rather than in the field. See also the response to Data Request 2-7.

2-26) At the public hearing in Aberdeen, the Applicant was asked to consider easement terms that were not perpetual, similar to the 99-year term in North Dakota. Has the

Applicant made any changes to the easement term lengths it is offering to landowners along the route?

RESPONSE: No, because the Project expects that the useful life of the transmission line may exceed 99 years.

- 2-27) On page 60 of the Aberdeen Public Hearing transcript, Mr. Ford stated "if maybe this parcel of land is becoming unfarmable because of these reasons, we need to look at something different" in response to Ron Ringgenberg's concern of not being able to utilize aerial spraying as a result of the facility. Since the hearing, has the Applicant worked with Mr. Ringgenberg or other similarly situated landowners to solve these types of problems? If so, please explain how the Applicant plans to mitigate the impact of these problems.

RESPONSE: There have been personal conversations with all landowners who are willing to meet and discuss their specific concerns.

The installation of a transmission line does not prevent aerial applications. A transmission line has a similar, but perhaps lesser impact to aerial applications as a tree row if installed in the direction of the farming application. The applicators are able to fly parallel to the transmission line and let the chemical spray drift under the line to effectively treat their crops.

At this time, the Project has not identified any locations, including but not limited to Mr. Ringgenberg's property, where the transmission line will prevent aerial spray applications.

- 2-28) Please provide an update on progress the applicant has made on easement acquisition.

RESPONSE: Currently the Project is only obtaining options rather than easements. Landowners who have signed options have committed themselves to signing of easements. Approximately 55% of line miles worth of parcels have signed options through April 10, 2014.

- 2-29) For easements (or easement options) not yet acquired, please provide an explanation as to why the landowners have not yet signed and, further, if any landowners are refusing to work with the Applicant.

RESPONSE: As indicated in response to Staff's Data Request 2-28, approximately 55% of the line miles have been signed as of April 10, 2014.

There are several reasons for landowners not signing the easement option. Some landowners are waiting to see if the Facility Permit from the State is issued. Other landowners are waiting on a person or event unrelated to the Project, such as, but not limited to whether other landowners are going to sign options and review of the easement options by the landowner's attorney, family member or renter. Other landowners are waiting on changes to the option and easement documents to reflect their individualized concerns. Other landowners are waiting for evaluation of a proposed route change.

Regarding the small percentage of landowners who have stated opposition to the Project, there are a multitude of reasons they have not signed the options. While some landowners have expressed general objection to the project, others have expressed more specific objections. Some of these objections were communicated at the public input hearings occurring on October 17, 2013, at Aberdeen and Milbank. The more specific objections fall into several general categories:

- Objections to the location of the line
- Economic concerns, including but not limited to complaints that the amount of the easement payment is not sufficient, devaluation of property, and request for annual payments, effect on whether the landowner will obtain wind farms or subdivide their property

- Concerns that the project will negatively affect farming practices, such as but not limited to effect on efficiency of farming equipment, affect on GPS guidance, loss of yield, impacts on aerial spraying, effect on center pivot units, and impact on livestock
- Concerns about the effect of the transmission line on human health
- Concerns about the impact of the transmission line on wildlife
- Effects of the construction process on both their farm property and the roads
- Peer pressure from other landowners, neighbors, family, and landowners not to sign the options

The Project has and will continue to work with landowners to address these concerns.

- 2-30) Did the Applicant consider following abandoned railroad right-of-way in determining the route? If so, for what reasons did the Applicant choose not to utilize it?

RESPONSE: The Applicant did consider following abandoned railroad right-of-ways as part of the routing process for the Project. Overall the preferred route selected reflects the best balance of the project routing criteria. Preliminary routes along abandoned railroad tracks were not carried forward for the preferred route for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. Additionally, the terrain near abandoned railroads may have steep side slopes away from the railroad bed that may not accommodate preferred construction or maintenance methods. In other areas the abandoned railroad right-of-way have been completely plowed under by the landowner in some parcels, and a transmission line would therefore cut through the middle of a cultivated fields. A comment from many landowners was to follow field lines and section lines to avoid diagonally traversing a cultivated field.

- 2-31) Did the Applicant consider following railroad rights-of-way that are currently in use? If so, for what reasons did the Applicant choose not to utilize them?

RESPONSE: The Applicant did consider following active railroad rights-of-way in the routing process for the Project. As stated in the response to Staff's Data Request 2-30 and 2-32, long stretches of routes along railroad tracks were removed from consideration for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. It was also determined that construction of the transmission line would not be feasible along the railroad in the Waubay area due to the increasing water levels in the surrounding lakes. Field surveys confirmed that certain route segments along the railroad were also removed from consideration because of the presence of homes, businesses, and water challenges. The Project also considered the induction effects and the safety concerns presented by the Project being located parallel to an existing railroad.

Additional engineering challenges and safety concerns that were considered as well. As stated above in the answer to Staff's Data Request 2-30, the terrain near railroads may have steep side slopes away from the railroad that may not accommodate preferred construction or maintenance methods. In addition, railroad right-of-way widths vary along a railroad and it would be very difficult

to share right-of-way with a railroad. Therefore the transmission line would likely have many bends and inflections to follow the railroad right-of-way, and/or be further out into a cropped field in areas where the right-of-way is wider. And finally, trains that derail where a transmission line runs parallel to it could potentially cause a disruption in electrical service and a safety hazard if derailed cars were to collide with a nearby transmission line structure.

- 2-32) If induction of rails is a reason listed in the previous two questions, what steps could the Applicant take to mitigate issues with induction and, further, what impact would those steps have on project costs?

RESPONSE: The best method for reducing the effects of induced voltage in parallel facilities such as railroads is to route the transmission line so that it is a safe distance away from the railroad or applicable parallel facility. If a transmission line remains close to the railroad then a study must be performed to evaluate induced voltage issues. Mitigation techniques and costs can vary significantly depending on the results of the study and particulars of the situation. Options for mitigation include: installation of a grounding conductor, replacement or upgrade of railroad signaling equipment, installation of AC drain filters, and reconfiguring the size of the signal track blocks. Costs can be into the millions of dollars depending on the level of mitigation required.

- ~~2-33) Per the suggestion by Mr. Welk on pages 109 and 110 of the Aberdeen Public Hearing transcript, was a letter provided to Mr. Feickert regarding disbursement of property taxes? If so, please provide the letter. If not, please provide the information requested.~~

RESPONSE: A letter has been sent to Mr. Feickert, which is attached at BSSC 323 to 328 and which contains the requested information as to the disbursement of property taxes.

- 2-34) Are corner structures going to have guy-wires? If so, what additional impacts would guy-wires have on landowners and/or farming operations? Further, will the Applicant construct a corner structure without guy-wires should a landowner request such?

RESPONSE: Corner structures located on cultivated land will not have guy-wires. Corner structures located on non-cultivated land could have guy wires depending upon the terrain and location of the structure. If a landowner with corner structures on non-cultivated land requests a structure without guy-wires, then the Project may consider that request on a case-by-case basis.

STATE OF NORTH DAKOTA)
) :SS.
COUNTY OF Burleigh)

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

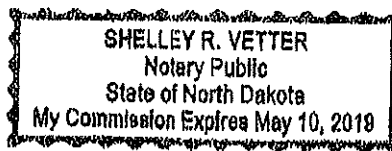
MONTANA-DAKOTA UTILITIES CO.

By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 15th day of April, 2013.

Shelley R. Vetter
Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
 :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

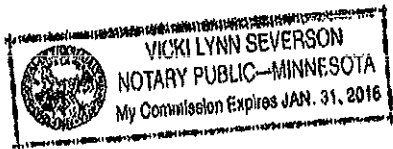
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

OTTER TAIL POWER COMPANY

By Jason J. Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 15th day of April, 2013.



Vicki Lynn Severson
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015

CERTIFICATE OF SERVICE

I, Thomas J. Welk, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on this 15th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 64 to 267 and BSSE 329 to 331, for which confidential treatment has been requested, and a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
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Ms. Karen Cremer
Staff Attorney
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Mr. Brian Rounds
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Mr. Darren Kearney
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And a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Jennifer Smestad
General Counsel
Otter Tail Power Company
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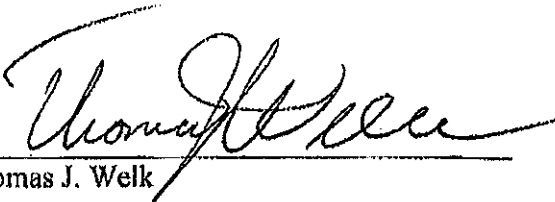
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Thomas J. Welk

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S FIRST SET OF DISCOVERY
REQUESTS TO APPLICANTS DATED
JANUARY 28, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

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Angela Piner, Project Manager Environmental Scientist
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Phone: 218-739-8311
jweiers@otpc.com

2. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have to property values for real property lying under or within ½ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based. Include in your answer both urban and rural property values.

ANSWER: Section 19.1.2 of the South Dakota Facility Permit Application (“the Application”) states, among other things, that “The South Dakota Facility is not expected to have significant short- or long-term effects on . . . land values”

Owners believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

3. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have on common species of livestock, including cattle, horses, swine, and poultry which are, or may be, kept under or within $\frac{1}{4}$ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based.

ANSWER: As stated in sections 19.2.2 and 23.4.5 of the Application, no impacts are anticipated to livestock operations due to the Project for the reasons stated in these sections of the Application.

4. Describe the level of soil compaction, if any, applicants contend will result from construction and maintenance of the transmission line, the impact that compaction may have on the productivity of the property, the time, effort, and cost which would be required to restore the soil to its original condition, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: Soil compaction likely will only occur during construction of the Project. As stated in section 10.3 of the Application, any temporary compaction impact caused by the construction process will be decompacted and restored to preconstruction contours to the extent practicable. No long term impacts from soil compaction are expected because of the decompaction and remediation process described in section 10.3 of the Application.

5. State whether applicants have prepared any estimates, and if so, provide those estimates together with the facts, studies, or expert opinions upon which they are based, as to the total dollar value for:
 - a. Annual lost productivity due to proposed transmission line's impact on livestock along the entire length of the proposed line.
 - b. Annual lost productivity due to soil compaction and interference with farming operations caused from construction and ongoing maintenance along the entire length of the proposed line.
 - c. Total reduction in real property values along the entire length of the proposed line, both for property lying under the proposed route and for adjacent property within $\frac{1}{2}$ mile.

ANSWER: As discussed in sections 14.1.2 and 19.2 of the Application, and as indicated in answers to interrogatories numbers 2, 3, and 4 above, the permanent impact is expected to be minimal. The Owners have not prepared annual estimates of lost productivity, and no such annual estimates are required to be prepared.

6. State the impact on road maintenance requirements and costs, if any, which the applicants contend will be incurred by state and local governments as a result of increased road use during initial construction and as a result of ongoing maintenance, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: As indicated in Section 19.3 of the Application, there will be no impacts on road maintenance requirements and costs. While the roads in the vicinity of the Project will see increased usage during the construction phase of the Project, the Owners do not anticipate any permanent impacts to the area road maintenance. Any damage to area roads will be monitored and repaired during construction and following completion of construction of the Project.

7. State the number of actual residential or commercial customers in South Dakota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any,
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint ("Midwest Region") the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in South Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the Multi-Value Projects ("MVPs") are described more fully in the report issued by MISO called "Multi-Value Project Portfolio -- Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a high priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of South Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other South Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for all customers in South Dakota resulting from the Project or the rest of the MVPs.
- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in South Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested party on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the approximately 75-150 workers involved in activities leading up to and directly involved with the construction of the Project. The impact to the local economies, not including

property taxes, from the Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes (property taxes, contractor tax, excise tax, sales tax, and use tax) which will increase the tax base for counties in which this facility is located. Based on the current effective composite tax rates for South Dakota, the Owners estimate a yearly property tax payment in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

Furthermore, the Owners' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

8. State the number of actual residential or commercial customers in Minnesota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in Minnesota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
 - b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of Minnesota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP, the Owners are not familiar with the portion of MVP costs other Minnesota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in Minnesota resulting from the Project or the rest of the MVPs.
 - c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. Although these benefits will not be as great as the states in which construction will occur, it is feasible that Minnesota may reap the benefits of some local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of some workers involved in activities leading up to and directly involved with the construction of the Project. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.
9. State the number of actual residential or commercial customers in North Dakota which applicants contend will benefit from the construction of the proposed line,

the facts, studies, or expert opinions upon which that contention is based, and describe in detail:

- a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
- b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in North Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the MISO region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by the MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are

members of MISO. Therefore, all customers in the state of North Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other North Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in North Dakota resulting from the Project or the rest of the MVPs.

- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in North Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested parties on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the workers involved in activities leading up to and directly involved with the construction of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes which will increase the tax base for Dickey County. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.

10. Describe in detail nature of the Ellendale substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Ellendale 345-kV Substation will be constructed and owned by Montana-Dakota. It will be located about 1.5 miles west of Ellendale, North Dakota, along the west side of 87th Avenue SE in Section 9, Ellendale Township (Township 129N, Range 63W), Dickey County, and across the street from the existing Montana-Dakota Ellendale 230-kV Substation, which is located in Section 10 of Ellendale Township. The footprint of the substation will be approximately 11.3 acres. Construction of the new Ellendale 345-kV Substation will involve the installation of two 345-kV circuit breakers, one 345-kV line termination structure, five 345-kV disconnect switches, one 345-kV/230-kV 300/400/500 Mega Volt Ampere (MVA) Auto-Transformer, a 345-kV Shunt Line Reactor, eight 230-kV circuit breakers, twenty-one 230-kV disconnect switches, four 230-kV line termination

structures, associated arresters, Capacitive Voltage Transformers (CVTs), bus work, and protective relaying and controls required to support the circuit breakers. The existing Merricourt, Tatanka, and Hankinson 230-kV lines will be relocated to terminate in this substation, as well as an Ellendale 230-kV tie line back to the original Ellendale 230-kV Substation.

11. Describe in detail nature of the Big Stone substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Big Stone South substation will be a 345/230kV substation that will be constructed to allow two new 230kV lines and two new 345kV lines. The 230kV lines will extend between the existing Big Stone Power plant and this new substation. One 345kV line will connect this facility to the new Ellendale 345kV substation and the second 345kV line will connect this facility to the Brookings County 345kV substation.

This new substation will be located in the NE1/4 of the NW1/4 of section 24, Township 121N, Range 47W. The new substation includes four 230kV breakers for the incoming 230kV lines from the existing Big Stone Power plant 230kV substation. Two 345/230/13.8 kV, 448MVA transformers, with 25 Mvar reactors, will step-up the voltage to 345kV for two new 345kV lines. The 345kV bus will have four 345kV breakers to provide protection for these transformers and the new 345kV lines. A new control house and a fenced area of approximately 600 x 600 feet and will be located on 39 acres.

12. Describe in detail the impact, if any, applicants contend that the proposed transmission line would have on the usability and productivity of agricultural equipment which is guided by global positioning systems (GPS), or by ground base transmitter systems, when used under or within ¼ mile of the transmission line. Identify any facts, studies, or expert opinions upon which that contention is based.

ANSWER: Section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

The Application references an IEEE study by Silva & Olsen, 2002, that studied the impact of overhead conductors on GPS signals. The study found that the overhead conductors did not block or affect the use of GPS satellite signals.

13. Describe in detail the impact, if any, applicants contend the proposed transmission line will have on wild game species common to the area where the line is to be constructed, including but not limited to its impact on whitetail deer, walleye pike, northern pike, ring-neck pheasant and Canadian geese.

ANSWER: Section 11.0 of the Application describes the anticipated effects to water resources, including fishery resources. Because the Project will span all streams and lakes, no impacts to fish species or fishing uses will occur.

Section 12.0 of the Application also describes the anticipated impacts to terrestrial wildlife species, including game species. Once constructed, the transmission line could result in impacts to avian game species through collisions. The Project will work with proper wildlife authorities, both State and Federal, to identify areas where bird diverters may need to be installed to minimize potential collisions. In addition, the transmission line will be designed considering the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection On Power Lines: State of the Art in 2006 to minimize the potential for electrocution.

The Project is not anticipated to affect the population of any game species in the region it crosses.

14. Describe in detail the methodology used to select the proposed route, the specific factors by the applicants in selecting the proposed route, including but not limited to total cost, engineering constraints, and legal concerns.

ANSWER: Section 8.1 of the Application lays out the detailed methodology used to select the proposed route. As listed on page 26 of the Application, the line route in South Dakota was selected based on several factors, including:

- **Minimizing total length and construction costs**
- **Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services**
- **Consideration of effects on public health and safety**
- **Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities**
- **Minimizing effects on archaeological, cultural properties, and historic resources**
- **Minimizing impacts to wetlands, surface waters, and rivers**
- **Minimizing impacts to rare or endangered species and unique natural resources**
- **Minimizing effects to airports or other land use conflicts**
- **Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields**
- **Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment**
- **Avoiding a diagonal route across agricultural fields wherever possible**
- **Preference for mono-pole structures rather than H-frame structures**

As described above, engineering constraints and costs were two of many criteria considered. Legal concerns considered in the routing process included confirming potential routes could be constructed consistent with applicable federal, state, and local laws and regulations. The proposed route was selected based upon the evaluation of the foregoing routing criteria.

The Owners continue to evaluate possible changes to the proposed route based upon discussions with landowners. The changes to the route may occur both before the hearing on the Application, and after the hearing. If a material change in the proposed route is adopted by the Owners before the hearing, the Owners will identify that change to the proposed route as part of the prefiled testimony consistent with the deadlines imposed by the Commission or at the hearing. For material route changes after the hearing, the Owners will update the Commission through the appropriate processes.

15. Describe each alternative proposed route considered by the applicants prior to selecting the currently proposed route.

ANSWER: The attached map numbered BSSE 9 shows the preliminary routes that were considered by the Owners prior to selecting the preferred route.

Between the Ellendale Substation and the general vicinity of the town of Bristol, there were two main route alternatives considered; one that follows the ultimately selected route south into South Dakota, and one that heads east from the Ellendale area for approximately 35 to 40 miles before turning south into South Dakota. This second main route alternative had several smaller alternative segments. One location with alternative segments occurs approximately ten miles east of Ellendale, where the alternatives are located 0.5 to 1 mile apart. Another set of alternative segments is located at the North Dakota/South Dakota border crossing area, where the alternatives parallel each other at a distance of approximately 2 to 5 miles apart, for a length of approximately twenty miles.

Between the Bristol area and the Big Stone South Substation, there were several other areas with minor route alternatives. These respective areas usually consist of parallel route alternatives, generally 0.5 to two miles apart.

16. For each alternative route so-identified, describe in detail how the factors set out in your answer to request #14 were considered, and the reason(s) why that alternative route was ultimately rejected.

ANSWER: Section 8.2 of the Application describes the methodology used in selecting the proposed route and rejecting the alternative routes.

The routes through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length, and expected to have better soils for construction activities and structure foundations. The Owners received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to water bird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

Additionally, the proposed route differs from the preliminary route for approximately six miles in T120N R56W (Highland Township) and T120N R57W (York Township) in Day County. The preliminary route was rejected in this area because of engineering and constructability constraints associated with crossing the Horseshoe Lake area.

17. Identify any state or federal renewable energy standards which applications contend the proposed line will enable them to meet.

ANSWER: The proposed line is one of the MVPs which, in total, will enable the most economic development and construction of renewable energy projects in the Midwest Region. This includes a combination of local and regional generation projects detailed in section 4.2 in the MVP report included as Appendix B.1 of the Application. In order to spur renewable energy projects, many states have adopted renewable energy standards, which are laws which mandate that a certain amount of energy produced or purchased by its regulated electric utilities must be generated by qualifying renewable energy projects. The transmission studies performed by MISO used in the identification of the Big Stone South to Ellendale project, along with the balance of the MVPs, were based on existing state renewable energy standards in place during the course of the study (primarily during 2011). The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across the Midwest Region. As determined through the MVP studies, this amount of wind energy is anticipated to meet the state renewable energy mandates across the Midwest Region beyond 2026.

Additional information related to the state renewable energy standards facilitated by the Project and the rest of the MVPs can be found in sections 4 and 7 of the MVP report, included as Appendix B.1 of the Application.

18. With respect to the energy to be transmitted on the proposed line, identify the existing or anticipated generating facilities from which that energy will be produced, and the amount of energy anticipated from each.

ANSWER: The Big Stone South to Ellendale 345 kV line will be an integral part of the high voltage transmission system. As such, the line will be available to carry energy from a variety of generating facilities, regardless of fuel type. Due to the interconnected nature of the regional transmission system, the generation that will flow on this line will depend on a number of variables. Too many variables exist to definitively identify the existing or anticipated generating facilities that will have energy transmitted on the Big Stone South to Ellendale 345 kV line. These variables include (among several other factors) generation patterns, load levels, and outages of existing generation or transmission. Therefore, identifying the exact amount of energy from a specific generator flowing across a particular transmission line is not possible. However, if wind-rich areas in eastern South Dakota are developed with future renewable

generation, this future generation will have energy transmitted along this Project given its geographic proximity to these wind-rich areas. BSSE 11 attached is a wind resource map with the route corridor of the Project shown on the same map. As stated in Section 4 of the Application, the Project will increase system capacity which in turn allow for additional opportunities for development of generation, including renewable energy sources, in South Dakota.

19. Describe in detail the percentage of the total energy to be transmitted on the proposed transmission line which will pass to or from the Big Stone South to Brookings County, and/or Brookings County to South East Twin Cities lines once all three projects enter service, and annually thereafter through the year 2024..

ANSWER: Once these three separate Multi-Value Projects (MVPs) are constructed, the total energy transmitted along these three projects will be highly correlated to one another, given their geographic location and electrical connectivity. The Big Stone South to Ellendale 345 kV line will share a common termination point with the Big Stone South to Brookings County 345 kV line at the Big Stone South substation. Likewise, the Big Stone South to Brookings County 345 kV line will share a common termination point with the Brookings County to South East Twin Cities line at the Brookings County substation. Identifying expected or even anticipated energy transmitted on the Big Stone South to Ellendale line in comparison to the other two projects will depend on a number of variables (as described in interrogatory #18).

Based on knowledge of the transmission system in this region, the flow of energy in this area will generally be from northwest to southeast, flowing from Ellendale to Big Stone South to Brookings County and then to the Southeast Twin Cities. However, transmission facilities often experience bi-directional flows and therefore could also flow from southeast to northwest depending on the conditions present on the transmission grid.

20. Describe in detail the insurance policies or other liability protections, if any, applicants will maintain for themselves against claims which relate to the towers, wires, and other components of the proposed transmission line, and the means by which that protection will be maintained through the useful life of the proposed transmission line.

ANSWER: The Owners maintain property and casualty insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

21. In the event that agricultural production activities near the proposed transmission line damage or interfere with the operation of the line (including, for example, a GPS guided tractor colliding with a monopole), describe in detail any liability

protection which applicants will provide to agricultural producers in the event of third party claims against those producers for interruption of service or other damages..

ANSWER: The Owners maintain property and casualty insurance coverages customary for the utilities industry, including general liability insurance. In the event of a claim that falls within the scope of this coverage, the law of torts would apply.

22. Describe in detail the anticipated maintenance schedule for the towers, lines, substations and other components of the proposed transmission line, and the amount of time each are anticipated to remain in operation.

ANSWER: The Owners anticipate they will inspect the towers, components, and conductors at a minimum of twice a year associated with routine maintenance. A patrol typically would be conducted in the spring and fall of each year to minimize the environmental impact. These patrols/inspections typically take two to three weeks per year and are for the most part confined to the facility right of way. If problems are discovered during these inspections, and are not emergency in nature, typically repairs can be scheduled in fall or winter. If for some reason repairs would have to be scheduled when the crops are still in the field the landowner would be compensated for any damages associated with those repairs.

The right of way would be managed as part of the Owners vegetation management program which consists of removal of trees and other vegetation that could interfere with the reliability of the facility, which usually occurs on a four year cycle. This typically takes around three or four weeks per cycle and is scheduled to be performed in the fall or winter.

The substations maintenance consists of inspections, vegetation management, equipment testing, etc. and is typically confined to the fenced area within the substation with the exception of vegetation management which includes just outside the fence and driveways. These items are completed throughout the year and typically take around eight weeks to complete.

The Owners expect the line to be in service for perpetuity. There are not currently have any plans to remove any of our transmission system. However, as noted above, the facilities will require ongoing maintenance in order to operate safely and reliably.

RESPONSES TO DOCUMENT REQUESTS

1. Tower components, insulators, footings, foundations, guy-wires, and any other attachments for the towers which will be used generally to construct the proposed

transmission line and those which would be specifically used upon property owned by Gerald Pesall.

RESPONSE: See BSSE 10 attached.

2. The exact location where the lines and towers for the proposed transmission line would be located in located Day County, South Dakota for the currently selected route and any alternative routes being considered.

RESPONSE: See BSSE 12 to 63. These documents reflect the preliminary estimates of the location of the lines and towers. The exact location of the lines and towers in Day County has not yet been determined.

3. The Big Stone Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

4. The Brookings County substation, including a description of any transmission lines which will directly connect to it.

OBJECTION: The Owners object to disclosing this information because the Brookings County substation is not part of the Project, and the requested documents exceed the scope of permissible discovery under SDCL 15-6-26(b) and ARSD 20:10:01:01.02. The Owners further object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

5. The Ellendale Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

STATE OF NORTH DAKOTA)
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COUNTY OF Burlington)

Jay Skabo, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

MONTANA-DAKOTA UTILITIES CO.

By Jay Skabo
Jay Skabo
Its Vice President - Electric Supply

Subscribed and sworn to before me this 26 day of February, 2014.

Bloome Stapp
Notary Public -- South Dakota
(SEAL)

My Commission Expires: 9-27-17

STATE OF MINNESOTA)
) :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

OTTER TAIL POWER COMPANY

By Jason J Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 26th day of February, 2014.



Vicki Lynn Severson
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015

AS TO OBJECTIONS:

Dated February 26, 2014



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Associate General Counsel
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(701) 530-1016

CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 26th day of February 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's First Set of Discovery Requests to Applicants Dated January 28, 2014 was served via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
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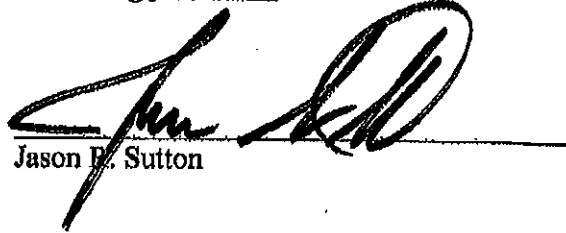
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Jason E. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S SECOND SET OF
DISCOVERY REQUESTS TO
APPLICANTS DATED MARCH 5, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's Second of Discovery Requests to Applicants dated March 5, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

**Terry Fasteen,
Kadrmas, Lee & Jackson, ROW Services
3203 32nd Ave. South, Suite 201
Fargo, N.D. 58106
Phone: 701-232-5353
terry.fasteen@kljeng.com**



Henry Ford, Director
Director Electric Transmission Engineering
Montana-Dakota Utilities Co.
400 N. 4th Street
Bismarck, ND, 58501-4092
Phone: 701-222-7944
henry.ford@mdu.com

Mark Shaw, Project Manager
Power Engineers, Inc.
14220 Ladue Road
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Phone: 405-330-3089
mark.shaw@powereng.com

Dean Pawlowski, Transmission Project Manager
Principal Engineer
Otter Tail Power Company
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone: 218-739-8947
dpawlowski@otpc.com

Angela Piner, Project Manager Environmental Scientist
Associate Vice President
HDR Engineering, Inc.
701 Xenia Avenue South -- Suite 600
Minneapolis, MN 55416
Phone: 763-591-5478
angela.piner@hdrinc.com

Jason Weiers, Manager -- Delivery Planning
Otter Tail Power Company
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone: 218-739-8311
jweiers@otpc.com

2. State the full name, address, telephone number, and occupation of each witness and/or expert from whom you intend to present testimony in this proceeding, and provide a summary of the facts and opinions which each is expected to provide

ANSWER: At this time, Owners intend to call the following witnesses who are all qualified as experts:

Henry Ford, Director
Director Electric Transmission Engineering
Montana-Dakota Utilities Co.
400 N. 4th Street
Bismarck, ND, 58501-4092
Phone: 701-222-7944
henry.ford@mdu.com

Jason Weiers, Manager – Delivery Planning
Otter Tail Power Company
P.O. Box 496
Fergus Falls, MN 56538-0496
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jweiers@otpeco.com

Daniel Fredrickson, Project Engineer
Power Engineers, Inc.
14220 Ladue Road
Chesterfield, MO 63017
Phone: 405-330-3089

Jon Leman, Electrical Systems Study Engineer
Power Engineers, Inc.
14220 Ladue Road
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Phone: 405-330-3089

Angela Piner, Project Manager Environmental Scientist
Associate Vice President
HDR Engineering, Inc.
701 Xenia Avenue South – Suite 600
Minneapolis, MN 55416
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The specific substance of the testimony will be disclosed in the prefiled testimony deadlines imposed by the Public Utilities Commission of South Dakota (“the Commission”), but generally, these witnesses will provide the testimony to establish the Owners’ burden of proving that the Commission should issue the requested permit for the Big Stone South to Ellendale Project (“the Project”).

3. Describe in detail the projected cost difference between the currently proposed route and the other potential routes examined by the applicants for the construction of the transmission facility.

ANSWER: The Owners have not calculated the projected cost differential between the currently proposed route and the other potential routes identified in BSSE 9, which was produced as part of the Owners' response to Gerald Pesall's First Set of Discovery Requests to Applicant. The best estimate of cost is the length of the proposed route. The rejected preliminary route shown on BSSE 9, which goes through Marshall County and western Day County, is longer than the proposed route. The length of the proposed route and corresponding cost was not the sole basis, however, for selecting the proposed route. Instead, the proposed route was selected based on the route selection process and considerations discussed in section 8.1 of Application to Public Utilities Commission of the State of South Dakota, as amended ("the Application").

4. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon persons using either pacemakers, cochlear implants, or similar devices while under or near the transmission line.

ANSWER: Owners do not anticipate any impact on persons with pacemakers, cochlear implants, or similar devices while under or near the transmission line at ground level.

5. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon electronically controlled planting equipment when operated under or near the transmission line.

ANSWER: Owners do not expect that transmission line electric and magnetic fields will impact electronic controls of planting equipment. Isolated cases of interference related to GPS based systems are possible but unlikely.

As stated in answer to interrogatory number 12 in Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

6. In the event a landowner's average crop yields are reduced due to construction activities during the construction process, or as a result of ongoing maintenance, describe the compensation, if any, which applicants will provide to landowners to offset reduced crop insurance payments in future years.

ANSWER: If damage occurs to crops during the construction process, the Owners will pay for the crops damaged, including hay land. The damage payment for standing crop shall be determined by the following formula (acres x yield x price per bushel/ton).

The Owners will strive to work with the landowner to jointly establish the acres affected by construction. To determine the yield component, the Owners will consider the yield obtained by the landowner on the remainder of the field affected and historical data. The price per bushel shall be determined by the market rate at the time of the crop damage.

The Owners will pay a lump sum payment equal twice the amount of the crop damage payment calculated pursuant to the formula discussed above. The Owners pay twice the amount of the crop damage calculated to reflect future yield reductions caused by the construction.

Actual crop damages from maintenance operations will be reimbursed by the Project.

7. State the average cost per linear foot to construct the proposed transmission line on the currently proposed route.

ANSWER: The Owners have not calculated the cost per linear foot of constructing the Project. As stated in section 5.0 of the Application, the total estimated cost of the Project is \$293 to \$370 million in 2013 dollars. Of this amount, according to

section 5.0 of the Application, the cost of transmission line portion of the Project is \$265 million to \$342 million. As stated in section 2.0 of the Application, the Project includes approximately 160 to 170 miles of transmission line. These estimates can be used to calculate a range of anticipated costs for building each mile of the transmission line.

8. In answer to your Interrogatory No. 6 of Gerald Pesall's First Set of Discovery Requests, you indicate that road damage will be monitored and repaired. Describe in detail who will provide monitoring and repair services, and how they will be provided.

ANSWER: As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (*i.e.*, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.

9. Describe in detail the impact, if any, applicants contend the construction of the proposed facility will have on the field-to-field transmission of soil and plant-borne pests, including but not limited to the soybean cyst nematode, and the "sudden death syndrome" fungus, and any preventative measures applicants will take to prevent the transmission of the same during construction and ongoing maintenance of the proposed facility.

ANSWER: The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Owners experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields.

10. Describe in detail any alternative means by which applicants may comply with clean energy mandates imposed by the State of Minnesota in the event that the application is denied.

ANSWER: The Owners assume that the reference to "clean energy mandates imposed by the State of Minnesota" means renewable portfolio standards that apply in Minnesota, which requires that 25% of retail energy sales must come from

renewables by 2025 and 1.5% of retail energy sales coming from solar energy by 2020.

Montana-Dakota Utilities Co. is not subject to Minnesota's clean energy mandates because it does not serve customers within the State of Minnesota. Otter Tail Power Company ("OTP") does serve customers within the State of Minnesota and therefore is subject to the requirements imposed by Minnesota.

Regardless of whether the permit for the Project is granted or denied, OTP would embark on a similar approach to that which it has historically taken when adding generation resources to comply with Minnesota's clean energy mandates.

OTP currently provides about 19% of its total retail sales from wind energy. To date, all of OTP's wind energy has been added cost effectively.

As mentioned in sections 4 and 6 of the Application, the Project, along with the rest of the MVPs, will reduce the wholesale cost of energy delivery for consumers across MISO by increasing transmission capacity. If the Application is denied, the Project may not be built, thereby jeopardizing the benefits the MVP portfolio offers to the MISO region, which includes South Dakota. Without these benefits, energy prices in the MISO region could be higher, therefore increasing costs to consumers system-wide.

STATE OF NORTH DAKOTA)
)
COUNTY OF Burdick) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 1st day of April, 2014.

MONTANA-DAKOTA UTILITIES CO.

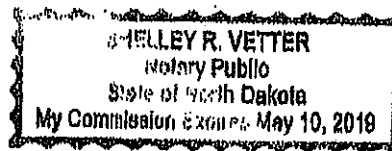
By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 1st day of April, 2014.

Shelley R. Vetter

Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
)SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 4th day of April, 2014.

OTTER TAIL POWER COMPANY

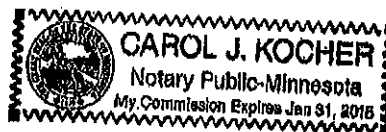
By Jason J. Weiers
Jason Weiers

Its Manager, Delivery Planning

Subscribed and sworn to before me this 4th day of April, 2014.

Carol J. Kocher
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015



CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 7th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's Second Set of Discovery Requests to Applicants Dated March 5, 2014 was served via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
Executive Director
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patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
South Dakota Public Utilities Commission
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Mr. Darren Kearney
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South Dakota Public Utilities Commission
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Darren.kearney@state.sd.us

Ms. Jennifer Smestad
General Counsel
Otter Tail Power Company
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jsmestad@ottertail.com

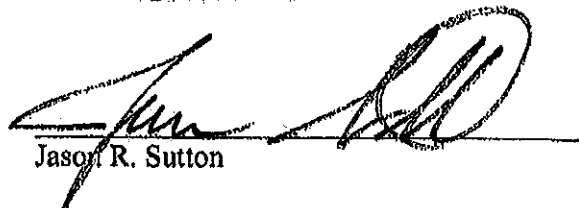
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Jason R. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD REBUTTAL
TESTIMONY**



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HENRY FORD REBUTTAL TESTIMONY

Q. Please state your name, employer, and work address.

A. My name is Henry Ford. I am the Director of Electric Transmission Development for Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND 58501.

Q. Did you prepare and direct testimony regarding the Big Stone South to Ellendale Project ("the Project")?

A. Yes, I did.

Q. What is the purpose of your rebuttal testimony?

A. To address the testimony of Gregory Tylka, Ph.D, who prepared direct testimony on behalf of Gerald Pesall, and which was filed with the South Dakota Public Utilities Commission ("the Commission"). Specifically, I am going to address Dr. Tylka's testimony about the alleged effect of the construction of the Project on the possible spread of soybean cyst nematode ("SCN").

Q. Other than Gerald Pesall, has anyone else expressed concern regarding the effect of the construction of the Project on transmission of SCN?

A. No. Landowners, local governments, or governmental agencies who have communicated with the Project have never discussed SCN or the effect of the Project on the spread of SCN.

Q. Has MDU ever encountered allegations that construction or maintenance of transmission projects will increase the spread of SCN in any of MDU's other transmission projects?

1 A. No, this case is the first time where alleged spread of SCN has been raised as a
2 concern.

3 **Q. How many miles of transmission line does MDU have?**

4 A. MDU owns and maintains approximately 3,000 miles of transmission line.

5 **Q. What experience has co-owner Otter Tail Power Company (OTP) had regarding
6 SCN in the construction and maintenance of transmission lines?**

7 A. Like MDU, OTP has not encountered the complaint that construction or maintenance
8 of a transmission line spreads SCN.

9 **Q. When was the first time the Project learned anyone had concerns that the
10 construction or maintenance of the transmission line would spread SCN?**

11 A. Upon receiving the direct filed testimony of Dr. Tylka, which was filed by Gerald
12 Pesall on April 24, 2014.

13 **Q. What steps are Project taking in light of Dr. Tylka's testimony?**

14 A. The Project intends to research the effect construction or maintenance of the
15 transmission line might likely have on the spread of SCN.

16 **Q. How do you propose updating the Commission regarding the Project's plan for
17 addressing SCN?**

18 A. Because SCN is a new issue for the Project, and because the short time frame for
19 rebuttal testimony after Gerald Pesall filed Dr. Tylka's testimony, the Project needs additional
20 time to complete their study and research. Following the completion of our study and research,
21 the Project will supplement their prefiled rebuttal testimony.

22 **Q. Does this complete your prefiled rebuttal testimony at this time?**

23 A. Yes.

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD SUPPLEMENTAL
REBUTTAL TESTIMONY**



1 **Q. Please state your name, business address, and current employment position.**

2 A. My name is Henry Ford. I am the Director of Electric Transmission Development for
3 Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND
4 58501.

5 **Q. Have you previously prepared any testimony in this matter?**

6 A. Yes, I prepared direct testimony filed on April 25, 2014. I also prepared rebuttal
7 testimony that was filed on May 9, 2014.

8 **Q. In your rebuttal testimony, did you indicate what steps the Project was taking to
9 address Dr. Tylka's testimony about soybean cyst nematode ("SCN")?**

10 A. Yes. I indicated that the Project was researching the effect of the construction and
11 maintenance of the transmission line on the spread of SCN.

12 **Q. What research has the Project done?**

13 A. The Project consulted with South Dakota State University regarding the presence of
14 SCN in Brown, Day, and Grant Counties, and how SCN is spread. The Project also reviewed
15 academic literature on SCN.

16 **Q. What did your research indicate?**

17 A. SCN is present in Brown, Day, and Grant Counties, but the Project is not aware at this
18 time what particular parcels within those counties have SCN present. SCN can be spread in any
19 method that dirt is spread from field to field.

20 **Q. Why is the Project unaware of the particular parcels containing SCN?**

21 A. The Project is unaware of which landowners have tested for SCN and which parcels
22 the South Dakota State University extension office may have tested in the project area.

1 Additionally, the extension office would not be able to provide any information that may be
2 available because the information is private.

3 **Q. Can the construction of the Project contribute to the spread of the SCN?**

4 A. Based on our research, anything that causes dirt to move from field to field can cause
5 spread of SCN, including wind, erosion, farming practices, and the construction of the Project.

6 **Q. Based on the research, does the Project intend to engage in any mitigation to
7 reduce the spread of SCN?**

8 A. Yes, we are intending to adopt and implement a plan.

9 **Q. Please describe the mitigation plan.**

10 A. The Project is still developing a mitigation plan. Although not yet finalized, the
11 Project is considering five components to the plan -- consultation, sampling, cleaning, training,
12 and monitoring. The details of the mitigation will depend on the results of consultation and
13 sampling.

14 **Q. When do you expect the mitigation plan to be filed?**

15 A. I expect a working draft mitigation plan to be filed before the evidentiary hearing on
16 June 10 so that I can testify about it at the hearing.

17 **Q. What plans does the Project have regarding addressing the possible spread of
18 SCN through maintenance activities?**

19 A. The mitigation plan will address reasonable and appropriate efforts to reduce the
20 spread of SCN during maintenance activities.

21 **Q. Does this complete your supplemental rebuttal testimony?**

22 A. Yes.

Soybean Cyst Nematode Mitigation Plan

Background Information

The soybean cyst nematode (*Heterodera glycines*) (SCN) has been identified throughout the Project area and was first identified in 1997¹ in the three counties within which the Project traverses. The SCN can be spread through the movement of affected soil. It moves very slowly through wind-blown soils, wind and water erosion, and cultivation practices and has been known to survive in the soil for a decade².

The Project developed a mitigation plan described below to reduce the risk of spreading SCN from affected to non-affected fields. This mitigation plan has the following approach:

- Perform a field assessment to identify the presence or absence of the SCN within cultivated fields crossed by the Project right-of-way (ROW)
- Identify acceptable measures to mitigate spreading SCN during construction
- Hold construction crews accountable through inspection and monitoring during construction

Mitigation Plan

Field Assessment

Sampling for SCN commonly targets high probability areas in cultivated fields, which includes field lines, field entrances, and low spots³. The goal of the field assessment is to identify the presence or absence of the SCN in the cultivated fields crossed by the Project. The sampling protocol will be completed in accordance with the South Dakota State University protocol.

Mitigation Measures

Mitigating the spread of SCN from an existing affected field to a non-SCN affected field, a variety of measures may be utilized, which are dependent on soil conditions, weather conditions, topography, distance traveled, equipment type, and cost. Unfortunately, one mitigation measure alone is not a "catch-all" and will be determined on a site-specific basis. Measures to assist in the control of soils on equipment may include: cleaning stations, utilizing clean crews for non-affected fields and a dirty crew for affected fields, equipment mats, and

¹ Strunk, Connie. 2013. Soybean Cyst Nematodes: An expanding pest in South Dakota.

<http://igrow.org/agronomy/soybeans/soybean-cyst-nematodes-an-expanding-pest-in-south-dakota/>

² Niblack, T. L., K. N. Lambert, and G. L. Tylka. 2006. A Model Plant Pathogen from the Kingdom Animalia: *Heterodera glycines*, the Soybean Cyst Nematode. Annual Review of Phytopathology 44: 283-303

³ Smolik, J.D., M.A. Draper. 2007. Soybean Cyst Nematode South Dakota Extension Fact Sheet 902-A. SDSU Plant Science Department. http://pubstorage.sdstate.edu/AgBio_Publications/articles/FS902A.pdf



Big Stone South to Ellendale

weather-dependent construction (i.e. frozen and dry soils). The measures ultimately used will depend on the results of the sampling effort, cost, resource availability, and contractor input.

Inspection/Monitoring

The Project is committing to training and identifying individuals responsible for monitoring construction personnel in their implementation of this plan.

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

**IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE
BIG STONE SOUTH TO ELLENDALE 345
KV TRANSMISSION LINE**

SETTLEMENT STIPULATION

EL13-028

It is hereby stipulated and agreed by and among Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly "Applicant"), and the South Dakota Public Utilities Commission Staff ("Staff") (jointly "Party" or "Parties"), that the following Settlement Stipulation ("Stipulation") may be adopted by the South Dakota Public Utilities Commission ("Commission") in the above-captioned matter. In support of its Application to the Public Utilities Commission of the State of South Dakota for a Facility Permit ("Facility Permit"), Applicant does hereby offer this Stipulation, the Application filed August 23, 2013, as amended, and all responses submitted by the Applicant to the Staff's data requests, all responses to Gerald Pesall's discovery requests, and the testimony and exhibits filed on April 25, 2014, May 9, 2014 and May 23, 2014, conditioned upon the Commission accepting the following Stipulation and the Terms and Conditions without any material condition or modification.

I. INTRODUCTION

Applicant proposes to own and construct the Big Stone South to Ellendale 345 kV electric transmission facilities ("Project"). The Project includes new 345 kV electric transmission facilities of approximately 160 to 170 miles in length, which will connect the new Ellendale 345 kV Substation with the Big Stone South Substation. Approximately 150 to 160 miles of transmission facilities will be located in South Dakota. The Project also involves the building of a new 345 kV substation ("Ellendale 345 kV Substation") and substation tie line near Ellendale, North Dakota.

II. PURPOSE

This Stipulation has been prepared and executed by the Parties for the sole purpose of stating the Parties' agreement regarding the issuance of a Facility Permit in Docket No. EL13-028. In consideration of the mutual promises hereinafter set forth, the Parties agree as follows:

1. Upon execution of the Stipulation, the Parties shall file this Stipulation with the Commission together with a joint motion requesting that the Commission issue an order approving this Stipulation in its entirety without condition or modification.



2. This Stipulation includes all terms and conditions of settlement and is submitted with the condition that, in the event the Commission imposes any material changes or conditions to this Stipulation, which are unacceptable to any Party, this Stipulation may, at the option of any Party, be withdrawn and shall not constitute any part of the record in this proceeding or any other proceeding nor be used for any other purpose.
3. This Stipulation shall become binding upon execution by the Parties, provided however, that if this Stipulation does not become effective in accordance with Paragraph 2 above, it shall be null and void. This Stipulation is intended to relate only to the specific matter referred to herein; no Party waives any claim or right, which it may otherwise have, with respect to any matter not expressly provided for herein. No Party or a representative thereof shall directly or indirectly refer to this Stipulation as precedent in any other current or future proceeding before the Commission.
4. The Parties to this proceeding stipulate that all pre-filed exhibits and pre-filed testimony submitted by the Applicant will be made a part of the record in this proceeding.
5. The terms and conditions contained in this Stipulation shall inure to the benefit of and be binding upon the respective successors, affiliates, owners, stockholders, partners, parents, subsidiaries, directors, officers, agents, employees, representatives, attorneys, and assigns of the Parties. In addition, the terms and conditions of this Stipulation, including all facts leading up to the signing of this Stipulation, shall bind the Parties, including consultants, contractors, and retained professionals.
6. This Stipulation constitutes the entire agreement between the Parties and shall be deemed to supersede any other understandings or agreements, whether written, oral, expressed or implied, relating to the Application. This Stipulation may not be amended, modified, or supplemented, and waivers or consents to departures from the terms and conditions of this Stipulation may not be given without the written consent thereto executed by all Parties.
7. This Stipulation shall be interpreted and construed in accordance with the laws of the State of South Dakota.
8. This Stipulation may be executed by electronic mail or facsimile and in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document.
9. The Parties recognize that the Commission has granted intervention to Gerald Pesall, James R. McKane, III, Clark T. Olson, Shuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson (collectively "Intervenors"). The Intervenors are not parties to this Stipulation.
10. The Parties agree that subject to the four elements of proof under SDCL § 49-41B-22,

the Commission has the authority to grant, deny, or grant upon reasonable terms, conditions or modifications a permit for the construction, operation, and maintenance of the Project. The Parties further agree that the Applicant has met its burden of proof pursuant to SDCL § 49-41B-22 and is entitled to a permit to construct the Project as provided in SDCL § 49-41B-24, subject to the following:

III. TERMS AND CONDITIONS OF THE SETTLEMENT STIPULATION

1.

Applicant will obtain all applicable and necessary governmental permits, which reasonably may be required by any governmental authority with jurisdiction, prior to engaging in the particular activity covered by that permit.

2.

Applicant shall construct, operate, and maintain the Project in a manner consistent with: (1) descriptions in the Application, (2) Application supplements, (3) responses to data requests, (4) the Terms and Conditions of the Permit to Construct Facilities, and (5) any applicable industry standards.

3.

Applicant agrees that the Commission's complaint process as set forth in ARSD 20:10:01 shall be available to landowners, other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit.

4.

Applicant shall provide each landowner on whose property the Project is to be constructed or located with the following information:

- a) A copy of the Commission's Order Granting Permit to Construct Facilities;
- b) Detailed safety information describing:
 - 1) Reasonable safety precautions for activities on or near the Project,
 - 2) Known activities or uses that are prohibited near the Project, and
 - 3) Other known potential dangers or limitations near the Project;
- c) Construction/maintenance damage compensation policies and procedures;
- d) Commission's address, website, and phone number; and
- e) Contact person for Applicant, including name, e-mail address, and phone number.

Once the foregoing information has been provided to the landowner, Applicant shall have no

responsibility or duty to update such information except for changes to items b), c), and e) in this paragraph 4.

5.

In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL § 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of the Applicant involved in this Project be made aware of the terms and conditions of this Permit.

6.

Except as otherwise provided in the conditions of this Stipulation, the Applicant shall comply with all mitigation measures set forth in the Application, in Applicant's responses to Staff data requests, Applicant's responses to Intervenor's discovery, and in Applicant's prefiled testimony and exhibits. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.

7.

Applicant will negotiate road use agreements with applicable government authorities with jurisdiction, if required during construction. Applicant will follow the terms of all road use agreements. Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including but not limited to implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal from the road surface of any soils or mud deposits from the road surface when necessary.

8.

Applicant shall comply with the following conditions regarding road protection:

- a) Applicant shall acquire all applicable and necessary permits authorizing the crossing of federal, state, county, and township roads.
- b) Applicant shall coordinate road closures with federal, state and local governments and emergency responders.
- c) Applicant shall implement a regular program of road maintenance and repair throughout the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.
- d) After construction, Applicant shall repair and restore deteriorated roads to the conditions defined in the road use agreement, if applicable, resulting from Applicant's construction traffic, or compensate governmental entities for their repair and restoration of deteriorated roads caused by Applicant, such that the roads are returned to their preconstruction condition.
- e) Privately owned areas used as temporary roads during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.

- f) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to original width after completion of the Project, unless otherwise agreed upon.

9.

Applicant will coordinate with pipeline owners to ensure that the Project does not cause harm to existing pipeline facilities. Applicant will work with pipeline owners to implement any necessary and reasonable mitigation measures.

10.

Applicant will provide signage that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

11.

Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species or native grasslands in the siting area that Applicant becomes aware of and that was not previously reported to the Commission.

12.

Applicant agrees to avoid direct impacts to archaeological and architectural site features that are listed on or that are eligible for listing on the National Register of Historic Places (NRHP), and those that are not evaluated for listing on the NRHP. When NRHP-eligible or listed sites cannot be avoided, Applicant will notify the State Historic Preservation Office (SHPO) and the Commission of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or develop treatment measures.

13.

If, during construction, Applicant discovers what may be a cultural resource, human skeletal remains, or associated funerary objects, Applicant or its agent shall immediately cease work at the location and notify the landowner(s), the SHPO, and other authorities as appropriate (per SDCL § 34-27-25 and SDCL § 34-27-28 in the case of human burials). If it is determined, in coordination with SHPO, that a significant resource is present, Applicant shall develop a plan that is acceptable to the landowner and SHPO that minimizes the adverse impact or threat to the resource.

14.

Applicant shall follow a) all conditions required by any agency permits and b) all final agency recommendations agreed to by Applicants through consultation with those applicable agencies in Exhibit 1, Appendix C. Applicant shall reasonably update the Commission if any of the final agency recommendations agreed to by the Applicant as provided for in this paragraph (14) change from Exhibit 1, Appendix C.

15.

Applicant shall confer with the applicable agencies in the implementation of measures for the protection of avian species consistent with "Suggested Practices for Avian Protection on

Power Lines: The State of the Art in 2006" and "Reducing Avian Collisions with Power Lines: State of the Art in 2012" prepared by the Avian Power Line Interaction Committee.

16.

Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission prior to submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation as required by the NPDES permit. All contractors will be given a copy of the SWPPP and requirements will be reviewed with them prior to the start of construction.

17.

Applicant shall develop and implement a mitigation plan to minimize the spread of soybean cyst nematode, consistent with Exhibit 23, in consultation with a crop pest control expert.

18.

Applicant will repair and restore areas materially impacted by construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration will include replacement of original pre-construction or equivalent quality topsoil to its original elevation, contour, and compaction and reestablishment of original vegetation as close thereto as reasonably practical.

19.

Applicant's obligation with respect to restoration and maintenance of the right-of-way (ROW) shall continue throughout the life of the Project for disturbances caused by the actions of the Applicant. Where the soil is disturbed during construction or maintenance of the line, Applicant shall restore vegetation as appropriate in and along the ROW. For a period of thirty-six (36) months from the energization of the Project, if noxious weeds sprout in restored areas, Applicant will remove/eliminate them. Landowner permission shall be obtained before the initial application of herbicides.

20.

When necessitated by Applicant's actions, Applicant shall restore and clean-up the ROW continuously throughout the duration of the Project's construction as the timing of construction activities result in the need to do so.

21.

Applicant shall stage construction materials in a manner that minimizes adverse impact to landowners as agreed upon between Applicant and the landowners. All excess construction materials and debris shall be removed upon completion of the Project. In addition, any temporary guard poles shall be removed, unless agreed upon otherwise.

22.

Applicant shall, in a manner consistent with its easement agreement with a landowner, repair or replace all private property existing at the time of construction, which is removed or

damaged during all phases of construction, including, but not limited to the following: fences, gates, utility, water supply systems, irrigation, or drainage systems. Applicant shall compensate the landowners for damages or losses to property existing at the time of construction or maintenance that cannot be fully remedied by repair or replacement, including actual crop and livestock losses.

23.

If it becomes necessary to materially deviate from the described centerline to accommodate engineering and applicable safety and construction requirements based upon conditions encountered during construction, all landowners affected by the material deviation and the Commission must be notified in writing at least five working days before the material deviation is expected to occur. Unless otherwise notified by the Commission, the material deviation is deemed approved. For purposes of this paragraph, the term "material deviations" shall mean any action or activity outside the reasonable parameters of the Permit.

24.

Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities existing prior to the date of this Stipulation, unless agreed otherwise by the affected landowner. Applicant shall take appropriate precautions to protect livestock and crops during construction.

25.

The terms and conditions of the Permit shall be made a uniform condition of construction, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied to the property in question and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis which evaluation shall be completed within sixty (60) days unless exigent circumstances require action sooner.

26.

If the presence or operation of the Project causes unreasonable interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

27.

Applicant shall use appropriate preventative measures to prevent damage to paved roads and to remove excess soil or mud from such roadways. Before commencing construction, Applicant shall furnish an indemnity bond in the amount of \$300,000 to comply with the requirements of SDCL § 49-41B-38. Such bond shall be issued in favor of, and for the benefit of, such townships, counties, or other governmental entities whose property is crossed by the transmission facilities or used by associated construction equipment. The bond shall remain in effect until released by the Commission, which release shall not be unreasonably denied.

following completion of the construction and remediation period. Applicant shall give notice of the existence and amount of the bond to all governmental entities whose property is crossed or used by the Project.

28.

Applicant will provide Global Positioning System (GPS) coordinates of proposed structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.

29.

Not less than 30 days prior to commencement of construction work in the field, Applicant will provide to Staff the most current pre-construction design, layout and plans. Applicant also will provide such additional pre-construction information as Staff requests.

30.

Within 90 days of the Project's completion, Applicant shall submit a report to the Commission that provides the following information: 1) as-built location of structures and route, including drawings; 2) status of remedial activities for alleged road damage, alleged landowner property damage, alleged crop damage, alleged environmental damage, or any other alleged damage that resulted from construction activities; and 3) a summary of known landowner complaints and Applicant's responses.

31.

Prior to construction, Applicant will notify public safety agencies providing a schedule and location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, Sheriffs of Brown, Grant, and Day Counties, and Brown, Grant, and Day County Offices of Emergency Management.

32.

Applicant shall provide all landowners information regarding the potential induction of current/voltage on fences and metal objects and mitigation methods that can be applied to eliminate the induction. Applicant will respond to landowners concerns regarding induced current/voltage on fences or other structures within 100 feet of the edge of the right-of-way of the Project and will assist those landowners in determining methods and implementation of mitigation.

33. Applicant shall provide all landowners information regarding possible interference with unlicensed agricultural navigation communication transmitting or receiving equipment and mitigation methods that can be applied to minimize unreasonable interference. Applicant will respond to landowners concerns regarding unreasonable interference with unlicensed agricultural navigation communication transmitting or receiving equipment and will assist those landowners in determining methods and implementation of mitigation.

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SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: 6-9-14

Montana-Dakota Utilities Co.

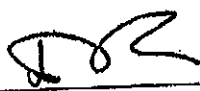
By: Garret Senger

Its: V.P. Regulatory + CAO

SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: _____

Otter Tail Power Company

By:  _____

Its: President _____

SETTLEMENT STIPULATION—DOCKET EL13-028

Dated: June 7, 2014

Karen E. Cremer

Karen E. Cremer
Staff Attorney
South Dakota Public Utilities Commission

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION EL13-028
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

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Transcript of Proceedings
June 10, 2014
Volume I, pages 1-144

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
Brian Rounds
Katlyn Gustafson

APPEARANCES

Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 are required under the Stipulation for approval of
2 material changes within the route.

3 Then just to give you very briefly the status as it
4 is today on options signed on this project, I can tell
5 you that as of the 3rd of June we have 224 options
6 signed. That equals roughly 60 percent of the total line
7 miles on this project. I know we've executed a few more
8 today. I don't have those reflected in here. But so we
9 continue to make progress on getting options signed on
10 the project.

11 Now in terms of the Soybean Cyst Nematode Mitigation
12 Plan, you know, I admitted right away that when this
13 issue was raised by Mr. Pesall's attorney this was not an
14 issue that the owners of this project or the Applicants
15 here were really aware of.

16 You know, we've built a lot of transmission line
17 throughout this area and throughout Minnesota,
18 North Dakota, Montana. This is an issue that at least
19 has not come up in any particular proceeding or it is not
20 something that we have faced before on a project.

21 So as a result, we had to do a little bit of
22 research right away into this issue. And through that
23 research -- and basically what we did was we consulted
24 with South Dakota State University and their extension
25 service. They're well-aware of this issue, and they were

1 able to give us, I think, some good education on this
2 issue as well as discuss with us what our mitigation plan
3 looks like and kind of give us a little bit of advice
4 there.

5 So as a result of those consultations, what we
6 really have determined here is that within the roughly
7 160, 165 miles of the route in South Dakota -- or
8 throughout the whole project, for that matter, we have
9 determined that what needs to be done is that we need to
10 test each individual cultivated field for the presence of
11 the soybean cyst nematode.

12 So we've committed, you know, within the Stipulation
13 that we will follow this mitigation plan. We will test
14 essentially every cultivated field on this project.
15 Based on the results of that testing, we're going to know
16 something more about kind of the density of this problem
17 within our route. In other words, we'll know if this
18 issue is confined to certain areas on the route, whether
19 it's every other field kind of a situation or whether
20 it's, you know, 10, 15 miles that is clean fields,
21 followed by 10, 15 miles of dirty fields.

22 The reason I say that is because in our
23 investigation we determined there are several ways to
24 mitigate the transference of the nematode from one field
25 to the other. And depending on the density of this issue

1 along the route, that is going to determine what is the
2 best method of mitigation or the best method that we will
3 apply to prevent this spread to the best of our ability
4 from a dirty field to a clean field.

5 There are several methods we're looking at that
6 we've found that other companies have used in other parts
7 of the country where this has been an issue in the past.
8 There are things like cleaning stations that you set up
9 at the edge of a so-called dirty field where you will
10 clean the equipment before they leave that field.
11 Therefore, they'll be clean and ready to go into a
12 noninfected or noncontaminated field and not transfer the
13 nematode.

14 There is also the option of what we call clean
15 crew/dirty crew. What that means is, there again,
16 depending on the density and the distribution of these
17 fields, you could actually set up a crew that only works
18 within the clean fields. They don't ever go into a dirty
19 field and vice versa. You set up a dirty crew that their
20 purpose is to only work within the fields that are
21 contaminated and not cross into a field that is not
22 contaminated.

23 Those are a couple of the real, I think, successful
24 methods that have been used on other projects. There's
25 other possibilities such as matting where you're

1 technically not driving in the field; you're driving on
2 wood matting. And that could be used in certain areas
3 maybe where the field conditions are wet enough that we
4 would have a greater concern of spreading contaminated
5 soils.

6 And, you know, I think there are some other things
7 out there that we've read about in terms of, you know,
8 potential lesser risk in, say, winter months when the
9 ground is frozen, things like that.

10 So our mitigation plan has laid out this process
11 where we do the testing followed by an analysis of those
12 results to determine the best methods of mitigation to
13 use. And those methods could actually vary from one area
14 of the line to another, all dependent on, you know,
15 cost-effectiveness, project efficiencies, and just what
16 is the best method to use in that area.

17 So that's how we intend to proceed in mitigating the
18 nematode issue. That is Exhibit 23 also, and so we can
19 read that. And it's also included in paragraph 17 of the
20 Settlement Stipulation.

21 So with that in mind, I guess, in conclusion I just
22 want to say that based on what we believe our Application
23 has done, what other filed testimony that we have filed
24 in this case, and the conditions in the Settlement
25 statement -- or the Settlement Stipulation itself, we the

1 Council was one that we had contacted. We did -- in
2 Appendix C of the Application, we did make contact with
3 the State -- if you just give me a second here, I think I
4 can find it. To the South Dakota Department of
5 Agriculture and South Dakota Department of Environment
6 and Natural Resources, those two agencies, which I assume
7 maybe would know something about it. At least the
8 Department of Agriculture. Also the U.S. Department of
9 Agriculture was contacted.

10 CHAIRMAN HANSON: My recollection, the Soybean
11 Council was the first to have a publication on it,
12 though, in South Dakota. It was quite a few years ago,
13 and they were talking about it in the southeast part of
14 the country.

15 Would you please contact them and have
16 discussions with the Soybean Council as well?

17 THE WITNESS: (Nods head.)

18 CHAIRMAN HANSON: You spoke of cleaning
19 stations, clean and dirty crews, potential matting.
20 Counsel Pesall got into some specifics in that arena, a
21 number of areas that I'm concerned with. It doesn't --
22 the Exhibit 23 states that it may include some of the
23 cleaning stations, clean and dirty crews, things of that
24 nature.

25 Again, in this particular instance do you have

1 any specific criteria?

2 The verbiage just did not leave me with a great
3 deal of confidence. In fact, again, it states that it
4 may include, that you may include some of these items.

5 THE WITNESS: Yeah. I think as I stated in my
6 testimony, what we feel is critical here in determining
7 the type of mitigation is really the prevalence of the
8 nematode along the route.

9 So if worst-case scenario let's say 100 percent
10 of the route is contaminated, then obviously there really
11 isn't mitigation that would be required.

12 But if we have long stretches of contamination
13 and long stretches of noncontaminated fields, then the
14 clean crew/dirty crew option may actually be the best
15 option to use.

16 The cleaning stations I think would be used more
17 in the situation where we have, what do you want to say,
18 oscillation between clean and dirty fields along the
19 route so that it is potentially impractical to use clean
20 and dirty crews.

21 So I guess the purpose of that language in the
22 plan is that we may as a result of determining the
23 density of the problem eliminate some of those mitigation
24 options. I mean, maybe we end up going to nothing but
25 cleaning stations, let's say, as an example.

1 So I think we wanted to keep all of these
2 options on the table until we can really analyze, you
3 know, the significance of the problem along the route and
4 best determine, you know, how to mitigate.

5 CHAIRMAN HANSON: Just a comment. It would seem
6 that if you do find a nematode cyst, that you would only
7 use dirty crews in those areas and that you would use
8 clean crews in all of the other areas so that there would
9 be no cross-contamination.

10 I have a few other questions, but I will
11 acquiescent to my fellow Commissioners at this juncture.

12 Commissioner Nelson, did you have questions?

13 COMMISSIONER NELSON: Just a couple, Mr. Ford.

14 In your initial comments today you mentioned
15 that of the route alternatives that you were looking at
16 there was only one that ended up being rejected. Is that
17 the Podoll area?

18 THE WITNESS: Yes, it is.

19 COMMISSIONER NELSON: And referencing your
20 June 5 and 6 letter to Mr. and Mrs. Lyle Podoll, you
21 indicated that one of the reasons that you couldn't go
22 with their alternative was that it would place them at
23 odds with landowners on the proposed southern route
24 change.

25 My recollection of Mr. Podoll's commentary at

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

EL13-028

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Transcript of Proceedings
June 11, 2014
Volume II, pages 145-385

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
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Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 Sections 4, 19.1, and 20 of the Application, as well as
2 Responses to Staff's First Data Requests, paragraphs 5
3 and 8. Section 4 talks about the benefit of the project
4 through property taxes specifically.

5 Sections 19.1 provides a summary of the
6 socioeconomic conditions of the project and is very
7 typical of what you would see in the Application and is
8 very consistent with applications I've done in the
9 past.

10 Section 20 is employment estimates for the project.
11 And paragraph 5 in the First Data Request Response has
12 additional property and sales tax information details.
13 And paragraph 8 has additional information on employment
14 estimates and impacts to local economy.

15 In regard to soilborne pests, after conversations
16 with over 500 landowners who attended our project open
17 houses, many of those which were farmers and the
18 consultation we requested with NRCS and Department of
19 Agriculture, we were not aware of any issues of soilborne
20 pests.

21 We've addressed the evidence and have responded to
22 the soybean cyst nematode issue as provided by
23 Dr. Tylka's testimony and haven't provided evidence on
24 the soilborne pests as we are not aware of the prevalence
25 of those specific issues raised.

1 I was hired to work almost exclusively on that, and that
2 was my graduate training as well.

3 Q. Can you give the Commission a short explanation of
4 what the soybean cyst nematode is?

5 A. Sure. So generally I start off this explanation by
6 describing nematodes in general. These are microscopic
7 worms that live in water and soil, very common. And most
8 of them are good. They're beneficial.

9 But there are a subset of them that feed on plants.
10 And many of these plant feeding nematodes or plant
11 parasitic nematodes are native to the United States, and
12 they're commonly found in agricultural soils throughout
13 the United States.

14 But there also are a few that are introduced pests.
15 And soybean cyst nematode, which I'll probably refer to
16 as SCN from this point on, is one of those introduced
17 pests.

18 And introduced pests create unique problems in that
19 when they are introduced into a field first off they have
20 no natural enemies because they've never existed there
21 before. So many of the native plant parasitic nematodes
22 are not terribly damaging because there are other things
23 that live in the soil that eat nematodes for lunch, for
24 example.

25 But when you're a new introduced pest you have the

1 benefit of many years for not having any natural enemies.
2 And so that's one of the things that makes soybean cyst
3 nematode or SCN so difficult and so dangerous.

4 It also has aspects of its biology that make it very
5 unique and very damaging. Most nematodes are individual
6 worms that feed from the outside of the root and produce
7 five or 10 offspring. But soybean cyst nematode burrows
8 into the root. It attaches to the vascular tissue, which
9 is in the center of the root, and then the female swells
10 up to form what we refer to as a swollen female. And the
11 reason she swells up is because ovaries develop inside of
12 her that are very large.

13 Eventually the adult swollen female is about the
14 size of a printed period at the end of a sentence. So in
15 a book page or a newspaper. And that swollen female
16 fills up with eggs, 200 to 300 eggs. So a unique aspect
17 of the nematode's biology is that it has a very high
18 reproductive potential.

19 Now the whole life cycle of SCN can be completed in
20 four weeks. So when you think about how many weeks a
21 soybean crop is grown in your state or mine that allows
22 for three or four or five turns of the life cycle,
23 generations. And so that adds to the potential for
24 explosive increases in numbers.

25 And then if mother nature didn't give us enough of a

1 bad hand, that final aspect that makes it terribly
2 difficult to manage is the eggs inside the females. When
3 she dies those eggs can live 10 or more years without a
4 soybean crop being grown. Those eggs go dormant in the
5 soil.

6 So it's a very troublesome pest because of being an
7 introduced pest, having a high number of offspring per
8 individual, a short life cycle, and then very long lived
9 in the soil.

10 Management of soybean cyst nematode consists of
11 checking your fields to know if you have it or not, and
12 then once you've discovered you've got it, you're looking
13 at growing resistant soybean varieties or not growing a
14 host crop like soybeans or using a seed treatment, which
15 is a new management strategy that's just been brought on
16 to the market a couple of years ago.

17 So really check your fields, switch to a resistant
18 soybean variety, don't grow something that's a host crop,
19 or a seed treatment.

20 I want to just touch on the resistant soybean
21 varieties for a second because I don't want to give you
22 the impression that that's a cure. So resistant soybean
23 varieties suppress the reproduction of the nematode, but
24 it doesn't stop reproduction. And also it still suffers
25 some damage.

1 And then as you use the resistance over time, the
2 nematode can become resistant to resistance. So in Iowa
3 where we grow 11 million acres of soybeans, soybean cyst
4 nematode is in 75 percent of the field. It's not a death
5 sentence, but it's a significant economic hit to the
6 soybean production in any field that has it because of
7 these things.

8 And the seed treatment, which is the newest
9 management strategy, in my mind at least the verdict is
10 still out on whether or not they provide any additional
11 benefit or not.

12 Because of everything I've just said, I consider the
13 states of North Dakota, South Dakota, and parts of
14 Minnesota as being in a really unique situation in that
15 there are large tracts of land growing soybeans that
16 don't have soybean cyst nematode yet. And so that's a
17 unique opportunity in terms of management. In many
18 respects the best way to manage soybean cyst nematode is
19 to delay its arrival into a particular field.

20 So I find myself sitting here listening to
21 proceedings thinking of my career in the early '90s in
22 Iowa when soybean cyst nematode wasn't very widespread,
23 and we really beat the drum and talked about managing the
24 movement of soil to slow the spread of the nematode.
25 Once the nematode is present then we've covered already

1 what your management options are.

2 And as far as spread goes, as in my prefiled
3 testimony, anything that moves soil has the ability to
4 move soybean cyst nematode. I just want to bring you
5 back to a mental imagine of a female the size of a period
6 at the end of a sentence. And that little object has 200
7 to 300 offspring inside of her.

8 And so the smallest little particle that's able to
9 hold a period at the end of the sentence, that's the
10 amount of soil that could be moved to move the nematode.

11 Finally, one just short comment. I've heard
12 comments yesterday and today about farmers not mentioning
13 this in discussions and so forth. That doesn't surprise
14 me at all. Soybean cyst nematode has been in Iowa since
15 1978. And I arrived in 1990 and have devoted my career
16 to research and grower education on soybean cyst
17 nematode, and to this day I run into Iowa farmers who
18 were unaware of soybean cyst nematode.

19 So just because the farmer -- don't be alarmed or
20 don't let that throw you a curve ball. Soybean cyst
21 nematode is still somewhat unrecognized even in it the
22 State of Iowa among some farmers.

23 And that concludes the summary of my prefiled
24 testimony.

25 Q. Mr. Tylka, I have just a couple more questions for

1 MR. SUTTON: Sure. It's relevant because the
2 basis for his assumptions are that when you dig into
3 the ground and go from field to field it spreads. My
4 point is there are many other mechanisms out there that
5 have been occurring and will occur, and we have not
6 developed the spread that he's indicating. That's the
7 relevance.

8 MR. SMITH: Do you want to repeat the question
9 and --

10 MR. SUTTON: Would you like me to reask it?
11 Would that be easier?

12 MR. SMITH: Sure.

13 Q. Dr. Tylka, can you tell me how many miles of drain
14 tile have been installed in South Dakota since 1995 when
15 SCN became present?

16 MR. SMITH: I'm going to overrule the objection.
17 If he knows, he can answer. If he doesn't, he can
18 answer.

19 A. I do not know.

20 Q. Now the spread of SCN is caused by the spread of
21 soil particles; is that correct?

22 A. Beyond an inch, yes. It can only spread on its own
23 power about an inch.

24 Q. And soil is moved by farm equipment?

25 A. That is correct.

1 Q. And it can be moved by wind erosion?

2 A. Yes.

3 Q. Also by water erosion?

4 A. I agree.

5 Q. Will you look at paragraph -- or your prefiled
6 direct testimony.

7 MR. SUTTON: Does he have that?

8 Q. Looking at paragraph 12 of Exhibit 101, that's the
9 direct prefiled testimony that you provided is
10 Exhibit 101, correct, Dr. Tylka?

11 A. The document I'm looking at has it as Exhibit 102.

12 Q. Oh, you're right. You're right. Correct. Thank
13 you. Looking at paragraph 12 on page 3, you opine that
14 construction equipment used in the project like the
15 proposed BSSE line can cause SCN to spread farther or
16 more rapidly than ordinary farming practices.

17 Is that your opinion?

18 A. Yeah. Opinion, yes.

19 Q. And then you go on and page 3 and on to page 4 to
20 talk about the basis for that opinion; is that right?

21 A. Yes.

22 Q. And when we look at paragraph 12 in the first
23 paragraph underneath the actual number 12, you answer the
24 opinion yes. And then you say "Soil disturbed by
25 construction equipment would likely result in greater

1 spread of the nematode than soil disturbed by other
2 common occurrences by making the soil more friable,
3 easily crumbled and prone to erosion, compared to soil
4 that is left undisturbed or disturbed just minimally."

5 That's your opinion; correct?

6 A. Yeah.

7 Q. What do you mean by undisturbed?

8 A. Well, undisturbed would be a situation like no-till
9 farming or just not -- nothing dug into the soil.

10 Q. So, for instance, disturbing the soil through till
11 farming practices would disturb and similarly make the
12 soil friable, would it not?

13 A. I wouldn't say similarly is correct.

14 Q. It would make the soil friable; correct?

15 A. Yes.

16 Q. And it would disturb the soil?

17 A. Yes.

18 Q. You're not aware of any academic studies that have
19 been performed indicating construction practices result
20 in the spread of SCN; correct?

21 A. No. I believe I stated that in the prefiled
22 testimony.

23 Q. No is a little ambiguous to the record there. So
24 the answer to my question is correct; correct?

25 A. Correct.

1 among the farmers I have had personal experience with.
2 And I guess I can say that relates back to my opening
3 comments about the awareness of the nematode, and that's
4 what I meant by diligent.

5 Q. Now in your opening comments you also described some
6 mitigation techniques that farmers can employ if they get
7 SCN in their fields; is that right?

8 A. That's correct.

9 Q. And one of those is to grow nonhost crops such as
10 corn?

11 A. That is correct.

12 Q. And another option would be to include nonhost crops
13 like corn as part of a crop rotation; correct?

14 A. Yes.

15 Q. And, in fact, you recommend that to producers who
16 have SCN?

17 A. That's correct.

18 Q. That's part of the techniques used to minimize the
19 effect?

20 A. Correct.

21 Q. Another option would be to plant SCN resistant
22 variety seed; correct?

23 A. Correct.

24 Q. And as part of your work you have completed academic
25 research about the success in using SCN resistant seeds;

1 absence of the nematode.

2 That has become less of an issue over the past
3 20 years, but there still are some SCN resistant soybean
4 varieties that do not have top yield potential. So
5 that's my reason for my answer being it depends on the
6 variety that's chosen.

7 Q. Because of our growing season, as we move further
8 north into areas that have had less pressure from SCN,
9 would the varieties probably have more research done in
10 that area at this point?

11 A. The answer is yes. And there are much fewer
12 varieties available with SCN resistance in the maturity
13 groups grown in South Dakota relative to Iowa. Even
14 right now.

15 MR. SCHURING: Thank you.

16 MR. SMITH: Mr. Morehouse, any questions?

17 MR. MOREHOUSE: Nothing. Thank you.

18 MR. SMITH: Staff, any questions?

19 MS. CREMER: Thank you.

20 CROSS-EXAMINATION

21 BY MS. CREMER:

22 Q. Is there any way to determine how SCN is introduced
23 into a clean field?

24 A. I've never been asked that question in 28 years.

25 Q. Yay for me.

1 COMMISSIONER FIEGEN: Congratulations.

2 A. I don't think so. They all look the same and are
3 genetic the same. I don't think so.

4 Q. And is there any way to determine when SCN was
5 introduced into a clean field?

6 A. Not specifically. Although you could deduce some
7 timing information based on the numbers that are
8 detected. It doesn't show up in full blown force in
9 terms of numbers. It starts out slowly and builds up.

10 Q. And then looking at your Exhibit 105, it's a map.

11 A. Yes.

12 Q. You have that? So if I understood your testimony
13 correctly, where it shows there is SCN, there definitely
14 is in the dark portions of the map?

15 A. It should be red if it were printed in color.

16 Q. Yeah. I printed mine black and white, but okay. If
17 I understood you correctly, those areas that show up
18 white, those may also have SCN and you just haven't found
19 it yet?

20 A. That's correct.

21 MS. CREMER: Okay. Thank you.

22 THE WITNESS: That's a correct statement.

23 MR. SMITH: Is that all the questions you have?

24 MS. CREMER: That's all I have. Thank you.

25 MR. SMITH: We'll turn then to Commissioner

1 and research in fields, or does everything come in to
2 you?

3 THE WITNESS: No. Most of my field research is
4 done on farmers' fields.

5 COMMISSIONER FIEGEN: Okay. So what precautions
6 do you take and your assistants -- I'm sure you have some
7 grad assistants with you.

8 What type of precautions do you take on
9 vehicles, clothing, work boots, all of that?

10 THE WITNESS: Just knock off as much dirt as
11 possible, as much soil as possible. Soil probes is
12 probably another thing that would accumulate soil. We
13 just make sure we're not taking large clods of soil. But
14 we don't steam wash or power wash. We just -- we work in
15 fields with SCN. So we -- yeah.

16 COMMISSIONER FIEGEN: It is really tricky
17 because when an egg of 200 eggs -- that swollen female.

18 THE WITNESS: Female.

19 COMMISSIONER FIEGEN: And it's a point of a
20 period, it is in your boots. Because when I wear work
21 boots they have grooves.

22 THE WITNESS: Absolutely.

23 COMMISSIONER FIEGEN: I can knock off as much
24 soil as I can, but it's still there.

25 THE WITNESS: Yes.

1 COMMISSIONER FIEGEN: So the precautions of the
2 research people are pretty much not going through the
3 washing but mostly knocking off the excess.

4 THE WITNESS: Yeah. And let's be specific. You
5 asked about my particular research group. There may be
6 other research groups in other states where they do use
7 plastic booties on their feet and they do more thorough
8 precautions than I do.

9 COMMISSIONER FIEGEN: Sure. Thank you.

10 THE WITNESS: Yes.

11 COMMISSIONER FIEGEN: Are you aware --
12 especially when I see commercial sprayers out there
13 across the State of South Dakota, but I'm sure across
14 Iowa you have those big commercial sprayers. Are you
15 aware of any mechanisms they take to prevent the spread
16 of diseases?

17 Because, of course, they travel on roads. Roads
18 have mud. So they're picking up things while they're
19 traveling to the farmers, let alone from farm to farm to
20 elevator, all of that.

21 THE WITNESS: Yeah. The answer is no. And
22 forgive me if I'm over answering, but since you're
23 curious about that, the way I pitch managing the movement
24 of soil in Iowa is first in the context that
25 three-fourths of the fields have it. And that percentage

1 maybe some of those nematodes could get baked near the
2 soil surface, and maybe the numbers would be lower than
3 if you had collected to a depth of 8 inches.

4 CHAIRMAN HANSON: Okay. Because there was some
5 discussion it sounded like there needed to be some
6 excavation of some sort in order for it to be
7 transported. But it sounds like -- that seemed to
8 conflict a little bit with one of your other answers when
9 you said -- I believe it might have been Mr. Sutton's
10 question, could it be transported by the wind, and you
11 answered yes.

12 THE WITNESS: Yep.

13 CHAIRMAN HANSON: It could.

14 THE WITNESS: So my answer to your question, to
15 double back on your question, is it's present there at
16 the surface.

17 From a research standpoint where I'm measuring
18 numbers I would worry about only including that upper
19 inch because the numbers might be a little lower. But
20 it's present, and it's available to be wind blown, water
21 washed, all the things that we covered that move soil.

22 CHAIRMAN HANSON: So hunters going from one
23 field to the next, deer running from one field to the
24 next, any animals, badgers, skunks, whatever, rabbits --
25 what about water fowl and birds? They could transport it

1 as well?

2 THE WITNESS: There's actually a paper where
3 somebody has picked through bird droppings and found dead
4 SCN females with live eggs.

5 CHAIRMAN HANSON: It sounds like it's impossible
6 to stop this. This is terrible.

7 THE WITNESS: I mean, it is, but there are
8 certain parts of the country that are in a unique
9 situation. I would never say you can stop it or prevent
10 it, but there's things that could be done to slow it.

11 CHAIRMAN HANSON: And it develops immunity to
12 herbicides and --

13 THE WITNESS: Well, to resistant -- I was using
14 the herbicides as an analogy. But it can develop
15 resistance to the resistant varieties.

16 CHAIRMAN HANSON: What are some other host crops
17 besides soybeans that are grown in South Dakota?

18 THE WITNESS: What are the crops that are grown
19 in South Dakota?

20 CHAIRMAN HANSON: Sorghum, corn.

21 THE WITNESS: Wheat are not hosts.

22 CHAIRMAN HANSON: Wheat. What other --

23 THE WITNESS: So hosts are more into play when
24 you get into North Dakota and Minnesota and you talk
25 about edible beans. There's all kinds of different types

1 Q. What do you mean "not as much"?

2 A. Well, I made the comment here a little bit at the
3 end here I said this project will take more from
4 agriculture and the state of South Dakota than it will
5 return.

6 Q. Well, as I understand it -- and we will get the
7 exhibits in front of you that are your land. They're
8 Exhibits 21A and 21B and 21C.

9 Do you have those exhibits before you?

10 A. Yes, I do. B.

11 Q. 21A, 21B, and 21C.

12 A. Yes. I have A in front of me.

13 Q. Is 21A a true and accurate representation of the
14 land in which the project seeks to put its structures?

15 A. I believe so.

16 Q. The project proposes to put two structures on your
17 property, and those numbers are 457 and 458. Is that
18 your understanding?

19 A. According to this map, yes.

20 Q. And is that your field that's depicted in
21 Exhibit 21A?

22 A. Yes, it is.

23 Q. Do you do till or no-till in that?

24 A. Depends on the year and the conditions of the soil.

25 Q. Do you do both then?

State of South Dakota

EIGHTY-FOURTH SESSION
LEGISLATIVE ASSEMBLY, 2009

400Q0194

SENATE BILL NO. 62

Introduced by: The Committee on Commerce at the request of the Public Utilities Commission

1 FOR AN ACT ENTITLED, An Act to repeal certain provisions regarding the delegation of
2 powers by the Public Utilities Commission.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

4 Section 1. That § 49-1-17 be repealed.

5 ~~—49-1-17. It is a Class 2 misdemeanor for the Public Utilities Commission to delegate any of~~
6 ~~the powers conferred upon it, or the performance of the duties imposed upon it by law, to any~~
7 ~~other person except in cases where express authority has been given by statute.~~



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

IN THE MATTER OF THE APPLICATION OF	)	NOTICE OF APPLICATION;
MONTANA-DAKOTA UTILITIES CO. AND	)	ORDER FOR AND NOTICE OF
OTTER TAIL POWER COMPANY FOR A	)	PUBLIC INPUT HEARING;
PERMIT TO CONSTRUCT THE BIG STONE	)	NOTICE OF OPPORTUNITY TO
SOUTH TO ELLENDALE 345 KV	)	APPLY FOR PARTY STATUS
TRANSMISSION LINE)	
	)	EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345 kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

On August 26, 2013, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status (Order). On August 29, 2013, the Commission electronically transmitted notice of the Application and the intervention deadline of October 22, 2013, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On September 13, 2013, the Order was served on the governing bodies of all counties and municipalities in the project area, and notices of the public hearings were published in project area newspapers as provided in SDCL 49-41B-5.2 and 49-41B-15. On September 13, 2013, the Commission issued an Order Assessing Filing Fee assessing a filing fee not to exceed the statutory maximum of \$360,000 with a minimum fee of the statutory \$8,000 minimum. The public hearings were held as scheduled on October 17, 2013, in Aberdeen and Milbank. On October 18, 2013, Gerald Pesall filed an Application for Party Status. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 13, 2014, the Commission issued a Procedural Scheduling Order setting the matter for formal evidentiary hearing on June 10-12, 2014, in Room 413 of the State Capitol Building in Pierre beginning at 1:00 p.m. CDT with days two and three beginning at 8:00 a.m. CDT. On January 27, 2014, Applicants filed a First Amendment to Application (Amendment).

Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants will be required to serve notice on such landowners and the Commission deems it proper to hold an additional public input hearing. Pursuant to SDCL 49-41B-15 and 49-41B-16, **the Commission will hold an additional public input hearing on the Application on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.**

The purpose of this public input hearing will be to hear public comment regarding the transmission line permit Application, the Amendment, and the Project. At the hearing, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants, Gerald Pesall, and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status may be obtained from the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before April 16, 2014.

Following the public input hearing, the Commission will hold a formal evidentiary hearing as set forth above conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate.

It is therefore

ORDERED, that the Commission will hold an additional public input hearing on the Project on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 17th day of March, 2014.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Joy Lashley</u>
Date:	<u>03.17.14</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

APPENDIX
To Appellee South Dakota Public Utilities Commission’s Brief
Gerald Pesall, Appellant v. Montana Dakota Utilities et al.
#27324

1. Order Granting Intervention and Party Status dated Nov. 6, 2013	1
2. Transcript of Oral Argument Hearing Administrative Appeal (December 23, 2014, Circuit Court Hearing)	2
3. Exhibit 1: Application to the Public Utilities Commission of the State of South Dakota (relevant sections)	4
4. Administrative Record - Alphabetical Index of CIV 14-53	8
5. Affidavit of Service - (001040-001041)	18
6. Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status dated August 26, 2013 (001042-001043)	20
7. Application for Party Status – Gerald Pesall (001477)	22
8. Exhibit 21A - Pesall Property Photograph - Looking North	23
9. Exhibit 21B - Pesall Property Photograph - Looking South	24
10. Exhibit 21C - Pesall Aerial Map	25
11. Order Granting Intervention and Party Status (003525)	26
12. Exhibit 2 - Responses to First Set of Staff Data Requests	27
13. Exhibit 3 - Responses to Second Set of Staff Data Requests	36
14. Exhibit 4 - Answers to First Set of Pesall Discovery	60
15. Exhibit 5 - Answers to Second Set of Pesall Discovery	82
16. Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014	93
17. Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	96
18. Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention	99

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19. Exhibit 301 - Settlement Stipulation	117
20. Transcript of Proceedings before the Commission, Volume I (June 10, 2014 evidentiary hearing, relevant sections)	112
21. Transcript of Proceedings before the Commission, Volume II (June 11, 2014 evidentiary hearing, relevant sections)	120
22. Senate Bill 62	138
23. Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status dated March 17, 2014	

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND OTTER)
TAIL POWER COMPANY FOR A PERMIT TO)
CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

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At its regularly scheduled meeting on November 5, 2013, the Commission considered Mr. Pesall's Application for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to Mr. Pesall. It is therefore

ORDERED, that Gerald Pesall's Application for Party Status and intervention is granted.

Dated at Pierre, South Dakota, this 6th day of November, 2013

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.	
By:	<u>Joy Lashley</u>
Date:	<u>11-6-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

1	STATE OF SOUTH DAKOTA)	IN CIRCUIT COURT
	) SS	
2	COUNTY OF DAY)	FIFTH JUDICIAL CIRCUIT
	* * * * *	* * * * *
3)
4	GERALD PESALL,	) CIV. 14-53
	Appellant,)
5	VS.	) ORAL ARGUMENT HEARING
		) ADMINISTRATIVE APPEAL
6)
7	MONTANA DAKOTA UTILITIES, OTTER)
	TAIL POWER, SCHURING FARMS, INC.,)
8	BRADLEY MOREHOUSE, AND THE)
	SOUTH DAKOTA PUBLIC UTILITIES)
9	COMMISSION,)
	APPELLEES.)
10	* * * * *	* * * * *
11	<u>DATE & TIME:</u>	December 23, 2014
12		2:00 p.m.
13	<u>BEFORE:</u>	THE HONORABLE SCOTT P. MYREN
14		CIRCUIT COURT JUDGE
15		Brown County Courthouse
		Aberdeen, South Dakota 57401
16	<u>LOCATION:</u>	Brown County Circuit Courtroom
17		Brown County Courthouse
18		Aberdeen, South Dakota 57401
19		
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25		

1 Mr. Smith, can you hear me?

2 MR. SMITH: I can, Your Honor.

3 THE COURT: And did you want to make other
4 identifications on the record?

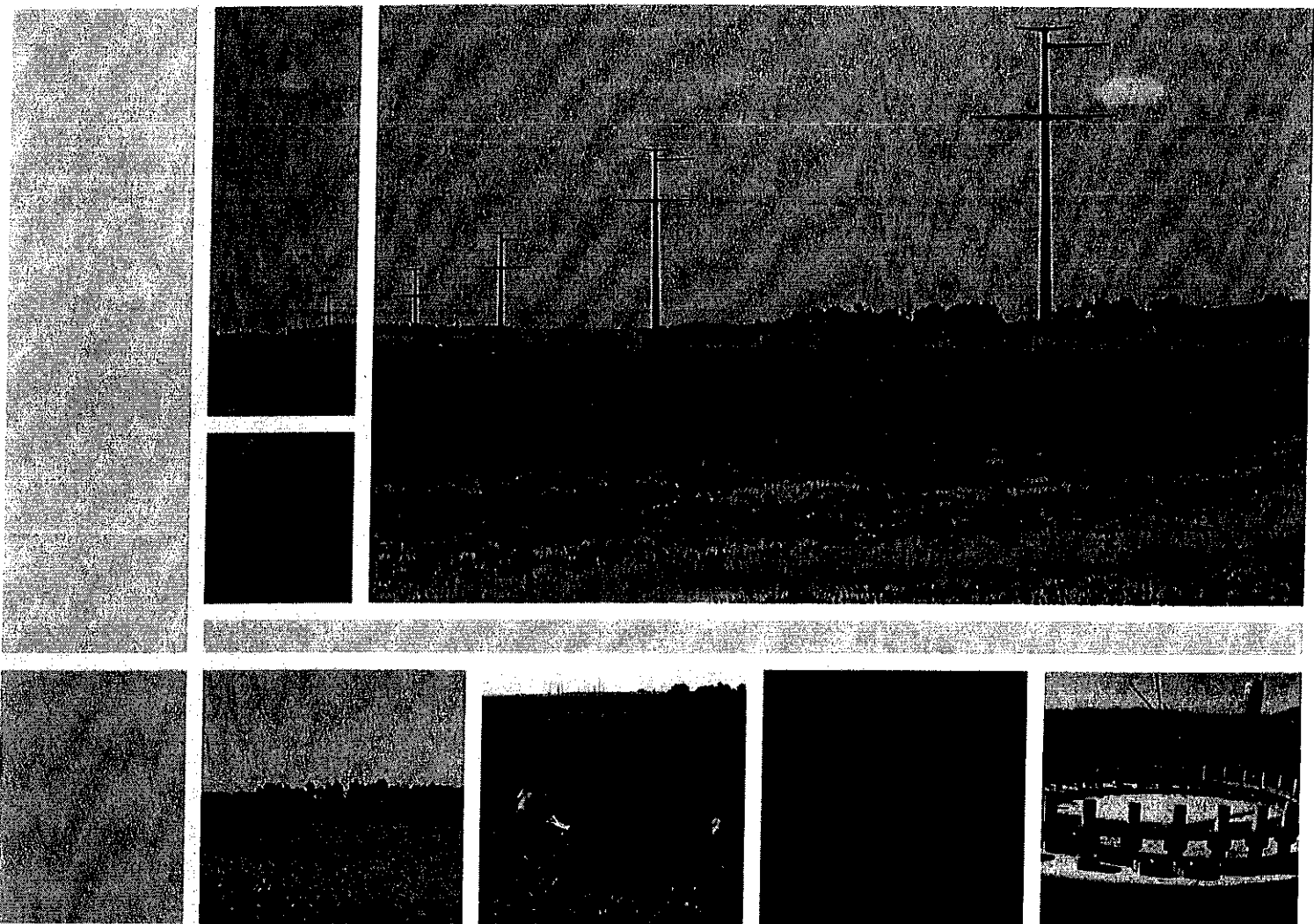
5 MR. SMITH: Well, I'm John Smith, commission counsel for
6 the South Dakota Public Utilities Commission representing
7 the South Dakota Public Utilities Commission this docket.
8 With me in the room today, and we're on speaker phone, is
9 Commissioner Chris Nelson. And that's it.

10 THE COURT: Thank you. And I'll just make sure on the
11 telephone line, was there any other party or any other
12 person that wished to appear before the Court on this
13 matter? If so, just speak up.

14 There are no other appearances being noted on the
15 record.

16 And there is a voluminous record here. I've had the
17 opportunity to review the entire record. And paying
18 particular attention, of course, to the evidentiary hearing
19 and the exhibits that were presented there. And I've also
20 received various briefings from all the parties, which I've
21 had a chance to review.

22 So with the understanding that I've been through all of
23 that material, I will let each of the counsel make their
24 argument. And then as I, I think I explained earlier, I
25 will go back around one additional time for each of the



*Application to the Public Utilities Commission of the
State of South Dakota for a Facility Permit*

**MONTANA-DAKOTA UTILITIES CO. &
OTTER TAIL POWER COMPANY**

Big Stone South to Ellendale Project

AUGUST 14, 2013



BSS+E
Big Stone South to Ellendale

8.0 Alternative Sites (ARSD 20:10:22:12)

8.1 Route Identification and Selection Process

The South Dakota Facility route selection process centered on a multi-faceted approach in which the Applicants considered state and federal requirements, public comments received at public meetings, and extensive analysis of available environmental data. The route development process was primarily driven by extensive public participation and agency coordination programs in both South Dakota and North Dakota. Table 5 provides a general overview of the public involvement efforts undertaken by the Applicants for the Project. Additional information on the public involvement activities conducted for the Project, including materials used during open house meetings, are available on the Project website at www.bssetransmissionline.com. The South Dakota Facility defined in this Application is shown in detail in Exhibit 2.

Table 5. Summary of Public, Agency, and Tribal Involvement Activities

Year	Month	Action
2012	July	<ul style="list-style-type: none"> Project notification letter mailed to North Dakota and South Dakota state and federal agencies
	August	<ul style="list-style-type: none"> Project notification letter mailed to county, state, and local representatives, and non-government organizations in North Dakota and South Dakota Held meetings with North Dakota and South Dakota county zoning and planning representatives (Spink, Clark, Grant, Day, Hamlin, Codington, Brown, Deuel, Marshall, Roberts, Richland, Dickey, and Sargent counties) Held two interagency meetings with state and federal agencies for North Dakota and South Dakota
	September	<ul style="list-style-type: none"> Project website and toll-free Project information line made available to the public (www.bssetransmissionline.com and 888-283-4678) Corridor notification letter for open house meetings mailed to the public, county, state, and city representatives, and non-government organizations in North Dakota, South Dakota, and Minnesota Corridor notification letter for open house meetings mailed to township representatives in North Dakota, South Dakota, and Minnesota

Year	Month	Action
2012	October	<ul style="list-style-type: none"> Meeting with Sisseton Wahpeton Oyate and Standing Rock Sioux Tribal Historic Preservation Offices (THPOs) for Project introduction and study area discussion Corridor notification postcard for open house meetings mailed to landowners within the study corridors Paid advertisements and press releases sent to North Dakota, South Dakota, and Minnesota publications to notify the communities of the study corridor open house meetings Corridor public open house meetings (October 15-18, 2012): <ul style="list-style-type: none"> Wheaton, Minnesota Milbank, South Dakota Webster, South Dakota Aberdeen, South Dakota Ellendale, North Dakota Britton, South Dakota
	November	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter (Issue 1) was posted to the website and hard copies were mailed to stakeholders in the Project open house meeting attendees and those who had commented or signed up for the mailing list
	December	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter from November sent electronically to contact persons above who provided email addresses
2013	January	<ul style="list-style-type: none"> Conducted interagency meetings for North Dakota and South Dakota state and federal agencies. Follow-up letter sent to agencies which included the meeting minutes and letter from the Applicants Hosted an online webinar and conference call with county representatives in North Dakota and South Dakota including Day, Brown, Grant, Dickey, and Marshall counties to describe the routing process and gather input on preliminary routes followed up with meeting minutes and a message from the Applicants
	February	<ul style="list-style-type: none"> Meeting with South Dakota State Historic Preservation Office (SDSHPO) to discuss expected cultural resource identification efforts and tribal involvement Paid advertisements and press releases sent to North Dakota and South Dakota publications to notify the communities of the routing open house meetings Notification letter for routing open house meetings sent to stakeholders including state, federal, and local agencies, elected officials, and non-governmental organizations (NGOs) Notification postcards for routing open house meetings sent to landowners within the preliminary corridors of the Project and active participants who attended a meeting or submitted a comment Routing public open house meetings (February 25-27, 2013): <ul style="list-style-type: none"> Groton, South Dakota Ellendale, North Dakota Britton, South Dakota Webster, South Dakota Milbank, South Dakota

linked together into numerous alternative preliminary transmission line routes. The Applicants evaluated the preliminary routes, measuring them against both the transmission line routing considerations for the State of South Dakota (SDCL 49-41B-22) and input on sensitive and important resources identified by the public. The transmission line route in South Dakota was selected based on several considerations, including the following:

- Minimizing total length and construction costs
- Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services
- Consideration of effects on public health and safety
- Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities
- Minimizing effects on archaeological, cultural properties, and historic resources
- Minimizing impacts to wetlands, surface waters, and rivers
- Minimizing impacts to rare or endangered species and unique natural resources
- Minimizing effects to airports or other land use conflicts

During public open house meetings conducted during the route identification and selection process, the public identified several criteria that were also considered in the routing process. These criteria included:

- Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields
- Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment
- Avoiding a diagonal route across agricultural fields wherever possible
- Preference for mono-pole structures rather than H-frame structures

Upon determination of the preferred route, notifications were sent to federal and state agencies in May 2013, requesting comment on the preferred route, as shown in Table 5. A table outlining agency contact and copies of the agency material correspondences are provided in Appendix C.

8.2 Alternatives Considered and Selected

The Applicants initially considered multiple alternatives for the South Dakota Facility. The Applicants evaluated preliminary routes in South Dakota based on the factors listed above and the comments received from the public. The study corridor in Minnesota was considered but not selected for the following reasons:

- Need to complete permitting process in an additional state
- Crossing of the Bois de Sioux and Minnesota Rivers which are classified as Section 10 Rivers, regulated by the United States Army Corps of Engineers (USACE), and requiring additional federal review and permitting
- Increased length resulting in increased potential effects and cost
- Engineering challenges associated with crossing Big Stone Lake north of Ortonville, Minnesota

STATE OF SOUTH DAKOTA)
)
 COUNTY OF DAY)

IN CIRCUIT COURT
 FIFTH JUDICIAL CIRCUIT

GERALD PESALL)
)
 VS.)
)
 MONTANA DAKOTA UTILITIES, OTTERTAIL POWER,)
 SCHURING FARMS INC., BRADLEY MOREHOUSE, SDPUC)

ALPHABETICAL INDEX
 18CIV14000053

NO.	DATE	CHRONOLOGICAL INDEX	PAGE NUMBER
1.	09/23/13	Aberdeen American News' Affidavit of Publication	1068
2.	10/11/13	Aberdeen American News' Affidavit of Publication	1098
3.	04/23/14	Aberdeen American News' Affidavit of Publication	1858
4.	05/20/14	Aberdeen American News' Affidavit of Publication	3830
5.	10/17/13	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Valuation Guidelines for Properties with Electric Transmission Lines distributed by Dean Podoll, Aberdeen, S.D.; Comments, photos, maps from Dean Podoll, Aberdeen, S.D.; Transcript of Public Input Hearing; and Exhibit 1	1100-1102 (Sealed envelope 1103-1108) 1109-1343
6.	05/20/14	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Lyle Podoll's Letter; Transcript; Exhibit 50 - Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; and Exhibit 50A - Revised Potential Route Changes	3560-3563 (Sealed envelope 3564-3566) 3567-3828
7.	08/26/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1040 - 1043
8.	09/13/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1064-1067
9.	08/13/14	Agenda of PUC Ad Hoc Commission Meeting	8292-8293
10.	09/10/13	Agenda of PUC Commission Meeting	1045 - 1048
11.	04/30/14	Agenda of PUC Commission Meeting	3518-3521
12.	08/06/14	Agenda of PUC Commission Meeting	8214-8219
13.	11/05/13	Agenda to PUC Commission Meeting	1501-1506
14.	09/19/14	Amended Certificate of Service	8345-8346

15.	6/20/14	Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Redlined - Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); and Certificate of Service	7949-7972
16.	01/27/14	Amendment to Application Dated January 27, 2014; Certificate of Service; Amended Pages of Application - Redlined ; and Amended Pages of Application	1516-1539

17.	06/03/14	<p>Applicants Montana-Dakota Utilities Co. and Otter Tail Power Company's Exhibit List and Certificate of Service; Exhibit 1 – Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to the Application; Exhibit 2 - Responses to First Set of Staff Data Requests; Exhibit 3 - Responses to Second Set of Staff Data Requests ; Exhibit 4 - Answers to First Set of Pesall Discovery ; Exhibit 5 - Answers to Second Set of Pesall Discovery; Exhibit 6 - BSSE 9 - Map Showing Preferred Route; Exhibit 7 - Route Change Request Form; Exhibit 8 - Pesall's First Requested Route Change; Exhibit 9 - Route Change Matrix (BSSE 29- 31) Confidential (not available to the public) ; Exhibit 10 - MISO Tariff Attachment FF; Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing; Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing; Exhibit 13 - Updated Table of Public Outreach; Exhibit 14 - Danny Frederick CV; Exhibit 15 - Jon Lemman CV; Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014; Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014; Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014; Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014; Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014; Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014; Exhibit 20 - Jon Lemman Pre-filed Testimony Dated April 25, 2014; Exhibit 21A - Pesall Property Photograph - Looking North; Exhibit 21B - Pesall Property Photograph - Looking South; Exhibit 21C - Pesall Aerial Map; Exhibit 22 - Morehouse and Schuring Aerial Map; Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan; Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing; Exhibit 25 - Route Map Dated June 10, 2014; Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing; and Exhibit 50A - Revised Maps of Route Changes</p>	<p>3894-4735 (Sealed envelope 4736-4912) 4913-5002 (Sealed envelope 5003-5005) 5006-5566</p>
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18.	04/14/14	Application for Party Status (Bradley R. Morehouse)	1551
19.	04/14/14	Application for Party Status (Clark T. Olson)	1549
20.	04/14/14	Application for Party Status (James R. McKane III)	1548
21.	04/14/14	Application for Party Status (Kevin Anderson)	1552
22.	04/14/14	Application for Party Status (Schuring Farms, Inc.)	1550
23.	09/26/13	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners ; and Exhibit B - Landowners	1069-1092
24.	4/25/14	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners; Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Map Showing Route Changes; and Exhibit B - Landowners	1889-1900
25.	07/29/14	Comments of Arnold and Darlene Dennert; and Comments of Arnold and Darlene Dennert Confidential (not available to the public)	8148-8149 (Sealed envelope 8150-8151)
26.	08/04/14	Comments of Carol Rydberg ; Comments of Carol Rydberg Confidential (not available to the public); PUC Staff's Response to Carol Rydberg ; PUC Staff's Response to Carol Rydberg Confidential (not available to the public); and August 6, 2014, Agenda of Commission Meeting	8203 (Sealed envelope 8204) 8205 (Sealed envelope 8206) 8207-8212
27.	06/13/14	Comments of Dakota Rural Action	7944-7946
28.	06/16/14	Comments of Grant Manhart; and Comments of Grant Manhart Confidential (not available to the public)	7947 (Sealed envelope 7948)
29.	11/01/13	Comments of Parkshill Farms, LLC to Commissioner Hanson; and Comments of Parkshill Farms, LLC to Commissioner Hanson Confidential (not available to the public)	1497-1498 (Sealed envelope 1499-1500)
30.	04/29/13	Day County Auditor Letter; Farmington Township Board; Highland Township; and Valley Township	1-3
31.	04/25/14	Direct Testimony of Angela Piner; Exhibit 11 - Affidavit of Mailing of Landowner Notice Letter Dated September 24, 2013; Exhibit 12 - Affidavit of Mailing of Landowner Notice Letter Dated April 22, 2014; and Exhibit 13 - Updated Table 5 - Summary of Public, Agency, and Tribal Involvement Activities	3429-3474
32.	04/25/14	Direct Testimony of Danny Frederick; and Exhibit 14 - Curriculum Vitae	3475-3493
33.	04/25/14	Direct Testimony of Gerald Pesall; and Certificate of Service	1859-1864
34.	04/25/14	Direct Testimony of Gregory Tylka and Certificate of Service; Gregory Tylka Resume; and Amended Certificate of Service (was filed on 6/9/14 correcting typo)	1865-1888

35.	04/25/14	Direct Testimony of Henry Ford; Exhibit 1 – Application; Exhibit 1 – Project; Overview; Exhibit 2 - Detail of South Dakota Facility ; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 - Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011) ;Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ;Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to Application; Exhibit 2 - Responses to Staff's First Data Requests; Exhibit 3 - Responses to Staff's Second Data Requests ; Exhibit 4 - Responses to Gerald Pesall's First Set of Discovery Requests to Applicants; Exhibit 5 - Responses to Gerald Pesall's Second Set of Discovery Requests to Applicants; Exhibit 6 - Map of Preliminary Routes ; Exhibit 7 - Landowner Request Form; Exhibit 8 - Map of Pesall Re-Route; Request for Confidential Treatment for Ford Exhibit 9; and Exhibit 9 Confidential (not available to the public);	1901-2759 (Sealed envelope 2760-2936) 2937-3028 (Sealed envelope 3029-3031)
36.	04/25/14	Direct Testimony of Jason Weiers ; and Exhibit 10 - Attachment FF - Transmission Expansion Planning Protocol	3032-3428
37.	04/25/14	Direct Testimony of Jon Leman ; Exhibit 15 - Curriculum Vitae; and Certificate of Service	3494-3517
38.	08/23/13	Docket EL13-028 - Comments and Responses (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/el13-028comments.aspx)	12
39.	08/23/13	Docket EL13-028 - Electronic Docket Filings (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/EL13-028.aspx)	4-11
40.	06/11/14	Docket EL13-028 – Exhibits (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/EL13-028exhibits.aspx)	6134-6135
41.	06/10/14	Evidentiary Hearing - Sign-In Sheet; and Transcript	5662-5828
42.	06/11/14	Evidentiary Hearing - Sign-In Sheet; and Transcript	5829-6133
43.	06/11/14	Exhibit 10 - MISO Tariff Attachment FF	7242-7604
44.	06/11/14	Exhibit 101 - Gerald Pesall Prefiled Direct Testimony	7855-7860
45.	06/11/14	Exhibit 102 - Gregory Tylka Prefiled Direct Testimony	7861-7867
46.	06/11/14	Exhibit 103 - Gregory Tylka CV	7868-7882
47.	06/11/14	Exhibit 104 - Gregory Tylka Prefiled Surrebuttal Testimony	7883-7886
48.	06/11/14	Exhibit 105 - 2014 SCN Distribution Map	7887
49.	06/11/14	Exhibit 106 - 1956 USDA Special Report on SCN	7888-7904

50.	06/11/14	Exhibit 107 - 1998 Soybean Digest Special Report on SCN	7905-7923
51.	06/11/14	Exhibit 108 - 1996 First Report of SCN in South Dakota	7924
52.	06/11/14	Exhibit 109 - 2007 SCN University Fact Sheet	7925-7928
53.	06/11/14	Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing	7605-7626
54.	06/11/14	Exhibit 110 - 1955 SCN Plant Disease Reporter	7929-7931
55.	06/27/14	Exhibit 111 - Pesall's Insurance Policy Provisions; and Certificate of Service	7981-8031
56.	06/11/14	Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing	7627-7636
57.	06/11/14	Exhibit 13 - Updated Table of Public Outreach	7637-7639
58.	06/11/14	Exhibit 14 - Danny Frederick CV	7640-7644
59.	06/11/14	Exhibit 15 - Jon Leman CV	7645-7655
60.	06/11/14	Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014	7656-7677
61.	06/11/14	Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014	7678-7680
62.	06/11/14	Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	7681-7683
63.	06/11/14	Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014	7684-7717
64.	06/11/14	Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014	7718-7763
65.	06/11/14	Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014	7764-7782
66.	06/11/14	Exhibit 1A - Amendment to Application	7155-7169
67.	06/11/14	Exhibit 2 - Responses to First Set of Staff Data Requests	7170-7178
68.	06/11/14	Exhibit 20 - Jon Leman Pre-filed Testimony Dated April 25, 2014	7783-7804
69.	06/11/14	Exhibit 21A - Pesall Property Photograph - Looking North	7805
70.	06/11/14	Exhibit 21B - Pesall Property Photograph - Looking South	7806
71.	06/11/14	Exhibit 21C - Pesall Aerial Map	7807
72.	06/11/14	Exhibit 22 - Morehouse and Schuring Aerial Map	7808
73.	06/11/14	Exhibit 22A - Revised Morehouse and Schuring Aerial Map	7809
74.	06/11/14	Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan	7810-7811
75.	06/11/14	Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing	7812-7827
76.	06/11/14	Exhibit 25 - Route Map Dated June 10, 2014	7828
77.	06/11/14	Exhibit 3 - Responses to Second Set of Staff Data Requests	7179-7202
78.	06/11/14	Exhibit 4 - Answers to First Set of Pesall Discovery	7203-7224
79.	06/11/14	Exhibit 5 - Answers to Second Set of Pesall Discovery	7225-7235
80.	06/11/14	Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing	7829-7852
81.	06/11/14	Exhibit 50A - Revised Maps of Route Changes	7853-7854
82.	06/11/14	Exhibit 6 - BSSE 9 - Map Showing Preferred Route	7236
83.	06/11/14	Exhibit 7 - Route Change Request Form	7237
84.	06/11/14	Exhibit 8 - Pesall's First Requested Route Change	7238
85.	06/11/14	Exhibit 9 Route Change Matrix (BSSE 29- 31) Confidential (not available to the public)	(Sealed envelope 7239-7241)
86.	08/22/14	Final Decision and Order; Notice of Entry; and Exhibit A	8324-8341
87.	10/18/13	Gerald Pesall's Application for Party Status	1477

88.	06/05/14	Gerald Pesall's Exhibit List; Certificate of Service; Exhibit 101 - Gerald Pesall Prefiled Direct Testimony; Exhibit 102 - Gregory Tylka Prefiled Direct Testimony; Exhibit 103 - Gregory Tylka CV; Exhibit 104 - Gregory Tylka Prefiled Surrebuttal Testimony; Exhibit 105 - 2014 SCN Distribution Map; Exhibit 106 - 1956 USDA Special Report on SCN; Exhibit 107 - 1998 Soybean Digest Special Report on SCN; Exhibit 108 - 1996 First Report of SCN in South Dakota; Exhibit 109 - 2007 SCN University Fact Sheet; and Exhibit 110 - 1955 SCN Plant Disease Reporter	5567-5639
89.	07/18/14	Gerald Pesall's Post-Hearing Initial Brief; and Certificate of Service	8075-8093
90.	08/01/14	Gerald Pesall's Post-Hearing Rebuttal Brief; and Certificate of Service	8160-8168
91.	10/11/13	Grant County Review's Affidavit of Publication	1099
92.	05/20/14	Grant County Review's Affidavit of Publication	3829
93.	05/09/14	Henry Ford Rebuttal Testimony; and Certificate of Service	3526-3530
94.	06/09/14	Joint Motion for Approval of Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Settlement Stipulation; and Certificate of Service	5646-5661
95.	08/04/14	Lyle Podoll's Email regarding Public Hearing on May 20, 2014; and Lyle Podoll's Email regarding Public Hearing on May 20, 2014 Confidential (not available to the public); PUC Staff's Response to Lyle Podell; and PUC Staff's Response to Lyle Podell Confidential (not available to the public) and August 6, 2014, Agenda of Commission Meeting	8187-8190 (Sealed envelope 8191-8194) 8195 (Sealed envelope 8196) 8197-8202
96.	10/17/13	Milbank Public Hearing - Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in sheet Confidential (not available to the public); Presentation; Transcript of Public Input Hearing; and Exhibit 1	1344-1346 (Sealed envelope 1347-1351) 1352-1476
97.	08/13/14	Minutes of PUC Ad Hoc Commission Meeting	8294-8295
98.	09/10/13	Minutes of PUC Commission Meeting	1049-1052
99.	04/30/14	Minutes of PUC Commission Meeting	3522-3524
100.	08/06/14	Minutes of PUC Commission Meeting	8220-8224
101.	11/05/13	Minutes to PUC Commission Meeting	1507-1512
102.	06/11/14	Montana-Dakota Utilities and Otter tail Power Company's Exhibits (Evidentiary Hearing) - Exhibit 1 - Application and Attachments (Exhibit 1 - 10 and Appendix A, B, C, D, and H); Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); and Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public)	6136-6979 (Sealed envelope 6980-7154)

103.	08/23/13	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Application - Cover Pages; Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 - Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information;(Begin confidential in sealed envelope) Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ; Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public) (end confidential sealed envelope); and Appendix H - Preliminary Transmission Structure Typical Drawings	13-851 (Sealed envelope 852-1026) 1027 – 1032
104.	06/06/14	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Letter regarding Commissioner Nelson's Inquiry During the May 20, 2014 Public Input Hearing; and Henry Ford's Letter to Lyle and Catherine Podoll dated June 6, 2014	5643-5644
105.	05/19/14	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Presentation for Public Hearing on May 20, 2014; and Certificate of Service	3534-3559
106.	08/01/14	Montana-Dakota Utilities Co. and Otter Tail Power Company Post-Hearing Reply Brief; and Certificate of Service	8169-8186
107.	10/21/13	Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's First Data Requests Dated September 19, 2013; BSSE 1 - Exhibit 1 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Map; BSSE 2 - Exhibit 2 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Elevation Chart; BSSE 3 - Brown County Water Supply; BSSE 4 - Day County Water Supply; BSSE 5 - Grant County Water Supply; Exhibit BSSE 6 - Resources Providing Information for Water Supply Source; BSSE 7 - Exhibit 1 of Data Request 9 Preliminary Routes Big Stone South to Ellendale 345 kV Transmission Line Project; BSSE 8 - Sample Photograph ; and Certificate of Service	1478-1496

108.	07/18/14	Montana-Dakota Utilities Co. and Otter Tail Power Proposed Findings of Fact and Conclusions of Law; Proposed Order Granting Permit to Construct Facilities; Montana-Dakota Utilities Co. and Otter Tail's Motion for Leave to Submit Documentary Evidence; Exhibit 26 - Big Stone South to Ellendale 345kV Transmission Line Project Route Change Request Denial; Exhibit 26A - Map; Exhibit 301A - Amended Settlement Stipulation; Montana-Dakota Utilities Co. and Otter Tail Initial Post-Hearing Brief; and Certificate of Service	8094-8144
109.	04/15/14	Montana-Dakota Utilities Co. and Otter Tail Power's Request for Confidential Treatment of Information of Documents Produced in Response to Staff's Second Set of Data Requests and Certificate of Service; and Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014; Response 2-11 - BSEE 329 - 331 Confidential (not available to the public); Response 2-11 - BSSE 64-267 Confidential (not available to the public); Response 2-16 - BSSE 268-332; and Certificate of Service	1553-1577 (Sealed envelope 1578-1784) 1785-1845
110.	06/11/14	Morehouse Exhibit - Exhibit 207 - BSSE OVERVIEW Peterson Farms Re-Route (Preliminary)	7932
111.	08/11/14	Motion to be Offered by Commissioner Nelson at the August 13 Ad Hoc Meeting	8291
112.	08/23/13	Motion to Schedule Prehearing Conference	1036
113.	08/23/13	Notice of Appearance (Thomas Welk, Jason R. Sutton, Jennifer O. Smestad, Daniel S. Kuntz)	1037
114.	03/17/14	Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; and Affidavit of Service	1540-1544
115.	03/18/14	Notice of Public Hearing	1545-1546
116.	09/13/13	Order Assessing Filing Fee	1062-1063
117.	06/09/14	Order Changing Hearing Location	5645
118.	05/19/14	Order for and Notice of Hearing	3531-3533
119.	11/06/13	Order Granting Intervention and Party Status (Gerald Pesall)	1513
120.	05/01/14	Order Granting Intervention and Party Status (James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson)	3525
121.	09/19/14	Pesall's Email; Notice of Appeal; and Certificate of Service	8342-8344
122.	06/05/14	Prehearing Conference Order	5640-5642
123.	01/13/14	Procedural Scheduling Order	1514-1515
124.	07/18/14	PUC Staff's Letter regarding Initial Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law	8145
125.	09/11/13	PUC Staff's Letter to Aberdeen American News regarding Notice of Public Hearing; and Notice of Public of Hearing	1059-1061
126.	04/16/14	PUC Staff's Letter to Aberdeen American News regarding Notice of Public Hearing; and Notice of Public Hearing	1855-1857
127.	09/11/13	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public of Hearing	1056-1058
128.	04/16/14	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public Hearing	1852-1854

129.	09/11/13	PUC Staff's Letter to Webster Reporter & Farmer regarding Notice of Public Hearing; and Notice of Public of Hearing	1053-1055
130.	04/16/14	PUC Staff's Letter to Webster Reporter & Farmer regarding Notice of Public Hearing; and Notice of Public Hearing	1849-1851
131.	07/31/14	PUC Staff's Response to Arnold and Darlene Dennert; and PUC Staff's Response to Arnold and Darlene Dennert Confidential (not available to the public)	8152-8155 (Sealed envelope 8156-8159)
132.	08/06/14	Randy Schuring's, Schuring Farms, Email regarding August 6, 2014, Commission Meeting	8213
133.	04/16/14	Replacement Page 20 for Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014 which was filed on April 15, 2014; and Certificate of Service	1846-1848
134.	08/23/13	Request for Confidential Treatment of Information	1038 - 1039
135.	07/11/14	Schuring Farms' Common Crop Insurance Policy	8035-8074
136.	06/20/14	Schuring Farms' Email regarding Crop Insurance Policy; AgriDex's Fax; and USDA's Article	7973-7976
137.	06/26/14	Schuring Farms' Insurance Policy Provisions	7977-7980
138.	07/11/14	Schuring Farms' RCIS - MPCl Policy Review/Change Form	8032-8034
139.	06/03/14	Schuring Farms, Inc.'s Prefiled Exhibits; Exhibit 201 - 49-41B-4.4. Trans-State Transmission Facility--Eminent Domain--Acquisition of Fee in Land Contiguous to Right-Of-Way--Divestiture of Agricultural Land; Exhibit 202 - 49-41B-4.2. Trans-State Transmission Line--Criteria Required; Exhibit 203 - ARSD 20:10:22:12. Alternative Sites; Exhibit 204 - ARSD 20:10:22:18. Land Use; Exhibit 205 - ARSD 20:10:22:23. Community Impact; and Exhibit 206 - ARSD 20:10:22:13. Environmental Information	3886-3893
140.	08/23/13	Service List	1033-1035
141.	06/11/14	Staff's Exhibit - Exhibit 301 - Settlement Stipulation	7933-7943
142.	05/23/14	Supplemental Rebuttal Testimony of Henry Ford; and Certificate of Service	3881-3885
143.	05/23/14	Surrebuttal Testimony of Gregory Tylka; Map - Current Presence of SCN in Eastern South Dakota; Historic, Archived Documents; and Certificate of Service	3831-3880
144.	08/13/14	Transcript of PUC Ad Hoc Commission Meeting	8296-8323
145.	08/06/14	Transcript of PUC Commission Meeting of 8/6/14	8225-8290
146.	10/08/13	Webster Reporter & Farmer's Affidavit of Publication; Aberdeen American News' Affidavit of Publication; Grant County Review's Affidavit of Publication; and Certificate of Service	1093-1097
147.	07/18/14	Webster Reporter and Farmer's Affidavit of Publication	8146-8147
148.	08/29/13	Weekly Filing for the Period August 22, 2013, through August 28, 2013	1044
149.	04/14/14	Wiles & Rylance's Letter regarding Applications for Party Status	1547

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

**IN THE MATTER OF THE APPLICATION)
OF MONTANA-DAKOTA UTILITIES CO.)
AND OTTER TAIL POWER COMPANY FOR)
A PERMIT TO CONSTRUCT THE BIG)
STONE SOUTH TO ELLENDALE 345 KV)
TRANSMISSION LINE)**

AFFIDAVIT OF SERVICE

EL13-028

I, Joy Lashley, under oath, do swear, that on August 26, 2013, I by mailing the same to them by United States Post Office First Class Mail and electronically served, Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status and Affidavit of Service to the list of persons below. I further swear that the attached list is a true and correct list of all persons who are parties in Docket EL13-028.

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
Pierre, SD 57501
patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
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tjwelk@bgpw.com

Mr. Jason Sutton
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Sioux Falls, SD 57117-5015
jrsutton@bgpw.com

Ms. Jennifer Smestad
General Counsel
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215 S Cascade St.
Fergus Falls, MN 56538-0496
jsmestad@ottertail.com

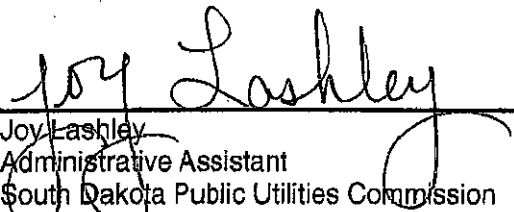
Mr. Daniel S. Kuntz
Associate General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
1200 West Century Avenue
Bismarck, ND 58506-5650
dan.kuntz@mduresources.com

001040

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Brown County Auditor
25 Market St. Ste 1
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Ms. Sandra Raap
Day County Auditor
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Webster, SD 57274
dcaud@itctel.com

Ms. Karen Layher
Grant County Auditor
210 E. Fifth Ave.
Millbank, SD 57252
karen.layher@state.sd.us


Joy Lashley
Administrative Assistant
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501

Subscribed and sworn to
before me this 26th day
of August, 2013.


Notary Public - South Dakota

(SEAL)

My Commission Expires _____, 20____
Pierre, SD 57501

TINA DOUGLAS
My Commission Expires
April 14, 2017

001041

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

IN THE MATTER OF THE APPLICATION OF)	NOTICE OF APPLICATION;
MONTANA-DAKOTA UTILITIES CO. AND)	ORDER FOR AND NOTICE OF
OTTER TAIL POWER COMPANY FOR A)	PUBLIC INPUT HEARINGS;
PERMIT TO CONSTRUCT THE BIG STONE)	NOTICE OF OPPORTUNITY TO
SOUTH TO ELLENDALE 345 KV)	APPLY FOR PARTY STATUS
TRANSMISSION LINE)	
)	EL13-028

On August 23, 2013, jointly Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345-kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

Pursuant to SDCL 49-41B-15 and 49-41B-16, the Commission will hold public input hearings on the Application on Thursday, October 17, 2013:

(1) at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. (parking available without permit in the lot along Washington Street between 12th and 14th Avenues - driving directions and map at <http://www.northern.edu/about/pages/directions.aspx> and <http://www.northern.edu/about/PublishingImages/wirelessmap.pdf>)

(2) at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D.

The purpose of these public input hearings will be to hear public comment regarding the transmission line permit Application and the Project. At the hearings, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status will be available at the public input hearings or may be obtained from

the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before October 22, 2013.

Following the public input hearings, the Commission may schedule a formal evidentiary hearings conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts. Absent a contested issue, the Commission will schedule the matter for decision at a regular or special meeting of the Commission.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. It is therefore

ORDERED, that the Commission will hold public input hearings on the Project at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. and at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D. It is further

ORDERED, that pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, applications for party status must be filed on or before October 22, 2013, and that pursuant to SDCL 49-41B-17.1, a party who wishes to receive personal service of all material filed in this matter shall make a specific request to the Commission for personal service, which may be included in the application for party status.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 26th day of August, 2013.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Loy Lashley</u>
Date:	<u>8-26-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

001043

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION
OF MONTAN-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE BIG
STONE SOUTH TO ELLENDALE 345 KV
TRANSMISSION LINE

APPLICATION FOR PARTY

STATUS

EL13-028

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40,

Gerald Pesall

(Name of Applicant)

petitions the Public Utilities Commission to be granted party status in the above-referenced facility permit proceeding.

Gerald Pesall

Signature of Applicant

GERALD PESALL

Print or Type Name

Address: 15062-430th ave
Sib., SD 57274

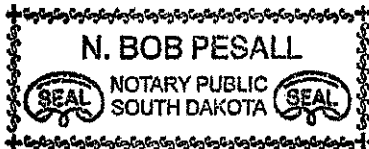
605-359-1039
Phone Number

E-mail Address

Name of Organization (if applicable)

10-17-13
Date

Subscribed and sworn to before me this 17 day of October, 2013.



(Seal)

[Signature]
Notary Public

My Commission expires: 12-20-18

NOTE:

Consistent with SDCL 49-41B-17 and ARSD 20:10:22:40, this application must be filed with the Public Utilities Commission with 60 days from the date the application was filed, unless the deadline is extended by the Commission.

Executive Director
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501-5070
Fax: 866-757-6031
Electronic Filing: <http://puc.sd.gov/EFilingOptions.aspx>

001477

Looking north on Pesall property. Culvert in grass area ahead of photo.



Structure 457

Structure 458

**Pesall Site
Approach
View**

Proposed Centerline

EXHIBIT 21A

Looking south on Pesall property, from north end of property. Culvert indicated at post in ditch.

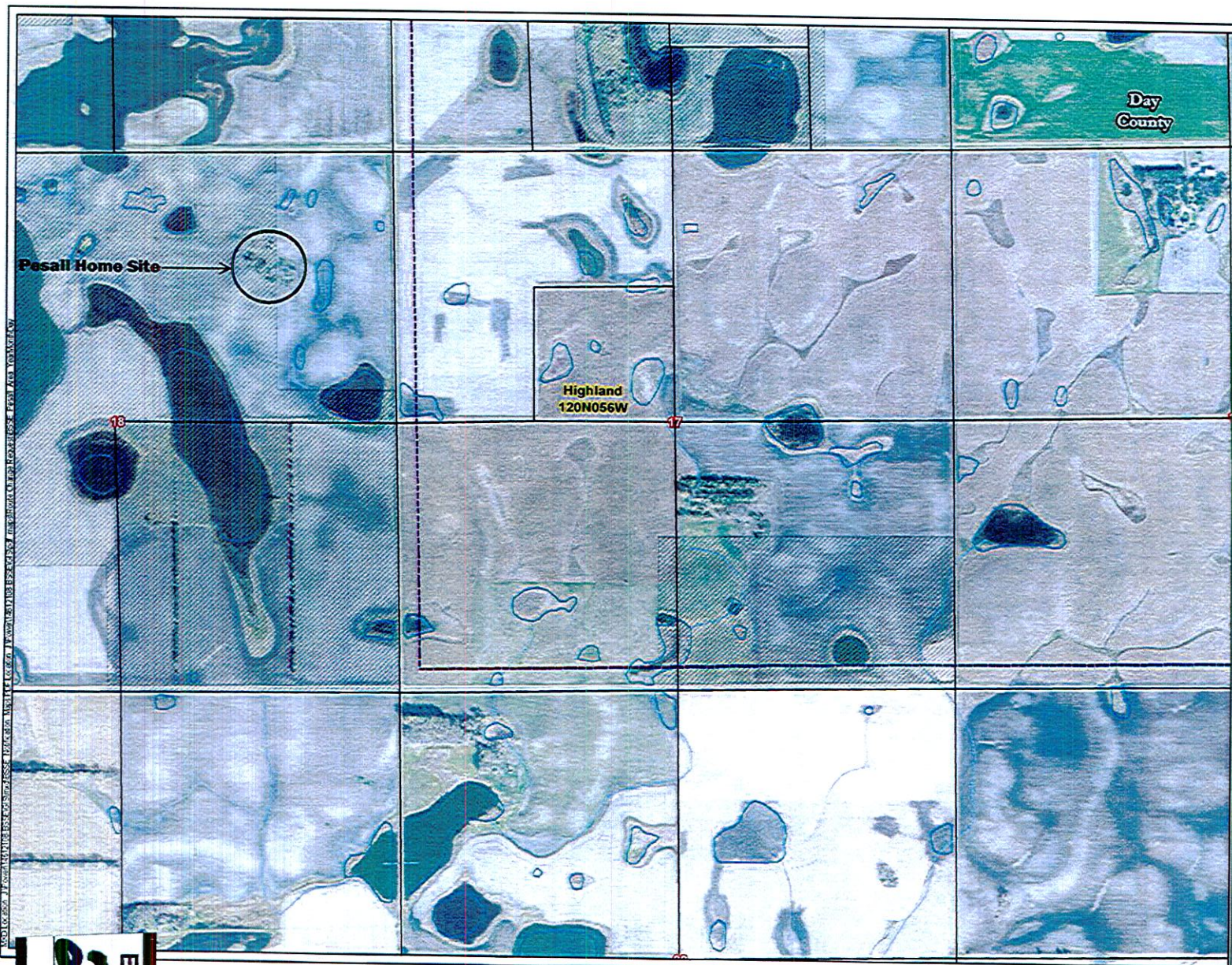
**Structure 457
(off screen)**

Structure 458

Proposed Centerline

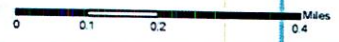
**Pesall Home Site
Approx. 1/4 Mile
West (off screen)**

EXHIBIT 21B



BSS+E
Big Stone South to Ellendale

345 kV Transmission Project



LEGEND

- | | |
|-----------------------|--------------------|
| USFWS Easement | Centerline |
| USFWS Limited NWR | Route (5-15-2014) |
| Grassland | Railroads |
| Wetland | Railroad |
| Geopolitical | Abandoned Railroad |
| Townships | Utilities |
| Counties | Electric |
| Sections | Oil/Gas |

PRELIMINARY DRAFT LOCATIONS

This map was produced by the N.J. GIS Division utilizing ESRI's ArcMap 10.2 and Windows Professional Evaluation. KLJ Inc. has compiled this map according to conventional cartographic standards, using what is thought to be the most reliable information available. KLJ does not give or warrant freedom from errors or omissions and disclaims any legal responsibility or liability for interpretations made from the maps or documents based thereon.

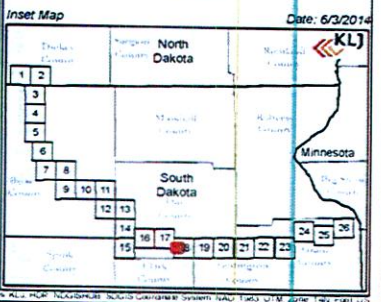


EXHIBIT
21C

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND)
OTTER TAIL POWER COMPANY FOR A PERMIT)
TO CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a division of MDU Resources, and Otter Tail Power Company (jointly, Applicants) filed an application with the South Dakota Public Utilities Commission (Commission) for a permit to construct a 345 kV transmission line of approximately 150 to 160 miles in Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City (Project). On October 18, 2013, an Application for Party Status was filed by Gerald Pesall. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 27, 2014, Applicants filed a First Amendment to Application. Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants have served notice on such landowners, and the Commission has scheduled an additional public input hearing on May 20, 2014, at Aberdeen, S.D. An intervention deadline of April 16, 2014, was set.

On April 14, 2014, James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson filed Applications for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on April 30, 2014, the Commission considered James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson. It is therefore

ORDERED, that James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status and intervention are granted.

Dated at Pierre, South Dakota, this 1st day of May, 2014.

CERTIFICATE OF SERVICE
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.
By: <u>Joy Lashley</u>
Date: <u>5.1.14</u>
(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Gary Hanson

GARY HANSON, Chairman

Chris Nelson

CHRIS NELSON, Commissioner

Kristie Fiegen

KRISTIE FIEGEN, Commissioner

003525

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
FIRST DATA REQUESTS DATED
SEPTEMBER 19, 2013

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
First Data Requests dated September 19, 2013, states as follows:

- 1) Per ARSD 20:10:22:10, please "provide a description of present and estimated consumer demand and estimated future energy needs of those customers to be directly served by the proposed facility."

RESPONSE: The Big Stone South – Ellendale 345 kV project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint the infrastructure needed to support the renewable energy mandates for all the states in the MISO footprint. The need for the proposed Big Stone South – Ellendale 345 kV line is driven by demand across the MISO footprint.

The planning study for the MVP portfolio included transmission projects covering all the states in the MISO footprint. The generation assumptions in this study included about 890 MW of future generation in South Dakota by the year 2021, and over 1400 MW by the year 2026 that could be delivered anywhere within MISO through the proposed MVP projects, which includes the Big Stone South – Ellendale 345 kV line. The Big Stone South – Ellendale 345 kV line will allow future generators to interconnect to the transmission system.

Due to the interconnected nature of the transmission system, the project will also support the transmission system outside of MISO in South Dakota and North Dakota by providing a new high voltage source to the existing transmission system.



- 2) Please provide cross sections of the bedrock geology and surficial geology to depict the major subsurface variations in accordance with ARSD 20:10:22:14(3). An example from docket EL09-015 is attached.

RESPONSE: In accordance with ARSD 20:10:22:14(3), "A written summary of the geological features of the plant, wind energy, or transmission site using the topographic 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" is provided as BSSE 1-2. The geologic cross section of the South Dakota Facility was prepared using publically available data for surface elevation, depth to bedrock, surficial geology, and bedrock geology. Since borehole data has not yet been collected for the Project, detailed geologic information was not available to construct the cross section. Therefore, the cross section provides a generalized view of the underlying geology along the South Dakota Facility (BSSE 1-2). Limitations to the cross section that may exist including small, localized variations in bedrock geology are not shown. The overlying unconsolidated material also varies locally along the South Dakota Facility from silts and clays to sand and gravel, but for simplicity, these materials have been shown as one unit, called Unconsolidated Deposits (BSSE 2). In addition, information on thicknesses of the underlying bedrock units along the South Dakota Facility was not available. Because of this and to avoid a large vertical exaggeration, the thicknesses of the units are not accurately shown on the cross section (these unknowns are shown with question marks or a dashed line on BSSE 2). This is not considered a significant limitation since the proposed structure foundations will likely be 50-feet deep or less.

Areas of shallow bedrock (less than 50 feet) were identified in two distinct areas along the South Dakota Facility. The first is located in the vicinity of Mile 4, where the underlying Pierre Shale is approximately 30 feet from the surface (BSSE 2). The second occurs near Mile 55 to Mile 65, where the underlying bedrock is also the Pierre Shale and can be less than 20 feet from the surface (BSSE 2).

Sources:

1. Bedrock Geology and Bedrock Contours, South Dakota Department of Environment and Natural Resources, Geological Survey. Link to the file - http://www.sdgs.sd.edu/pubs/pdf/esd/bedrock_20040630.zip
2. Quaternary Surficial Geology, United States Geological Survey, Quaternary Map of the Dakotas: <http://pubs.usgs.gov/imap/i-1420/n1-14/downloads/dakotasGIS/>
3. Elevation Contours, USGS National Elevation Dataset

- 3) Are drainage patterns in Exhibit 8 representative of both before and after construction drainage patterns?

RESPONSE: The drainage patterns as shown on Exhibit 8 of the Application represent both before and after construction drainage patterns. The Applicants do not anticipate changes to drainage patterns after construction.

- 4) Per ARSD 20:10:22:18(1)(c), please provide a map with the municipal water supply and water sources for organized rural water districts.

RESPONSE: See attached water supply maps for Day, Grant and Brown Counties numbered BSSE 3-5. The attached maps were developed by KLLJ Engineering. The resources that were used to develop these maps are found on attached BSSE 6.

- 5) Per ARSD 20:10:22:23(2), please provide forecasts on the immediate and long-range impact of property and other taxes of the affected taxing jurisdictions.

RESPONSE: Property taxes in South Dakota for a transmission line project such as this are paid to each county where the project will be located. The tax bill as prepared by each county is based on that county and/or township's mill levy. The value basis used by the County is determined by the State of South Dakota through a central assessment process for projects of this type. The assessment that the State applies to the project is based on a number of criteria including the total investment in the project as well as indicators on how the company stands on a financial basis. Indicators such as Market, Cost, and Income are all used in this determination. The assessed value in each county is then calculated on a per mile basis for the project within each county. The State then provides this assessed value to each affected County who then applies the appropriate mill levy in effect at the time. Based on the current effective composite tax rates for South Dakota, we estimate a yearly property tax bill in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

The Applicants' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

- 6) Provide further support that transmission lines do not affect land/property values as identified in section 19.1.2.

RESPONSE: Section 19.1.2 of the Application states, among other things, that "The South Dakota Facility is not expected to have significant short- or long-term effects on land values." The Application does not state that the transmission line will not affect land/property values. Applicant continues to believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

- 7) Per ARSD 20:10:22:23(6), please provide Applicant's plans to coordinate with local and state office of disaster services in the event of an accidental release or emergency.

RESPONSE: The risk of accidental release of contaminants related to this transmission project is, as described in further detail in the Application, limited to small-scale environmental exposures arising from construction or significant maintenance work. As referenced in the Application, the Applicants will adopt Best Management Practices to prevent, monitor, contain and report the contaminants. Due to the nature of this project, the Applicants do not anticipate any large-scale releases of contaminants that would give rise to the need for disaster services from any local or state offices.

- 8) Per ARSD 20:10:22:24, please provide more detailed employment estimates than what is found in section 20.0 of the application. Specifically, please provide the estimated annual employment expenditures of the Applicant, the contractors, and subcontractors during the construction phase of the proposed facility.

RESPONSE: It is anticipated that the number of workers who will be involved with the various tasks leading up to and directly involved with the construction of the BSSE Project will range from 75-150. These tasks include surveying, geotechnical studies, material deliveries, Right-of-Way clearing, and line construction. The actual number of workers will fluctuate as various tasks are initiated and completed during the course of the Project. It is anticipated that most of the workers will be from outside the local area; therefore, the impact to the local economies will be through costs such as workers' expenditures for hotel rooms, travel trailer site rentals, meals, gas and miscellaneous supplies. The impact to the local economies, not including property taxes, from the BSSE Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

9) Per ARSD 20:10:22:35(3), please provide a map of the major alternative routes.

RESPONSE: Please see BSSE 7, "Major Alternative Routes," as an illustration of the preliminary routes, which are the major alternative routes considered for the Project.

10) How is ongoing maintenance (e.g., vegetation management, annual inspections) of the transmission line going to be split between the Applicants?

RESPONSE: A decision on how ongoing maintenance will be split has not been decided. It is anticipated that one company will likely perform that type of maintenance on the entire line and the costs would be shared between Otter Tail Power Co. and Montana-Dakota Utilities.

11) In addition to the EMP concerns addressed in section 23.4, are there any known safety concerns with regard to farming around structures (e.g., collisions)?

RESPONSE: Yes. Accidental collision with a structure would be a safety concern with regard to farming around structures. The use of single-pole structures minimizes the risk of collisions.

12) Please describe, in greater detail, the two proposed fiber optic regeneration stations.

RESPONSE: The requirements for the fiber optic regeneration stations will be determined through joint consultation between the communications departments of the Applicants. The purpose of the fiber optic regeneration station is to monitor and amplify the fiber optic signal between the two substation endpoints when the distance between the substations exceeds approximately 75 miles. Typical fiber optic regeneration facilities consist of a small prefabricated building, approximately 8 ft. x 8 ft., or 8 ft. x 12 ft.. A slab foundation will be required to support the building. The building will house electronic equipment and vehicle access will be required as well as a power source. The buildings are typically located on or near the transmission line right-of-way, near a road access, and near an overhead distribution line. The installation may also include a backup generator. It is anticipated that two fiber optic regeneration stations will be required for the BSSE Project, located at the approximate one-third points along the route. See attached sample photograph numbered BSSE 8.

13) Per ARSD 20:10:22:05, notwithstanding those mentioned in Table 24 of the Application, is the Applicant aware of the need to notify any additional governmental entities?

RESPONSE: To the best of Applicants' knowledge at this time, no additional governmental entities need to be notified other than what is contained in the Application.

- 14) In section 8.1, it is identified that the transmission line route was selected based on several considerations. Please provide an analysis or demonstration that compares the preferred route to the alternative routes for each of the considerations listed, using measures that the Applicant deem appropriate.

RESPONSE: In response to this data request, the "preferred route" would refer to the South Dakota Facility as filed in the Facility Permit Application and shown in Data Response No. 9 numbered BSSE 7. In addition, the "alternative routes" as referenced in this data request would refer to the preliminary routes through Dickey and Sargent counties in North Dakota and which then proceed south through western Marshall and the northwestern portion of Day counties to roughly Bristol, South Dakota where there is a commonality in the routing. See BSSE 7.

A route through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length and may have better soils from a constructability perspective for the structure foundations. The Applicants received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands. No homes are located within the right-of-way, and no homes are expected to be displaced by the South Dakota Facility. The Applicants are committed to working with homeowners and other landowners along the route to address concerns.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

In addition, the Applicants have been working with Native American tribes agencies who expressed that the preferred route was more desirable than the alternative route due to the higher percentage of the preferred route that crosses tilled land compared to the alternative routes which crossed larger percentages of pasture/prairie land. The tilled land in general has a lower probability of containing intact, undisturbed areas of importance to the tribes.

Both the preferred and the alternative routes minimize effects to Federal Aviation Administration airports and other land use conflicts.

Route development involves the analysis of many diverse criteria and the preferred route minimizes effects to populated areas and the natural environment, while also taking engineering constraints, overall length, and cost into account. The Applicants have addressed concerns expressed by stakeholders during the routing process and selected a single-pole structure to minimize potential effects with the smallest structure footprint and longer spans to reduce the number of structures.

STATE OF NORTH DAKOTA)
) :SS.
COUNTY OF BURLINGHAM)

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

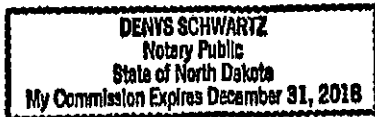
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests; but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 21 day of October, 2013.

MONTANA-DAKOTA UTILITIES CO.

By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 21st day of October, 2013.



Denys Schwartz
Notary Public - South Dakota
(SEAL)

My Commission Expires: 12/31/18

STATE OF MINNESOTA)
)
) SS,
)
COUNTY OF OTTER TAIL)

Jason Waters, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response,

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 18th day of October, 2013.

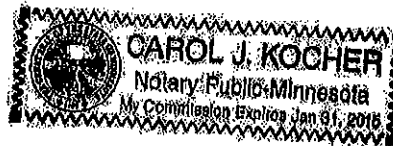
OTTER TAIL POWER COMPANY

By Jason J. Waters
Jason Waters
His Manager, Delivery Planning

Subscribed and sworn to before me this 18th day of October, 2013.

Carol J. Kocher
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015



BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
SECOND DATA REQUESTS DATED
MARCH 10, 2014

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
Second Data Requests dated March 10, 2014, states as follows:

- 2-1) Referring to page 103 of the Aberdeen Public Hearing transcript, what criteria eliminated a route from Ellendale, ND to Havana, ND, then cutting diagonally across the Coteau Hills to Sisseton, and then following the slope rail line from Sisseton to Milbank?

RESPONSE: Page 103 of the transcript contains a general potential route as suggested by Mr. Lyle Podoll. Based on the general route description of Mr. Podoll, the following explanation is provided as to why the final preferred route did not follow Mr. Podoll's proposed route corridor:

- A study corridor and preliminary routes were considered from Ellendale, ND to the general Havana, ND area, but eliminated as the preferred route due to constraints as described in the third paragraph of the Applicant's response to Question 14 of the first set of SDPUC data requests. As stated from the response to data request 1-14 of the Staff's first data requests: "The alternative routes through Dickey and Sargent counties require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the land. The South Dakota Game, Fish, and Parks Department also had concerns with the alternative routes in Marshall County being located



close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.”

- The Coteau Hills area was eliminated from consideration during the study corridor development phase, because of concerns expressed by several state and federal agencies and Native American tribes due to the relatively high density of protected species, high quality prairie habitat, federally and state owned and managed lands, and potential cultural resources. In addition, there were engineering concerns with the steep, rolling topography and numerous bodies of water and drainage ways.
- The slope rail line from Sisseton to Milbank was not considered for several reasons, including the fact that it crosses through several towns and a relatively high density of federally owned and managed lands. Additional information on why active railroads were not carried forward for the final preferred route is included below in the response to the Staff’s Data Request 2-31.

- 2-2) Referring to pages 69-75 of the Aberdeen Public Hearing transcript, Mr. Jones proposed an alternate route with the Applicant. Did the Applicant review Mr. Jones’ alternate route? If so, what was the outcome of the route review?

RESPONSE: Yes, the Project has reviewed Mr. Jones’s requested changes to the proposed route. The Project has been working to try to develop a change to the proposed route through the Jones Family properties and is in discussions with him. Three potential routes options have been discussed, including route proposals by Mr. Jones and his son. The Project continues to evaluate these proposed routes with Mr. Jones.

- 2-3) Please explain what factors eliminated the options of overbuilding or reconditioning existing transmission lines that are located in the siting area.

RESPONSE: Using existing transmission corridors to double circuit high voltage transmission lines were excluded from the routing criteria due to concerns relating to degradation of the system reliability, operational challenges, and a higher cost, as discussed more fully below. Furthermore, most existing transmission lines are not owned by either of the Owners and thus Owners do not have the right to use many of these existing lines.

Reliability Concerns

Double-circuiting ("overbuilding") the Big Stone South to Ellendale 345 kV line with portions of other existing transmission lines may be feasible, but benefits of the Project are diminished. Generally, double circuiting high voltage transmission is not preferred due to the possible degradation of system reliability. For example, if a structure with two transmission lines is compromised (or both lines are out of service because of a lightning strike or other event), the reliability of the transmission system is compromised. Building the Project on separate structures and within a separate route is important for making sure the existing and the new circuits are both available, don't interfere with each other, and provide back-up transmission paths for outages of other area transmission circuits.

Furthermore, an interim challenge with overbuilding an existing transmission line is the extended outage time of existing transmission lines associated with the construction period of the Project. This extended outage time of existing transmission circuits can last several months thus jeopardizing the reliability of the system. The transmission system is generally planned and operated to provide reliable service without an interruption of service for single (N-1) contingencies. Having an existing transmission line de-energized for an extended period of time puts the transmission system in a vulnerable state due to the increased likelihood of another outage concurrent with the existing circuit being overbuilt (N-2) with the new Project. Outages of 2 or more circuits simultaneously raises significant reliability concerns that could lead to an interruption of service to customers due to depressed voltages or overloaded facilities. Therefore, extended outages of existing transmission lines causes interim operating concerns when overbuilding existing lines with the Project.

Operational Challenges

Maintenance activities would be challenging when overbuilding existing transmission lines. Maintenance related activities on a line that is adjacent to an energized circuit is dangerous. It requires special equipment, specially trained personnel, and extraordinarily rigorous safety measures. These special requirements also increase the cost of maintaining the system.

Higher Cost

Double circuit construction or reconductoring existing circuits is also more costly than single circuit construction. Having two separate circuits on a common structure requires more robust structures to safely handle increased mechanical loadings due to wind and ice. These robust structures typically require stronger foundations. Reconductoring existing lines is also problematic given the design voltage of the Project (345 kV) and operating voltage of existing lines in the area (highest voltage of 230 kV). Reconductoring existing lines to a higher voltage would require converting several existing substations to a higher voltage (from 230 kV to 345 kV), which would require installing new equipment at these existing substations.

The factors discussed above lead to diminished reliability benefits, more operational challenges, and a higher cost when considering the options of overbuilding or reconductoring existing lines than by building the Project along an entirely new corridor. As a result, the Owners have adopted design and routing criteria that, except in extraordinary circumstances, exclude these options from consideration.

- 2-4) Please explain the MISO MTEP planning process and summarize the findings of the MTEP 11 report, clearly stating in language that the public can understand the need for the transmission line. In addition, please clearly identify what transmission grid constraints will be resolved, what NERC contingencies will be mitigated, what public policy objectives will be achieved, and what wholesale electric market benefits are expected as a result of constructing the line.

RESPONSE:

MISO MTEP Planning Process

MISO's planning process is based on an annual cycle that is referred to as the MISO Transmission Expansion Planning (MTEP) process. The MTEP process adheres to the nine planning principles outlined in FERC Order No. 890.¹ These planning principles result in an open and transparent regional planning process with interaction from a broad stakeholder group, which results in recommendations for transmission expansion that are reported in the MTEP report and submitted for approval to the MISO board of directors. The annual planning process typically concludes with MISO board of director approval occurring in December of each year.

Findings of MTEP11 Report

The MVP portfolio analyses evaluated the expected future conditions on the MISO regional transmission grid. The analysis found that the Project will be needed in order to ensure the continued reliable operation of the Otter Tail Power Company and Montana-Dakota Utilities Co. transmission systems into the future. Furthermore, the MVP portfolio allows for a more efficient dispatch of generating resources, spreading the benefits of low cost generation to South Dakota and throughout the MISO footprint. These benefits were outlined through a series of studies that quantified the economic benefits of the low cost generation resources that can be reliably delivered with the addition of the MVP transmission.

¹ Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, FERC Stats. & Regs. ¶ 31,241, order on reh'g, Order No. 890-B, 123 FERC ¶ 61,299 (2008), order on reh'g, Order No. 890-C, 126 FERC ¶ 61,228 (2009), order on clarification, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

Transmission Constraints Resolved

The construction of the Project will enable Otter Tail Power Company and Montana-Dakota Utilities Co. to reliably deliver the energy this area needs today and into the future. The Project improves the reliability of the bulk electric system in the area. Reliability studies performed by MISO for the Project have identified the following transmission issues are mitigated as a result of the Project during contingencies prescribed in the NERC transmission planning standards (referred to as single contingency (N-1) and double contingency events (N-2)):

- Oakes – Ellendale 230 kV Line
- Aberdeen – Ellendale 115 kV Line
- Oakes – Forman 230 kV Line
- Forman 230/115 kV Transformer
- Aberdeen Jct. – Aberdeen 115 kV Line
- Forman 230 kV Bus Tie
- Ellendale 230/115 kV Transformer
- Heskett 230/115 kV Transformer

The construction of the Project will address these loading issues by providing an alternative transmission path for energy to flow during contingencies.

Public Policy Objectives

Throughout the course of the MVP studies, public policy objectives were considered as state Renewable Portfolio Standards (RPS) that are in place across the MISO footprint. The MVP portfolio is a group of seventeen transmission projects distributed across the MISO footprint that enables the reliable delivery of the aggregate of current state RPS within MISO. The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across MISO. As determined through the MVP studies, this amount of wind energy is anticipated to meet state renewable energy mandates across the MISO region beyond 2026.

Furthermore, construction of the Project will contribute to a robust transmission system across MISO that will be available to provide needed transmission capacity to maintain reliable service in the event that legislation or environmental regulation leads to the retirement of some coal-fired generating plants and the addition of gas-fired generating plants. This Project, along with the rest of the MVP portfolio offers a versatile transmission plan that will be effective regardless of future generation fuel-types.

Wholesale Electric Market Benefits

The wholesale electric market benefits that are expected as a result of constructing the Project in conjunction with the rest of the MVP portfolio are primarily associated with savings realized by reduced transmission congestion and increased fuel savings. As mentioned previously, the MVP portfolio allows for a more efficient dispatch of generation resources, opening markets to competition, and spreading the benefits of low cost generation throughout the MISO footprint.

In addition to congestion and fuel savings of an estimated \$12.4 - \$40.9 Billion in present value benefits, the MISO studies have also shown quantifiable benefits as a result of the MVPs for the following generation and transmission aspects as well.

1. **Operating Reserves**
 - a. The MVP portfolio decreases congestion on the system, increasing the transfer capability into several key areas that would otherwise have to maintain additional operating reserves under certain system conditions.
 - i. A reduction in operating reserves results in estimated present value benefits of \$28M - \$87M.
2. **System Planning Reserve Margin**
 - a. The MVP portfolio reduces congestion across MISO thereby reducing the amount of generation required to meet the planning reserve margin for a one day in 10 years loss of load expectation.
 - i. A reduction in the system planning reserve margin results in estimated present value benefits of \$1.0B - \$5.1B.
3. **Transmission Line Losses**
 - a. The MVP portfolio reduces the overall system losses, which also reduces the generation needed to serve the load and losses on the system.
 - i. A reduction in transmission line losses results in estimated present value benefits of \$111M - \$396M.
4. **Wind Turbine Investment**
 - a. The MVP portfolio allows a balance of wind turbine investment between remote generation placement relying on transmission for delivery to load and local generation closer to load. Placing wind regionally to leverage the best available wind resources requires a robust transmission system.
 - i. Leveraging wind turbine installations in optimal locations across MISO results in estimated present value benefits of \$1.4B - \$2.5B.
5. **Transmission Investment**
 - a. The MVP portfolio will eliminate some future reliability upgrades.
 - i. Eliminating future transmission upgrades results in estimated present value benefits of \$226M - \$794M.

The analysis performed by MISO has found that the MVP portfolio overall will produce an estimated \$15.5 to \$49.2 Billion in present value benefits to the aggregate MISO footprint under existing energy policies (See Figure 1). This range of savings is derived based on the period over which benefits are calculated, discount rates applied, and assumptions about growth rates of energy and demand.²

² See MVP Report.

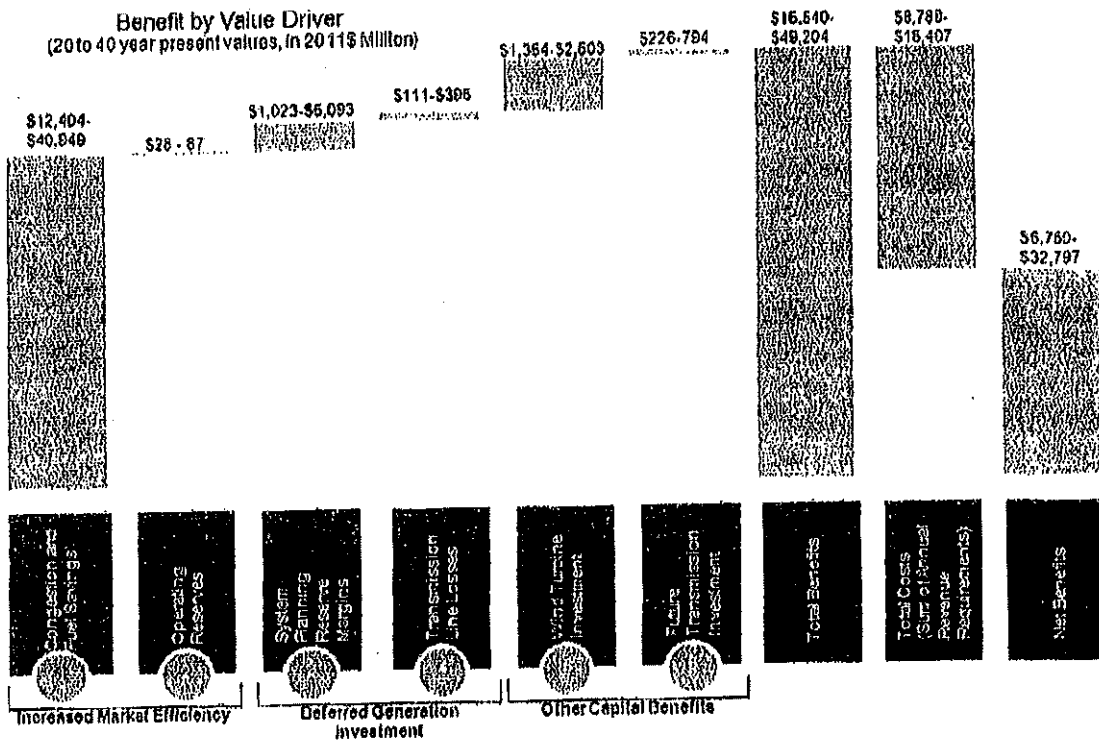


Figure 1 – Estimated Present Value Benefits of MVP Portfolio

When compared to the present value of the revenue requirements for the MVP portfolio, the portfolio produces total benefits of between 1.8 to 3.0 times the costs on a present value basis, under existing policies. When these system-wide benefits were evaluated for their distribution within the MISO footprint, benefits to Local Resource Zone 1 were between 1.6 and 2.9 times the portfolio costs to Local Resource Zone 1. Zone 1 is comprised of MISO member companies within Minnesota, South Dakota, North Dakota, and parts of Wisconsin and Montana.³ (see Figure 2)

³ See MVP report – Benefit-Cost ratios are shown on page 6 of the publicly available document.

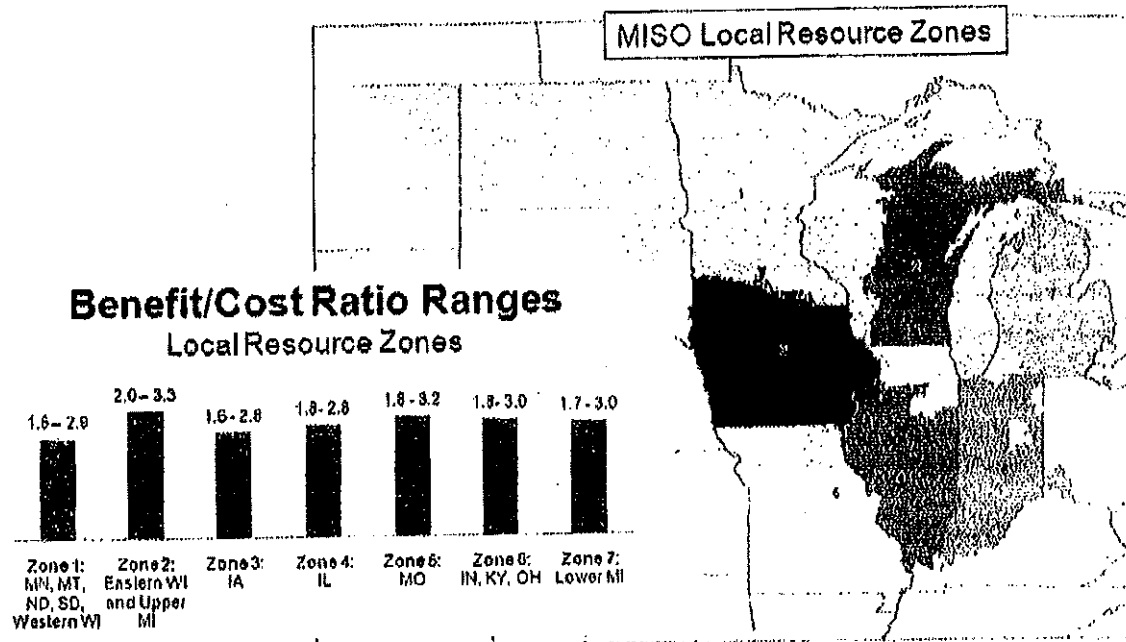


Figure 2 – Benefit-Cost Ratios to Local Resource Zones Across MISO

- 2-5) The application provides L50 audible noise, which means that 50% of the expected data points are greater than the stated value. Please provide the worst-case (i.e. maximum) noise level landowners can expect to be exposed to during the life of the facility, as well as the L10 (if available), for both fair and foul weather conditions.

RESPONSE: Only L50 audible noise values were calculated for the transmission line. The noise exposure of an individual depends on their position with respect to the transmission line and weather conditions. The transmission line noise levels at the edge of the right-of-way are shown on Table 17 contained in Section 14.3.2 of the Application, as amended.

- 2-6) Footnote 1 of amended Table 17 (pg. 59 of the Application) identifies that the Noise levels are representative of a current of 500 amps. Footnote 3 of amended Table 22 (pg. 94 of the Application) identifies the Maximum Operating Condition is based on ~2,000 amps. What is the maximum amount of current that will flow on the line during the life of the facility? Further, please explain how any expected additional current flow (beyond 500 amps) will affect noise levels if not already answered in response to data request 2-5.

RESPONSE: Current flow is not expected to exceed 2,000 amps during the life of the facility. Audible noise of transmission lines is not a function of the current

flowing in the conductors. Therefore, higher current will not cause higher audible noise levels nor will lower currents reduce the audible noise levels.

2-7) Please provide a list of requested route changes that includes: 1) location of the requested route change, 2) a brief description of the request, 3) current status of the request, 4) how the Applicant responded to the request, and 5) a justification for either approving or denying the request. Further, ensure the list includes the following requested route changes that PUC Staff is aware of:

- i. Three miles east of Garland Township, 9-125-63, (120th Street and 390th Ave), and
- ii. ¾ of a mile east out of Westport.

RESPONSE: See BSSE 329 to 331, which describes the proposed route "changes," the location of the route change, a brief description of the route change request, current status of the request, how the Owners responded to the request, and a justification for either approving or denying the request. The Owners request confidential treatment of this document pursuant to ARSD 21:10:01:41. Owners are separately filing a request for confidential treatment.

2-8) If not already provided in response to data request 2-7, please provide any known route changes that deviate from the route set forth in the initially filed application.

RESPONSE: None, other than the route changes identified in response to data request 2-7.

2-9) Please provide any known landowner concerns, how the Applicant is addressing the concerns, and when the Applicant believes the concerns will be resolved.

RESPONSE: It is unclear what is meant as landowner "concerns." Concerns could include requests for route changes, questions about the Project, and comments relating to the Project. The Owners have in the past and will continue in the future to work to address landowner concerns and comments through continued public meetings, posting frequently asked questions on the Project website, sending newsletters, communicating with landowners through the website and hotline, having personal meetings with the landowners, and written and telephonic communications with landowners. Due to the size of the Project, Owners believes that landowner concerns will continue to be raised prior to permitting, after permitting, before, during and after construction, and post-

construction. Some landowner concerns can and have been resolved. Some landowner concerns may not be able to be resolved. Once construction commences, the Project anticipates developing a process for the landowners affected by the construction to submit comments or concerns.

As to some of the specific concerns or comments raised by landowners, some of these concerns or comments were made at the public input hearings in Aberdeen and Milbank on October 17, 2013. Some of the comments are indicated in the discussion of the route change requests discussed in the response to Staff's Data Request 2-7. Regarding Gerald Pesall, his concerns are addressed in his answers to the Owners' interrogatories. The Project met with Mr. Pesall and his counsel on April 10, 2014, in an effort to address his concerns. The discussions with Mr. Pesall during this meeting are confidential settlement discussions. Finally, additional comments and concerns are discussed in response to Staff's Data Request 2-29 addressing why landowners have not yet signed options.

- 2-10) Please explain the Applicant's average response time for inquiries that were submitted by the general public through the BSSE's toll-free information line and website written inquiry processes.

RESPONSE: The Project has a variety of channels through which the general public can submit comments, including a toll-free information line, a comment form on the project website, an email address, comment forms at open houses, and a mailing address. Response time data through all channels shows that the overall average time from when the Project received a comment to the first response to the commenter was approximately 10 days.

- 2-11) Referring to page 93, line 9, of the Aberdeen Public Hearing transcript, please provide the study referenced by Mr. Fasteen that determined the easement prices being offered.

RESPONSE: Mr. Fasteen was referring to countywide appraisal documents, which are produced at BSSE 64 to 267. The Owners request confidential treatment of these documents pursuant to ARSD 20:10:01:41. The Owners are separately filing a request for confidential treatment. Mr. Fasteen also was referring to USDA/NASS, South Dakota Field Office, South Dakota 2012 County Level Land Rents and Values ("USDA Survey"). Mr. Fasteen viewed the USDA

survey previously, but no longer has it in his possession, and he can no longer access the version of USDA study viewed on line.

- 2-12) Referring to page 95, line 9, of the Aberdeen Public Hearing transcript, please provide a summary of any follow-up discussions that occurred between the Applicant and Mr. Sperry regarding irrigation center pivot plans and plans for installing a corner system.

RESPONSE: The Project had multiple communications with Mr. Sperry regarding this matter in December of 2013. The Project evaluated placing structures to adjust the span length such that the transmission line structures could be installed without impacting the anticipated center pivot unit of the corner system. Currently, a potential route change is being evaluated by the Project that would eliminate the need to cross the applicable property.

- 2-13) Please explain how residences that are located within 500 feet of the transmission line, yet not required to sign an easement as the line does not cross their property, are compensated for any potential future losses to property values.

RESPONSE: Only landowners from whom an easement is needed to encumber their property to construct the Project receive compensation. As stated in response to data request 1-6 from the Staff's first set of data requests, the Owners do not expect that the Project will have significant short or long term effects on property values.

- 2-14) Please provide a description of setback requirements for each township road, county road, or state road the preliminary route parallels. If no set back requirements will be of factor, please identify such.

RESPONSE: The preferred route parallels various roads, including township roads, county roads, and state roads in each of three counties: Brown, Day, and Grant. Pursuant to SDCL Ch. 11-2, the regulations of the set back from the right-of-way of all highway, roadways, roads, and streets, including state and township roads, are established by the respective county's commission and/or planning commission. Each of the counties through which the preliminary route is located employs county ordinances relating to zoning and certain use regulations. The setback requirements vary by county and also, to a lesser degree, by zoning districts within each county. Roads the preferred route is anticipated to parallel in Brown County are located in Ag Preservation and Mini-Ag Zoning Districts, which have a one hundred foot (100') setback

requirement as required in Sections 4.0606 and 4.0706 of the Brown County Zoning Ordinances. In Day County, pursuant to Section 2601 of the Day County Ordinances, the preferred route is required to be setback fifty feet (50') from all roads designated by Day County to be part of the Day County Highway System. This fifty foot (50') requirement does not apply to other roads located in Day County. In Grant County, pursuant to Section 1101.04(2) of the Zoning Ordinances for Grant County, there is a requirement for a one hundred foot (100') front yard in property zoned "A" Agricultural District.

- 2-15) Please explain the factors that resulted in the need to parallel an existing transmission line located along the south side of 148th St, beginning at the Hwy 12 and 148th St split, as shown on Exhibits 2.33 through 2.35 of the Application. Does paralleling an existing transmission line create any additional risk to public safety?

RESPONSE:

The reason to be on the south side of 148th Street (Exhibit 2.33 and 2.34) was to maximize the distances from the largest number of homes possible. Furthermore, there is also a cemetery located on the north side of 148th Street east of 472 Ave. that was also avoided. In this location, the line being paralleled is not a transmission line but a distribution line. The paralleling of the Project with a distribution line does not create a safety issue. In some instances, paralleling a transmission line can create reliability concerns for the transmission system as discussed in the response to the Staff's second set of data requests number 2-3. The paralleling of this distribution line does not, however, create such reliability concerns or other safety concerns.

- 2-16) Please provide a list of all units of local government that have formally expressed concern regarding the project. Please include any related record of correspondence.

RESPONSE: See BSSE 268 to 320 which includes correspondence from Farmington Township, Highland Township, and Valley Township, and the Project's correspondence with the board of supervisors or board chairman for those townships and the board chairman.

Prior to filing the Facility Permit Application, the concerns raised by Farmington, Highland and Valley Townships were incorporated into the application. Agricultural concerns raised by Farmington, Highland, and Valley Townships were addressed in sections 14.4 and 19.2. The application also addressed the concerns of Highland and Valley Townships regarding safety and property valuation in sections 23.4 and 19.1.2 respectively. The website also

includes answers in our FAQs related to agriculture and health and safety. One time payments were addressed in the October 2013 Power Delivered newsletter, which is contained at BSSE 321 to 322.

2-17) Has the Applicant, or its agents, trespassed on private property?

RESPONSE: To the best of the Owners' knowledge at this time, no trespassing has occurred.

2-18) How will the Applicant ensure soil and plant-borne pests are not transmitted from field to field?

RESPONSE: As stated in the answer to interrogatory number 9 in Gerald Pesall's Second Set of Discovery to Applicants: "The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Applicants' experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields."

2-19) Has the Applicant, in its experience in building and operating high voltage transmission lines ever experienced complaints of radio, TV, communications (e.g. CBs, two way radios, cell phones, etc.), dairy electronics, or GPS (including GPS, differential GPS and RTK) surveying or navigation interference? Please specify to what extent and how the Applicant handled such interference.

RESPONSE: The Owners operate approximately 5,700 miles of transmission lines and are not aware of any complaints in regards to interference with to TV, communication, dairy electronic, or GPS systems. The Owners have had occasions where AM radio reception is impacted, but after passing under the line reception is immediately restored. The general public will notice this momentary interference in their vehicle radio in some instances when traveling under or near transmission facilities.

- 2-20) Referring to page 115 of the Aberdeen Public Hearing transcript, did the Applicant follow up with Ms. Seurer regarding her question about dairy electronics? How was this resolved?

RESPONSE: The Project communicated with Ms. Seurer at the Aberdeen Public Hearing. The Project also is continuing to work to schedule a meeting with Ms. Seurer to review and better understand her technology. In owning and maintaining over 5,700 miles of transmission lines, the Owners have not experienced any negative affects of the transmission line on dairy electronics.

- 2-21) Will the proposed facility increase the potential for liability of the affected landowners? Why or why not?

RESPONSE: The proposed facility will not increase the potential for liability for the affected landowners. The Owners maintain property, casualty, and liability insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

- 2-22) How will the Applicant mitigate lost agriculture production associated with the project's operation, specifically as a result of farming around poles placed within fields?

RESPONSE: The anticipated lost agricultural production associated with farming around poles is being included as part of the easement payment provided by the Project.

- 2-23) Please provide a description of how the Applicant intends to monitor and mitigate construction impacts on roadways.

RESPONSE: As stated in answer to interrogatory number 8 to Gerald Pesall's Second Set of Discovery Requests to Applicant: "As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (i.e, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond

required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.”

- 2-24) Please provide an explanation of how pole placement is discussed with affected landowners, including who contacts the landowner, when the contact is made (specifically in relation to the timing of the landowner signing an easement), and how the landowner’s feedback is taken into account in the final placement.

RESPONSE: The discussion of pole placement varies from landowner to landowner. Initially, when land agents for the Project first started contacting landowners, the preliminary pole locations had not been determined. As a result, the Project did not discuss the placement of pole locations with the landowners. The land agents instead showed a map indicating the proposed route, without any indication of pole placement. The land agents communicated to landowners that they could reasonably expect approximately 5 pole structures per mile. Some landowners signed options based on these initial communications, and thus, the Project may not have discussed pole placement with the landowners.

Later, when the Project determined the preliminary placement of the pole structures, land agents were provided a map detailing the proposed route and the preliminary structure location. The scale on the map prevents determining the exact pole location on a parcel of property. During face to face meetings with landowners, land agents would show them the preliminary pole placements if requested. Land agents also provided copies of maps showing preliminary pole placements to requesting landowners. The final pole locations are not reflected on these preliminary maps. Additional landowners have signed the options after seeing the preliminary pole locations.

If requested by a landowner, the Project also has offered and will provide staking of preliminary pole locations on landowner property once the Project is able to survey the property.

The final pole structure location will not be determined, however, until the final design stage. If the landowner has expressed concerns about the pole placement during the option discussions, their input would be considered in the final location. The timing of the final design stage vis-à-vis signing of easements has not been determined but the Project has and will continue to discuss pole placement with landowners.

- 2-25) If landowners prefer to have poles placed along a fence line rather than out in a field, how does the Applicant accommodate such a request? Has the company made any route changes as a result of such requests to date?

RESPONSE: Each proposed route change is analyzed to see what, if any, impacts could result from the landowner's request. A design goal is to run the centerline as straight as possible between the dead-end structures, which are approximately five (5) miles apart. Therefore every route change request goes through a standard review process. This review process involves a committee consisting of a company representative from each Owner, design engineer, environmental, right-of-way, and legal teams. This committee considers the following review criteria when evaluating route changes:

- Safety, proximity to state, county township roadways
- Zoning restrictions
- Effect of other existing easements or encumbrances, if any
- Other option agreements that have been obtained with the adjoining landowners
- Whether the affected landowners within 1-2 miles along the route on either side of the property agree with the proposed route change
- ~~Whether there are any environmental impacts caused by the proposed route change~~
- Whether any cultural resource impacts are caused by the proposed route change
- Whether the line be constructed and maintained at the requested location
- Economic considerations

If it appears there are no identifiable impacts with the request after this review is completed, the right-of-way land agents will visit the neighboring landowners to obtain their opinion of a route change on their property as well. If practical to honor the request to move the route change, the Project will attempt to do so. If the impacts are too great, or if the route change is not mutually agreed upon by adjacent landowners, the requested relocation might not be possible. The Project has made some route and pole changes to honor requests placing the structures near fence lines rather than in the field. See also the response to Data Request 2-7.

- 2-26) At the public hearing in Aberdeen, the Applicant was asked to consider easement terms that were not perpetual, similar to the 99-year term in North Dakota. Has the

Applicant made any changes to the easement term lengths it is offering to landowners along the route?

RESPONSE: No, because the Project expects that the useful life of the transmission line may exceed 99 years.

- 2-27) On page 60 of the Aberdeen Public Hearing transcript, Mr. Ford stated "if maybe this parcel of land is becoming unfarmable because of these reasons, we need to look at something different" in response to Ron Ringgenberg's concern of not being able to utilize aerial spraying as a result of the facility. Since the hearing, has the Applicant worked with Mr. Ringgenberg or other similarly situated landowners to solve these types of problems? If so, please explain how the Applicant plans to mitigate the impact of these problems.

RESPONSE: There have been personal conversations with all landowners who are willing to meet and discuss their specific concerns.

The installation of a transmission line does not prevent aerial applications. A transmission line has a similar, but perhaps lesser impact to aerial applications as a tree row if installed in the direction of the farming application. The applicators are able to fly parallel to the transmission line and let the chemical spray drift under the line to effectively treat their crops.

At this time, the Project has not identified any locations, including but not limited to Mr. Ringgenberg's property, where the transmission line will prevent aerial spray applications.

- 2-28) Please provide an update on progress the applicant has made on easement acquisition.

RESPONSE: Currently the Project is only obtaining options rather than easements. Landowners who have signed options have committed themselves to signing of easements. Approximately 55% of line miles worth of parcels have signed options through April 10, 2014.

- 2-29) For easements (or easement options) not yet acquired, please provide an explanation as to why the landowners have not yet signed and, further, if any landowners are refusing to work with the Applicant.

RESPONSE: As indicated in response to Staff's Data Request 2-28, approximately 55% of the line miles have been signed as of April 10, 2014.

There are several reasons for landowners not signing the easement option. Some landowners are waiting to see if the Facility Permit from the State is issued. Other landowners are waiting on a person or event unrelated to the Project, such as, but not limited to whether other landowners are going to sign options and review of the easement options by the landowner's attorney, family member or renter. Other landowners are waiting on changes to the option and easement documents to reflect their individualized concerns. Other landowners are waiting for evaluation of a proposed route change.

Regarding the small percentage of landowners who have stated opposition to the Project, there are a multitude of reasons they have not signed the options. While some landowners have expressed general objection to the project, others have expressed more specific objections. Some of these objections were communicated at the public input hearings occurring on October 17, 2013, at Aberdeen and Milbank. The more specific objections fall into several general categories:

- Objections to the location of the line
- Economic concerns, including but not limited to complaints that the amount of the easement payment is not sufficient, devaluation of property, and request for annual payments, effect on whether the landowner will obtain wind farms or subdivide their property

- Concerns that the project will negatively affect farming practices, such as but not limited to effect on efficiency of farming equipment, affect on GPS guidance, loss of yield, impacts on aerial spraying, effect on center pivot units, and impact on livestock
- Concerns about the effect of the transmission line on human health
- Concerns about the impact of the transmission line on wildlife
- Effects of the construction process on both their farm property and the roads
- Peer pressure from other landowners, neighbors, family, and landowners not to sign the options

The Project has and will continue to work with landowners to address these concerns.

- 2-30) Did the Applicant consider following abandoned railroad right-of-way in determining the route? If so, for what reasons did the Applicant choose not to utilize it?

RESPONSE: The Applicant did consider following abandoned railroad right-of-ways as part of the routing process for the Project. Overall the preferred route selected reflects the best balance of the project routing criteria. Preliminary routes along abandoned railroad tracks were not carried forward for the preferred route for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. Additionally, the terrain near abandoned railroads may have steep side slopes away from the railroad bed that may not accommodate preferred construction or maintenance methods. In other areas the abandoned railroad right-of-way have been completely plowed under by the landowner in some parcels, and a transmission line would therefore cut through the middle of a cultivated fields. A comment from many landowners was to follow field lines and section lines to avoid diagonally traversing a cultivated field.

- 2-31) Did the Applicant consider following railroad rights-of-way that are currently in use? If so, for what reasons did the Applicant choose not to utilize them?

RESPONSE: The Applicant did consider following active railroad rights-of-way in the routing process for the Project. As stated in the response to Staff's Data Request 2-30 and 2-32, long stretches of routes along railroad tracks were removed from consideration for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. It was also determined that construction of the transmission line would not be feasible along the railroad in the Waubay area due to the increasing water levels in the surrounding lakes. Field surveys confirmed that certain route segments along the railroad were also removed from consideration because of the presence of homes, businesses, and water challenges. The Project also considered the induction effects and the safety concerns presented by the Project being located parallel to an existing railroad.

Additional engineering challenges and safety concerns that were considered as well. As stated above in the answer to Staff's Data Request 2-30, the terrain near railroads may have steep side slopes away from the railroad that may not accommodate preferred construction or maintenance methods. In addition, railroad right-of-way widths vary along a railroad and it would be very difficult

to share right-of-way with a railroad. Therefore the transmission line would likely have many bends and inflections to follow the railroad right-of-way, and/or be further out into a cropped field in areas where the right-of-way is wider. And finally, trains that derail where a transmission line runs parallel to it could potentially cause a disruption in electrical service and a safety hazard if derailed cars were to collide with a nearby transmission line structure.

- 2-32) If induction of rails is a reason listed in the previous two questions, what steps could the Applicant take to mitigate issues with induction and, further, what impact would those steps have on project costs?

RESPONSE: The best method for reducing the effects of induced voltage in parallel facilities such as railroads is to route the transmission line so that it is a safe distance away from the railroad or applicable parallel facility. If a transmission line remains close to the railroad then a study must be performed to evaluate induced voltage issues. Mitigation techniques and costs can vary significantly depending on the results of the study and particulars of the situation. Options for mitigation include: installation of a grounding conductor, replacement or upgrade of railroad signaling equipment, installation of AC drain filters, and reconfiguring the size of the signal track blocks. Costs can be into the millions of dollars depending on the level of mitigation required.

- ~~2-33) Per the suggestion by Mr. Welk on pages 109 and 110 of the Aberdeen Public Hearing transcript, was a letter provided to Mr. Feickert regarding disbursement of property taxes? If so, please provide the letter. If not, please provide the information requested.~~

RESPONSE: A letter has been sent to Mr. Feickert, which is attached at BSSC 323 to 328 and which contains the requested information as to the disbursement of property taxes.

- 2-34) Are corner structures going to have guy-wires? If so, what additional impacts would guy-wires have on landowners and/or farming operations? Further, will the Applicant construct a corner structure without guy-wires should a landowner request such?

RESPONSE: Corner structures located on cultivated land will not have guy-wires. Corner structures located on non-cultivated land could have guy wires depending upon the terrain and location of the structure. If a landowner with corner structures on non-cultivated land requests a structure without guy-wires, then the Project may consider that request on a case-by-case basis.

STATE OF NORTH DAKOTA)
) :SS.
COUNTY OF Burleigh)

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

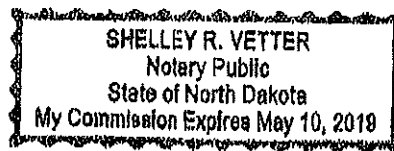
Dated this 15th day of April, 2013.

MONTANA-DAKOTA UTILITIES CO.
By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 15th day of April, 2013.

Shelley R. Vetter
Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
 :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

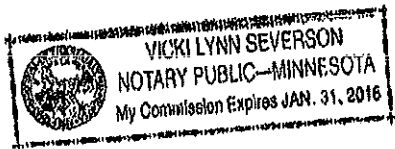
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

OTTER TAIL POWER COMPANY

By Jason J. Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 15th day of April, 2013.



Vicki Lynn Severson
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015

CERTIFICATE OF SERVICE

I, Thomas J. Welk, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on this 15th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 64 to 267 and BSSE 329 to 331, for which confidential treatment has been requested, and a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
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Staff Attorney
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Mr. Brian Rounds
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Mr. Darren Kearney
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And a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Jennifer Smestad
General Counsel
Otter Tail Power Company
215 S Cascade St.
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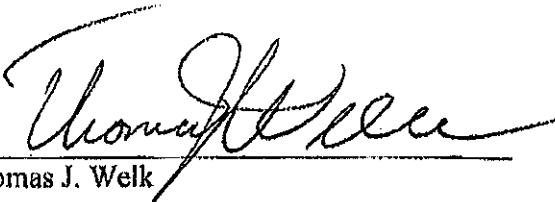
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Mr. Bob Pesall - Representing: Gerald Pesall
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Thomas J. Welk

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S FIRST SET OF DISCOVERY
REQUESTS TO APPLICANTS DATED
JANUARY 28, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

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jweiers@otpc.com

2. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have to property values for real property lying under or within ½ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based. Include in your answer both urban and rural property values.

ANSWER: Section 19.1.2 of the South Dakota Facility Permit Application (“the Application”) states, among other things, that “The South Dakota Facility is not expected to have significant short- or long-term effects on . . . land values”

Owners believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

3. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have on common species of livestock, including cattle, horses, swine, and poultry which are, or may be, kept under or within $\frac{1}{4}$ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based.

ANSWER: As stated in sections 19.2.2 and 23.4.5 of the Application, no impacts are anticipated to livestock operations due to the Project for the reasons stated in these sections of the Application.

4. Describe the level of soil compaction, if any, applicants contend will result from construction and maintenance of the transmission line, the impact that compaction may have on the productivity of the property, the time, effort, and cost which would be required to restore the soil to its original condition, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: Soil compaction likely will only occur during construction of the Project. As stated in section 10.3 of the Application, any temporary compaction impact caused by the construction process will be decompacted and restored to preconstruction contours to the extent practicable. No long term impacts from soil compaction are expected because of the decompaction and remediation process described in section 10.3 of the Application.

5. State whether applicants have prepared any estimates, and if so, provide those estimates together with the facts, studies, or expert opinions upon which they are based, as to the total dollar value for:
 - a. Annual lost productivity due to proposed transmission line's impact on livestock along the entire length of the proposed line.
 - b. Annual lost productivity due to soil compaction and interference with farming operations caused from construction and ongoing maintenance along the entire length of the proposed line.
 - c. Total reduction in real property values along the entire length of the proposed line, both for property lying under the proposed route and for adjacent property within $\frac{1}{2}$ mile.

ANSWER: As discussed in sections 14.1.2 and 19.2 of the Application, and as indicated in answers to interrogatories numbers 2, 3, and 4 above, the permanent impact is expected to be minimal. The Owners have not prepared annual estimates of lost productivity, and no such annual estimates are required to be prepared.

6. State the impact on road maintenance requirements and costs, if any, which the applicants contend will be incurred by state and local governments as a result of increased road use during initial construction and as a result of ongoing maintenance, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: As indicated in Section 19.3 of the Application, there will be no impacts on road maintenance requirements and costs. While the roads in the vicinity of the Project will see increased usage during the construction phase of the Project, the Owners do not anticipate any permanent impacts to the area road maintenance. Any damage to area roads will be monitored and repaired during construction and following completion of construction of the Project.

7. State the number of actual residential or commercial customers in South Dakota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any,
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint ("Midwest Region") the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in South Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the Multi-Value Projects ("MVPs") are described more fully in the report issued by MISO called "Multi-Value Project Portfolio -- Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a high priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of South Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other South Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for all customers in South Dakota resulting from the Project or the rest of the MVPs.
- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in South Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested party on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the approximately 75-150 workers involved in activities leading up to and directly involved with the construction of the Project. The impact to the local economies, not including

property taxes, from the Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes (property taxes, contractor tax, excise tax, sales tax, and use tax) which will increase the tax base for counties in which this facility is located. Based on the current effective composite tax rates for South Dakota, the Owners estimate a yearly property tax payment in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

Furthermore, the Owners' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

8. State the number of actual residential or commercial customers in Minnesota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in Minnesota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
 - b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of Minnesota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP, the Owners are not familiar with the portion of MVP costs other Minnesota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in Minnesota resulting from the Project or the rest of the MVPs.
 - c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. Although these benefits will not be as great as the states in which construction will occur, it is feasible that Minnesota may reap the benefits of some local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of some workers involved in activities leading up to and directly involved with the construction of the Project. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.
9. State the number of actual residential or commercial customers in North Dakota which applicants contend will benefit from the construction of the proposed line,

the facts, studies, or expert opinions upon which that contention is based, and describe in detail:

- a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
- b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in North Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the MISO region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by the MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are

members of MISO. Therefore, all customers in the state of North Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other North Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in North Dakota resulting from the Project or the rest of the MVPs.

- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in North Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested parties on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the workers involved in activities leading up to and directly involved with the construction of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes which will increase the tax base for Dickey County. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.

10. Describe in detail nature of the Ellendale substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Ellendale 345-kV Substation will be constructed and owned by Montana-Dakota. It will be located about 1.5 miles west of Ellendale, North Dakota, along the west side of 87th Avenue SE in Section 9, Ellendale Township (Township 129N, Range 63W), Dickey County, and across the street from the existing Montana-Dakota Ellendale 230-kV Substation, which is located in Section 10 of Ellendale Township. The footprint of the substation will be approximately 11.3 acres. Construction of the new Ellendale 345-kV Substation will involve the installation of two 345-kV circuit breakers, one 345-kV line termination structure, five 345-kV disconnect switches, one 345-kV/230-kV 300/400/500 Mega Volt Ampere (MVA) Auto-Transformer, a 345-kV Shunt Line Reactor, eight 230-kV circuit breakers, twenty-one 230-kV disconnect switches, four 230-kV line termination

structures, associated arresters, Capacitive Voltage Transformers (CVTs), bus work, and protective relaying and controls required to support the circuit breakers. The existing Merricourt, Tatanka, and Hankinson 230-kV lines will be relocated to terminate in this substation, as well as an Ellendale 230-kV tie line back to the original Ellendale 230-kV Substation.

11. Describe in detail nature of the Big Stone substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Big Stone South substation will be a 345/230kV substation that will be constructed to allow two new 230kV lines and two new 345kV lines. The 230kV lines will extend between the existing Big Stone Power plant and this new substation. One 345kV line will connect this facility to the new Ellendale 345kV substation and the second 345kV line will connect this facility to the Brookings County 345kV substation.

This new substation will be located in the NE1/4 of the NW1/4 of section 24, Township 121N, Range 47W. The new substation includes four 230kV breakers for the incoming 230kV lines from the existing Big Stone Power plant 230kV substation. Two 345/230/13.8 kV, 448MVA transformers, with 25 Mvar reactors, will step-up the voltage to 345kV for two new 345kV lines. The 345kV bus will have four 345kV breakers to provide protection for these transformers and the new 345kV lines. A new control house and a fenced area of approximately 600 x 600 feet and will be located on 39 acres.

12. Describe in detail the impact, if any, applicants contend that the proposed transmission line would have on the usability and productivity of agricultural equipment which is guided by global positioning systems (GPS), or by ground base transmitter systems, when used under or within ¼ mile of the transmission line. Identify any facts, studies, or expert opinions upon which that contention is based.

ANSWER: Section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

The Application references an IEEE study by Silva & Olsen, 2002, that studied the impact of overhead conductors on GPS signals. The study found that the overhead conductors did not block or affect the use of GPS satellite signals.

13. Describe in detail the impact, if any, applicants contend the proposed transmission line will have on wild game species common to the area where the line is to be constructed, including but not limited to its impact on whitetail deer, walleye pike, northern pike, ring-neck pheasant and Canadian geese.

ANSWER: Section 11.0 of the Application describes the anticipated effects to water resources, including fishery resources. Because the Project will span all streams and lakes, no impacts to fish species or fishing uses will occur.

Section 12.0 of the Application also describes the anticipated impacts to terrestrial wildlife species, including game species. Once constructed, the transmission line could result in impacts to avian game species through collisions. The Project will work with proper wildlife authorities, both State and Federal, to identify areas where bird diverters may need to be installed to minimize potential collisions. In addition, the transmission line will be designed considering the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection On Power Lines: State of the Art in 2006 to minimize the potential for electrocution.

The Project is not anticipated to affect the population of any game species in the region it crosses.

14. Describe in detail the methodology used to select the proposed route, the specific factors by the applicants in selecting the proposed route, including but not limited to total cost, engineering constraints, and legal concerns.

ANSWER: Section 8.1 of the Application lays out the detailed methodology used to select the proposed route. As listed on page 26 of the Application, the line route in South Dakota was selected based on several factors, including:

- **Minimizing total length and construction costs**
- **Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services**
- **Consideration of effects on public health and safety**
- **Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities**
- **Minimizing effects on archaeological, cultural properties, and historic resources**
- **Minimizing impacts to wetlands, surface waters, and rivers**
- **Minimizing impacts to rare or endangered species and unique natural resources**
- **Minimizing effects to airports or other land use conflicts**
- **Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields**
- **Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment**
- **Avoiding a diagonal route across agricultural fields wherever possible**
- **Preference for mono-pole structures rather than H-frame structures**

As described above, engineering constraints and costs were two of many criteria considered. Legal concerns considered in the routing process included confirming potential routes could be constructed consistent with applicable federal, state, and local laws and regulations. The proposed route was selected based upon the evaluation of the foregoing routing criteria.

The Owners continue to evaluate possible changes to the proposed route based upon discussions with landowners. The changes to the route may occur both before the hearing on the Application, and after the hearing. If a material change in the proposed route is adopted by the Owners before the hearing, the Owners will identify that change to the proposed route as part of the prefiled testimony consistent with the deadlines imposed by the Commission or at the hearing. For material route changes after the hearing, the Owners will update the Commission through the appropriate processes.

15. Describe each alternative proposed route considered by the applicants prior to selecting the currently proposed route.

ANSWER: The attached map numbered BSSE 9 shows the preliminary routes that were considered by the Owners prior to selecting the preferred route.

Between the Ellendale Substation and the general vicinity of the town of Bristol, there were two main route alternatives considered; one that follows the ultimately selected route south into South Dakota, and one that heads east from the Ellendale area for approximately 35 to 40 miles before turning south into South Dakota. This second main route alternative had several smaller alternative segments. One location with alternative segments occurs approximately ten miles east of Ellendale, where the alternatives are located 0.5 to 1 mile apart. Another set of alternative segments is located at the North Dakota/South Dakota border crossing area, where the alternatives parallel each other at a distance of approximately 2 to 5 miles apart, for a length of approximately twenty miles.

Between the Bristol area and the Big Stone South Substation, there were several other areas with minor route alternatives. These respective areas usually consist of parallel route alternatives, generally 0.5 to two miles apart.

16. For each alternative route so-identified, describe in detail how the factors set out in your answer to request #14 were considered, and the reason(s) why that alternative route was ultimately rejected.

ANSWER: Section 8.2 of the Application describes the methodology used in selecting the proposed route and rejecting the alternative routes.

The routes through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length, and expected to have better soils for construction activities and structure foundations. The Owners received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to water bird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

Additionally, the proposed route differs from the preliminary route for approximately six miles in T120N R56W (Highland Township) and T120N R57W (York Township) in Day County. The preliminary route was rejected in this area because of engineering and constructability constraints associated with crossing the Horseshoe Lake area.

17. Identify any state or federal renewable energy standards which applications contend the proposed line will enable them to meet.

ANSWER: The proposed line is one of the MVPs which, in total, will enable the most economic development and construction of renewable energy projects in the Midwest Region. This includes a combination of local and regional generation projects detailed in section 4.2 in the MVP report included as Appendix B.1 of the Application. In order to spur renewable energy projects, many states have adopted renewable energy standards, which are laws which mandate that a certain amount of energy produced or purchased by its regulated electric utilities must be generated by qualifying renewable energy projects. The transmission studies performed by MISO used in the identification of the Big Stone South to Ellendale project, along with the balance of the MVPs, were based on existing state renewable energy standards in place during the course of the study (primarily during 2011). The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across the Midwest Region. As determined through the MVP studies, this amount of wind energy is anticipated to meet the state renewable energy mandates across the Midwest Region beyond 2026.

Additional information related to the state renewable energy standards facilitated by the Project and the rest of the MVPs can be found in sections 4 and 7 of the MVP report, included as Appendix B.1 of the Application.

18. With respect to the energy to be transmitted on the proposed line, identify the existing or anticipated generating facilities from which that energy will be produced, and the amount of energy anticipated from each.

ANSWER: The Big Stone South to Ellendale 345 kV line will be an integral part of the high voltage transmission system. As such, the line will be available to carry energy from a variety of generating facilities, regardless of fuel type. Due to the interconnected nature of the regional transmission system, the generation that will flow on this line will depend on a number of variables. Too many variables exist to definitively identify the existing or anticipated generating facilities that will have energy transmitted on the Big Stone South to Ellendale 345 kV line. These variables include (among several other factors) generation patterns, load levels, and outages of existing generation or transmission. Therefore, identifying the exact amount of energy from a specific generator flowing across a particular transmission line is not possible. However, if wind-rich areas in eastern South Dakota are developed with future renewable

generation, this future generation will have energy transmitted along this Project given its geographic proximity to these wind-rich areas. BSSE 11 attached is a wind resource map with the route corridor of the Project shown on the same map. As stated in Section 4 of the Application, the Project will increase system capacity which in turn allow for additional opportunities for development of generation, including renewable energy sources, in South Dakota.

19. Describe in detail the percentage of the total energy to be transmitted on the proposed transmission line which will pass to or from the Big Stone South to Brookings County, and/or Brookings County to South East Twin Cities lines once all three projects enter service, and annually thereafter through the year 2024..

ANSWER: Once these three separate Multi-Value Projects (MVPs) are constructed, the total energy transmitted along these three projects will be highly correlated to one another, given their geographic location and electrical connectivity. The Big Stone South to Ellendale 345 kV line will share a common termination point with the Big Stone South to Brookings County 345 kV line at the Big Stone South substation. Likewise, the Big Stone South to Brookings County 345 kV line will share a common termination point with the Brookings County to South East Twin Cities line at the Brookings County substation. Identifying expected or even anticipated energy transmitted on the Big Stone South to Ellendale line in comparison to the other two projects will depend on a number of variables (as described in interrogatory #18).

Based on knowledge of the transmission system in this region, the flow of energy in this area will generally be from northwest to southeast, flowing from Ellendale to Big Stone South to Brookings County and then to the Southeast Twin Cities. However, transmission facilities often experience bi-directional flows and therefore could also flow from southeast to northwest depending on the conditions present on the transmission grid.

20. Describe in detail the insurance policies or other liability protections, if any, applicants will maintain for themselves against claims which relate to the towers, wires, and other components of the proposed transmission line, and the means by which that protection will be maintained through the useful life of the proposed transmission line.

ANSWER: The Owners maintain property and casualty insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

21. In the event that agricultural production activities near the proposed transmission line damage or interfere with the operation of the line (including, for example, a GPS guided tractor colliding with a monopole), describe in detail any liability

protection which applicants will provide to agricultural producers in the event of third party claims against those producers for interruption of service or other damages..

ANSWER: The Owners maintain property and casualty insurance coverages customary for the utilities industry, including general liability insurance. In the event of a claim that falls within the scope of this coverage, the law of torts would apply.

22. Describe in detail the anticipated maintenance schedule for the towers, lines, substations and other components of the proposed transmission line, and the amount of time each are anticipated to remain in operation.

ANSWER: The Owners anticipate they will inspect the towers, components, and conductors at a minimum of twice a year associated with routine maintenance. A patrol typically would be conducted in the spring and fall of each year to minimize the environmental impact. These patrols/inspections typically take two to three weeks per year and are for the most part confined to the facility right of way. If problems are discovered during these inspections, and are not emergency in nature, typically repairs can be scheduled in fall or winter. If for some reason repairs would have to be scheduled when the crops are still in the field the landowner would be compensated for any damages associated with those repairs.

The right of way would be managed as part of the Owners vegetation management program which consists of removal of trees and other vegetation that could interfere with the reliability of the facility, which usually occurs on a four year cycle. This typically takes around three or four weeks per cycle and is scheduled to be performed in the fall or winter.

The substations maintenance consists of inspections, vegetation management, equipment testing, etc. and is typically confined to the fenced area within the substation with the exception of vegetation management which includes just outside the fence and driveways. These items are completed throughout the year and typically take around eight weeks to complete.

The Owners expect the line to be in service for perpetuity. There are not currently have any plans to remove any of our transmission system. However, as noted above, the facilities will require ongoing maintenance in order to operate safely and reliably.

RESPONSES TO DOCUMENT REQUESTS

1. Tower components, insulators, footings, foundations, guy-wires, and any other attachments for the towers which will be used generally to construct the proposed

transmission line and those which would be specifically used upon property owned by Gerald Pesall.

RESPONSE: See BSSE 10 attached.

2. The exact location where the lines and towers for the proposed transmission line would be located in located Day County, South Dakota for the currently selected route and any alternative routes being considered.

RESPONSE: See BSSE 12 to 63. These documents reflect the preliminary estimates of the location of the lines and towers. The exact location of the lines and towers in Day County has not yet been determined.

3. The Big Stone Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

4. The Brookings County substation, including a description of any transmission lines which will directly connect to it.

OBJECTION: The Owners object to disclosing this information because the Brookings County substation is not part of the Project, and the requested documents exceed the scope of permissible discovery under SDCL 15-6-26(b) and ARSD 20:10:01:01.02. The Owners further object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

5. The Ellendale Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

STATE OF NORTH DAKOTA)
)
) SS.
COUNTY OF Burlington)

Jay Skabo, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

MONTANA-DAKOTA UTILITIES CO.

By Jay Skabo
Jay Skabo
Its Vice President - Electric Supply

Subscribed and sworn to before me this 26 day of February, 2014.

Bloome Stapp
Notary Public -- South Dakota
(SEAL)

My Commission Expires: 9-27-17

STATE OF MINNESOTA)
) :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

OTTER TAIL POWER COMPANY

By Jason J Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 26th day of February, 2014.

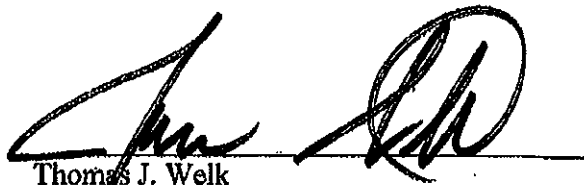


Vicki Lynn Severson
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015

AS TO OBJECTIONS:

Dated February 26, 2014



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CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 26th day of February 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's First Set of Discovery Requests to Applicants Dated January 28, 2014 was served via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
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patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
South Dakota Public Utilities Commission
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Pierre, SD 57501
karen.cremer@state.sd.us

Mr. Brian Rounds
Staff Analyst
South Dakota Public Utilities Commission
500 E. Capitol Ave.
Pierre, SD 57501
brian.rounds@state.sd.us

Mr. Darren Kearney
Staff Analyst
South Dakota Public Utilities Commission
500 E. Capitol Ave.
Pierre, SD 57501
Darren.kearney@state.sd.us

Ms. Jennifer Smestad
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215 S Cascade St.
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jsmestad@ottertail.com

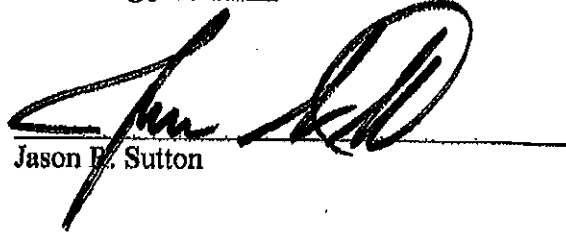
Mr. Daniel S. Kuntz
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Ms. Maxine Fischer
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Ms. Sandra Raap
Day County Auditor
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Ms. Karen Layher
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karen.layher@state.sd.us

Mr. Bob Pesall - Representing: Gerald Pesall
Pesall Law Firm
PO Box 23
Flandreau, SD 57028
bob@pesall.com



Jason E. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S SECOND SET OF
DISCOVERY REQUESTS TO
APPLICANTS DATED MARCH 5, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's Second of Discovery Requests to Applicants dated March 5, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

**Terry Fasteen,
Kadrmas, Lee & Jackson, ROW Services
3203 32nd Ave. South, Suite 201
Fargo, N.D. 58106
Phone: 701-232-5353
terry.fasteen@kljeng.com**



Henry Ford, Director
Director Electric Transmission Engineering
Montana-Dakota Utilities Co.
400 N. 4th Street
Bismarck, ND, 58501-4092
Phone: 701-222-7944
henry.ford@mdu.com

Mark Shaw, Project Manager
Power Engineers, Inc.
14220 Ladue Road
Chesterfield, MO 63017
Phone: 405-330-3089
mark.shaw@powereng.com

Dean Pawlowski, Transmission Project Manager
Principal Engineer
Otter Tail Power Company
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone: 218-739-8947
dpawlowski@otpc.com

Angela Piner, Project Manager Environmental Scientist
Associate Vice President
HDR Engineering, Inc.
701 Xenia Avenue South -- Suite 600
Minneapolis, MN 55416
Phone: 763-591-5478
angela.piner@hdrinc.com

Jason Weiers, Manager -- Delivery Planning
Otter Tail Power Company
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone: 218-739-8311
jweiers@otpc.com

2. State the full name, address, telephone number, and occupation of each witness and/or expert from whom you intend to present testimony in this proceeding, and provide a summary of the facts and opinions which each is expected to provide

ANSWER: At this time, Owners intend to call the following witnesses who are all qualified as experts:

Henry Ford, Director
Director Electric Transmission Engineering
Montana-Dakota Utilities Co.
400 N. 4th Street
Bismarck, ND, 58501-4092
Phone: 701-222-7944
henry.ford@mdu.com

Jason Weiers, Manager – Delivery Planning
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Daniel Fredrickson, Project Engineer
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14220 Ladue Road
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Phone: 405-330-3089

Jon Leman, Electrical Systems Study Engineer
Power Engineers, Inc.
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Angela Piner, Project Manager Environmental Scientist
Associate Vice President
HDR Engineering, Inc.
701 Xenia Avenue South – Suite 600
Minneapolis, MN 55416
Phone: 763-591-5478
angela.piner@hdrinc.com

The specific substance of the testimony will be disclosed in the prefiled testimony deadlines imposed by the Public Utilities Commission of South Dakota (“the Commission”), but generally, these witnesses will provide the testimony to establish the Owners’ burden of proving that the Commission should issue the requested permit for the Big Stone South to Ellendale Project (“the Project”).

3. Describe in detail the projected cost difference between the currently proposed route and the other potential routes examined by the applicants for the construction of the transmission facility.

ANSWER: The Owners have not calculated the projected cost differential between the currently proposed route and the other potential routes identified in BSSE 9, which was produced as part of the Owners' response to Gerald Pesall's First Set of Discovery Requests to Applicant. The best estimate of cost is the length of the proposed route. The rejected preliminary route shown on BSSE 9, which goes through Marshall County and western Day County, is longer than the proposed route. The length of the proposed route and corresponding cost was not the sole basis, however, for selecting the proposed route. Instead, the proposed route was selected based on the route selection process and considerations discussed in section 8.1 of Application to Public Utilities Commission of the State of South Dakota, as amended ("the Application").

4. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon persons using either pacemakers, cochlear implants, or similar devices while under or near the transmission line.

ANSWER: Owners do not anticipate any impact on persons with pacemakers, cochlear implants, or similar devices while under or near the transmission line at ground level.

5. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon electronically controlled planting equipment when operated under or near the transmission line.

ANSWER: Owners do not expect that transmission line electric and magnetic fields will impact electronic controls of planting equipment. Isolated cases of interference related to GPS based systems are possible but unlikely.

As stated in answer to interrogatory number 12 in Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

6. In the event a landowner's average crop yields are reduced due to construction activities during the construction process, or as a result of ongoing maintenance, describe the compensation, if any, which applicants will provide to landowners to offset reduced crop insurance payments in future years.

ANSWER: If damage occurs to crops during the construction process, the Owners will pay for the crops damaged, including hay land. The damage payment for standing crop shall be determined by the following formula (acres x yield x price per bushel/ton).

The Owners will strive to work with the landowner to jointly establish the acres affected by construction. To determine the yield component, the Owners will consider the yield obtained by the landowner on the remainder of the field affected and historical data. The price per bushel shall be determined by the market rate at the time of the crop damage.

The Owners will pay a lump sum payment equal twice the amount of the crop damage payment calculated pursuant to the formula discussed above. The Owners pay twice the amount of the crop damage calculated to reflect future yield reductions caused by the construction.

Actual crop damages from maintenance operations will be reimbursed by the Project.

7. State the average cost per linear foot to construct the proposed transmission line on the currently proposed route.

ANSWER: The Owners have not calculated the cost per linear foot of constructing the Project. As stated in section 5.0 of the Application, the total estimated cost of the Project is \$293 to \$370 million in 2013 dollars. Of this amount, according to

section 5.0 of the Application, the cost of transmission line portion of the Project is \$265 million to \$342 million. As stated in section 2.0 of the Application, the Project includes approximately 160 to 170 miles of transmission line. These estimates can be used to calculate a range of anticipated costs for building each mile of the transmission line.

8. In answer to your Interrogatory No. 6 of Gerald Pesall's First Set of Discovery Requests, you indicate that road damage will be monitored and repaired. Describe in detail who will provide monitoring and repair services, and how they will be provided.

ANSWER: As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (*i.e.*, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.

9. Describe in detail the impact, if any, applicants contend the construction of the proposed facility will have on the field-to-field transmission of soil and plant-borne pests, including but not limited to the soybean cyst nematode, and the "sudden death syndrome" fungus, and any preventative measures applicants will take to prevent the transmission of the same during construction and ongoing maintenance of the proposed facility.

ANSWER: The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Owners experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields.

10. Describe in detail any alternative means by which applicants may comply with clean energy mandates imposed by the State of Minnesota in the event that the application is denied.

ANSWER: The Owners assume that the reference to "clean energy mandates imposed by the State of Minnesota" means renewable portfolio standards that apply in Minnesota, which requires that 25% of retail energy sales must come from

renewables by 2025 and 1.5% of retail energy sales coming from solar energy by 2020.

Montana-Dakota Utilities Co. is not subject to Minnesota's clean energy mandates because it does not serve customers within the State of Minnesota. Otter Tail Power Company ("OTP") does serve customers within the State of Minnesota and therefore is subject to the requirements imposed by Minnesota.

Regardless of whether the permit for the Project is granted or denied, OTP would embark on a similar approach to that which it has historically taken when adding generation resources to comply with Minnesota's clean energy mandates.

OTP currently provides about 19% of its total retail sales from wind energy. To date, all of OTP's wind energy has been added cost effectively.

As mentioned in sections 4 and 6 of the Application, the Project, along with the rest of the MVPs, will reduce the wholesale cost of energy delivery for consumers across MISO by increasing transmission capacity. If the Application is denied, the Project may not be built, thereby jeopardizing the benefits the MVP portfolio offers to the MISO region, which includes South Dakota. Without these benefits, energy prices in the MISO region could be higher, therefore increasing costs to consumers system-wide.

STATE OF NORTH DAKOTA)
)
COUNTY OF Burdick) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 1st day of April, 2014.

MONTANA-DAKOTA UTILITIES CO.

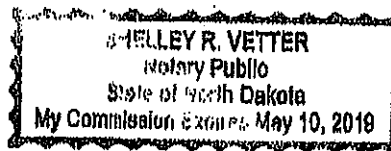
By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 1st day of April, 2014.

Shelley R. Vetter

Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
)SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 4th day of April, 2014.

OTTER TAIL POWER COMPANY

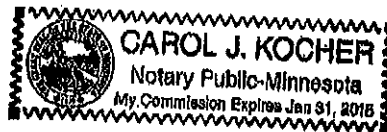
By Jason J. Weiers
Jason Weiers

Its Manager, Delivery Planning

Subscribed and sworn to before me this 4th day of April, 2014.

Carol J. Kocher
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015



CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 7th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's Second Set of Discovery Requests to Applicants Dated March 5, 2014 was served via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 E. Capitol Ave.
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patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
South Dakota Public Utilities Commission
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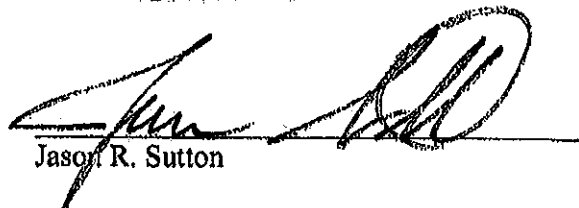
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Mr. Bob Pesall - Representing: Gerald Pesall
Pesall Law Firm
PO Box 23
Flandreau, SD 57028
bob@pesall.com



Jason R. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD REBUTTAL
TESTIMONY**



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HENRY FORD REBUTTAL TESTIMONY

Q. Please state your name, employer, and work address.

A. My name is Henry Ford. I am the Director of Electric Transmission Development for Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND 58501.

Q. Did you prepare and direct testimony regarding the Big Stone South to Ellendale Project ("the Project")?

A. Yes, I did.

Q. What is the purpose of your rebuttal testimony?

A. To address the testimony of Gregory Tylka, Ph.D, who prepared direct testimony on behalf of Gerald Pesall, and which was filed with the South Dakota Public Utilities Commission ("the Commission"). Specifically, I am going to address Dr. Tylka's testimony about the alleged effect of the construction of the Project on the possible spread of soybean cyst nematode ("SCN").

Q. Other than Gerald Pesall, has anyone else expressed concern regarding the effect of the construction of the Project on transmission of SCN?

A. No. Landowners, local governments, or governmental agencies who have communicated with the Project have never discussed SCN or the effect of the Project on the spread of SCN.

Q. Has MDU ever encountered allegations that construction or maintenance of transmission projects will increase the spread of SCN in any of MDU's other transmission projects?

1 A. No, this case is the first time where alleged spread of SCN has been raised as a
2 concern.

3 **Q. How many miles of transmission line does MDU have?**

4 A. MDU owns and maintains approximately 3,000 miles of transmission line.

5 **Q. What experience has co-owner Otter Tail Power Company (OTP) had regarding**
6 **SCN in the construction and maintenance of transmission lines?**

7 A. Like MDU, OTP has not encountered the complaint that construction or maintenance
8 of a transmission line spreads SCN.

9 **Q. When was the first time the Project learned anyone had concerns that the**
10 **construction or maintenance of the transmission line would spread SCN?**

11 A. Upon receiving the direct filed testimony of Dr. Tylka, which was filed by Gerald
12 Pesall on April 24, 2014.

13 **Q. What steps are Project taking in light of Dr. Tylka's testimony?**

14 A. The Project intends to research the effect construction or maintenance of the
15 transmission line might likely have on the spread of SCN.

16 **Q. How do you propose updating the Commission regarding the Project's plan for**
17 **addressing SCN?**

18 A. Because SCN is a new issue for the Project, and because the short time frame for
19 rebuttal testimony after Gerald Pesall filed Dr. Tylka's testimony, the Project needs additional
20 time to complete their study and research. Following the completion of our study and research,
21 the Project will supplement their prefiled rebuttal testimony.

22 **Q. Does this complete your prefiled rebuttal testimony at this time?**

23 A. Yes.

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD SUPPLEMENTAL
REBUTTAL TESTIMONY**



1 **Q. Please state your name, business address, and current employment position.**

2 A. My name is Henry Ford. I am the Director of Electric Transmission Development for
3 Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND
4 58501.

5 **Q. Have you previously prepared any testimony in this matter?**

6 A. Yes, I prepared direct testimony filed on April 25, 2014. I also prepared rebuttal
7 testimony that was filed on May 9, 2014.

8 **Q. In your rebuttal testimony, did you indicate what steps the Project was taking to
9 address Dr. Tylka's testimony about soybean cyst nematode ("SCN")?**

10 A. Yes. I indicated that the Project was researching the effect of the construction and
11 maintenance of the transmission line on the spread of SCN.

12 **Q. What research has the Project done?**

13 A. The Project consulted with South Dakota State University regarding the presence of
14 SCN in Brown, Day, and Grant Counties, and how SCN is spread. The Project also reviewed
15 academic literature on SCN.

16 **Q. What did your research indicate?**

17 A. SCN is present in Brown, Day, and Grant Counties, but the Project is not aware at this
18 time what particular parcels within those counties have SCN present. SCN can be spread in any
19 method that dirt is spread from field to field.

20 **Q. Why is the Project unaware of the particular parcels containing SCN?**

21 A. The Project is unaware of which landowners have tested for SCN and which parcels
22 the South Dakota State University extension office may have tested in the project area.

1 Additionally, the extension office would not be able to provide any information that may be
2 available because the information is private.

3 **Q. Can the construction of the Project contribute to the spread of the SCN?**

4 A. Based on our research, anything that causes dirt to move from field to field can cause
5 spread of SCN, including wind, erosion, farming practices, and the construction of the Project.

6 **Q. Based on the research, does the Project intend to engage in any mitigation to
7 reduce the spread of SCN?**

8 A. Yes, we are intending to adopt and implement a plan.

9 **Q. Please describe the mitigation plan.**

10 A. The Project is still developing a mitigation plan. Although not yet finalized, the
11 Project is considering five components to the plan -- consultation, sampling, cleaning, training,
12 and monitoring. The details of the mitigation will depend on the results of consultation and
13 sampling.

14 **Q. When do you expect the mitigation plan to be filed?**

15 A. I expect a working draft mitigation plan to be filed before the evidentiary hearing on
16 June 10 so that I can testify about it at the hearing.

17 **Q. What plans does the Project have regarding addressing the possible spread of
18 SCN through maintenance activities?**

19 A. The mitigation plan will address reasonable and appropriate efforts to reduce the
20 spread of SCN during maintenance activities.

21 **Q. Does this complete your supplemental rebuttal testimony?**

22 A. Yes.

Soybean Cyst Nematode Mitigation Plan

Background Information

The soybean cyst nematode (*Heterodera glycines*) (SCN) has been identified throughout the Project area and was first identified in 1997¹ in the three counties within which the Project traverses. The SCN can be spread through the movement of affected soil. It moves very slowly through wind-blown soils, wind and water erosion, and cultivation practices and has been known to survive in the soil for a decade².

The Project developed a mitigation plan described below to reduce the risk of spreading SCN from affected to non-affected fields. This mitigation plan has the following approach:

- Perform a field assessment to identify the presence or absence of the SCN within cultivated fields crossed by the Project right-of-way (ROW)
- Identify acceptable measures to mitigate spreading SCN during construction
- Hold construction crews accountable through inspection and monitoring during construction

Mitigation Plan

Field Assessment

Sampling for SCN commonly targets high probability areas in cultivated fields, which includes field lines, field entrances, and low spots³. The goal of the field assessment is to identify the presence or absence of the SCN in the cultivated fields crossed by the Project. The sampling protocol will be completed in accordance with the South Dakota State University protocol.

Mitigation Measures

Mitigating the spread of SCN from an existing affected field to a non-SCN affected field, a variety of measures may be utilized, which are dependent on soil conditions, weather conditions, topography, distance traveled, equipment type, and cost. Unfortunately, one mitigation measure alone is not a "catch-all" and will be determined on a site-specific basis. Measures to assist in the control of soils on equipment may include: cleaning stations, utilizing clean crews for non-affected fields and a dirty crew for affected fields, equipment mats, and

¹ Strunk, Connie. 2013. Soybean Cyst Nematodes: An expanding pest in South Dakota.

<http://igrow.org/agronomy/soybeans/soybean-cyst-nematodes-an-expanding-pest-in-south-dakota/>

² Niblack, T. L., K. N. Lambert, and G. L. Tylka. 2006. A Model Plant Pathogen from the Kingdom Animalia: *Heterodera glycines*, the Soybean Cyst Nematode. Annual Review of Phytopathology 44: 283-303

³ Smolik, J.D., M.A. Draper. 2007. Soybean Cyst Nematode South Dakota Extension Fact Sheet 902-A. SDSU Plant Science Department. http://pubstorage.sdstate.edu/AgBio_Publications/articles/FS902A.pdf



Big Stone South to Ellendale

weather-dependent construction (i.e. frozen and dry soils). The measures ultimately used will depend on the results of the sampling effort, cost, resource availability, and contractor input.

Inspection/Monitoring

The Project is committing to training and identifying individuals responsible for monitoring construction personnel in their implementation of this plan.

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

**IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE
BIG STONE SOUTH TO ELLENDALE 345
KV TRANSMISSION LINE**

SETTLEMENT STIPULATION

EL13-028

It is hereby stipulated and agreed by and among Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly "Applicant"), and the South Dakota Public Utilities Commission Staff ("Staff") (jointly "Party" or "Parties"), that the following Settlement Stipulation ("Stipulation") may be adopted by the South Dakota Public Utilities Commission ("Commission") in the above-captioned matter. In support of its Application to the Public Utilities Commission of the State of South Dakota for a Facility Permit ("Facility Permit"), Applicant does hereby offer this Stipulation, the Application filed August 23, 2013, as amended, and all responses submitted by the Applicant to the Staff's data requests, all responses to Gerald Pesall's discovery requests, and the testimony and exhibits filed on April 25, 2014, May 9, 2014 and May 23, 2014, conditioned upon the Commission accepting the following Stipulation and the Terms and Conditions without any material condition or modification.

I. INTRODUCTION

Applicant proposes to own and construct the Big Stone South to Ellendale 345 kV electric transmission facilities ("Project"). The Project includes new 345 kV electric transmission facilities of approximately 160 to 170 miles in length, which will connect the new Ellendale 345 kV Substation with the Big Stone South Substation. Approximately 150 to 160 miles of transmission facilities will be located in South Dakota. The Project also involves the building of a new 345 kV substation ("Ellendale 345 kV Substation") and substation tie line near Ellendale, North Dakota.

II. PURPOSE

This Stipulation has been prepared and executed by the Parties for the sole purpose of stating the Parties' agreement regarding the issuance of a Facility Permit in Docket No. EL13-028. In consideration of the mutual promises hereinafter set forth, the Parties agree as follows:

1. Upon execution of the Stipulation, the Parties shall file this Stipulation with the Commission together with a joint motion requesting that the Commission issue an order approving this Stipulation in its entirety without condition or modification.



2. This Stipulation includes all terms and conditions of settlement and is submitted with the condition that, in the event the Commission imposes any material changes or conditions to this Stipulation, which are unacceptable to any Party, this Stipulation may, at the option of any Party, be withdrawn and shall not constitute any part of the record in this proceeding or any other proceeding nor be used for any other purpose.
3. This Stipulation shall become binding upon execution by the Parties, provided however, that if this Stipulation does not become effective in accordance with Paragraph 2 above, it shall be null and void. This Stipulation is intended to relate only to the specific matter referred to herein; no Party waives any claim or right, which it may otherwise have, with respect to any matter not expressly provided for herein. No Party or a representative thereof shall directly or indirectly refer to this Stipulation as precedent in any other current or future proceeding before the Commission.
4. The Parties to this proceeding stipulate that all pre-filed exhibits and pre-filed testimony submitted by the Applicant will be made a part of the record in this proceeding.
5. The terms and conditions contained in this Stipulation shall inure to the benefit of and be binding upon the respective successors, affiliates, owners, stockholders, partners, parents, subsidiaries, directors, officers, agents, employees, representatives, attorneys, and assigns of the Parties. In addition, the terms and conditions of this Stipulation, including all facts leading up to the signing of this Stipulation, shall bind the Parties, including consultants, contractors, and retained professionals.
6. This Stipulation constitutes the entire agreement between the Parties and shall be deemed to supersede any other understandings or agreements, whether written, oral, expressed or implied, relating to the Application. This Stipulation may not be amended, modified, or supplemented, and waivers or consents to departures from the terms and conditions of this Stipulation may not be given without the written consent thereto executed by all Parties.
7. This Stipulation shall be interpreted and construed in accordance with the laws of the State of South Dakota.
8. This Stipulation may be executed by electronic mail or facsimile and in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document.
9. The Parties recognize that the Commission has granted intervention to Gerald Pesall, James R. McKane, III, Clark T. Olson, Shuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson (collectively "Intervenors"). The Intervenors are not parties to this Stipulation.
10. The Parties agree that subject to the four elements of proof under SDCL § 49-41B-22,

the Commission has the authority to grant, deny, or grant upon reasonable terms, conditions or modifications a permit for the construction, operation, and maintenance of the Project. The Parties further agree that the Applicant has met its burden of proof pursuant to SDCL § 49-41B-22 and is entitled to a permit to construct the Project as provided in SDCL § 49-41B-24, subject to the following:

III. TERMS AND CONDITIONS OF THE SETTLEMENT STIPULATION

1.

Applicant will obtain all applicable and necessary governmental permits, which reasonably may be required by any governmental authority with jurisdiction, prior to engaging in the particular activity covered by that permit.

2.

Applicant shall construct, operate, and maintain the Project in a manner consistent with: (1) descriptions in the Application, (2) Application supplements, (3) responses to data requests, (4) the Terms and Conditions of the Permit to Construct Facilities, and (5) any applicable industry standards.

3.

Applicant agrees that the Commission's complaint process as set forth in ARSD 20:10:01 shall be available to landowners, other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit.

4.

Applicant shall provide each landowner on whose property the Project is to be constructed or located with the following information:

- a) A copy of the Commission's Order Granting Permit to Construct Facilities;
- b) Detailed safety information describing:
 - 1) Reasonable safety precautions for activities on or near the Project,
 - 2) Known activities or uses that are prohibited near the Project, and
 - 3) Other known potential dangers or limitations near the Project;
- c) Construction/maintenance damage compensation policies and procedures;
- d) Commission's address, website, and phone number; and
- e) Contact person for Applicant, including name, e-mail address, and phone number.

Once the foregoing information has been provided to the landowner, Applicant shall have no

responsibility or duty to update such information except for changes to items b), c), and e) in this paragraph 4.

5.

In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL § 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of the Applicant involved in this Project be made aware of the terms and conditions of this Permit.

6.

Except as otherwise provided in the conditions of this Stipulation, the Applicant shall comply with all mitigation measures set forth in the Application, in Applicant's responses to Staff data requests, Applicant's responses to Intervenor's discovery, and in Applicant's prefiled testimony and exhibits. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.

7.

Applicant will negotiate road use agreements with applicable government authorities with jurisdiction, if required during construction. Applicant will follow the terms of all road use agreements. Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including but not limited to implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal from the road surface of any soils or mud deposits from the road surface when necessary.

8.

Applicant shall comply with the following conditions regarding road protection:

- a) Applicant shall acquire all applicable and necessary permits authorizing the crossing of federal, state, county, and township roads.
- b) Applicant shall coordinate road closures with federal, state and local governments and emergency responders.
- c) Applicant shall implement a regular program of road maintenance and repair throughout the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.
- d) After construction, Applicant shall repair and restore deteriorated roads to the conditions defined in the road use agreement, if applicable, resulting from Applicant's construction traffic, or compensate governmental entities for their repair and restoration of deteriorated roads caused by Applicant, such that the roads are returned to their preconstruction condition.
- e) Privately owned areas used as temporary roads during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.

- f) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to original width after completion of the Project, unless otherwise agreed upon.

9.

Applicant will coordinate with pipeline owners to ensure that the Project does not cause harm to existing pipeline facilities. Applicant will work with pipeline owners to implement any necessary and reasonable mitigation measures.

10.

Applicant will provide signage that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

11.

Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species or native grasslands in the siting area that Applicant becomes aware of and that was not previously reported to the Commission.

12.

Applicant agrees to avoid direct impacts to archaeological and architectural site features that are listed on or that are eligible for listing on the National Register of Historic Places (NRHP), and those that are not evaluated for listing on the NRHP. When NRHP-eligible or listed sites cannot be avoided, Applicant will notify the State Historic Preservation Office (SHPO) and the Commission of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or develop treatment measures.

13.

If, during construction, Applicant discovers what may be a cultural resource, human skeletal remains, or associated funerary objects, Applicant or its agent shall immediately cease work at the location and notify the landowner(s), the SHPO, and other authorities as appropriate (per SDCL § 34-27-25 and SDCL § 34-27-28 in the case of human burials). If it is determined, in coordination with SHPO, that a significant resource is present, Applicant shall develop a plan that is acceptable to the landowner and SHPO that minimizes the adverse impact or threat to the resource.

14.

Applicant shall follow a) all conditions required by any agency permits and b) all final agency recommendations agreed to by Applicants through consultation with those applicable agencies in Exhibit 1, Appendix C. Applicant shall reasonably update the Commission if any of the final agency recommendations agreed to by the Applicant as provided for in this paragraph (14) change from Exhibit 1, Appendix C.

15.

Applicant shall confer with the applicable agencies in the implementation of measures for the protection of avian species consistent with "Suggested Practices for Avian Protection on

Power Lines: The State of the Art in 2006" and "Reducing Avian Collisions with Power Lines: State of the Art in 2012" prepared by the Avian Power Line Interaction Committee.

16.

Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission prior to submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation as required by the NPDES permit. All contractors will be given a copy of the SWPPP and requirements will be reviewed with them prior to the start of construction.

17.

Applicant shall develop and implement a mitigation plan to minimize the spread of soybean cyst nematode, consistent with Exhibit 23, in consultation with a crop pest control expert.

18.

Applicant will repair and restore areas materially impacted by construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration will include replacement of original pre-construction or equivalent quality topsoil to its original elevation, contour, and compaction and reestablishment of original vegetation as close thereto as reasonably practical.

19.

Applicant's obligation with respect to restoration and maintenance of the right-of-way (ROW) shall continue throughout the life of the Project for disturbances caused by the actions of the Applicant. Where the soil is disturbed during construction or maintenance of the line, Applicant shall restore vegetation as appropriate in and along the ROW. For a period of thirty-six (36) months from the energization of the Project, if noxious weeds sprout in restored areas, Applicant will remove/eliminate them. Landowner permission shall be obtained before the initial application of herbicides.

20.

When necessitated by Applicant's actions, Applicant shall restore and clean-up the ROW continuously throughout the duration of the Project's construction as the timing of construction activities result in the need to do so.

21.

Applicant shall stage construction materials in a manner that minimizes adverse impact to landowners as agreed upon between Applicant and the landowners. All excess construction materials and debris shall be removed upon completion of the Project. In addition, any temporary guard poles shall be removed, unless agreed upon otherwise.

22.

Applicant shall, in a manner consistent with its easement agreement with a landowner, repair or replace all private property existing at the time of construction, which is removed or

damaged during all phases of construction, including, but not limited to the following: fences, gates, utility, water supply systems, irrigation, or drainage systems. Applicant shall compensate the landowners for damages or losses to property existing at the time of construction or maintenance that cannot be fully remedied by repair or replacement, including actual crop and livestock losses.

23.

If it becomes necessary to materially deviate from the described centerline to accommodate engineering and applicable safety and construction requirements based upon conditions encountered during construction, all landowners affected by the material deviation and the Commission must be notified in writing at least five working days before the material deviation is expected to occur. Unless otherwise notified by the Commission, the material deviation is deemed approved. For purposes of this paragraph, the term "material deviations" shall mean any action or activity outside the reasonable parameters of the Permit.

24.

Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities existing prior to the date of this Stipulation, unless agreed otherwise by the affected landowner. Applicant shall take appropriate precautions to protect livestock and crops during construction.

25.

The terms and conditions of the Permit shall be made a uniform condition of construction, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied to the property in question and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis which evaluation shall be completed within sixty (60) days unless exigent circumstances require action sooner.

26.

If the presence or operation of the Project causes unreasonable interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

27.

Applicant shall use appropriate preventative measures to prevent damage to paved roads and to remove excess soil or mud from such roadways. Before commencing construction, Applicant shall furnish an indemnity bond in the amount of \$300,000 to comply with the requirements of SDCL § 49-41B-38. Such bond shall be issued in favor of, and for the benefit of, such townships, counties, or other governmental entities whose property is crossed by the transmission facilities or used by associated construction equipment. The bond shall remain in effect until released by the Commission, which release shall not be unreasonably denied.

following completion of the construction and remediation period. Applicant shall give notice of the existence and amount of the bond to all governmental entities whose property is crossed or used by the Project.

28.

Applicant will provide Global Positioning System (GPS) coordinates of proposed structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.

29.

Not less than 30 days prior to commencement of construction work in the field, Applicant will provide to Staff the most current pre-construction design, layout and plans. Applicant also will provide such additional pre-construction information as Staff requests.

30.

Within 90 days of the Project's completion, Applicant shall submit a report to the Commission that provides the following information: 1) as-built location of structures and route, including drawings; 2) status of remedial activities for alleged road damage, alleged landowner property damage, alleged crop damage, alleged environmental damage, or any other alleged damage that resulted from construction activities; and 3) a summary of known landowner complaints and Applicant's responses.

31.

Prior to construction, Applicant will notify public safety agencies providing a schedule and location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, Sheriffs of Brown, Grant, and Day Counties, and Brown, Grant, and Day County Offices of Emergency Management.

32.

Applicant shall provide all landowners information regarding the potential induction of current/voltage on fences and metal objects and mitigation methods that can be applied to eliminate the induction. Applicant will respond to landowners concerns regarding induced current/voltage on fences or other structures within 100 feet of the edge of the right-of-way of the Project and will assist those landowners in determining methods and implementation of mitigation.

33. Applicant shall provide all landowners information regarding possible interference with unlicensed agricultural navigation communication transmitting or receiving equipment and mitigation methods that can be applied to minimize unreasonable interference. Applicant will respond to landowners concerns regarding unreasonable interference with unlicensed agricultural navigation communication transmitting or receiving equipment and will assist those landowners in determining methods and implementation of mitigation.

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SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: 6-9-14

Montana-Dakota Utilities Co.

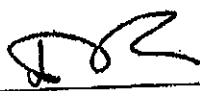
By: Garret Senger

Its: V.P. Regulatory + CAO

SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: _____

Otter Tail Power Company

By: 

Its: President

SETTLEMENT STIPULATION—DOCKET EL13-028

Dated: June 7, 2014

Karen E. Cremer

Karen E. Cremer
Staff Attorney
South Dakota Public Utilities Commission

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION EL13-028
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

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Transcript of Proceedings
June 10, 2014
Volume I, pages 1-144

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
Brian Rounds
Katlyn Gustafson

APPEARANCES

Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 are required under the Stipulation for approval of
2 material changes within the route.

3 Then just to give you very briefly the status as it
4 is today on options signed on this project, I can tell
5 you that as of the 3rd of June we have 224 options
6 signed. That equals roughly 60 percent of the total line
7 miles on this project. I know we've executed a few more
8 today. I don't have those reflected in here. But so we
9 continue to make progress on getting options signed on
10 the project.

11 Now in terms of the Soybean Cyst Nematode Mitigation
12 Plan, you know, I admitted right away that when this
13 issue was raised by Mr. Pesall's attorney this was not an
14 issue that the owners of this project or the Applicants
15 here were really aware of.

16 You know, we've built a lot of transmission line
17 throughout this area and throughout Minnesota,
18 North Dakota, Montana. This is an issue that at least
19 has not come up in any particular proceeding or it is not
20 something that we have faced before on a project.

21 So as a result, we had to do a little bit of
22 research right away into this issue. And through that
23 research -- and basically what we did was we consulted
24 with South Dakota State University and their extension
25 service. They're well-aware of this issue, and they were

1 able to give us, I think, some good education on this
2 issue as well as discuss with us what our mitigation plan
3 looks like and kind of give us a little bit of advice
4 there.

5 So as a result of those consultations, what we
6 really have determined here is that within the roughly
7 160, 165 miles of the route in South Dakota -- or
8 throughout the whole project, for that matter, we have
9 determined that what needs to be done is that we need to
10 test each individual cultivated field for the presence of
11 the soybean cyst nematode.

12 So we've committed, you know, within the Stipulation
13 that we will follow this mitigation plan. We will test
14 essentially every cultivated field on this project.
15 Based on the results of that testing, we're going to know
16 something more about kind of the density of this problem
17 within our route. In other words, we'll know if this
18 issue is confined to certain areas on the route, whether
19 it's every other field kind of a situation or whether
20 it's, you know, 10, 15 miles that is clean fields,
21 followed by 10, 15 miles of dirty fields.

22 The reason I say that is because in our
23 investigation we determined there are several ways to
24 mitigate the transference of the nematode from one field
25 to the other. And depending on the density of this issue

1 along the route, that is going to determine what is the
2 best method of mitigation or the best method that we will
3 apply to prevent this spread to the best of our ability
4 from a dirty field to a clean field.

5 There are several methods we're looking at that
6 we've found that other companies have used in other parts
7 of the country where this has been an issue in the past.
8 There are things like cleaning stations that you set up
9 at the edge of a so-called dirty field where you will
10 clean the equipment before they leave that field.
11 Therefore, they'll be clean and ready to go into a
12 noninfected or noncontaminated field and not transfer the
13 nematode.

14 There is also the option of what we call clean
15 crew/dirty crew. What that means is, there again,
16 depending on the density and the distribution of these
17 fields, you could actually set up a crew that only works
18 within the clean fields. They don't ever go into a dirty
19 field and vice versa. You set up a dirty crew that their
20 purpose is to only work within the fields that are
21 contaminated and not cross into a field that is not
22 contaminated.

23 Those are a couple of the real, I think, successful
24 methods that have been used on other projects. There's
25 other possibilities such as matting where you're

1 technically not driving in the field; you're driving on
2 wood matting. And that could be used in certain areas
3 maybe where the field conditions are wet enough that we
4 would have a greater concern of spreading contaminated
5 soils.

6 And, you know, I think there are some other things
7 out there that we've read about in terms of, you know,
8 potential lesser risk in, say, winter months when the
9 ground is frozen, things like that.

10 So our mitigation plan has laid out this process
11 where we do the testing followed by an analysis of those
12 results to determine the best methods of mitigation to
13 use. And those methods could actually vary from one area
14 of the line to another, all dependent on, you know,
15 cost-effectiveness, project efficiencies, and just what
16 is the best method to use in that area.

17 So that's how we intend to proceed in mitigating the
18 nematode issue. That is Exhibit 23 also, and so we can
19 read that. And it's also included in paragraph 17 of the
20 Settlement Stipulation.

21 So with that in mind, I guess, in conclusion I just
22 want to say that based on what we believe our Application
23 has done, what other filed testimony that we have filed
24 in this case, and the conditions in the Settlement
25 statement -- or the Settlement Stipulation itself, we the

1 Council was one that we had contacted. We did -- in
2 Appendix C of the Application, we did make contact with
3 the State -- if you just give me a second here, I think I
4 can find it. To the South Dakota Department of
5 Agriculture and South Dakota Department of Environment
6 and Natural Resources, those two agencies, which I assume
7 maybe would know something about it. At least the
8 Department of Agriculture. Also the U.S. Department of
9 Agriculture was contacted.

10 CHAIRMAN HANSON: My recollection, the Soybean
11 Council was the first to have a publication on it,
12 though, in South Dakota. It was quite a few years ago,
13 and they were talking about it in the southeast part of
14 the country.

15 Would you please contact them and have
16 discussions with the Soybean Council as well?

17 THE WITNESS: (Nods head.)

18 CHAIRMAN HANSON: You spoke of cleaning
19 stations, clean and dirty crews, potential matting.
20 Counsel Pesall got into some specifics in that arena, a
21 number of areas that I'm concerned with. It doesn't --
22 the Exhibit 23 states that it may include some of the
23 cleaning stations, clean and dirty crews, things of that
24 nature.

25 Again, in this particular instance do you have

1 any specific criteria?

2 The verbiage just did not leave me with a great
3 deal of confidence. In fact, again, it states that it
4 may include, that you may include some of these items.

5 THE WITNESS: Yeah. I think as I stated in my
6 testimony, what we feel is critical here in determining
7 the type of mitigation is really the prevalence of the
8 nematode along the route.

9 So if worst-case scenario let's say 100 percent
10 of the route is contaminated, then obviously there really
11 isn't mitigation that would be required.

12 But if we have long stretches of contamination
13 and long stretches of noncontaminated fields, then the
14 clean crew/dirty crew option may actually be the best
15 option to use.

16 The cleaning stations I think would be used more
17 in the situation where we have, what do you want to say,
18 oscillation between clean and dirty fields along the
19 route so that it is potentially impractical to use clean
20 and dirty crews.

21 So I guess the purpose of that language in the
22 plan is that we may as a result of determining the
23 density of the problem eliminate some of those mitigation
24 options. I mean, maybe we end up going to nothing but
25 cleaning stations, let's say, as an example.

1 So I think we wanted to keep all of these
2 options on the table until we can really analyze, you
3 know, the significance of the problem along the route and
4 best determine, you know, how to mitigate.

5 CHAIRMAN HANSON: Just a comment. It would seem
6 that if you do find a nematode cyst, that you would only
7 use dirty crews in those areas and that you would use
8 clean crews in all of the other areas so that there would
9 be no cross-contamination.

10 I have a few other questions, but I will
11 acquiescent to my fellow Commissioners at this juncture.

12 Commissioner Nelson, did you have questions?

13 COMMISSIONER NELSON: Just a couple, Mr. Ford.

14 In your initial comments today you mentioned
15 that of the route alternatives that you were looking at
16 there was only one that ended up being rejected. Is that
17 the Podoll area?

18 THE WITNESS: Yes, it is.

19 COMMISSIONER NELSON: And referencing your
20 June 5 and 6 letter to Mr. and Mrs. Lyle Podoll, you
21 indicated that one of the reasons that you couldn't go
22 with their alternative was that it would place them at
23 odds with landowners on the proposed southern route
24 change.

25 My recollection of Mr. Podoll's commentary at

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

=====

IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

EL13-028

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Transcript of Proceedings
June 11, 2014
Volume II, pages 145-385

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
Brian Rounds
Katlyn Gustafson

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Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 Sections 4, 19.1, and 20 of the Application, as well as
2 Responses to Staff's First Data Requests, paragraphs 5
3 and 8. Section 4 talks about the benefit of the project
4 through property taxes specifically.

5 Sections 19.1 provides a summary of the
6 socioeconomic conditions of the project and is very
7 typical of what you would see in the Application and is
8 very consistent with applications I've done in the
9 past.

10 Section 20 is employment estimates for the project.
11 And paragraph 5 in the First Data Request Response has
12 additional property and sales tax information details.
13 And paragraph 8 has additional information on employment
14 estimates and impacts to local economy.

15 In regard to soilborne pests, after conversations
16 with over 500 landowners who attended our project open
17 houses, many of those which were farmers and the
18 consultation we requested with NRCS and Department of
19 Agriculture, we were not aware of any issues of soilborne
20 pests.

21 We've addressed the evidence and have responded to
22 the soybean cyst nematode issue as provided by
23 Dr. Tylka's testimony and haven't provided evidence on
24 the soilborne pests as we are not aware of the prevalence
25 of those specific issues raised.

1 I was hired to work almost exclusively on that, and that
2 was my graduate training as well.

3 Q. Can you give the Commission a short explanation of
4 what the soybean cyst nematode is?

5 A. Sure. So generally I start off this explanation by
6 describing nematodes in general. These are microscopic
7 worms that live in water and soil, very common. And most
8 of them are good. They're beneficial.

9 But there are a subset of them that feed on plants.
10 And many of these plant feeding nematodes or plant
11 parasitic nematodes are native to the United States, and
12 they're commonly found in agricultural soils throughout
13 the United States.

14 But there also are a few that are introduced pests.
15 And soybean cyst nematode, which I'll probably refer to
16 as SCN from this point on, is one of those introduced
17 pests.

18 And introduced pests create unique problems in that
19 when they are introduced into a field first off they have
20 no natural enemies because they've never existed there
21 before. So many of the native plant parasitic nematodes
22 are not terribly damaging because there are other things
23 that live in the soil that eat nematodes for lunch, for
24 example.

25 But when you're a new introduced pest you have the

1 benefit of many years for not having any natural enemies.
2 And so that's one of the things that makes soybean cyst
3 nematode or SCN so difficult and so dangerous.

4 It also has aspects of its biology that make it very
5 unique and very damaging. Most nematodes are individual
6 worms that feed from the outside of the root and produce
7 five or 10 offspring. But soybean cyst nematode burrows
8 into the root. It attaches to the vascular tissue, which
9 is in the center of the root, and then the female swells
10 up to form what we refer to as a swollen female. And the
11 reason she swells up is because ovaries develop inside of
12 her that are very large.

13 Eventually the adult swollen female is about the
14 size of a printed period at the end of a sentence. So in
15 a book page or a newspaper. And that swollen female
16 fills up with eggs, 200 to 300 eggs. So a unique aspect
17 of the nematode's biology is that it has a very high
18 reproductive potential.

19 Now the whole life cycle of SCN can be completed in
20 four weeks. So when you think about how many weeks a
21 soybean crop is grown in your state or mine that allows
22 for three or four or five turns of the life cycle,
23 generations. And so that adds to the potential for
24 explosive increases in numbers.

25 And then if mother nature didn't give us enough of a

1 bad hand, that final aspect that makes it terribly
2 difficult to manage is the eggs inside the females. When
3 she dies those eggs can live 10 or more years without a
4 soybean crop being grown. Those eggs go dormant in the
5 soil.

6 So it's a very troublesome pest because of being an
7 introduced pest, having a high number of offspring per
8 individual, a short life cycle, and then very long lived
9 in the soil.

10 Management of soybean cyst nematode consists of
11 checking your fields to know if you have it or not, and
12 then once you've discovered you've got it, you're looking
13 at growing resistant soybean varieties or not growing a
14 host crop like soybeans or using a seed treatment, which
15 is a new management strategy that's just been brought on
16 to the market a couple of years ago.

17 So really check your fields, switch to a resistant
18 soybean variety, don't grow something that's a host crop,
19 or a seed treatment.

20 I want to just touch on the resistant soybean
21 varieties for a second because I don't want to give you
22 the impression that that's a cure. So resistant soybean
23 varieties suppress the reproduction of the nematode, but
24 it doesn't stop reproduction. And also it still suffers
25 some damage.

1 And then as you use the resistance over time, the
2 nematode can become resistant to resistance. So in Iowa
3 where we grow 11 million acres of soybeans, soybean cyst
4 nematode is in 75 percent of the field. It's not a death
5 sentence, but it's a significant economic hit to the
6 soybean production in any field that has it because of
7 these things.

8 And the seed treatment, which is the newest
9 management strategy, in my mind at least the verdict is
10 still out on whether or not they provide any additional
11 benefit or not.

12 Because of everything I've just said, I consider the
13 states of North Dakota, South Dakota, and parts of
14 Minnesota as being in a really unique situation in that
15 there are large tracts of land growing soybeans that
16 don't have soybean cyst nematode yet. And so that's a
17 unique opportunity in terms of management. In many
18 respects the best way to manage soybean cyst nematode is
19 to delay its arrival into a particular field.

20 So I find myself sitting here listening to
21 proceedings thinking of my career in the early '90s in
22 Iowa when soybean cyst nematode wasn't very widespread,
23 and we really beat the drum and talked about managing the
24 movement of soil to slow the spread of the nematode.
25 Once the nematode is present then we've covered already

1 what your management options are.

2 And as far as spread goes, as in my prefiled
3 testimony, anything that moves soil has the ability to
4 move soybean cyst nematode. I just want to bring you
5 back to a mental imagine of a female the size of a period
6 at the end of a sentence. And that little object has 200
7 to 300 offspring inside of her.

8 And so the smallest little particle that's able to
9 hold a period at the end of the sentence, that's the
10 amount of soil that could be moved to move the nematode.

11 Finally, one just short comment. I've heard
12 comments yesterday and today about farmers not mentioning
13 this in discussions and so forth. That doesn't surprise
14 me at all. Soybean cyst nematode has been in Iowa since
15 1978. And I arrived in 1990 and have devoted my career
16 to research and grower education on soybean cyst
17 nematode, and to this day I run into Iowa farmers who
18 were unaware of soybean cyst nematode.

19 So just because the farmer -- don't be alarmed or
20 don't let that throw you a curve ball. Soybean cyst
21 nematode is still somewhat unrecognized even in it the
22 State of Iowa among some farmers.

23 And that concludes the summary of my prefiled
24 testimony.

25 Q. Mr. Tylka, I have just a couple more questions for

1 MR. SUTTON: Sure. It's relevant because the
2 basis for his assumptions are that when you dig into
3 the ground and go from field to field it spreads. My
4 point is there are many other mechanisms out there that
5 have been occurring and will occur, and we have not
6 developed the spread that he's indicating. That's the
7 relevance.

8 MR. SMITH: Do you want to repeat the question
9 and --

10 MR. SUTTON: Would you like me to reask it?
11 Would that be easier?

12 MR. SMITH: Sure.

13 Q. Dr. Tylka, can you tell me how many miles of drain
14 tile have been installed in South Dakota since 1995 when
15 SCN became present?

16 MR. SMITH: I'm going to overrule the objection.
17 If he knows, he can answer. If he doesn't, he can
18 answer.

19 A. I do not know.

20 Q. Now the spread of SCN is caused by the spread of
21 soil particles; is that correct?

22 A. Beyond an inch, yes. It can only spread on its own
23 power about an inch.

24 Q. And soil is moved by farm equipment?

25 A. That is correct.

1 Q. And it can be moved by wind erosion?

2 A. Yes.

3 Q. Also by water erosion?

4 A. I agree.

5 Q. Will you look at paragraph -- or your prefiled
6 direct testimony.

7 MR. SUTTON: Does he have that?

8 Q. Looking at paragraph 12 of Exhibit 101, that's the
9 direct prefiled testimony that you provided is
10 Exhibit 101, correct, Dr. Tylka?

11 A. The document I'm looking at has it as Exhibit 102.

12 Q. Oh, you're right. You're right. Correct. Thank
13 you. Looking at paragraph 12 on page 3, you opine that
14 construction equipment used in the project like the
15 proposed BSSE line can cause SCN to spread farther or
16 more rapidly than ordinary farming practices.

17 Is that your opinion?

18 A. Yeah. Opinion, yes.

19 Q. And then you go on and page 3 and on to page 4 to
20 talk about the basis for that opinion; is that right?

21 A. Yes.

22 Q. And when we look at paragraph 12 in the first
23 paragraph underneath the actual number 12, you answer the
24 opinion yes. And then you say "Soil disturbed by
25 construction equipment would likely result in greater

1 spread of the nematode than soil disturbed by other
2 common occurrences by making the soil more friable,
3 easily crumbled and prone to erosion, compared to soil
4 that is left undisturbed or disturbed just minimally."

5 That's your opinion; correct?

6 A. Yeah.

7 Q. What do you mean by undisturbed?

8 A. Well, undisturbed would be a situation like no-till
9 farming or just not -- nothing dug into the soil.

10 Q. So, for instance, disturbing the soil through till
11 farming practices would disturb and similarly make the
12 soil friable, would it not?

13 A. I wouldn't say similarly is correct.

14 Q. It would make the soil friable; correct?

15 A. Yes.

16 Q. And it would disturb the soil?

17 A. Yes.

18 Q. You're not aware of any academic studies that have
19 been performed indicating construction practices result
20 in the spread of SCN; correct?

21 A. No. I believe I stated that in the prefiled
22 testimony.

23 Q. No is a little ambiguous to the record there. So
24 the answer to my question is correct; correct?

25 A. Correct.

1 among the farmers I have had personal experience with.
2 And I guess I can say that relates back to my opening
3 comments about the awareness of the nematode, and that's
4 what I meant by diligent.

5 Q. Now in your opening comments you also described some
6 mitigation techniques that farmers can employ if they get
7 SCN in their fields; is that right?

8 A. That's correct.

9 Q. And one of those is to grow nonhost crops such as
10 corn?

11 A. That is correct.

12 Q. And another option would be to include nonhost crops
13 like corn as part of a crop rotation; correct?

14 A. Yes.

15 Q. And, in fact, you recommend that to producers who
16 have SCN?

17 A. That's correct.

18 Q. That's part of the techniques used to minimize the
19 effect?

20 A. Correct.

21 Q. Another option would be to plant SCN resistant
22 variety seed; correct?

23 A. Correct.

24 Q. And as part of your work you have completed academic
25 research about the success in using SCN resistant seeds;

1 absence of the nematode.

2 That has become less of an issue over the past
3 20 years, but there still are some SCN resistant soybean
4 varieties that do not have top yield potential. So
5 that's my reason for my answer being it depends on the
6 variety that's chosen.

7 Q. Because of our growing season, as we move further
8 north into areas that have had less pressure from SCN,
9 would the varieties probably have more research done in
10 that area at this point?

11 A. The answer is yes. And there are much fewer
12 varieties available with SCN resistance in the maturity
13 groups grown in South Dakota relative to Iowa. Even
14 right now.

15 MR. SCHURING: Thank you.

16 MR. SMITH: Mr. Morehouse, any questions?

17 MR. MOREHOUSE: Nothing. Thank you.

18 MR. SMITH: Staff, any questions?

19 MS. CREMER: Thank you.

20 CROSS-EXAMINATION

21 BY MS. CREMER:

22 Q. Is there any way to determine how SCN is introduced
23 into a clean field?

24 A. I've never been asked that question in 28 years.

25 Q. Yay for me.

1 COMMISSIONER FIEGEN: Congratulations.

2 A. I don't think so. They all look the same and are
3 genetic the same. I don't think so.

4 Q. And is there any way to determine when SCN was
5 introduced into a clean field?

6 A. Not specifically. Although you could deduce some
7 timing information based on the numbers that are
8 detected. It doesn't show up in full blown force in
9 terms of numbers. It starts out slowly and builds up.

10 Q. And then looking at your Exhibit 105, it's a map.

11 A. Yes.

12 Q. You have that? So if I understood your testimony
13 correctly, where it shows there is SCN, there definitely
14 is in the dark portions of the map?

15 A. It should be red if it were printed in color.

16 Q. Yeah. I printed mine black and white, but okay. If
17 I understood you correctly, those areas that show up
18 white, those may also have SCN and you just haven't found
19 it yet?

20 A. That's correct.

21 MS. CREMER: Okay. Thank you.

22 THE WITNESS: That's a correct statement.

23 MR. SMITH: Is that all the questions you have?

24 MS. CREMER: That's all I have. Thank you.

25 MR. SMITH: We'll turn then to Commissioner

1 and research in fields, or does everything come in to
2 you?

3 THE WITNESS: No. Most of my field research is
4 done on farmers' fields.

5 COMMISSIONER FIEGEN: Okay. So what precautions
6 do you take and your assistants -- I'm sure you have some
7 grad assistants with you.

8 What type of precautions do you take on
9 vehicles, clothing, work boots, all of that?

10 THE WITNESS: Just knock off as much dirt as
11 possible, as much soil as possible. Soil probes is
12 probably another thing that would accumulate soil. We
13 just make sure we're not taking large clods of soil. But
14 we don't steam wash or power wash. We just -- we work in
15 fields with SCN. So we -- yeah.

16 COMMISSIONER FIEGEN: It is really tricky
17 because when an egg of 200 eggs -- that swollen female.

18 THE WITNESS: Female.

19 COMMISSIONER FIEGEN: And it's a point of a
20 period, it is in your boots. Because when I wear work
21 boots they have grooves.

22 THE WITNESS: Absolutely.

23 COMMISSIONER FIEGEN: I can knock off as much
24 soil as I can, but it's still there.

25 THE WITNESS: Yes.

1 COMMISSIONER FIEGEN: So the precautions of the
2 research people are pretty much not going through the
3 washing but mostly knocking off the excess.

4 THE WITNESS: Yeah. And let's be specific. You
5 asked about my particular research group. There may be
6 other research groups in other states where they do use
7 plastic booties on their feet and they do more thorough
8 precautions than I do.

9 COMMISSIONER FIEGEN: Sure. Thank you.

10 THE WITNESS: Yes.

11 COMMISSIONER FIEGEN: Are you aware --
12 especially when I see commercial sprayers out there
13 across the State of South Dakota, but I'm sure across
14 Iowa you have those big commercial sprayers. Are you
15 aware of any mechanisms they take to prevent the spread
16 of diseases?

17 Because, of course, they travel on roads. Roads
18 have mud. So they're picking up things while they're
19 traveling to the farmers, let alone from farm to farm to
20 elevator, all of that.

21 THE WITNESS: Yeah. The answer is no. And
22 forgive me if I'm over answering, but since you're
23 curious about that, the way I pitch managing the movement
24 of soil in Iowa is first in the context that
25 three-fourths of the fields have it. And that percentage

1 maybe some of those nematodes could get baked near the
2 soil surface, and maybe the numbers would be lower than
3 if you had collected to a depth of 8 inches.

4 CHAIRMAN HANSON: Okay. Because there was some
5 discussion it sounded like there needed to be some
6 excavation of some sort in order for it to be
7 transported. But it sounds like -- that seemed to
8 conflict a little bit with one of your other answers when
9 you said -- I believe it might have been Mr. Sutton's
10 question, could it be transported by the wind, and you
11 answered yes.

12 THE WITNESS: Yep.

13 CHAIRMAN HANSON: It could.

14 THE WITNESS: So my answer to your question, to
15 double back on your question, is it's present there at
16 the surface.

17 From a research standpoint where I'm measuring
18 numbers I would worry about only including that upper
19 inch because the numbers might be a little lower. But
20 it's present, and it's available to be wind blown, water
21 washed, all the things that we covered that move soil.

22 CHAIRMAN HANSON: So hunters going from one
23 field to the next, deer running from one field to the
24 next, any animals, badgers, skunks, whatever, rabbits --
25 what about water fowl and birds? They could transport it

1 as well?

2 THE WITNESS: There's actually a paper where
3 somebody has picked through bird droppings and found dead
4 SCN females with live eggs.

5 CHAIRMAN HANSON: It sounds like it's impossible
6 to stop this. This is terrible.

7 THE WITNESS: I mean, it is, but there are
8 certain parts of the country that are in a unique
9 situation. I would never say you can stop it or prevent
10 it, but there's things that could be done to slow it.

11 CHAIRMAN HANSON: And it develops immunity to
12 herbicides and --

13 THE WITNESS: Well, to resistant -- I was using
14 the herbicides as an analogy. But it can develop
15 resistance to the resistant varieties.

16 CHAIRMAN HANSON: What are some other host crops
17 besides soybeans that are grown in South Dakota?

18 THE WITNESS: What are the crops that are grown
19 in South Dakota?

20 CHAIRMAN HANSON: Sorghum, corn.

21 THE WITNESS: Wheat are not hosts.

22 CHAIRMAN HANSON: Wheat. What other --

23 THE WITNESS: So hosts are more into play when
24 you get into North Dakota and Minnesota and you talk
25 about edible beans. There's all kinds of different types

1 Q. What do you mean "not as much"?

2 A. Well, I made the comment here a little bit at the
3 end here I said this project will take more from
4 agriculture and the state of South Dakota than it will
5 return.

6 Q. Well, as I understand it -- and we will get the
7 exhibits in front of you that are your land. They're
8 Exhibits 21A and 21B and 21C.

9 Do you have those exhibits before you?

10 A. Yes, I do. B.

11 Q. 21A, 21B, and 21C.

12 A. Yes. I have A in front of me.

13 Q. Is 21A a true and accurate representation of the
14 land in which the project seeks to put its structures?

15 A. I believe so.

16 Q. The project proposes to put two structures on your
17 property, and those numbers are 457 and 458. Is that
18 your understanding?

19 A. According to this map, yes.

20 Q. And is that your field that's depicted in
21 Exhibit 21A?

22 A. Yes, it is.

23 Q. Do you do till or no-till in that?

24 A. Depends on the year and the conditions of the soil.

25 Q. Do you do both then?

State of South Dakota

EIGHTY-FOURTH SESSION
LEGISLATIVE ASSEMBLY, 2009

400Q0194

SENATE BILL NO. 62

Introduced by: The Committee on Commerce at the request of the Public Utilities Commission

1 FOR AN ACT ENTITLED, An Act to repeal certain provisions regarding the delegation of
2 powers by the Public Utilities Commission.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

4 Section 1. That § 49-1-17 be repealed.

5 ~~—49-1-17. It is a Class 2 misdemeanor for the Public Utilities Commission to delegate any of~~
6 ~~the powers conferred upon it, or the performance of the duties imposed upon it by law, to any~~
7 ~~other person except in cases where express authority has been given by statute.~~



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

IN THE MATTER OF THE APPLICATION OF	)	NOTICE OF APPLICATION;
MONTANA-DAKOTA UTILITIES CO. AND	)	ORDER FOR AND NOTICE OF
OTTER TAIL POWER COMPANY FOR A	)	PUBLIC INPUT HEARING;
PERMIT TO CONSTRUCT THE BIG STONE	)	NOTICE OF OPPORTUNITY TO
SOUTH TO ELLENDALE 345 KV	)	APPLY FOR PARTY STATUS
TRANSMISSION LINE)	
	)	EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345 kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

On August 26, 2013, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status (Order). On August 29, 2013, the Commission electronically transmitted notice of the Application and the intervention deadline of October 22, 2013, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On September 13, 2013, the Order was served on the governing bodies of all counties and municipalities in the project area, and notices of the public hearings were published in project area newspapers as provided in SDCL 49-41B-5.2 and 49-41B-15. On September 13, 2013, the Commission issued an Order Assessing Filing Fee assessing a filing fee not to exceed the statutory maximum of \$360,000 with a minimum fee of the statutory \$8,000 minimum. The public hearings were held as scheduled on October 17, 2013, in Aberdeen and Milbank. On October 18, 2013, Gerald Pesall filed an Application for Party Status. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 13, 2014, the Commission issued a Procedural Scheduling Order setting the matter for formal evidentiary hearing on June 10-12, 2014, in Room 413 of the State Capitol Building in Pierre beginning at 1:00 p.m. CDT with days two and three beginning at 8:00 a.m. CDT. On January 27, 2014, Applicants filed a First Amendment to Application (Amendment).

Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants will be required to serve notice on such landowners and the Commission deems it proper to hold an additional public input hearing. Pursuant to SDCL 49-41B-15 and 49-41B-16, **the Commission will hold an additional public input hearing on the Application on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.**

The purpose of this public input hearing will be to hear public comment regarding the transmission line permit Application, the Amendment, and the Project. At the hearing, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants, Gerald Pesall, and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status may be obtained from the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before April 16, 2014.

Following the public input hearing, the Commission will hold a formal evidentiary hearing as set forth above conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate.

It is therefore

ORDERED, that the Commission will hold an additional public input hearing on the Project on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 17th day of March, 2014.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Joy Lashley</u>
Date:	<u>03.17.14</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

APPENDIX
To Appellee South Dakota Public Utilities Commission’s Brief
Gerald Pesall, Appellant v. Montana Dakota Utilities et al.
#27324

1. Order Granting Intervention and Party Status dated Nov. 6, 2013	1
2. Transcript of Oral Argument Hearing Administrative Appeal (December 23, 2014, Circuit Court Hearing)	2
3. Exhibit 1: Application to the Public Utilities Commission of the State of South Dakota (relevant sections)	4
4. Administrative Record - Alphabetical Index of CIV 14-53	8
5. Affidavit of Service - (001040-001041)	18
6. Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status dated August 26, 2013 (001042-001043)	20
7. Application for Party Status – Gerald Pesall (001477)	22
8. Exhibit 21A - Pesall Property Photograph - Looking North	23
9. Exhibit 21B - Pesall Property Photograph - Looking South	24
10. Exhibit 21C - Pesall Aerial Map	25
11. Order Granting Intervention and Party Status (003525)	26
12. Exhibit 2 - Responses to First Set of Staff Data Requests	27
13. Exhibit 3 - Responses to Second Set of Staff Data Requests	36
14. Exhibit 4 - Answers to First Set of Pesall Discovery	60
15. Exhibit 5 - Answers to Second Set of Pesall Discovery	82
16. Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014	93
17. Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	96
18. Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention	99

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19. Exhibit 301 - Settlement Stipulation	117
20. Transcript of Proceedings before the Commission, Volume I (June 10, 2014 evidentiary hearing, relevant sections)	112
21. Transcript of Proceedings before the Commission, Volume II (June 11, 2014 evidentiary hearing, relevant sections)	120
22. Senate Bill 62	138
23. Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status dated March 17, 2014	139

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND OTTER)
TAIL POWER COMPANY FOR A PERMIT TO)
CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345 kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design.

On August 26, 2013, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status (Order). On August 29, 2013, the Commission electronically transmitted notice of the Application and the intervention deadline of October 22, 2013, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On September 13, 2013, the Order was served on the governing bodies of all counties and municipalities in the project area, and notices of the public hearings were published in project area newspapers as provided in SDCL 49-41B-5.2 and 49-41B-15. The public hearings were held as scheduled on October 17, 2013, in Aberdeen and Milbank. On October 18, 2013, Gerald Pesall filed an Application for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on November 5, 2013, the Commission considered Mr. Pesall's Application for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to Mr. Pesall. It is therefore

ORDERED, that Gerald Pesall's Application for Party Status and intervention is granted.

Dated at Pierre, South Dakota, this 6th day of November, 2013

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.	
By:	<u>Joy Lashley</u>
Date:	<u>11-6-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

1	STATE OF SOUTH DAKOTA)	IN CIRCUIT COURT
	) SS	
2	COUNTY OF DAY)	FIFTH JUDICIAL CIRCUIT
	* * * * *	* * * * *
3)
4	GERALD PESALL,	) CIV. 14-53
)
5	Appellant,)
		) ORAL ARGUMENT HEARING
6	VS.	) ADMINISTRATIVE APPEAL
)
7	MONTANA DAKOTA UTILITIES, OTTER)
	TAIL POWER, SCHURING FARMS, INC.,)
8	BRADLEY MOREHOUSE, AND THE)
	SOUTH DAKOTA PUBLIC UTILITIES)
9	COMMISSION,)
)
10	APPELLEES.)
	* * * * *	* * * * *
11	<u>DATE & TIME:</u>	December 23, 2014
12		2:00 p.m.
13	<u>BEFORE:</u>	THE HONORABLE SCOTT P. MYREN
14		CIRCUIT COURT JUDGE
15		Brown County Courthouse
		Aberdeen, South Dakota 57401
16	<u>LOCATION:</u>	Brown County Circuit Courtroom
17		Brown County Courthouse
18		Aberdeen, South Dakota 57401
19		
20		
21		
22		
23		
24		
25		

1 Mr. Smith, can you hear me?

2 MR. SMITH: I can, Your Honor.

3 THE COURT: And did you want to make other
4 identifications on the record?

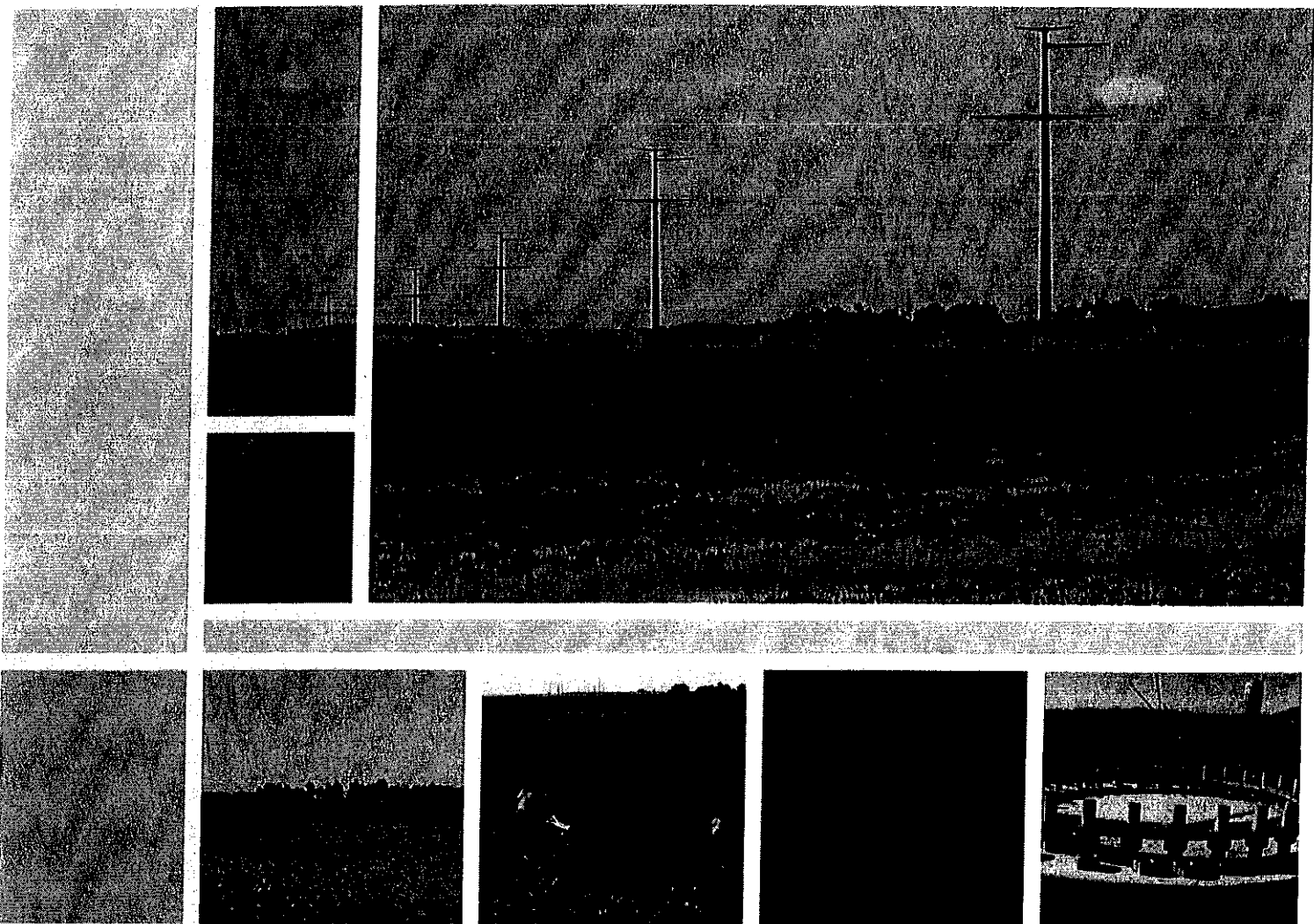
5 MR. SMITH: Well, I'm John Smith, commission counsel for
6 the South Dakota Public Utilities Commission representing
7 the South Dakota Public Utilities Commission this docket.
8 With me in the room today, and we're on speaker phone, is
9 Commissioner Chris Nelson. And that's it.

10 THE COURT: Thank you. And I'll just make sure on the
11 telephone line, was there any other party or any other
12 person that wished to appear before the Court on this
13 matter? If so, just speak up.

14 There are no other appearances being noted on the
15 record.

16 And there is a voluminous record here. I've had the
17 opportunity to review the entire record. And paying
18 particular attention, of course, to the evidentiary hearing
19 and the exhibits that were presented there. And I've also
20 received various briefings from all the parties, which I've
21 had a chance to review.

22 So with the understanding that I've been through all of
23 that material, I will let each of the counsel make their
24 argument. And then as I, I think I explained earlier, I
25 will go back around one additional time for each of the



*Application to the Public Utilities Commission of the
State of South Dakota for a Facility Permit*

**MONTANA-DAKOTA UTILITIES CO. &
OTTER TAIL POWER COMPANY**

Big Stone South to Ellendale Project

AUGUST 14, 2013



BSS+E
Big Stone South to Ellendale

8.0 Alternative Sites (ARSD 20:10:22:12)

8.1 Route Identification and Selection Process

The South Dakota Facility route selection process centered on a multi-faceted approach in which the Applicants considered state and federal requirements, public comments received at public meetings, and extensive analysis of available environmental data. The route development process was primarily driven by extensive public participation and agency coordination programs in both South Dakota and North Dakota. Table 5 provides a general overview of the public involvement efforts undertaken by the Applicants for the Project. Additional information on the public involvement activities conducted for the Project, including materials used during open house meetings, are available on the Project website at www.bssetransmissionline.com. The South Dakota Facility defined in this Application is shown in detail in Exhibit 2.

Table 5. Summary of Public, Agency, and Tribal Involvement Activities

Year	Month	Action
2012	July	<ul style="list-style-type: none"> Project notification letter mailed to North Dakota and South Dakota state and federal agencies
	August	<ul style="list-style-type: none"> Project notification letter mailed to county, state, and local representatives, and non-government organizations in North Dakota and South Dakota Held meetings with North Dakota and South Dakota county zoning and planning representatives (Spink, Clark, Grant, Day, Hamlin, Codington, Brown, Deuel, Marshall, Roberts, Richland, Dickey, and Sargent counties) Held two interagency meetings with state and federal agencies for North Dakota and South Dakota
	September	<ul style="list-style-type: none"> Project website and toll-free Project information line made available to the public (www.bssetransmissionline.com and 888-283-4678) Corridor notification letter for open house meetings mailed to the public, county, state, and city representatives, and non-government organizations in North Dakota, South Dakota, and Minnesota Corridor notification letter for open house meetings mailed to township representatives in North Dakota, South Dakota, and Minnesota

Year	Month	Action
2012	October	<ul style="list-style-type: none"> Meeting with Sisseton Wahpeton Oyate and Standing Rock Sioux Tribal Historic Preservation Offices (THPOs) for Project introduction and study area discussion Corridor notification postcard for open house meetings mailed to landowners within the study corridors Paid advertisements and press releases sent to North Dakota, South Dakota, and Minnesota publications to notify the communities of the study corridor open house meetings Corridor public open house meetings (October 15-18, 2012): <ul style="list-style-type: none"> Wheaton, Minnesota Milbank, South Dakota Webster, South Dakota Aberdeen, South Dakota Ellendale, North Dakota Britton, South Dakota
	November	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter (Issue 1) was posted to the website and hard copies were mailed to stakeholders in the Project open house meeting attendees and those who had commented or signed up for the mailing list
	December	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter from November sent electronically to contact persons above who provided email addresses
2013	January	<ul style="list-style-type: none"> Conducted interagency meetings for North Dakota and South Dakota state and federal agencies. Follow-up letter sent to agencies which included the meeting minutes and letter from the Applicants Hosted an online webinar and conference call with county representatives in North Dakota and South Dakota including Day, Brown, Grant, Dickey, and Marshall counties to describe the routing process and gather input on preliminary routes followed up with meeting minutes and a message from the Applicants
	February	<ul style="list-style-type: none"> Meeting with South Dakota State Historic Preservation Office (SDSHPO) to discuss expected cultural resource identification efforts and tribal involvement Paid advertisements and press releases sent to North Dakota and South Dakota publications to notify the communities of the routing open house meetings Notification letter for routing open house meetings sent to stakeholders including state, federal, and local agencies, elected officials, and non-governmental organizations (NGOs) Notification postcards for routing open house meetings sent to landowners within the preliminary corridors of the Project and active participants who attended a meeting or submitted a comment Routing public open house meetings (February 25-27, 2013): <ul style="list-style-type: none"> Groton, South Dakota Ellendale, North Dakota Britton, South Dakota Webster, South Dakota Milbank, South Dakota

linked together into numerous alternative preliminary transmission line routes. The Applicants evaluated the preliminary routes, measuring them against both the transmission line routing considerations for the State of South Dakota (SDCL 49-41B-22) and input on sensitive and important resources identified by the public. The transmission line route in South Dakota was selected based on several considerations, including the following:

- Minimizing total length and construction costs
- Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services
- Consideration of effects on public health and safety
- Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities
- Minimizing effects on archaeological, cultural properties, and historic resources
- Minimizing impacts to wetlands, surface waters, and rivers
- Minimizing impacts to rare or endangered species and unique natural resources
- Minimizing effects to airports or other land use conflicts

During public open house meetings conducted during the route identification and selection process, the public identified several criteria that were also considered in the routing process. These criteria included:

- Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields
- Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment
- Avoiding a diagonal route across agricultural fields wherever possible
- Preference for mono-pole structures rather than H-frame structures

Upon determination of the preferred route, notifications were sent to federal and state agencies in May 2013, requesting comment on the preferred route, as shown in Table 5. A table outlining agency contact and copies of the agency material correspondences are provided in Appendix C.

8.2 Alternatives Considered and Selected

The Applicants initially considered multiple alternatives for the South Dakota Facility. The Applicants evaluated preliminary routes in South Dakota based on the factors listed above and the comments received from the public. The study corridor in Minnesota was considered but not selected for the following reasons:

- Need to complete permitting process in an additional state
- Crossing of the Bois de Sioux and Minnesota Rivers which are classified as Section 10 Rivers, regulated by the United States Army Corps of Engineers (USACE), and requiring additional federal review and permitting
- Increased length resulting in increased potential effects and cost
- Engineering challenges associated with crossing Big Stone Lake north of Ortonville, Minnesota

STATE OF SOUTH DAKOTA)
)
 COUNTY OF DAY)

IN CIRCUIT COURT
 FIFTH JUDICIAL CIRCUIT

GERALD PESALL)
)
 VS.)
)
 MONTANA DAKOTA UTILITIES, OTTERTAIL POWER,)
 SCHURING FARMS INC., BRADLEY MOREHOUSE, SDPUC)

ALPHABETICAL INDEX
 18CIV14000053

NO.	DATE	CHRONOLOGICAL INDEX	PAGE NUMBER
1.	09/23/13	Aberdeen American News' Affidavit of Publication	1068
2.	10/11/13	Aberdeen American News' Affidavit of Publication	1098
3.	04/23/14	Aberdeen American News' Affidavit of Publication	1858
4.	05/20/14	Aberdeen American News' Affidavit of Publication	3830
5.	10/17/13	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Valuation Guidelines for Properties with Electric Transmission Lines distributed by Dean Podoll, Aberdeen, S.D.; Comments, photos, maps from Dean Podoll, Aberdeen, S.D.; Transcript of Public Input Hearing; and Exhibit 1	1100-1102 (Sealed envelope 1103-1108) 1109-1343
6.	05/20/14	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Lyle Podoll's Letter; Transcript; Exhibit 50 - Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; and Exhibit 50A - Revised Potential Route Changes	3560-3563 (Sealed envelope 3564-3566) 3567-3828
7.	08/26/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1040 - 1043
8.	09/13/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1064-1067
9.	08/13/14	Agenda of PUC Ad Hoc Commission Meeting	8292-8293
10.	09/10/13	Agenda of PUC Commission Meeting	1045 - 1048
11.	04/30/14	Agenda of PUC Commission Meeting	3518-3521
12.	08/06/14	Agenda of PUC Commission Meeting	8214-8219
13.	11/05/13	Agenda to PUC Commission Meeting	1501-1506
14.	09/19/14	Amended Certificate of Service	8345-8346

15.	6/20/14	Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Redlined - Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); and Certificate of Service	7949-7972
16.	01/27/14	Amendment to Application Dated January 27, 2014; Certificate of Service; Amended Pages of Application - Redlined ; and Amended Pages of Application	1516-1539

17.	06/03/14	<p>Applicants Montana-Dakota Utilities Co. and Otter Tail Power Company's Exhibit List and Certificate of Service; Exhibit 1 – Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to the Application; Exhibit 2 - Responses to First Set of Staff Data Requests; Exhibit 3 - Responses to Second Set of Staff Data Requests ; Exhibit 4 - Answers to First Set of Pesall Discovery ; Exhibit 5 - Answers to Second Set of Pesall Discovery; Exhibit 6 - BSSE 9 - Map Showing Preferred Route; Exhibit 7 - Route Change Request Form; Exhibit 8 - Pesall's First Requested Route Change; Exhibit 9 - Route Change Matrix (BSSE 29- 31) Confidential (not available to the public) ; Exhibit 10 - MISO Tariff Attachment FF; Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing; Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing; Exhibit 13 - Updated Table of Public Outreach; Exhibit 14 - Danny Frederick CV; Exhibit 15 - Jon Lemman CV; Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014; Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014; Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014; Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014; Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014; Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014; Exhibit 20 - Jon Lemman Pre-filed Testimony Dated April 25, 2014; Exhibit 21A - Pesall Property Photograph - Looking North; Exhibit 21B - Pesall Property Photograph - Looking South; Exhibit 21C - Pesall Aerial Map; Exhibit 22 - Morehouse and Schuring Aerial Map; Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan; Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing; Exhibit 25 - Route Map Dated June 10, 2014; Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing; and Exhibit 50A - Revised Maps of Route Changes</p>	<p>3894-4735 (Sealed envelope 4736-4912) 4913-5002 (Sealed envelope 5003-5005) 5006-5566</p>
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18.	04/14/14	Application for Party Status (Bradley R. Morehouse)	1551
19.	04/14/14	Application for Party Status (Clark T. Olson)	1549
20.	04/14/14	Application for Party Status (James R. McKane III)	1548
21.	04/14/14	Application for Party Status (Kevin Anderson)	1552
22.	04/14/14	Application for Party Status (Schuring Farms, Inc.)	1550
23.	09/26/13	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners ; and Exhibit B - Landowners	1069-1092
24.	4/25/14	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners; Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Map Showing Route Changes; and Exhibit B - Landowners	1889-1900
25.	07/29/14	Comments of Arnold and Darlene Dennert; and Comments of Arnold and Darlene Dennert Confidential (not available to the public)	8148-8149 (Sealed envelope 8150-8151)
26.	08/04/14	Comments of Carol Rydberg ; Comments of Carol Rydberg Confidential (not available to the public); PUC Staff's Response to Carol Rydberg ; PUC Staff's Response to Carol Rydberg Confidential (not available to the public); and August 6, 2014, Agenda of Commission Meeting	8203 (Sealed envelope 8204) 8205 (Sealed envelope 8206) 8207-8212
27.	06/13/14	Comments of Dakota Rural Action	7944-7946
28.	06/16/14	Comments of Grant Manhart; and Comments of Grant Manhart Confidential (not available to the public)	7947 (Sealed envelope 7948)
29.	11/01/13	Comments of Parkshill Farms, LLC to Commissioner Hanson; and Comments of Parkshill Farms, LLC to Commissioner Hanson Confidential (not available to the public)	1497-1498 (Sealed envelope 1499-1500)
30.	04/29/13	Day County Auditor Letter; Farmington Township Board; Highland Township; and Valley Township	1-3
31.	04/25/14	Direct Testimony of Angela Piner; Exhibit 11 - Affidavit of Mailing of Landowner Notice Letter Dated September 24, 2013; Exhibit 12 - Affidavit of Mailing of Landowner Notice Letter Dated April 22, 2014; and Exhibit 13 - Updated Table 5 - Summary of Public, Agency, and Tribal Involvement Activities	3429-3474
32.	04/25/14	Direct Testimony of Danny Frederick; and Exhibit 14 - Curriculum Vitae	3475-3493
33.	04/25/14	Direct Testimony of Gerald Pesall; and Certificate of Service	1859-1864
34.	04/25/14	Direct Testimony of Gregory Tylka and Certificate of Service; Gregory Tylka Resume; and Amended Certificate of Service (was filed on 6/9/14 correcting typo)	1865-1888

35.	04/25/14	Direct Testimony of Henry Ford; Exhibit 1 – Application; Exhibit 1 – Project; Overview; Exhibit 2 - Detail of South Dakota Facility ; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 - Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011) ;Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ;Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to Application; Exhibit 2 - Responses to Staff's First Data Requests; Exhibit 3 - Responses to Staff's Second Data Requests ; Exhibit 4 - Responses to Gerald Pesall's First Set of Discovery Requests to Applicants; Exhibit 5 - Responses to Gerald Pesall's Second Set of Discovery Requests to Applicants; Exhibit 6 - Map of Preliminary Routes ; Exhibit 7 - Landowner Request Form; Exhibit 8 - Map of Pesall Re-Route; Request for Confidential Treatment for Ford Exhibit 9; and Exhibit 9 Confidential (not available to the public);	1901-2759 (Sealed envelope 2760-2936) 2937-3028 (Sealed envelope 3029-3031)
36.	04/25/14	Direct Testimony of Jason Weiers ; and Exhibit 10 - Attachment FF - Transmission Expansion Planning Protocol	3032-3428
37.	04/25/14	Direct Testimony of Jon Leman ; Exhibit 15 - Curriculum Vitae; and Certificate of Service	3494-3517
38.	08/23/13	Docket EL13-028 - Comments and Responses (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/el13-028comments.aspx)	12
39.	08/23/13	Docket EL13-028 - Electronic Docket Filings (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/EL13-028.aspx)	4-11
40.	06/11/14	Docket EL13-028 – Exhibits (PUC Website - http://puc.sd.gov/Dockets/Electric/2013/EL13-028exhibits.aspx)	6134-6135
41.	06/10/14	Evidentiary Hearing - Sign-In Sheet; and Transcript	5662-5828
42.	06/11/14	Evidentiary Hearing - Sign-In Sheet; and Transcript	5829-6133
43.	06/11/14	Exhibit 10 - MISO Tariff Attachment FF	7242-7604
44.	06/11/14	Exhibit 101 - Gerald Pesall Prefiled Direct Testimony	7855-7860
45.	06/11/14	Exhibit 102 - Gregory Tylka Prefiled Direct Testimony	7861-7867
46.	06/11/14	Exhibit 103 - Gregory Tylka CV	7868-7882
47.	06/11/14	Exhibit 104 - Gregory Tylka Prefiled Surrebuttal Testimony	7883-7886
48.	06/11/14	Exhibit 105 - 2014 SCN Distribution Map	7887
49.	06/11/14	Exhibit 106 - 1956 USDA Special Report on SCN	7888-7904

50.	06/11/14	Exhibit 107 - 1998 Soybean Digest Special Report on SCN	7905-7923
51.	06/11/14	Exhibit 108 - 1996 First Report of SCN in South Dakota	7924
52.	06/11/14	Exhibit 109 - 2007 SCN University Fact Sheet	7925-7928
53.	06/11/14	Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing	7605-7626
54.	06/11/14	Exhibit 110 - 1955 SCN Plant Disease Reporter	7929-7931
55.	06/27/14	Exhibit 111 - Pesall's Insurance Policy Provisions; and Certificate of Service	7981-8031
56.	06/11/14	Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing	7627-7636
57.	06/11/14	Exhibit 13 - Updated Table of Public Outreach	7637-7639
58.	06/11/14	Exhibit 14 - Danny Frederick CV	7640-7644
59.	06/11/14	Exhibit 15 - Jon Leman CV	7645-7655
60.	06/11/14	Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014	7656-7677
61.	06/11/14	Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014	7678-7680
62.	06/11/14	Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	7681-7683
63.	06/11/14	Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014	7684-7717
64.	06/11/14	Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014	7718-7763
65.	06/11/14	Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014	7764-7782
66.	06/11/14	Exhibit 1A - Amendment to Application	7155-7169
67.	06/11/14	Exhibit 2 - Responses to First Set of Staff Data Requests	7170-7178
68.	06/11/14	Exhibit 20 - Jon Leman Pre-filed Testimony Dated April 25, 2014	7783-7804
69.	06/11/14	Exhibit 21A - Pesall Property Photograph - Looking North	7805
70.	06/11/14	Exhibit 21B - Pesall Property Photograph - Looking South	7806
71.	06/11/14	Exhibit 21C - Pesall Aerial Map	7807
72.	06/11/14	Exhibit 22 - Morehouse and Schuring Aerial Map	7808
73.	06/11/14	Exhibit 22A - Revised Morehouse and Schuring Aerial Map	7809
74.	06/11/14	Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan	7810-7811
75.	06/11/14	Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing	7812-7827
76.	06/11/14	Exhibit 25 - Route Map Dated June 10, 2014	7828
77.	06/11/14	Exhibit 3 - Responses to Second Set of Staff Data Requests	7179-7202
78.	06/11/14	Exhibit 4 - Answers to First Set of Pesall Discovery	7203-7224
79.	06/11/14	Exhibit 5 - Answers to Second Set of Pesall Discovery	7225-7235
80.	06/11/14	Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing	7829-7852
81.	06/11/14	Exhibit 50A - Revised Maps of Route Changes	7853-7854
82.	06/11/14	Exhibit 6 - BSSE 9 - Map Showing Preferred Route	7236
83.	06/11/14	Exhibit 7 - Route Change Request Form	7237
84.	06/11/14	Exhibit 8 - Pesall's First Requested Route Change	7238
85.	06/11/14	Exhibit 9 Route Change Matrix (BSSE 29- 31) Confidential (not available to the public)	(Sealed envelope 7239-7241)
86.	08/22/14	Final Decision and Order; Notice of Entry; and Exhibit A	8324-8341
87.	10/18/13	Gerald Pesall's Application for Party Status	1477

88.	06/05/14	Gerald Pesall's Exhibit List; Certificate of Service; Exhibit 101 - Gerald Pesall Prefiled Direct Testimony; Exhibit 102 - Gregory Tylka Prefiled Direct Testimony; Exhibit 103 - Gregory Tylka CV; Exhibit 104 - Gregory Tylka Prefiled Surrebuttal Testimony; Exhibit 105 - 2014 SCN Distribution Map; Exhibit 106 - 1956 USDA Special Report on SCN; Exhibit 107 - 1998 Soybean Digest Special Report on SCN; Exhibit 108 - 1996 First Report of SCN in South Dakota; Exhibit 109 - 2007 SCN University Fact Sheet; and Exhibit 110 - 1955 SCN Plant Disease Reporter	5567-5639
89.	07/18/14	Gerald Pesall's Post-Hearing Initial Brief; and Certificate of Service	8075-8093
90.	08/01/14	Gerald Pesall's Post-Hearing Rebuttal Brief; and Certificate of Service	8160-8168
91.	10/11/13	Grant County Review's Affidavit of Publication	1099
92.	05/20/14	Grant County Review's Affidavit of Publication	3829
93.	05/09/14	Henry Ford Rebuttal Testimony; and Certificate of Service	3526-3530
94.	06/09/14	Joint Motion for Approval of Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Settlement Stipulation; and Certificate of Service	5646-5661
95.	08/04/14	Lyle Podoll's Email regarding Public Hearing on May 20, 2014; and Lyle Podoll's Email regarding Public Hearing on May 20, 2014 Confidential (not available to the public); PUC Staff's Response to Lyle Podell; and PUC Staff's Response to Lyle Podell Confidential (not available to the public) and August 6, 2014, Agenda of Commission Meeting	8187-8190 (Sealed envelope 8191-8194) 8195 (Sealed envelope 8196) 8197-8202
96.	10/17/13	Milbank Public Hearing - Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in sheet Confidential (not available to the public); Presentation; Transcript of Public Input Hearing; and Exhibit 1	1344-1346 (Sealed envelope 1347-1351) 1352-1476
97.	08/13/14	Minutes of PUC Ad Hoc Commission Meeting	8294-8295
98.	09/10/13	Minutes of PUC Commission Meeting	1049-1052
99.	04/30/14	Minutes of PUC Commission Meeting	3522-3524
100.	08/06/14	Minutes of PUC Commission Meeting	8220-8224
101.	11/05/13	Minutes to PUC Commission Meeting	1507-1512
102.	06/11/14	Montana-Dakota Utilities and Otter tail Power Company's Exhibits (Evidentiary Hearing) - Exhibit 1 - Application and Attachments (Exhibit 1 - 10 and Appendix A, B, C, D, and H); Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); and Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public)	6136-6979 (Sealed envelope 6980-7154)

103.	08/23/13	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Application - Cover Pages; Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 - Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information;(Begin confidential in sealed envelope) Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ; Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public) (end confidential sealed envelope); and Appendix H - Preliminary Transmission Structure Typical Drawings	13-851 (Sealed envelope 852-1026) 1027 – 1032
104.	06/06/14	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Letter regarding Commissioner Nelson's Inquiry During the May 20, 2014 Public Input Hearing; and Henry Ford's Letter to Lyle and Catherine Podoll dated June 6, 2014	5643-5644
105.	05/19/14	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Presentation for Public Hearing on May 20, 2014; and Certificate of Service	3534-3559
106.	08/01/14	Montana-Dakota Utilities Co. and Otter Tail Power Company Post-Hearing Reply Brief; and Certificate of Service	8169-8186
107.	10/21/13	Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's First Data Requests Dated September 19, 2013; BSSE 1 - Exhibit 1 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Map; BSSE 2 - Exhibit 2 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Elevation Chart; BSSE 3 - Brown County Water Supply; BSSE 4 - Day County Water Supply; BSSE 5 - Grant County Water Supply; Exhibit BSSE 6 - Resources Providing Information for Water Supply Source; BSSE 7 - Exhibit 1 of Data Request 9 Preliminary Routes Big Stone South to Ellendale 345 kV Transmission Line Project; BSSE 8 - Sample Photograph ; and Certificate of Service	1478-1496

108.	07/18/14	Montana-Dakota Utilities Co. and Otter Tail Power Proposed Findings of Fact and Conclusions of Law; Proposed Order Granting Permit to Construct Facilities; Montana-Dakota Utilities Co. and Otter Tail's Motion for Leave to Submit Documentary Evidence; Exhibit 26 - Big Stone South to Ellendale 345kV Transmission Line Project Route Change Request Denial; Exhibit 26A - Map; Exhibit 301A - Amended Settlement Stipulation; Montana-Dakota Utilities Co. and Otter Tail Initial Post-Hearing Brief; and Certificate of Service	8094-8144
109.	04/15/14	Montana-Dakota Utilities Co. and Otter Tail Power's Request for Confidential Treatment of Information of Documents Produced in Response to Staff's Second Set of Data Requests and Certificate of Service; and Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014; Response 2-11 - BSEE 329 - 331 Confidential (not available to the public); Response 2-11 - BSSE 64-267 Confidential (not available to the public); Response 2-16 - BSSE 268-332; and Certificate of Service	1553-1577 (Sealed envelope 1578-1784) 1785-1845
110.	06/11/14	Morehouse Exhibit - Exhibit 207 - BSSE OVERVIEW Peterson Farms Re-Route (Preliminary)	7932
111.	08/11/14	Motion to be Offered by Commissioner Nelson at the August 13 Ad Hoc Meeting	8291
112.	08/23/13	Motion to Schedule Prehearing Conference	1036
113.	08/23/13	Notice of Appearance (Thomas Welk, Jason R. Sutton, Jennifer O. Smestad, Daniel S. Kuntz)	1037
114.	03/17/14	Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; and Affidavit of Service	1540-1544
115.	03/18/14	Notice of Public Hearing	1545-1546
116.	09/13/13	Order Assessing Filing Fee	1062-1063
117.	06/09/14	Order Changing Hearing Location	5645
118.	05/19/14	Order for and Notice of Hearing	3531-3533
119.	11/06/13	Order Granting Intervention and Party Status (Gerald Pesall)	1513
120.	05/01/14	Order Granting Intervention and Party Status (James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson)	3525
121.	09/19/14	Pesall's Email; Notice of Appeal; and Certificate of Service	8342-8344
122.	06/05/14	Prehearing Conference Order	5640-5642
123.	01/13/14	Procedural Scheduling Order	1514-1515
124.	07/18/14	PUC Staff's Letter regarding Initial Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law	8145
125.	09/11/13	PUC Staff's Letter to Aberdeen American News regarding Notice of Public Hearing; and Notice of Public of Hearing	1059-1061
126.	04/16/14	PUC Staff's Letter to Aberdeen American News regarding Notice of Public Hearing; and Notice of Public Hearing	1855-1857
127.	09/11/13	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public of Hearing	1056-1058
128.	04/16/14	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public Hearing	1852-1854

129.	09/11/13	PUC Staff's Letter to Webster Reporter & Farmer regarding Notice of Public Hearing; and Notice of Public of Hearing	1053-1055
130.	04/16/14	PUC Staff's Letter to Webster Reporter & Farmer regarding Notice of Public Hearing; and Notice of Public Hearing	1849-1851
131.	07/31/14	PUC Staff's Response to Arnold and Darlene Dennert; and PUC Staff's Response to Arnold and Darlene Dennert Confidential (not available to the public)	8152-8155 (Sealed envelope 8156-8159)
132.	08/06/14	Randy Schuring's, Schuring Farms, Email regarding August 6, 2014, Commission Meeting	8213
133.	04/16/14	Replacement Page 20 for Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014 which was filed on April 15, 2014; and Certificate of Service	1846-1848
134.	08/23/13	Request for Confidential Treatment of Information	1038 - 1039
135.	07/11/14	Schuring Farms' Common Crop Insurance Policy	8035-8074
136.	06/20/14	Schuring Farms' Email regarding Crop Insurance Policy; AgriDex's Fax; and USDA's Article	7973-7976
137.	06/26/14	Schuring Farms' Insurance Policy Provisions	7977-7980
138.	07/11/14	Schuring Farms' RCIS - MPCl Policy Review/Change Form	8032-8034
139.	06/03/14	Schuring Farms, Inc.'s Prefiled Exhibits; Exhibit 201 - 49-41B-4.4. Trans-State Transmission Facility--Eminent Domain--Acquisition of Fee in Land Contiguous to Right-Of-Way--Divestiture of Agricultural Land; Exhibit 202 - 49-41B-4.2. Trans-State Transmission Line--Criteria Required; Exhibit 203 - ARSD 20:10:22:12. Alternative Sites; Exhibit 204 - ARSD 20:10:22:18. Land Use; Exhibit 205 - ARSD 20:10:22:23. Community Impact; and Exhibit 206 - ARSD 20:10:22:13. Environmental Information	3886-3893
140.	08/23/13	Service List	1033-1035
141.	06/11/14	Staff's Exhibit - Exhibit 301 - Settlement Stipulation	7933-7943
142.	05/23/14	Supplemental Rebuttal Testimony of Henry Ford; and Certificate of Service	3881-3885
143.	05/23/14	Surrebuttal Testimony of Gregory Tylka; Map - Current Presence of SCN in Eastern South Dakota; Historic, Archived Documents; and Certificate of Service	3831-3880
144.	08/13/14	Transcript of PUC Ad Hoc Commission Meeting	8296-8323
145.	08/06/14	Transcript of PUC Commission Meeting of 8/6/14	8225-8290
146.	10/08/13	Webster Reporter & Farmer's Affidavit of Publication; Aberdeen American News' Affidavit of Publication; Grant County Review's Affidavit of Publication; and Certificate of Service	1093-1097
147.	07/18/14	Webster Reporter and Farmer's Affidavit of Publication	8146-8147
148.	08/29/13	Weekly Filing for the Period August 22, 2013, through August 28, 2013	1044
149.	04/14/14	Wiles & Rylance's Letter regarding Applications for Party Status	1547

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

**IN THE MATTER OF THE APPLICATION)
OF MONTANA-DAKOTA UTILITIES CO.)
AND OTTER TAIL POWER COMPANY FOR)
A PERMIT TO CONSTRUCT THE BIG)
STONE SOUTH TO ELLENDALE 345 KV)
TRANSMISSION LINE)**

AFFIDAVIT OF SERVICE

EL13-028

I, Joy Lashley, under oath, do swear, that on August 26, 2013, I by mailing the same to them by United States Post Office First Class Mail and electronically served, Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status and Affidavit of Service to the list of persons below. I further swear that the attached list is a true and correct list of all persons who are parties in Docket EL13-028.

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
Pierre, SD 57501
patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
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karen.cremer@state.sd.us

Mr. Brian Rounds
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South Dakota Public Utilities Commission
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500 E. Capitol Ave.
Pierre, SD 57501
darren.kearney@state.sd.us

Mr. Thomas Welk
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Sioux Falls, SD 57117-5015
tjwelk@bgpw.com

Mr. Jason Sutton
Boyce, Greenfield, Pashby & Welk, LLP
P.O. Box 5015
Sioux Falls, SD 57117-5015
jrsutton@bgpw.com

Ms. Jennifer Smestad
General Counsel
Otter Tail Power Company
215 S Cascade St.
Fergus Falls, MN 56538-0496
jsmestad@ottertail.com

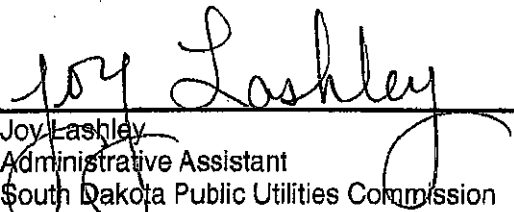
Mr. Daniel S. Kuntz
Associate General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
1200 West Century Avenue
Bismarck, ND 58506-5650
dan.kuntz@mduresources.com

001040

Ms. Maxine Fischer
Brown County Auditor
25 Market St. Ste 1
Aberdeen, SD 57401
maxine.fischer@browncounty.sd.gov

Ms. Sandra Raap
Day County Auditor
711 W. First St. Ste. 204
Webster, SD 57274
dcaud@itctel.com

Ms. Karen Layher
Grant County Auditor
210 E. Fifth Ave.
Millbank, SD 57252
karen.layher@state.sd.us


Joy Lashley
Administrative Assistant
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501

Subscribed and sworn to
before me this 26th day
of August, 2013.


Notary Public - South Dakota

(SEAL)

My Commission Expires _____, 20____
Pierre, SD 57501

TINA DOUGLAS
My Commission Expires
April 14, 2017

001041

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

IN THE MATTER OF THE APPLICATION OF)	NOTICE OF APPLICATION;
MONTANA-DAKOTA UTILITIES CO. AND)	ORDER FOR AND NOTICE OF
OTTER TAIL POWER COMPANY FOR A)	PUBLIC INPUT HEARINGS;
PERMIT TO CONSTRUCT THE BIG STONE)	NOTICE OF OPPORTUNITY TO
SOUTH TO ELLENDALE 345 KV)	APPLY FOR PARTY STATUS
TRANSMISSION LINE)	
)	EL13-028

On August 23, 2013, jointly Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345-kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

Pursuant to SDCL 49-41B-15 and 49-41B-16, the Commission will hold public input hearings on the Application on Thursday, October 17, 2013:

(1) at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. (parking available without permit in the lot along Washington Street between 12th and 14th Avenues - driving directions and map at <http://www.northern.edu/about/pages/directions.aspx> and <http://www.northern.edu/about/PublishingImages/wirelessmap.pdf>)

(2) at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D.

The purpose of these public input hearings will be to hear public comment regarding the transmission line permit Application and the Project. At the hearings, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status will be available at the public input hearings or may be obtained from

the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before October 22, 2013.

Following the public input hearings, the Commission may schedule a formal evidentiary hearings conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts. Absent a contested issue, the Commission will schedule the matter for decision at a regular or special meeting of the Commission.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. It is therefore

ORDERED, that the Commission will hold public input hearings on the Project at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. and at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D. It is further

ORDERED, that pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, applications for party status must be filed on or before October 22, 2013, and that pursuant to SDCL 49-41B-17.1, a party who wishes to receive personal service of all material filed in this matter shall make a specific request to the Commission for personal service, which may be included in the application for party status.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 26th day of August, 2013.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Loy Lashley</u>
Date:	<u>8-26-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

001043

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION
OF MONTAN-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE BIG
STONE SOUTH TO ELLENDALE 345 KV
TRANSMISSION LINE

APPLICATION FOR PARTY

STATUS

EL13-028

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40,

Gerald Pesall

(Name of Applicant)

petitions the Public Utilities Commission to be granted party status in the above-referenced facility permit proceeding.

Gerald Pesall

Signature of Applicant

GERALD PESALL

Print or Type Name

Address: 15062-430th ave
Sib., SD 57274

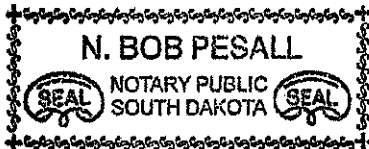
605-359-1039
Phone Number

E-mail Address

Name of Organization (if applicable)

10-17-13
Date

Subscribed and sworn to before me this 17 day of October, 2013.



(Seal)

[Signature]
Notary Public

My Commission expires: 12-20-18

NOTE:

Consistent with SDCL 49-41B-17 and ARSD 20:10:22:40, this application must be filed with the Public Utilities Commission with 60 days from the date the application was filed, unless the deadline is extended by the Commission.

Executive Director
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501-5070
Fax: 866-757-6031
Electronic Filing: <http://puc.sd.gov/EFilingOptions.aspx>

001477

Looking north on Pesall property. Culvert in grass area ahead of photo.



Looking south on Pesall property, from north end of property. Culvert indicated at post in ditch.

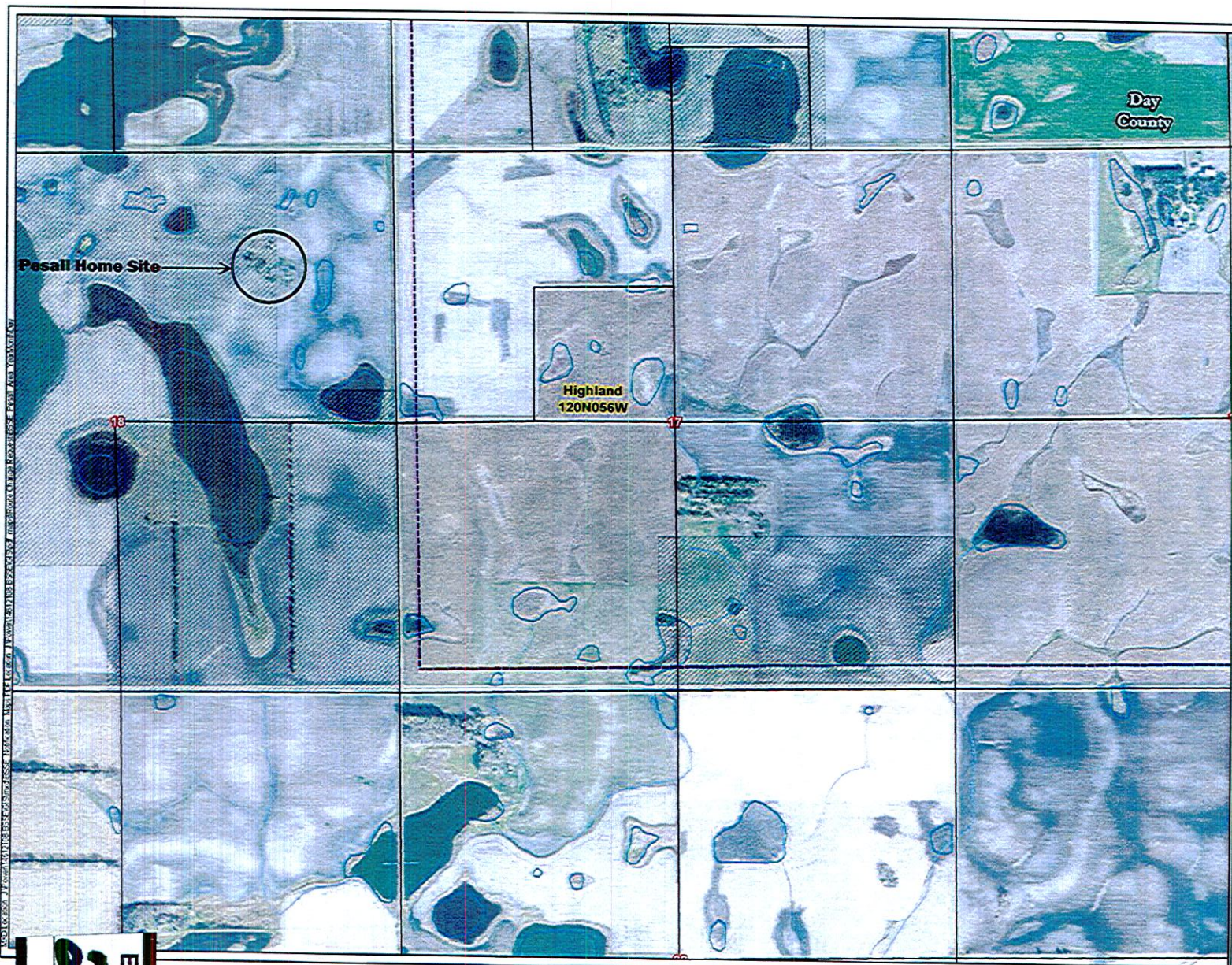
**Structure 457
(off screen)**

Structure 458

Proposed Centerline

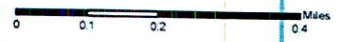
**Pesall Home Site
Approx. 1/4 Mile
West (off screen)**

EXHIBIT 21B



BSS+E
Big Stone South to Ellendale

345 kV Transmission Project

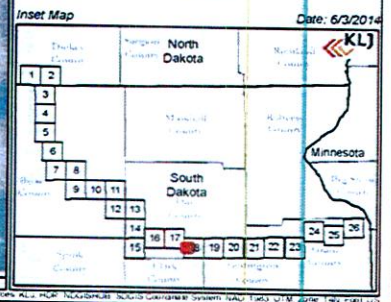


LEGEND

- | | |
|-----------------------|--------------------|
| USFWS Easement | Centerline |
| USFWS Limited NWR | Route (5-15-2014) |
| Grassland | Railroads |
| Wetland | Railroad |
| Geopolitical | Abandoned Railroad |
| Townships | Utilities |
| Counties | Electric |
| Sections | Oil/Gas |

PRELIMINARY DRAFT LOCATIONS

This map was produced by the N.J. GIS Division utilizing ESRI's ArcMap 10.2 and Windows Professional Evaluation. KLL Inc. has compiled this map according to conventional cartographic standards, using what is thought to be the most reliable information available. KLL does not give or warrant freedom from errors or omissions and disclaims any legal responsibility or liability for interpretations made from the maps or documents based thereon.



21C
EXHIBIT

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND)
OTTER TAIL POWER COMPANY FOR A PERMIT)
TO CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a division of MDU Resources, and Otter Tail Power Company (jointly, Applicants) filed an application with the South Dakota Public Utilities Commission (Commission) for a permit to construct a 345 kV transmission line of approximately 150 to 160 miles in Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City (Project). On October 18, 2013, an Application for Party Status was filed by Gerald Pesall. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 27, 2014, Applicants filed a First Amendment to Application. Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants have served notice on such landowners, and the Commission has scheduled an additional public input hearing on May 20, 2014, at Aberdeen, S.D. An intervention deadline of April 16, 2014, was set.

On April 14, 2014, James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson filed Applications for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on April 30, 2014, the Commission considered James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson. It is therefore

ORDERED, that James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status and intervention are granted.

Dated at Pierre, South Dakota, this 1st day of May, 2014.

CERTIFICATE OF SERVICE
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.
By: <u>Joy Lashley</u>
Date: <u>5.1.14</u>
(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Gary Hanson

GARY HANSON, Chairman

Chris Nelson

CHRIS NELSON, Commissioner

Kristie Fiegen

KRISTIE FIEGEN, Commissioner

003525

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
FIRST DATA REQUESTS DATED
SEPTEMBER 19, 2013

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
First Data Requests dated September 19, 2013, states as follows:

- 1) Per ARSD 20:10:22:10, please "provide a description of present and estimated consumer demand and estimated future energy needs of those customers to be directly served by the proposed facility."

RESPONSE: The Big Stone South – Ellendale 345 kV project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint the infrastructure needed to support the renewable energy mandates for all the states in the MISO footprint. The need for the proposed Big Stone South – Ellendale 345 kV line is driven by demand across the MISO footprint.

The planning study for the MVP portfolio included transmission projects covering all the states in the MISO footprint. The generation assumptions in this study included about 890 MW of future generation in South Dakota by the year 2021, and over 1400 MW by the year 2026 that could be delivered anywhere within MISO through the proposed MVP projects, which includes the Big Stone South – Ellendale 345 kV line. The Big Stone South – Ellendale 345 kV line will allow future generators to interconnect to the transmission system.

Due to the interconnected nature of the transmission system, the project will also support the transmission system outside of MISO in South Dakota and North Dakota by providing a new high voltage source to the existing transmission system.



- 2) Please provide cross sections of the bedrock geology and surficial geology to depict the major subsurface variations in accordance with ARSD 20:10:22:14(3). An example from docket EL09-015 is attached.

RESPONSE: In accordance with ARSD 20:10:22:14(3), "A written summary of the geological features of the plant, wind energy, or transmission site using the topographic 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" is provided as BSSE 1-2. The geologic cross section of the South Dakota Facility was prepared using publically available data for surface elevation, depth to bedrock, surficial geology, and bedrock geology. Since borehole data has not yet been collected for the Project, detailed geologic information was not available to construct the cross section. Therefore, the cross section provides a generalized view of the underlying geology along the South Dakota Facility (BSSE 1-2). Limitations to the cross section that may exist including small, localized variations in bedrock geology are not shown. The overlying unconsolidated material also varies locally along the South Dakota Facility from silts and clays to sand and gravel, but for simplicity, these materials have been shown as one unit, called Unconsolidated Deposits (BSSE 2). In addition, information on thicknesses of the underlying bedrock units along the South Dakota Facility was not available. Because of this and to avoid a large vertical exaggeration, the thicknesses of the units are not accurately shown on the cross section (these unknowns are shown with question marks or a dashed line on BSSE 2). This is not considered a significant limitation since the proposed structure foundations will likely be 50-feet deep or less.

Areas of shallow bedrock (less than 50 feet) were identified in two distinct areas along the South Dakota Facility. The first is located in the vicinity of Mile 4, where the underlying Pierre Shale is approximately 30 feet from the surface (BSSE 2). The second occurs near Mile 55 to Mile 65, where the underlying bedrock is also the Pierre Shale and can be less than 20 feet from the surface (BSSE 2).

Sources:

1. Bedrock Geology and Bedrock Contours, South Dakota Department of Environment and Natural Resources, Geological Survey. Link to the file - http://www.sdgs.sd.edu/pubs/pdf/esd/bedrock_20040630.zip
2. Quaternary Surficial Geology, United States Geological Survey, Quaternary Map of the Dakotas: <http://pubs.usgs.gov/imap/i-1420/n1-14/downloads/dakotasGIS/>
3. Elevation Contours, USGS National Elevation Dataset

- 3) Are drainage patterns in Exhibit 8 representative of both before and after construction drainage patterns?

RESPONSE: The drainage patterns as shown on Exhibit 8 of the Application represent both before and after construction drainage patterns. The Applicants do not anticipate changes to drainage patterns after construction.

- 4) Per ARSD 20:10:22:18(1)(c), please provide a map with the municipal water supply and water sources for organized rural water districts.

RESPONSE: See attached water supply maps for Day, Grant and Brown Counties numbered BSSE 3-5. The attached maps were developed by KLLJ Engineering. The resources that were used to develop these maps are found on attached BSSE 6.

- 5) Per ARSD 20:10:22:23(2), please provide forecasts on the immediate and long-range impact of property and other taxes of the affected taxing jurisdictions.

RESPONSE: Property taxes in South Dakota for a transmission line project such as this are paid to each county where the project will be located. The tax bill as prepared by each county is based on that county and/or township's mill levy. The value basis used by the County is determined by the State of South Dakota through a central assessment process for projects of this type. The assessment that the State applies to the project is based on a number of criteria including the total investment in the project as well as indicators on how the company stands on a financial basis. Indicators such as Market, Cost, and Income are all used in this determination. The assessed value in each county is then calculated on a per mile basis for the project within each county. The State then provides this assessed value to each affected County who then applies the appropriate mill levy in effect at the time. Based on the current effective composite tax rates for South Dakota, we estimate a yearly property tax bill in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

The Applicants' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

- 6) Provide further support that transmission lines do not affect land/property values as identified in section 19.1.2.

RESPONSE: Section 19.1.2 of the Application states, among other things, that "The South Dakota Facility is not expected to have significant short- or long-term effects on land values." The Application does not state that the transmission line will not affect land/property values. Applicant continues to believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

- 7) Per ARSD 20:10:22:23(6), please provide Applicant's plans to coordinate with local and state office of disaster services in the event of an accidental release or emergency.

RESPONSE: The risk of accidental release of contaminants related to this transmission project is, as described in further detail in the Application, limited to small-scale environmental exposures arising from construction or significant maintenance work. As referenced in the Application, the Applicants will adopt Best Management Practices to prevent, monitor, contain and report the contaminants. Due to the nature of this project, the Applicants do not anticipate any large-scale releases of contaminants that would give rise to the need for disaster services from any local or state offices.

- 8) Per ARSD 20:10:22:24, please provide more detailed employment estimates than what is found in section 20.0 of the application. Specifically, please provide the estimated annual employment expenditures of the Applicant, the contractors, and subcontractors during the construction phase of the proposed facility.

RESPONSE: It is anticipated that the number of workers who will be involved with the various tasks leading up to and directly involved with the construction of the BSSE Project will range from 75-150. These tasks include surveying, geotechnical studies, material deliveries, Right-of-Way clearing, and line construction. The actual number of workers will fluctuate as various tasks are initiated and completed during the course of the Project. It is anticipated that most of the workers will be from outside the local area; therefore, the impact to the local economies will be through costs such as workers' expenditures for hotel rooms, travel trailer site rentals, meals, gas and miscellaneous supplies. The impact to the local economies, not including property taxes, from the BSSE Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

9) Per ARSD 20:10:22:35(3), please provide a map of the major alternative routes.

RESPONSE: Please see BSSE 7, "Major Alternative Routes," as an illustration of the preliminary routes, which are the major alternative routes considered for the Project.

10) How is ongoing maintenance (e.g., vegetation management, annual inspections) of the transmission line going to be split between the Applicants?

RESPONSE: A decision on how ongoing maintenance will be split has not been decided. It is anticipated that one company will likely perform that type of maintenance on the entire line and the costs would be shared between Otter Tail Power Co. and Montana-Dakota Utilities.

11) In addition to the EMP concerns addressed in section 23.4, are there any known safety concerns with regard to farming around structures (e.g., collisions)?

RESPONSE: Yes. Accidental collision with a structure would be a safety concern with regard to farming around structures. The use of single-pole structures minimizes the risk of collisions.

12) Please describe, in greater detail, the two proposed fiber optic regeneration stations.

RESPONSE: The requirements for the fiber optic regeneration stations will be determined through joint consultation between the communications departments of the Applicants. The purpose of the fiber optic regeneration station is to monitor and amplify the fiber optic signal between the two substation endpoints when the distance between the substations exceeds approximately 75 miles. Typical fiber optic regeneration facilities consist of a small prefabricated building, approximately 8 ft x 8 ft, or 8 ft x 12 ft. A slab foundation will be required to support the building. The building will house electronic equipment and vehicle access will be required as well as a power source. The buildings are typically located on or near the transmission line right-of-way, near a road access, and near an overhead distribution line. The installation may also include a backup generator. It is anticipated that two fiber optic regeneration stations will be required for the BSSE Project, located at the approximate one-third points along the route. See attached sample photograph numbered BSSE 8.

13) Per ARSD 20:10:22:05, notwithstanding those mentioned in Table 24 of the Application, is the Applicant aware of the need to notify any additional governmental entities?

RESPONSE: To the best of Applicants' knowledge at this time, no additional governmental entities need to be notified other than what is contained in the Application.

- 14) In section 8.1, it is identified that the transmission line route was selected based on several considerations. Please provide an analysis or demonstration that compares the preferred route to the alternative routes for each of the considerations listed, using measures that the Applicant deem appropriate.

RESPONSE: In response to this data request, the "preferred route" would refer to the South Dakota Facility as filed in the Facility Permit Application and shown in Data Response No. 9 numbered BSSE 7. In addition, the "alternative routes" as referenced in this data request would refer to the preliminary routes through Dickey and Sargent counties in North Dakota and which then proceed south through western Marshall and the northwestern portion of Day counties to roughly Bristol, South Dakota where there is a commonality in the routing. See BSSE 7.

A route through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length and may have better soils from a constructability perspective for the structure foundations. The Applicants received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands. No homes are located within the right-of-way, and no homes are expected to be displaced by the South Dakota Facility. The Applicants are committed to working with homeowners and other landowners along the route to address concerns.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

In addition, the Applicants have been working with Native American tribes agencies who expressed that the preferred route was more desirable than the alternative route due to the higher percentage of the preferred route that crosses tilled land compared to the alternative routes which crossed larger percentages of pasture/prairie land. The tilled land in general has a lower probability of containing intact, undisturbed areas of importance to the tribes.

Both the preferred and the alternative routes minimize effects to Federal Aviation Administration airports and other land use conflicts.

Route development involves the analysis of many diverse criteria and the preferred route minimizes effects to populated areas and the natural environment, while also taking engineering constraints, overall length, and cost into account. The Applicants have addressed concerns expressed by stakeholders during the routing process and selected a single-pole structure to minimize potential effects with the smallest structure footprint and longer spans to reduce the number of structures.

STATE OF NORTH DAKOTA)
)
COUNTY OF BURLINGHAM) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

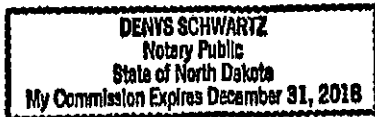
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests; but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 21 day of October, 2013.

MONTANA-DAKOTA UTILITIES CO.

By [Signature]
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 21st day of October, 2013.



[Signature]
Notary Public - South Dakota
(SEAL)

My Commission Expires: 12/31/18

STATE OF MINNESOTA)
)
) SS,
)
COUNTY OF OTTER TAIL)

Jason Waters, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response,

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 18th day of October, 2013.

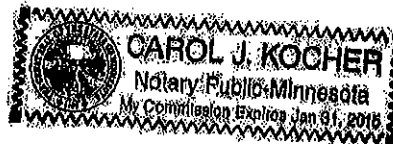
OTTER TAIL POWER COMPANY

By Jason J. Waters
Jason Waters
His Manager, Delivery Planning

Subscribed and sworn to before me this 18th day of October, 2013.

Carol J. Kocher
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015



BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
SECOND DATA REQUESTS DATED
MARCH 10, 2014

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
Second Data Requests dated March 10, 2014, states as follows:

- 2-1) Referring to page 103 of the Aberdeen Public Hearing transcript, what criteria eliminated a route from Ellendale, ND to Havana, ND, then cutting diagonally across the Coteau Hills to Sisseton, and then following the slope rail line from Sisseton to Milbank?

RESPONSE: Page 103 of the transcript contains a general potential route as suggested by Mr. Lyle Podoll. Based on the general route description of Mr. Podoll, the following explanation is provided as to why the final preferred route did not follow Mr. Podoll's proposed route corridor:

- A study corridor and preliminary routes were considered from Ellendale, ND to the general Havana, ND area, but eliminated as the preferred route due to constraints as described in the third paragraph of the Applicant's response to Question 14 of the first set of SDPUC data requests. As stated from the response to data request 1-14 of the Staff's first data requests: "The alternative routes through Dickey and Sargent counties require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the land. The South Dakota Game, Fish, and Parks Department also had concerns with the alternative routes in Marshall County being located



close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.”

- The Coteau Hills area was eliminated from consideration during the study corridor development phase, because of concerns expressed by several state and federal agencies and Native American tribes due to the relatively high density of protected species, high quality prairie habitat, federally and state owned and managed lands, and potential cultural resources. In addition, there were engineering concerns with the steep, rolling topography and numerous bodies of water and drainage ways.
- The slope rail line from Sisseton to Milbank was not considered for several reasons, including the fact that it crosses through several towns and a relatively high density of federally owned and managed lands. Additional information on why active railroads were not carried forward for the final preferred route is included below in the response to the Staff’s Data Request 2-31.

- 2-2) Referring to pages 69-75 of the Aberdeen Public Hearing transcript, Mr. Jones proposed an alternate route with the Applicant. Did the Applicant review Mr. Jones’ alternate route? If so, what was the outcome of the route review?

RESPONSE: Yes, the Project has reviewed Mr. Jones’s requested changes to the proposed route. The Project has been working to try to develop a change to the proposed route through the Jones Family properties and is in discussions with him. Three potential routes options have been discussed, including route proposals by Mr. Jones and his son. The Project continues to evaluate these proposed routes with Mr. Jones.

- 2-3) Please explain what factors eliminated the options of overbuilding or reconditioning existing transmission lines that are located in the siting area.

RESPONSE: Using existing transmission corridors to double circuit high voltage transmission lines were excluded from the routing criteria due to concerns relating to degradation of the system reliability, operational challenges, and a higher cost, as discussed more fully below. Furthermore, most existing transmission lines are not owned by either of the Owners and thus Owners do not have the right to use many of these existing lines.

Reliability Concerns

Double-circuiting ("overbuilding") the Big Stone South to Ellendale 345 kV line with portions of other existing transmission lines may be feasible, but benefits of the Project are diminished. Generally, double circuiting high voltage transmission is not preferred due to the possible degradation of system reliability. For example, if a structure with two transmission lines is compromised (or both lines are out of service because of a lightning strike or other event), the reliability of the transmission system is compromised. Building the Project on separate structures and within a separate route is important for making sure the existing and the new circuits are both available, don't interfere with each other, and provide back-up transmission paths for outages of other area transmission circuits.

Furthermore, an interim challenge with overbuilding an existing transmission line is the extended outage time of existing transmission lines associated with the construction period of the Project. This extended outage time of existing transmission circuits can last several months thus jeopardizing the reliability of the system. The transmission system is generally planned and operated to provide reliable service without an interruption of service for single (N-1) contingencies. Having an existing transmission line de-energized for an extended period of time puts the transmission system in a vulnerable state due to the increased likelihood of another outage concurrent with the existing circuit being overbuilt (N-2) with the new Project. Outages of 2 or more circuits simultaneously raises significant reliability concerns that could lead to an interruption of service to customers due to depressed voltages or overloaded facilities. Therefore, extended outages of existing transmission lines causes interim operating concerns when overbuilding existing lines with the Project.

Operational Challenges

Maintenance activities would be challenging when overbuilding existing transmission lines. Maintenance related activities on a line that is adjacent to an energized circuit is dangerous. It requires special equipment, specially trained personnel, and extraordinarily rigorous safety measures. These special requirements also increase the cost of maintaining the system.

Higher Cost

Double circuit construction or reconductoring existing circuits is also more costly than single circuit construction. Having two separate circuits on a common structure requires more robust structures to safely handle increased mechanical loadings due to wind and ice. These robust structures typically require stronger foundations. Reconductoring existing lines is also problematic given the design voltage of the Project (345 kV) and operating voltage of existing lines in the area (highest voltage of 230 kV). Reconductoring existing lines to a higher voltage would require converting several existing substations to a higher voltage (from 230 kV to 345 kV), which would require installing new equipment at these existing substations.

The factors discussed above lead to diminished reliability benefits, more operational challenges, and a higher cost when considering the options of overbuilding or reconductoring existing lines than by building the Project along an entirely new corridor. As a result, the Owners have adopted design and routing criteria that, except in extraordinary circumstances, exclude these options from consideration.

- 2-4) Please explain the MISO MTEP planning process and summarize the findings of the MTEP 11 report, clearly stating in language that the public can understand the need for the transmission line. In addition, please clearly identify what transmission grid constraints will be resolved, what NERC contingencies will be mitigated, what public policy objectives will be achieved, and what wholesale electric market benefits are expected as a result of constructing the line.

RESPONSE:

MISO MTEP Planning Process

MISO's planning process is based on an annual cycle that is referred to as the MISO Transmission Expansion Planning (MTEP) process. The MTEP process adheres to the nine planning principles outlined in FERC Order No. 890.¹ These planning principles result in an open and transparent regional planning process with interaction from a broad stakeholder group, which results in recommendations for transmission expansion that are reported in the MTEP report and submitted for approval to the MISO board of directors. The annual planning process typically concludes with MISO board of director approval occurring in December of each year.

Findings of MTEP11 Report

The MVP portfolio analyses evaluated the expected future conditions on the MISO regional transmission grid. The analysis found that the Project will be needed in order to ensure the continued reliable operation of the Otter Tail Power Company and Montana-Dakota Utilities Co. transmission systems into the future. Furthermore, the MVP portfolio allows for a more efficient dispatch of generating resources, spreading the benefits of low cost generation to South Dakota and throughout the MISO footprint. These benefits were outlined through a series of studies that quantified the economic benefits of the low cost generation resources that can be reliably delivered with the addition of the MVP transmission.

¹ Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, FERC Stats. & Regs. ¶ 31,241, order on reh'g, Order No. 890-B, 123 FERC ¶ 61,299 (2008), order on reh'g, Order No. 890-C, 126 FERC ¶ 61,228 (2009), order on clarification, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

Transmission Constraints Resolved

The construction of the Project will enable Otter Tail Power Company and Montana-Dakota Utilities Co. to reliably deliver the energy this area needs today and into the future. The Project improves the reliability of the bulk electric system in the area. Reliability studies performed by MISO for the Project have identified the following transmission issues are mitigated as a result of the Project during contingencies prescribed in the NERC transmission planning standards (referred to as single contingency (N-1) and double contingency events (N-2)):

- Oakes – Ellendale 230 kV Line
- Aberdeen – Ellendale 115 kV Line
- Oakes – Forman 230 kV Line
- Forman 230/115 kV Transformer
- Aberdeen Jct. – Aberdeen 115 kV Line
- Forman 230 kV Bus Tie
- Ellendale 230/115 kV Transformer
- Heskett 230/115 kV Transformer

The construction of the Project will address these loading issues by providing an alternative transmission path for energy to flow during contingencies.

Public Policy Objectives

Throughout the course of the MVP studies, public policy objectives were considered as state Renewable Portfolio Standards (RPS) that are in place across the MISO footprint. The MVP portfolio is a group of seventeen transmission projects distributed across the MISO footprint that enables the reliable delivery of the aggregate of current state RPS within MISO. The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across MISO. As determined through the MVP studies, this amount of wind energy is anticipated to meet state renewable energy mandates across the MISO region beyond 2026.

Furthermore, construction of the Project will contribute to a robust transmission system across MISO that will be available to provide needed transmission capacity to maintain reliable service in the event that legislation or environmental regulation leads to the retirement of some coal-fired generating plants and the addition of gas-fired generating plants. This Project, along with the rest of the MVP portfolio offers a versatile transmission plan that will be effective regardless of future generation fuel-types.

Wholesale Electric Market Benefits

The wholesale electric market benefits that are expected as a result of constructing the Project in conjunction with the rest of the MVP portfolio are primarily associated with savings realized by reduced transmission congestion and increased fuel savings. As mentioned previously, the MVP portfolio allows for a more efficient dispatch of generation resources, opening markets to competition, and spreading the benefits of low cost generation throughout the MISO footprint.

In addition to congestion and fuel savings of an estimated \$12.4 - \$40.9 Billion in present value benefits, the MISO studies have also shown quantifiable benefits as a result of the MVPs for the following generation and transmission aspects as well.

1. **Operating Reserves**
 - a. The MVP portfolio decreases congestion on the system, increasing the transfer capability into several key areas that would otherwise have to maintain additional operating reserves under certain system conditions.
 - i. A reduction in operating reserves results in estimated present value benefits of \$28M - \$87M.
2. **System Planning Reserve Margin**
 - a. The MVP portfolio reduces congestion across MISO thereby reducing the amount of generation required to meet the planning reserve margin for a one day in 10 years loss of load expectation.
 - i. A reduction in the system planning reserve margin results in estimated present value benefits of \$1.0B - \$5.1B.
3. **Transmission Line Losses**
 - a. The MVP portfolio reduces the overall system losses, which also reduces the generation needed to serve the load and losses on the system.
 - i. A reduction in transmission line losses results in estimated present value benefits of \$111M - \$396M.
4. **Wind Turbine Investment**
 - a. The MVP portfolio allows a balance of wind turbine investment between remote generation placement relying on transmission for delivery to load and local generation closer to load. Placing wind regionally to leverage the best available wind resources requires a robust transmission system.
 - i. Leveraging wind turbine installations in optimal locations across MISO results in estimated present value benefits of \$1.4B - \$2.5B.
5. **Transmission Investment**
 - a. The MVP portfolio will eliminate some future reliability upgrades.
 - i. Eliminating future transmission upgrades results in estimated present value benefits of \$226M - \$794M.

The analysis performed by MISO has found that the MVP portfolio overall will produce an estimated \$15.5 to \$49.2 Billion in present value benefits to the aggregate MISO footprint under existing energy policies (See Figure 1). This range of savings is derived based on the period over which benefits are calculated, discount rates applied, and assumptions about growth rates of energy and demand.²

² See MVP Report.

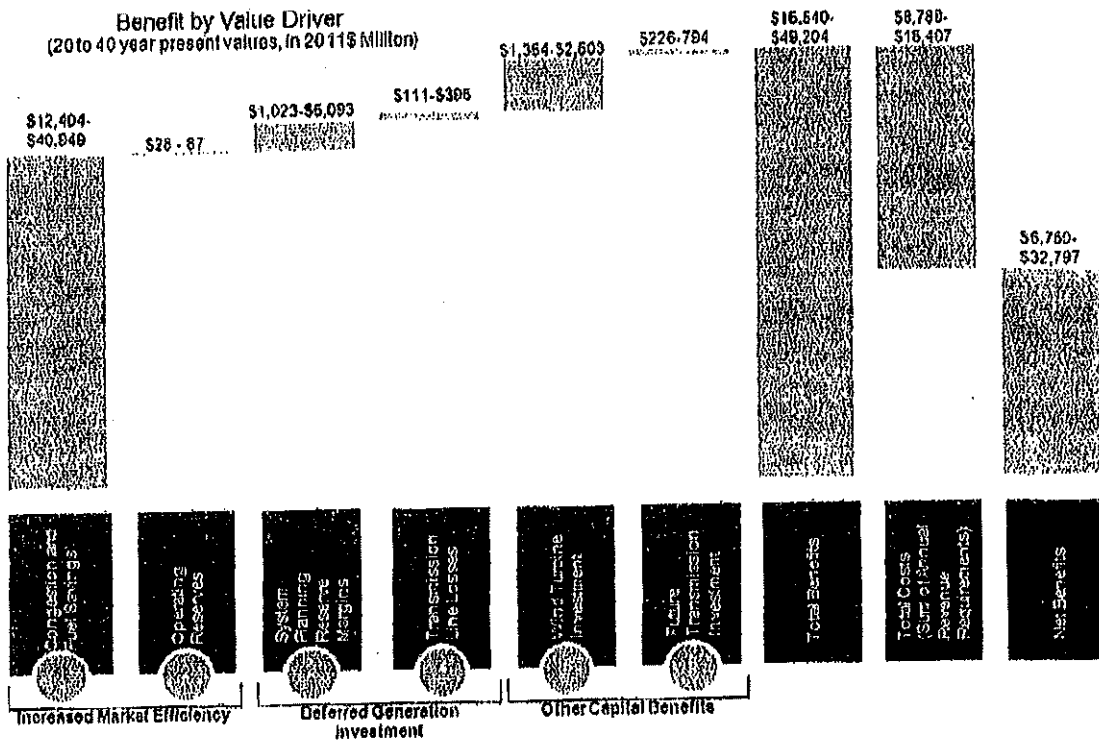


Figure 1 – Estimated Present Value Benefits of MVP Portfolio

When compared to the present value of the revenue requirements for the MVP portfolio, the portfolio produces total benefits of between 1.8 to 3.0 times the costs on a present value basis, under existing policies. When these system-wide benefits were evaluated for their distribution within the MISO footprint, benefits to Local Resource Zone 1 were between 1.6 and 2.9 times the portfolio costs to Local Resource Zone 1. Zone 1 is comprised of MISO member companies within Minnesota, South Dakota, North Dakota, and parts of Wisconsin and Montana.³ (see Figure 2)

³ See MVP report – Benefit-Cost ratios are shown on page 6 of the publicly available document.

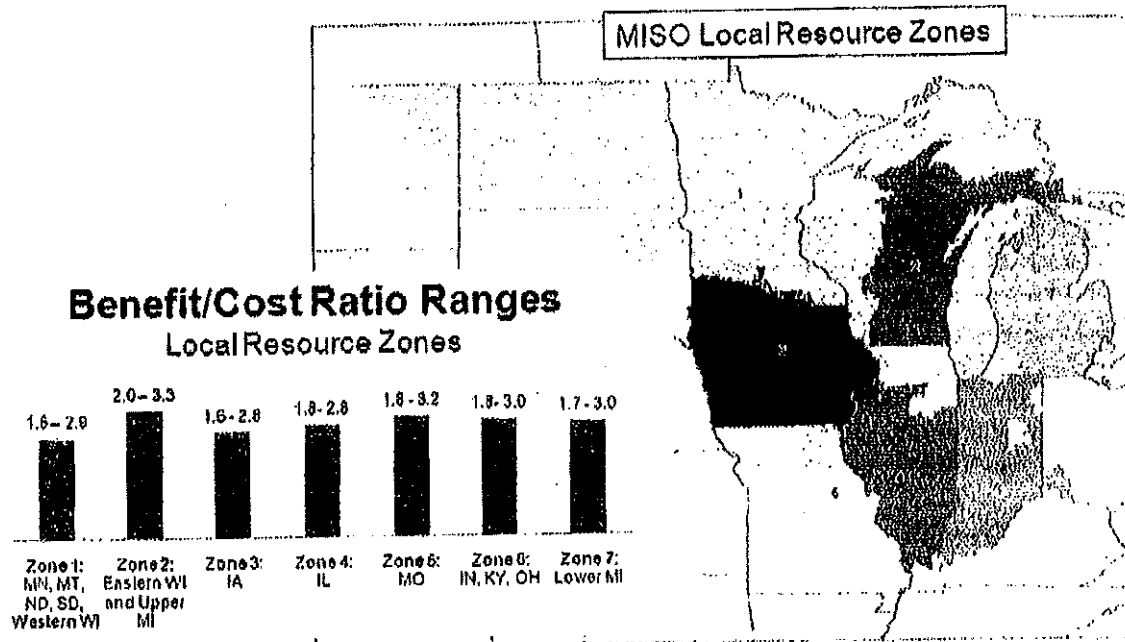


Figure 2 – Benefit-Cost Ratios to Local Resource Zones Across MISO

- 2-5) The application provides L50 audible noise, which means that 50% of the expected data points are greater than the stated value. Please provide the worst-case (i.e. maximum) noise level landowners can expect to be exposed to during the life of the facility, as well as the L10 (if available), for both fair and foul weather conditions.

RESPONSE: Only L50 audible noise values were calculated for the transmission line. The noise exposure of an individual depends on their position with respect to the transmission line and weather conditions. The transmission line noise levels at the edge of the right-of-way are shown on Table 17 contained in Section 14.3.2 of the Application, as amended.

- 2-6) Footnote 1 of amended Table 17 (pg. 59 of the Application) identifies that the Noise levels are representative of a current of 500 amps. Footnote 3 of amended Table 22 (pg. 94 of the Application) identifies the Maximum Operating Condition is based on ~2,000 amps. What is the maximum amount of current that will flow on the line during the life of the facility? Further, please explain how any expected additional current flow (beyond 500 amps) will affect noise levels if not already answered in response to data request 2-5.

RESPONSE: Current flow is not expected to exceed 2,000 amps during the life of the facility. Audible noise of transmission lines is not a function of the current

flowing in the conductors. Therefore, higher current will not cause higher audible noise levels nor will lower currents reduce the audible noise levels.

- 2-7) Please provide a list of requested route changes that includes: 1) location of the requested route change, 2) a brief description of the request, 3) current status of the request, 4) how the Applicant responded to the request, and 5) a justification for either approving or denying the request. Further, ensure the list includes the following requested route changes that PUC Staff is aware of:

- i. Three miles east of Garland Township, 9-125-63, (120th Street and 390th Ave), and
- ii. ¾ of a mile east out of Westport.

RESPONSE: See BSSE 329 to 331, which describes the proposed route "changes," the location of the route change, a brief description of the route change request, current status of the request, how the Owners responded to the request, and a justification for either approving or denying the request. The Owners request confidential treatment of this document pursuant to ARSD 21:10:01:41. Owners are separately filing a request for confidential treatment.

- 2-8) If not already provided in response to data request 2-7, please provide any known route changes that deviate from the route set forth in the initially filed application.

RESPONSE: None, other than the route changes identified in response to data request 2-7.

- 2-9) Please provide any known landowner concerns, how the Applicant is addressing the concerns, and when the Applicant believes the concerns will be resolved.

RESPONSE: It is unclear what is meant as landowner "concerns." Concerns could include requests for route changes, questions about the Project, and comments relating to the Project. The Owners have in the past and will continue in the future to work to address landowner concerns and comments through continued public meetings, posting frequently asked questions on the Project website, sending newsletters, communicating with landowners through the website and hotline, having personal meetings with the landowners, and written and telephonic communications with landowners. Due to the size of the Project, Owners believes that landowner concerns will continue to be raised prior to permitting, after permitting, before, during and after construction, and post-

construction. Some landowner concerns can and have been resolved. Some landowner concerns may not be able to be resolved. Once construction commences, the Project anticipates developing a process for the landowners affected by the construction to submit comments or concerns.

As to some of the specific concerns or comments raised by landowners, some of these concerns or comments were made at the public input hearings in Aberdeen and Milbank on October 17, 2013. Some of the comments are indicated in the discussion of the route change requests discussed in the response to Staff's Data Request 2-7. Regarding Gerald Pesall, his concerns are addressed in his answers to the Owners' interrogatories. The Project met with Mr. Pesall and his counsel on April 10, 2014, in an effort to address his concerns. The discussions with Mr. Pesall during this meeting are confidential settlement discussions. Finally, additional comments and concerns are discussed in response to Staff's Data Request 2-29 addressing why landowners have not yet signed options.

- 2-10) Please explain the Applicant's average response time for inquiries that were submitted by the general public through the BSSE's toll-free information line and website written inquiry processes.

RESPONSE: The Project has a variety of channels through which the general public can submit comments, including a toll-free information line, a comment form on the project website, an email address, comment forms at open houses, and a mailing address. Response time data through all channels shows that the overall average time from when the Project received a comment to the first response to the commenter was approximately 10 days.

- 2-11) Referring to page 93, line 9, of the Aberdeen Public Hearing transcript, please provide the study referenced by Mr. Fasteen that determined the easement prices being offered.

RESPONSE: Mr. Fasteen was referring to countywide appraisal documents, which are produced at BSSE 64 to 267. The Owners request confidential treatment of these documents pursuant to ARSD 20:10:01:41. The Owners are separately filing a request for confidential treatment. Mr. Fasteen also was referring to USDA/NASS, South Dakota Field Office, South Dakota 2012 County Level Land Rents and Values ("USDA Survey"). Mr. Fasteen viewed the USDA

survey previously, but no longer has it in his possession, and he can no longer access the version of USDA study viewed on line.

- 2-12) Referring to page 95, line 9, of the Aberdeen Public Hearing transcript, please provide a summary of any follow-up discussions that occurred between the Applicant and Mr. Sperry regarding irrigation center pivot plans and plans for installing a corner system.

RESPONSE: The Project had multiple communications with Mr. Sperry regarding this matter in December of 2013. The Project evaluated placing structures to adjust the span length such that the transmission line structures could be installed without impacting the anticipated center pivot unit of the corner system. Currently, a potential route change is being evaluated by the Project that would eliminate the need to cross the applicable property.

- 2-13) Please explain how residences that are located within 500 feet of the transmission line, yet not required to sign an easement as the line does not cross their property, are compensated for any potential future losses to property values.

RESPONSE: Only landowners from whom an easement is needed to encumber their property to construct the Project receive compensation. As stated in response to data request 1-6 from the Staff's first set of data requests, the Owners do not expect that the Project will have significant short or long term effects on property values.

- 2-14) Please provide a description of setback requirements for each township road, county road, or state road the preliminary route parallels. If no set back requirements will be of factor, please identify such.

RESPONSE: The preferred route parallels various roads, including township roads, county roads, and state roads in each of three counties: Brown, Day, and Grant. Pursuant to SDCL Ch. 11-2, the regulations of the set back from the right-of-way of all highway, roadways, roads, and streets, including state and township roads, are established by the respective county's commission and/or planning commission. Each of the counties through which the preliminary route is located employs county ordinances relating to zoning and certain use regulations. The setback requirements vary by county and also, to a lesser degree, by zoning districts within each county. Roads the preferred route is anticipated to parallel in Brown County are located in Ag Preservation and Mini-Ag Zoning Districts, which have a one hundred foot (100') setback

requirement as required in Sections 4.0606 and 4.0706 of the Brown County Zoning Ordinances. In Day County, pursuant to Section 2601 of the Day County Ordinances, the preferred route is required to be setback fifty feet (50') from all roads designated by Day County to be part of the Day County Highway System. This fifty foot (50') requirement does not apply to other roads located in Day County. In Grant County, pursuant to Section 1101.04(2) of the Zoning Ordinances for Grant County, there is a requirement for a one hundred foot (100') front yard in property zoned "A" Agricultural District.

- 2-15) Please explain the factors that resulted in the need to parallel an existing transmission line located along the south side of 148th St, beginning at the Hwy 12 and 148th St split, as shown on Exhibits 2.33 through 2.35 of the Application. Does paralleling an existing transmission line create any additional risk to public safety?

RESPONSE:

The reason to be on the south side of 148th Street (Exhibit 2.33 and 2.34) was to maximize the distances from the largest number of homes possible. Furthermore, there is also a cemetery located on the north side of 148th Street east of 472 Ave. that was also avoided. In this location, the line being paralleled is not a transmission line but a distribution line. The paralleling of the Project with a distribution line does not create a safety issue. In some instances, paralleling a transmission line can create reliability concerns for the transmission system as discussed in the response to the Staff's second set of data requests number 2-3. The paralleling of this distribution line does not, however, create such reliability concerns or other safety concerns.

- 2-16) Please provide a list of all units of local government that have formally expressed concern regarding the project. Please include any related record of correspondence.

RESPONSE: See BSSE 268 to 320 which includes correspondence from Farmington Township, Highland Township, and Valley Township, and the Project's correspondence with the board of supervisors or board chairman for those townships and the board chairman.

Prior to filing the Facility Permit Application, the concerns raised by Farmington, Highland and Valley Townships were incorporated into the application. Agricultural concerns raised by Farmington, Highland, and Valley Townships were addressed in sections 14.4 and 19.2. The application also addressed the concerns of Highland and Valley Townships regarding safety and property valuation in sections 23.4 and 19.1.2 respectively. The website also

includes answers in our FAQs related to agriculture and health and safety. One time payments were addressed in the October 2013 Power Delivered newsletter, which is contained at BSSE 321 to 322.

2-17) Has the Applicant, or its agents, trespassed on private property?

RESPONSE: To the best of the Owners' knowledge at this time, no trespassing has occurred.

2-18) How will the Applicant ensure soil and plant-borne pests are not transmitted from field to field?

RESPONSE: As stated in the answer to interrogatory number 9 in Gerald Pesall's Second Set of Discovery to Applicants: "The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Applicants' experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields."

2-19) Has the Applicant, in its experience in building and operating high voltage transmission lines ever experienced complaints of radio, TV, communications (e.g. CBs, two way radios, cell phones, etc.), dairy electronics, or GPS (including GPS, differential GPS and RTK) surveying or navigation interference? Please specify to what extent and how the Applicant handled such interference.

RESPONSE: The Owners operate approximately 5,700 miles of transmission lines and are not aware of any complaints in regards to interference with to TV, communication, dairy electronic, or GPS systems. The Owners have had occasions where AM radio reception is impacted, but after passing under the line reception is immediately restored. The general public will notice this momentary interference in their vehicle radio in some instances when traveling under or near transmission facilities.

- 2-20) Referring to page 115 of the Aberdeen Public Hearing transcript, did the Applicant follow up with Ms. Seurer regarding her question about dairy electronics? How was this resolved?

RESPONSE: The Project communicated with Ms. Seurer at the Aberdeen Public Hearing. The Project also is continuing to work to schedule a meeting with Ms. Seurer to review and better understand her technology. In owning and maintaining over 5,700 miles of transmission lines, the Owners have not experienced any negative affects of the transmission line on dairy electronics.

- 2-21) Will the proposed facility increase the potential for liability of the affected landowners? Why or why not?

RESPONSE: The proposed facility will not increase the potential for liability for the affected landowners. The Owners maintain property, casualty, and liability insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

- 2-22) How will the Applicant mitigate lost agriculture production associated with the project's operation, specifically as a result of farming around poles placed within fields?

RESPONSE: The anticipated lost agricultural production associated with farming around poles is being included as part of the easement payment provided by the Project.

- 2-23) Please provide a description of how the Applicant intends to monitor and mitigate construction impacts on roadways.

RESPONSE: As stated in answer to interrogatory number 8 to Gerald Pesall's Second Set of Discovery Requests to Applicant: "As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (i.e, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond

required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.”

- 2-24) Please provide an explanation of how pole placement is discussed with affected landowners, including who contacts the landowner, when the contact is made (specifically in relation to the timing of the landowner signing an easement), and how the landowner’s feedback is taken into account in the final placement.

RESPONSE: The discussion of pole placement varies from landowner to landowner. Initially, when land agents for the Project first started contacting landowners, the preliminary pole locations had not been determined. As a result, the Project did not discuss the placement of pole locations with the landowners. The land agents instead showed a map indicating the proposed route, without any indication of pole placement. The land agents communicated to landowners that they could reasonably expect approximately 5 pole structures per mile. Some landowners signed options based on these initial communications, and thus, the Project may not have discussed pole placement with the landowners.

Later, when the Project determined the preliminary placement of the pole structures, land agents were provided a map detailing the proposed route and the preliminary structure location. The scale on the map prevents determining the exact pole location on a parcel of property. During face to face meetings with landowners, land agents would show them the preliminary pole placements if requested. Land agents also provided copies of maps showing preliminary pole placements to requesting landowners. The final pole locations are not reflected on these preliminary maps. Additional landowners have signed the options after seeing the preliminary pole locations.

If requested by a landowner, the Project also has offered and will provide staking of preliminary pole locations on landowner property once the Project is able to survey the property.

The final pole structure location will not be determined, however, until the final design stage. If the landowner has expressed concerns about the pole placement during the option discussions, their input would be considered in the final location. The timing of the final design stage vis-à-vis signing of easements has not been determined but the Project has and will continue to discuss pole placement with landowners.

- 2-25) If landowners prefer to have poles placed along a fence line rather than out in a field, how does the Applicant accommodate such a request? Has the company made any route changes as a result of such requests to date?

RESPONSE: Each proposed route change is analyzed to see what, if any, impacts could result from the landowner's request. A design goal is to run the centerline as straight as possible between the dead-end structures, which are approximately five (5) miles apart. Therefore every route change request goes through a standard review process. This review process involves a committee consisting of a company representative from each Owner, design engineer, environmental, right-of-way, and legal teams. This committee considers the following review criteria when evaluating route changes:

- Safety, proximity to state, county township roadways
- Zoning restrictions
- Effect of other existing easements or encumbrances, if any
- Other option agreements that have been obtained with the adjoining landowners
- Whether the affected landowners within 1-2 miles along the route on either side of the property agree with the proposed route change
- ~~Whether there are any environmental impacts caused by the proposed route change~~
- Whether any cultural resource impacts are caused by the proposed route change
- Whether the line be constructed and maintained at the requested location
- Economic considerations

If it appears there are no identifiable impacts with the request after this review is completed, the right-of-way land agents will visit the neighboring landowners to obtain their opinion of a route change on their property as well. If practical to honor the request to move the route change, the Project will attempt to do so. If the impacts are too great, or if the route change is not mutually agreed upon by adjacent landowners, the requested relocation might not be possible. The Project has made some route and pole changes to honor requests placing the structures near fence lines rather than in the field. See also the response to Data Request 2-7.

- 2-26) At the public hearing in Aberdeen, the Applicant was asked to consider easement terms that were not perpetual, similar to the 99-year term in North Dakota. Has the

Applicant made any changes to the easement term lengths it is offering to landowners along the route?

RESPONSE: No, because the Project expects that the useful life of the transmission line may exceed 99 years.

- 2-27) On page 60 of the Aberdeen Public Hearing transcript, Mr. Ford stated "if maybe this parcel of land is becoming unfarmable because of these reasons, we need to look at something different" in response to Ron Ringgenberg's concern of not being able to utilize aerial spraying as a result of the facility. Since the hearing, has the Applicant worked with Mr. Ringgenberg or other similarly situated landowners to solve these types of problems? If so, please explain how the Applicant plans to mitigate the impact of these problems.

RESPONSE: There have been personal conversations with all landowners who are willing to meet and discuss their specific concerns.

The installation of a transmission line does not prevent aerial applications. A transmission line has a similar, but perhaps lesser impact to aerial applications as a tree row if installed in the direction of the farming application. The applicators are able to fly parallel to the transmission line and let the chemical spray drift under the line to effectively treat their crops.

At this time, the Project has not identified any locations, including but not limited to Mr. Ringgenberg's property, where the transmission line will prevent aerial spray applications.

- 2-28) Please provide an update on progress the applicant has made on easement acquisition.

RESPONSE: Currently the Project is only obtaining options rather than easements. Landowners who have signed options have committed themselves to signing of easements. Approximately 55% of line miles worth of parcels have signed options through April 10, 2014.

- 2-29) For easements (or easement options) not yet acquired, please provide an explanation as to why the landowners have not yet signed and, further, if any landowners are refusing to work with the Applicant.

RESPONSE: As indicated in response to Staff's Data Request 2-28, approximately 55% of the line miles have been signed as of April 10, 2014.

There are several reasons for landowners not signing the easement option. Some landowners are waiting to see if the Facility Permit from the State is issued. Other landowners are waiting on a person or event unrelated to the Project, such as, but not limited to whether other landowners are going to sign options and review of the easement options by the landowner's attorney, family member or renter. Other landowners are waiting on changes to the option and easement documents to reflect their individualized concerns. Other landowners are waiting for evaluation of a proposed route change.

Regarding the small percentage of landowners who have stated opposition to the Project, there are a multitude of reasons they have not signed the options. While some landowners have expressed general objection to the project, others have expressed more specific objections. Some of these objections were communicated at the public input hearings occurring on October 17, 2013, at Aberdeen and Milbank. The more specific objections fall into several general categories:

- Objections to the location of the line
- Economic concerns, including but not limited to complaints that the amount of the easement payment is not sufficient, devaluation of property, and request for annual payments, effect on whether the landowner will obtain wind farms or subdivide their property

- Concerns that the project will negatively affect farming practices, such as but not limited to effect on efficiency of farming equipment, affect on GPS guidance, loss of yield, impacts on aerial spraying, effect on center pivot units, and impact on livestock
- Concerns about the effect of the transmission line on human health
- Concerns about the impact of the transmission line on wildlife
- Effects of the construction process on both their farm property and the roads
- Peer pressure from other landowners, neighbors, family, and landowners not to sign the options

The Project has and will continue to work with landowners to address these concerns.

- 2-30) Did the Applicant consider following abandoned railroad right-of-way in determining the route? If so, for what reasons did the Applicant choose not to utilize it?

RESPONSE: The Applicant did consider following abandoned railroad right-of-ways as part of the routing process for the Project. Overall the preferred route selected reflects the best balance of the project routing criteria. Preliminary routes along abandoned railroad tracks were not carried forward for the preferred route for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. Additionally, the terrain near abandoned railroads may have steep side slopes away from the railroad bed that may not accommodate preferred construction or maintenance methods. In other areas the abandoned railroad right-of-way have been completely plowed under by the landowner in some parcels, and a transmission line would therefore cut through the middle of a cultivated fields. A comment from many landowners was to follow field lines and section lines to avoid diagonally traversing a cultivated field.

- 2-31) Did the Applicant consider following railroad rights-of-way that are currently in use? If so, for what reasons did the Applicant choose not to utilize them?

RESPONSE: The Applicant did consider following active railroad rights-of-way in the routing process for the Project. As stated in the response to Staff's Data Request 2-30 and 2-32, long stretches of routes along railroad tracks were removed from consideration for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. It was also determined that construction of the transmission line would not be feasible along the railroad in the Waubay area due to the increasing water levels in the surrounding lakes. Field surveys confirmed that certain route segments along the railroad were also removed from consideration because of the presence of homes, businesses, and water challenges. The Project also considered the induction effects and the safety concerns presented by the Project being located parallel to an existing railroad.

Additional engineering challenges and safety concerns that were considered as well. As stated above in the answer to Staff's Data Request 2-30, the terrain near railroads may have steep side slopes away from the railroad that may not accommodate preferred construction or maintenance methods. In addition, railroad right-of-way widths vary along a railroad and it would be very difficult

to share right-of-way with a railroad. Therefore the transmission line would likely have many bends and inflections to follow the railroad right-of-way, and/or be further out into a cropped field in areas where the right-of-way is wider. And finally, trains that derail where a transmission line runs parallel to it could potentially cause a disruption in electrical service and a safety hazard if derailed cars were to collide with a nearby transmission line structure.

- 2-32) If induction of rails is a reason listed in the previous two questions, what steps could the Applicant take to mitigate issues with induction and, further, what impact would those steps have on project costs?

RESPONSE: The best method for reducing the effects of induced voltage in parallel facilities such as railroads is to route the transmission line so that it is a safe distance away from the railroad or applicable parallel facility. If a transmission line remains close to the railroad then a study must be performed to evaluate induced voltage issues. Mitigation techniques and costs can vary significantly depending on the results of the study and particulars of the situation. Options for mitigation include: installation of a grounding conductor, replacement or upgrade of railroad signaling equipment, installation of AC drain filters, and reconfiguring the size of the signal track blocks. Costs can be into the millions of dollars depending on the level of mitigation required.

- ~~2-33) Per the suggestion by Mr. Welk on pages 109 and 110 of the Aberdeen Public Hearing transcript, was a letter provided to Mr. Feickert regarding disbursement of property taxes? If so, please provide the letter. If not, please provide the information requested.~~

RESPONSE: A letter has been sent to Mr. Feickert, which is attached at BSSC 323 to 328 and which contains the requested information as to the disbursement of property taxes.

- 2-34) Are corner structures going to have guy-wires? If so, what additional impacts would guy-wires have on landowners and/or farming operations? Further, will the Applicant construct a corner structure without guy-wires should a landowner request such?

RESPONSE: Corner structures located on cultivated land will not have guy-wires. Corner structures located on non-cultivated land could have guy wires depending upon the terrain and location of the structure. If a landowner with corner structures on non-cultivated land requests a structure without guy-wires, then the Project may consider that request on a case-by-case basis.

STATE OF NORTH DAKOTA)
COUNTY OF Burleigh) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

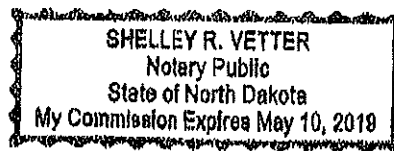
MONTANA-DAKOTA UTILITIES CO.

By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 15th day of April, 2013.

Shelley R. Vetter
Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
 :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

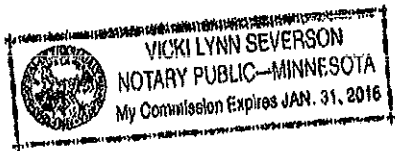
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

OTTER TAIL POWER COMPANY

By Jason J. Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 15th day of April, 2013.



Vicki Lynn Severson
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015

CERTIFICATE OF SERVICE

I, Thomas J. Welk, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on this 15th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 64 to 267 and BSSE 329 to 331, for which confidential treatment has been requested, and a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
Executive Director
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Ms. Karen Cremer
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Mr. Brian Rounds
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Mr. Darren Kearney
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And a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Jennifer Smestad
General Counsel
Otter Tail Power Company
215 S Cascade St.
Fergus Falls, MN 56538-0496
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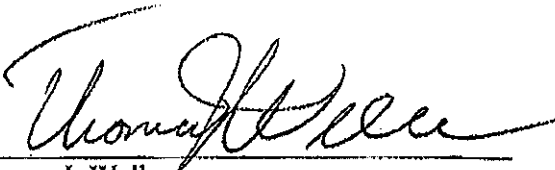
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Mr. Bob Pesall - Representing: Gerald Pesall
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bob@pesall.com



Thomas J. Welk

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S FIRST SET OF DISCOVERY
REQUESTS TO APPLICANTS DATED
JANUARY 28, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

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Angela Piner, Project Manager Environmental Scientist
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Phone: 218-739-8311
jweiers@otpc.com

2. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have to property values for real property lying under or within ½ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based. Include in your answer both urban and rural property values.

ANSWER: Section 19.1.2 of the South Dakota Facility Permit Application (“the Application”) states, among other things, that “The South Dakota Facility is not expected to have significant short- or long-term effects on . . . land values”

Owners believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

3. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have on common species of livestock, including cattle, horses, swine, and poultry which are, or may be, kept under or within $\frac{1}{4}$ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based.

ANSWER: As stated in sections 19.2.2 and 23.4.5 of the Application, no impacts are anticipated to livestock operations due to the Project for the reasons stated in these sections of the Application.

4. Describe the level of soil compaction, if any, applicants contend will result from construction and maintenance of the transmission line, the impact that compaction may have on the productivity of the property, the time, effort, and cost which would be required to restore the soil to its original condition, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: Soil compaction likely will only occur during construction of the Project. As stated in section 10.3 of the Application, any temporary compaction impact caused by the construction process will be decompacted and restored to preconstruction contours to the extent practicable. No long term impacts from soil compaction are expected because of the decompaction and remediation process described in section 10.3 of the Application.

5. State whether applicants have prepared any estimates, and if so, provide those estimates together with the facts, studies, or expert opinions upon which they are based, as to the total dollar value for:
 - a. Annual lost productivity due to proposed transmission line's impact on livestock along the entire length of the proposed line.
 - b. Annual lost productivity due to soil compaction and interference with farming operations caused from construction and ongoing maintenance along the entire length of the proposed line.
 - c. Total reduction in real property values along the entire length of the proposed line, both for property lying under the proposed route and for adjacent property within $\frac{1}{2}$ mile.

ANSWER: As discussed in sections 14.1.2 and 19.2 of the Application, and as indicated in answers to interrogatories numbers 2, 3, and 4 above, the permanent impact is expected to be minimal. The Owners have not prepared annual estimates of lost productivity, and no such annual estimates are required to be prepared.

6. State the impact on road maintenance requirements and costs, if any, which the applicants contend will be incurred by state and local governments as a result of increased road use during initial construction and as a result of ongoing maintenance, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: As indicated in Section 19.3 of the Application, there will be no impacts on road maintenance requirements and costs. While the roads in the vicinity of the Project will see increased usage during the construction phase of the Project, the Owners do not anticipate any permanent impacts to the area road maintenance. Any damage to area roads will be monitored and repaired during construction and following completion of construction of the Project.

7. State the number of actual residential or commercial customers in South Dakota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any,
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint ("Midwest Region") the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in South Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the Multi-Value Projects ("MVPs") are described more fully in the report issued by MISO called "Multi-Value Project Portfolio -- Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a high priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of South Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other South Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for all customers in South Dakota resulting from the Project or the rest of the MVPs.
- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in South Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested party on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the approximately 75-150 workers involved in activities leading up to and directly involved with the construction of the Project. The impact to the local economies, not including

property taxes, from the Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes (property taxes, contractor tax, excise tax, sales tax, and use tax) which will increase the tax base for counties in which this facility is located. Based on the current effective composite tax rates for South Dakota, the Owners estimate a yearly property tax payment in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

Furthermore, the Owners' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

8. State the number of actual residential or commercial customers in Minnesota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in Minnesota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
 - b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of Minnesota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP, the Owners are not familiar with the portion of MVP costs other Minnesota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in Minnesota resulting from the Project or the rest of the MVPs.
 - c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. Although these benefits will not be as great as the states in which construction will occur, it is feasible that Minnesota may reap the benefits of some local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of some workers involved in activities leading up to and directly involved with the construction of the Project. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.
9. State the number of actual residential or commercial customers in North Dakota which applicants contend will benefit from the construction of the proposed line,

the facts, studies, or expert opinions upon which that contention is based, and describe in detail:

- a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
- b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in North Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the MISO region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by the MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are

members of MISO. Therefore, all customers in the state of North Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other North Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in North Dakota resulting from the Project or the rest of the MVPs.

- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in North Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested parties on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the workers involved in activities leading up to and directly involved with the construction of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes which will increase the tax base for Dickey County. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.

10. Describe in detail nature of the Ellendale substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Ellendale 345-kV Substation will be constructed and owned by Montana-Dakota. It will be located about 1.5 miles west of Ellendale, North Dakota, along the west side of 87th Avenue SE in Section 9, Ellendale Township (Township 129N, Range 63W), Dickey County, and across the street from the existing Montana-Dakota Ellendale 230-kV Substation, which is located in Section 10 of Ellendale Township. The footprint of the substation will be approximately 11.3 acres. Construction of the new Ellendale 345-kV Substation will involve the installation of two 345-kV circuit breakers, one 345-kV line termination structure, five 345-kV disconnect switches, one 345-kV/230-kV 300/400/500 Mega Volt Ampere (MVA) Auto-Transformer, a 345-kV Shunt Line Reactor, eight 230-kV circuit breakers, twenty-one 230-kV disconnect switches, four 230-kV line termination

structures, associated arresters, Capacitive Voltage Transformers (CVTs), bus work, and protective relaying and controls required to support the circuit breakers. The existing Merricourt, Tatanka, and Hankinson 230-kV lines will be relocated to terminate in this substation, as well as an Ellendale 230-kV tie line back to the original Ellendale 230-kV Substation.

11. Describe in detail nature of the Big Stone substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Big Stone South substation will be a 345/230kV substation that will be constructed to allow two new 230kV lines and two new 345kV lines. The 230kV lines will extend between the existing Big Stone Power plant and this new substation. One 345kV line will connect this facility to the new Ellendale 345kV substation and the second 345kV line will connect this facility to the Brookings County 345kV substation.

This new substation will be located in the NE1/4 of the NW1/4 of section 24, Township 121N, Range 47W. The new substation includes four 230kV breakers for the incoming 230kV lines from the existing Big Stone Power plant 230kV substation. Two 345/230/13.8 kV, 448MVA transformers, with 25 Mvar reactors, will step-up the voltage to 345kV for two new 345kV lines. The 345kV bus will have four 345kV breakers to provide protection for these transformers and the new 345kV lines. A new control house and a fenced area of approximately 600 x 600 feet and will be located on 39 acres.

12. Describe in detail the impact, if any, applicants contend that the proposed transmission line would have on the usability and productivity of agricultural equipment which is guided by global positioning systems (GPS), or by ground base transmitter systems, when used under or within ¼ mile of the transmission line. Identify any facts, studies, or expert opinions upon which that contention is based.

ANSWER: Section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

The Application references an IEEE study by Silva & Olsen, 2002, that studied the impact of overhead conductors on GPS signals. The study found that the overhead conductors did not block or affect the use of GPS satellite signals.

13. Describe in detail the impact, if any, applicants contend the proposed transmission line will have on wild game species common to the area where the line is to be constructed, including but not limited to its impact on whitetail deer, walleye pike, northern pike, ring-neck pheasant and Canadian geese.

ANSWER: Section 11.0 of the Application describes the anticipated effects to water resources, including fishery resources. Because the Project will span all streams and lakes, no impacts to fish species or fishing uses will occur.

Section 12.0 of the Application also describes the anticipated impacts to terrestrial wildlife species, including game species. Once constructed, the transmission line could result in impacts to avian game species through collisions. The Project will work with proper wildlife authorities, both State and Federal, to identify areas where bird diverters may need to be installed to minimize potential collisions. In addition, the transmission line will be designed considering the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection On Power Lines: State of the Art in 2006 to minimize the potential for electrocution.

The Project is not anticipated to affect the population of any game species in the region it crosses.

14. Describe in detail the methodology used to select the proposed route, the specific factors by the applicants in selecting the proposed route, including but not limited to total cost, engineering constraints, and legal concerns.

ANSWER: Section 8.1 of the Application lays out the detailed methodology used to select the proposed route. As listed on page 26 of the Application, the line route in South Dakota was selected based on several factors, including:

- **Minimizing total length and construction costs**
- **Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services**
- **Consideration of effects on public health and safety**
- **Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities**
- **Minimizing effects on archaeological, cultural properties, and historic resources**
- **Minimizing impacts to wetlands, surface waters, and rivers**
- **Minimizing impacts to rare or endangered species and unique natural resources**
- **Minimizing effects to airports or other land use conflicts**
- **Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields**
- **Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment**
- **Avoiding a diagonal route across agricultural fields wherever possible**
- **Preference for mono-pole structures rather than H-frame structures**

As described above, engineering constraints and costs were two of many criteria considered. Legal concerns considered in the routing process included confirming potential routes could be constructed consistent with applicable federal, state, and local laws and regulations. The proposed route was selected based upon the evaluation of the foregoing routing criteria.

The Owners continue to evaluate possible changes to the proposed route based upon discussions with landowners. The changes to the route may occur both before the hearing on the Application, and after the hearing. If a material change in the proposed route is adopted by the Owners before the hearing, the Owners will identify that change to the proposed route as part of the prefiled testimony consistent with the deadlines imposed by the Commission or at the hearing. For material route changes after the hearing, the Owners will update the Commission through the appropriate processes.

15. Describe each alternative proposed route considered by the applicants prior to selecting the currently proposed route.

ANSWER: The attached map numbered BSSE 9 shows the preliminary routes that were considered by the Owners prior to selecting the preferred route.

Between the Ellendale Substation and the general vicinity of the town of Bristol, there were two main route alternatives considered; one that follows the ultimately selected route south into South Dakota, and one that heads east from the Ellendale area for approximately 35 to 40 miles before turning south into South Dakota. This second main route alternative had several smaller alternative segments. One location with alternative segments occurs approximately ten miles east of Ellendale, where the alternatives are located 0.5 to 1 mile apart. Another set of alternative segments is located at the North Dakota/South Dakota border crossing area, where the alternatives parallel each other at a distance of approximately 2 to 5 miles apart, for a length of approximately twenty miles.

Between the Bristol area and the Big Stone South Substation, there were several other areas with minor route alternatives. These respective areas usually consist of parallel route alternatives, generally 0.5 to two miles apart.

16. For each alternative route so-identified, describe in detail how the factors set out in your answer to request #14 were considered, and the reason(s) why that alternative route was ultimately rejected.

ANSWER: Section 8.2 of the Application describes the methodology used in selecting the proposed route and rejecting the alternative routes.

The routes through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length, and expected to have better soils for construction activities and structure foundations. The Owners received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to water bird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

Additionally, the proposed route differs from the preliminary route for approximately six miles in T120N R56W (Highland Township) and T120N R57W (York Township) in Day County. The preliminary route was rejected in this area because of engineering and constructability constraints associated with crossing the Horseshoe Lake area.

17. Identify any state or federal renewable energy standards which applications contend the proposed line will enable them to meet.

ANSWER: The proposed line is one of the MVPs which, in total, will enable the most economic development and construction of renewable energy projects in the Midwest Region. This includes a combination of local and regional generation projects detailed in section 4.2 in the MVP report included as Appendix B.1 of the Application. In order to spur renewable energy projects, many states have adopted renewable energy standards, which are laws which mandate that a certain amount of energy produced or purchased by its regulated electric utilities must be generated by qualifying renewable energy projects. The transmission studies performed by MISO used in the identification of the Big Stone South to Ellendale project, along with the balance of the MVPs, were based on existing state renewable energy standards in place during the course of the study (primarily during 2011). The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across the Midwest Region. As determined through the MVP studies, this amount of wind energy is anticipated to meet the state renewable energy mandates across the Midwest Region beyond 2026.

Additional information related to the state renewable energy standards facilitated by the Project and the rest of the MVPs can be found in sections 4 and 7 of the MVP report, included as Appendix B.1 of the Application.

18. With respect to the energy to be transmitted on the proposed line, identify the existing or anticipated generating facilities from which that energy will be produced, and the amount of energy anticipated from each.

ANSWER: The Big Stone South to Ellendale 345 kV line will be an integral part of the high voltage transmission system. As such, the line will be available to carry energy from a variety of generating facilities, regardless of fuel type. Due to the interconnected nature of the regional transmission system, the generation that will flow on this line will depend on a number of variables. Too many variables exist to definitively identify the existing or anticipated generating facilities that will have energy transmitted on the Big Stone South to Ellendale 345 kV line. These variables include (among several other factors) generation patterns, load levels, and outages of existing generation or transmission. Therefore, identifying the exact amount of energy from a specific generator flowing across a particular transmission line is not possible. However, if wind-rich areas in eastern South Dakota are developed with future renewable

generation, this future generation will have energy transmitted along this Project given its geographic proximity to these wind-rich areas. BSSE 11 attached is a wind resource map with the route corridor of the Project shown on the same map. As stated in Section 4 of the Application, the Project will increase system capacity which in turn allow for additional opportunities for development of generation, including renewable energy sources, in South Dakota.

19. Describe in detail the percentage of the total energy to be transmitted on the proposed transmission line which will pass to or from the Big Stone South to Brookings County, and/or Brookings County to South East Twin Cities lines once all three projects enter service, and annually thereafter through the year 2024..

ANSWER: Once these three separate Multi-Value Projects (MVPs) are constructed, the total energy transmitted along these three projects will be highly correlated to one another, given their geographic location and electrical connectivity. The Big Stone South to Ellendale 345 kV line will share a common termination point with the Big Stone South to Brookings County 345 kV line at the Big Stone South substation. Likewise, the Big Stone South to Brookings County 345 kV line will share a common termination point with the Brookings County to South East Twin Cities line at the Brookings County substation. Identifying expected or even anticipated energy transmitted on the Big Stone South to Ellendale line in comparison to the other two projects will depend on a number of variables (as described in interrogatory #18).

Based on knowledge of the transmission system in this region, the flow of energy in this area will generally be from northwest to southeast, flowing from Ellendale to Big Stone South to Brookings County and then to the Southeast Twin Cities. However, transmission facilities often experience bi-directional flows and therefore could also flow from southeast to northwest depending on the conditions present on the transmission grid.

20. Describe in detail the insurance policies or other liability protections, if any, applicants will maintain for themselves against claims which relate to the towers, wires, and other components of the proposed transmission line, and the means by which that protection will be maintained through the useful life of the proposed transmission line.

ANSWER: The Owners maintain property and casualty insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

21. In the event that agricultural production activities near the proposed transmission line damage or interfere with the operation of the line (including, for example, a GPS guided tractor colliding with a monopole), describe in detail any liability

protection which applicants will provide to agricultural producers in the event of third party claims against those producers for interruption of service or other damages..

ANSWER: The Owners maintain property and casualty insurance coverages customary for the utilities industry, including general liability insurance. In the event of a claim that falls within the scope of this coverage, the law of torts would apply.

22. Describe in detail the anticipated maintenance schedule for the towers, lines, substations and other components of the proposed transmission line, and the amount of time each are anticipated to remain in operation.

ANSWER: The Owners anticipate they will inspect the towers, components, and conductors at a minimum of twice a year associated with routine maintenance. A patrol typically would be conducted in the spring and fall of each year to minimize the environmental impact. These patrols/inspections typically take two to three weeks per year and are for the most part confined to the facility right of way. If problems are discovered during these inspections, and are not emergency in nature, typically repairs can be scheduled in fall or winter. If for some reason repairs would have to be scheduled when the crops are still in the field the landowner would be compensated for any damages associated with those repairs.

The right of way would be managed as part of the Owners vegetation management program which consists of removal of trees and other vegetation that could interfere with the reliability of the facility, which usually occurs on a four year cycle. This typically takes around three or four weeks per cycle and is scheduled to be performed in the fall or winter.

The substations maintenance consists of inspections, vegetation management, equipment testing, etc. and is typically confined to the fenced area within the substation with the exception of vegetation management which includes just outside the fence and driveways. These items are completed throughout the year and typically take around eight weeks to complete.

The Owners expect the line to be in service for perpetuity. There are not currently have any plans to remove any of our transmission system. However, as noted above, the facilities will require ongoing maintenance in order to operate safely and reliably.

RESPONSES TO DOCUMENT REQUESTS

1. Tower components, insulators, footings, foundations, guy-wires, and any other attachments for the towers which will be used generally to construct the proposed

transmission line and those which would be specifically used upon property owned by Gerald Pesall.

RESPONSE: See BSSE 10 attached.

2. The exact location where the lines and towers for the proposed transmission line would be located in located Day County, South Dakota for the currently selected route and any alternative routes being considered.

RESPONSE: See BSSE 12 to 63. These documents reflect the preliminary estimates of the location of the lines and towers. The exact location of the lines and towers in Day County has not yet been determined.

3. The Big Stone Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

4. The Brookings County substation, including a description of any transmission lines which will directly connect to it.

OBJECTION: The Owners object to disclosing this information because the Brookings County substation is not part of the Project, and the requested documents exceed the scope of permissible discovery under SDCL 15-6-26(b) and ARSD 20:10:01:01.02. The Owners further object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

5. The Ellendale Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

STATE OF NORTH DAKOTA)
)
) SS.
COUNTY OF Burleigh)

Jay Skabo, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

MONTANA-DAKOTA UTILITIES CO.

By Jay Skabo
Jay Skabo
Its Vice President - Electric Supply

Subscribed and sworn to before me this 26 day of February, 2014.

Bloome Stapp
Notary Public -- South Dakota
(SEAL)

My Commission Expires: 9-27-17

STATE OF MINNESOTA)
) :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

OTTER TAIL POWER COMPANY

By Jason J Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 26th day of February, 2014.



Vicki Lynn Severson
Notary Public -- South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015

AS TO OBJECTIONS:

Dated February 26, 2014



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CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 26th day of February 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's First Set of Discovery Requests to Applicants Dated January 28, 2014 was served via first-class mail to the following addresses listed:

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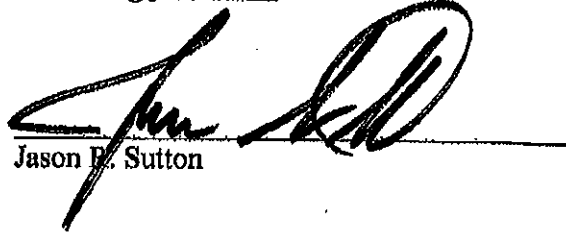
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Jason E. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S SECOND SET OF
DISCOVERY REQUESTS TO
APPLICANTS DATED MARCH 5, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's Second of Discovery Requests to Applicants dated March 5, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

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Kadrmas, Lee & Jackson, ROW Services
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Fargo, N.D. 58106
Phone: 701-232-5353
terry.fasteen@kljeng.com**



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Director Electric Transmission Engineering
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Mark Shaw, Project Manager
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Dean Pawlowski, Transmission Project Manager
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Angela Piner, Project Manager Environmental Scientist
Associate Vice President
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Jason Weiers, Manager -- Delivery Planning
Otter Tail Power Company
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Fergus Falls, MN 56538-0496
Phone: 218-739-8311
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2. State the full name, address, telephone number, and occupation of each witness and/or expert from whom you intend to present testimony in this proceeding, and provide a summary of the facts and opinions which each is expected to provide

ANSWER: At this time, Owners intend to call the following witnesses who are all qualified as experts:

Henry Ford, Director
Director Electric Transmission Engineering
Montana-Dakota Utilities Co.
400 N. 4th Street
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Jason Weiers, Manager – Delivery Planning
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Daniel Fredrickson, Project Engineer
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Angela Piner, Project Manager Environmental Scientist
Associate Vice President
HDR Engineering, Inc.
701 Xenia Avenue South – Suite 600
Minneapolis, MN 55416
Phone: 763-591-5478
angela.piner@hdrinc.com

The specific substance of the testimony will be disclosed in the prefiled testimony deadlines imposed by the Public Utilities Commission of South Dakota (“the Commission”), but generally, these witnesses will provide the testimony to establish the Owners’ burden of proving that the Commission should issue the requested permit for the Big Stone South to Ellendale Project (“the Project”).

3. Describe in detail the projected cost difference between the currently proposed route and the other potential routes examined by the applicants for the construction of the transmission facility.

ANSWER: The Owners have not calculated the projected cost differential between the currently proposed route and the other potential routes identified in BSSE 9, which was produced as part of the Owners' response to Gerald Pesall's First Set of Discovery Requests to Applicant. The best estimate of cost is the length of the proposed route. The rejected preliminary route shown on BSSE 9, which goes through Marshall County and western Day County, is longer than the proposed route. The length of the proposed route and corresponding cost was not the sole basis, however, for selecting the proposed route. Instead, the proposed route was selected based on the route selection process and considerations discussed in section 8.1 of Application to Public Utilities Commission of the State of South Dakota, as amended ("the Application").

4. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon persons using either pacemakers, cochlear implants, or similar devices while under or near the transmission line.

ANSWER: Owners do not anticipate any impact on persons with pacemakers, cochlear implants, or similar devices while under or near the transmission line at ground level.

5. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon electronically controlled planting equipment when operated under or near the transmission line.

ANSWER: Owners do not expect that transmission line electric and magnetic fields will impact electronic controls of planting equipment. Isolated cases of interference related to GPS based systems are possible but unlikely.

As stated in answer to interrogatory number 12 in Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

6. In the event a landowner's average crop yields are reduced due to construction activities during the construction process, or as a result of ongoing maintenance, describe the compensation, if any, which applicants will provide to landowners to offset reduced crop insurance payments in future years.

ANSWER: If damage occurs to crops during the construction process, the Owners will pay for the crops damaged, including hay land. The damage payment for standing crop shall be determined by the following formula (acres x yield x price per bushel/ton).

The Owners will strive to work with the landowner to jointly establish the acres affected by construction. To determine the yield component, the Owners will consider the yield obtained by the landowner on the remainder of the field affected and historical data. The price per bushel shall be determined by the market rate at the time of the crop damage.

The Owners will pay a lump sum payment equal twice the amount of the crop damage payment calculated pursuant to the formula discussed above. The Owners pay twice the amount of the crop damage calculated to reflect future yield reductions caused by the construction.

Actual crop damages from maintenance operations will be reimbursed by the Project.

7. State the average cost per linear foot to construct the proposed transmission line on the currently proposed route.

ANSWER: The Owners have not calculated the cost per linear foot of constructing the Project. As stated in section 5.0 of the Application, the total estimated cost of the Project is \$293 to \$370 million in 2013 dollars. Of this amount, according to

section 5.0 of the Application, the cost of transmission line portion of the Project is \$265 million to \$342 million. As stated in section 2.0 of the Application, the Project includes approximately 160 to 170 miles of transmission line. These estimates can be used to calculate a range of anticipated costs for building each mile of the transmission line.

8. In answer to your Interrogatory No. 6 of Gerald Pesall's First Set of Discovery Requests, you indicate that road damage will be monitored and repaired. Describe in detail who will provide monitoring and repair services, and how they will be provided.

ANSWER: As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (*i.e.*, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.

9. Describe in detail the impact, if any, applicants contend the construction of the proposed facility will have on the field-to-field transmission of soil and plant-borne pests, including but not limited to the soybean cyst nematode, and the "sudden death syndrome" fungus, and any preventative measures applicants will take to prevent the transmission of the same during construction and ongoing maintenance of the proposed facility.

ANSWER: The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Owners experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields.

10. Describe in detail any alternative means by which applicants may comply with clean energy mandates imposed by the State of Minnesota in the event that the application is denied.

ANSWER: The Owners assume that the reference to "clean energy mandates imposed by the State of Minnesota" means renewable portfolio standards that apply in Minnesota, which requires that 25% of retail energy sales must come from

renewables by 2025 and 1.5% of retail energy sales coming from solar energy by 2020.

Montana-Dakota Utilities Co. is not subject to Minnesota's clean energy mandates because it does not serve customers within the State of Minnesota. Otter Tail Power Company ("OTP") does serve customers within the State of Minnesota and therefore is subject to the requirements imposed by Minnesota.

Regardless of whether the permit for the Project is granted or denied, OTP would embark on a similar approach to that which it has historically taken when adding generation resources to comply with Minnesota's clean energy mandates.

OTP currently provides about 19% of its total retail sales from wind energy. To date, all of OTP's wind energy has been added cost effectively.

As mentioned in sections 4 and 6 of the Application, the Project, along with the rest of the MVPs, will reduce the wholesale cost of energy delivery for consumers across MISO by increasing transmission capacity. If the Application is denied, the Project may not be built, thereby jeopardizing the benefits the MVP portfolio offers to the MISO region, which includes South Dakota. Without these benefits, energy prices in the MISO region could be higher, therefore increasing costs to consumers system-wide.

STATE OF NORTH DAKOTA)
)
COUNTY OF Burdick) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 1st day of April, 2014.

MONTANA-DAKOTA UTILITIES CO.

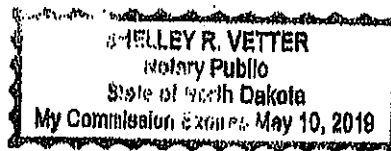
By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 1st day of April, 2014.

Shelley R. Vetter

Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
)SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 4th day of April, 2014.

OTTER TAIL POWER COMPANY

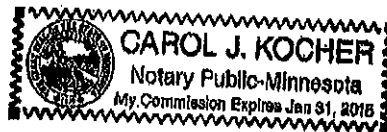
By Jason J. Weiers
Jason Weiers

Its Manager, Delivery Planning

Subscribed and sworn to before me this 4th day of April, 2014.

Carol J. Kocher
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015



CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 7th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's Second Set of Discovery Requests to Applicants Dated March 5, 2014 was served via first-class mail to the following addresses listed:

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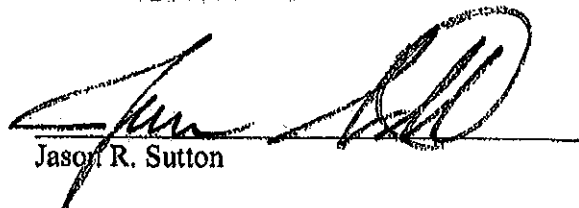
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Jason R. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD REBUTTAL
TESTIMONY**



1 A. No, this case is the first time where alleged spread of SCN has been raised as a
2 concern.

3 **Q. How many miles of transmission line does MDU have?**

4 A. MDU owns and maintains approximately 3,000 miles of transmission line.

5 **Q. What experience has co-owner Otter Tail Power Company (OTP) had regarding**
6 **SCN in the construction and maintenance of transmission lines?**

7 A. Like MDU, OTP has not encountered the complaint that construction or maintenance
8 of a transmission line spreads SCN.

9 **Q. When was the first time the Project learned anyone had concerns that the**
10 **construction or maintenance of the transmission line would spread SCN?**

11 A. Upon receiving the direct filed testimony of Dr. Tylka, which was filed by Gerald
12 Pesall on April 24, 2014.

13 **Q. What steps are Project taking in light of Dr. Tylka's testimony?**

14 A. The Project intends to research the effect construction or maintenance of the
15 transmission line might likely have on the spread of SCN.

16 **Q. How do you propose updating the Commission regarding the Project's plan for**
17 **addressing SCN?**

18 A. Because SCN is a new issue for the Project, and because the short time frame for
19 rebuttal testimony after Gerald Pesall filed Dr. Tylka's testimony, the Project needs additional
20 time to complete their study and research. Following the completion of our study and research,
21 the Project will supplement their prefiled rebuttal testimony.

22 **Q. Does this complete your prefiled rebuttal testimony at this time?**

23 A. Yes.

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD SUPPLEMENTAL
REBUTTAL TESTIMONY**



1 **Q. Please state your name, business address, and current employment position.**

2 A. My name is Henry Ford. I am the Director of Electric Transmission Development for
3 Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND
4 58501.

5 **Q. Have you previously prepared any testimony in this matter?**

6 A. Yes, I prepared direct testimony filed on April 25, 2014. I also prepared rebuttal
7 testimony that was filed on May 9, 2014.

8 **Q. In your rebuttal testimony, did you indicate what steps the Project was taking to
9 address Dr. Tylka's testimony about soybean cyst nematode ("SCN")?**

10 A. Yes. I indicated that the Project was researching the effect of the construction and
11 maintenance of the transmission line on the spread of SCN.

12 **Q. What research has the Project done?**

13 A. The Project consulted with South Dakota State University regarding the presence of
14 SCN in Brown, Day, and Grant Counties, and how SCN is spread. The Project also reviewed
15 academic literature on SCN.

16 **Q. What did your research indicate?**

17 A. SCN is present in Brown, Day, and Grant Counties, but the Project is not aware at this
18 time what particular parcels within those counties have SCN present. SCN can be spread in any
19 method that dirt is spread from field to field.

20 **Q. Why is the Project unaware of the particular parcels containing SCN?**

21 A. The Project is unaware of which landowners have tested for SCN and which parcels
22 the South Dakota State University extension office may have tested in the project area.

1 Additionally, the extension office would not be able to provide any information that may be
2 available because the information is private.

3 **Q. Can the construction of the Project contribute to the spread of the SCN?**

4 A. Based on our research, anything that causes dirt to move from field to field can cause
5 spread of SCN, including wind, erosion, farming practices, and the construction of the Project.

6 **Q. Based on the research, does the Project intend to engage in any mitigation to
7 reduce the spread of SCN?**

8 A. Yes, we are intending to adopt and implement a plan.

9 **Q. Please describe the mitigation plan.**

10 A. The Project is still developing a mitigation plan. Although not yet finalized, the
11 Project is considering five components to the plan -- consultation, sampling, cleaning, training,
12 and monitoring. The details of the mitigation will depend on the results of consultation and
13 sampling.

14 **Q. When do you expect the mitigation plan to be filed?**

15 A. I expect a working draft mitigation plan to be filed before the evidentiary hearing on
16 June 10 so that I can testify about it at the hearing.

17 **Q. What plans does the Project have regarding addressing the possible spread of
18 SCN through maintenance activities?**

19 A. The mitigation plan will address reasonable and appropriate efforts to reduce the
20 spread of SCN during maintenance activities.

21 **Q. Does this complete your supplemental rebuttal testimony?**

22 A. Yes.

Soybean Cyst Nematode Mitigation Plan

Background Information

The soybean cyst nematode (*Heterodera glycines*) (SCN) has been identified throughout the Project area and was first identified in 1997¹ in the three counties within which the Project traverses. The SCN can be spread through the movement of affected soil. It moves very slowly through wind-blown soils, wind and water erosion, and cultivation practices and has been known to survive in the soil for a decade².

The Project developed a mitigation plan described below to reduce the risk of spreading SCN from affected to non-affected fields. This mitigation plan has the following approach:

- Perform a field assessment to identify the presence or absence of the SCN within cultivated fields crossed by the Project right-of-way (ROW)
- Identify acceptable measures to mitigate spreading SCN during construction
- Hold construction crews accountable through inspection and monitoring during construction

Mitigation Plan

Field Assessment

Sampling for SCN commonly targets high probability areas in cultivated fields, which includes field lines, field entrances, and low spots³. The goal of the field assessment is to identify the presence or absence of the SCN in the cultivated fields crossed by the Project. The sampling protocol will be completed in accordance with the South Dakota State University protocol.

Mitigation Measures

Mitigating the spread of SCN from an existing affected field to a non-SCN affected field, a variety of measures may be utilized, which are dependent on soil conditions, weather conditions, topography, distance traveled, equipment type, and cost. Unfortunately, one mitigation measure alone is not a "catch-all" and will be determined on a site-specific basis. Measures to assist in the control of soils on equipment may include: cleaning stations, utilizing clean crews for non-affected fields and a dirty crew for affected fields, equipment mats, and

¹ Strunk, Connie. 2013. Soybean Cyst Nematodes: An expanding pest in South Dakota.

<http://igrow.org/agronomy/soybeans/soybean-cyst-nematodes-an-expanding-pest-in-south-dakota/>

² Niblack, T. L., K. N. Lambert, and G. L. Tylka. 2006. A Model Plant Pathogen from the Kingdom Animalia: *Heterodera glycines*, the Soybean Cyst Nematode. Annual Review of Phytopathology 44: 283-303

³ Smolik, J.D., M.A. Draper. 2007. Soybean Cyst Nematode South Dakota Extension Fact Sheet 902-A. SDSU Plant Science Department. http://pubstorage.sdstate.edu/AgBio_Publications/articles/FS902A.pdf



Big Stone South to Ellendale

weather-dependent construction (i.e. frozen and dry soils). The measures ultimately used will depend on the results of the sampling effort, cost, resource availability, and contractor input.

Inspection/Monitoring

The Project is committing to training and identifying individuals responsible for monitoring construction personnel in their implementation of this plan.

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

**IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE
BIG STONE SOUTH TO ELLENDALE 345
KV TRANSMISSION LINE**

SETTLEMENT STIPULATION

EL13-028

It is hereby stipulated and agreed by and among Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly "Applicant"), and the South Dakota Public Utilities Commission Staff ("Staff") (jointly "Party" or "Parties"), that the following Settlement Stipulation ("Stipulation") may be adopted by the South Dakota Public Utilities Commission ("Commission") in the above-captioned matter. In support of its Application to the Public Utilities Commission of the State of South Dakota for a Facility Permit ("Facility Permit"), Applicant does hereby offer this Stipulation, the Application filed August 23, 2013, as amended, and all responses submitted by the Applicant to the Staff's data requests, all responses to Gerald Pesall's discovery requests, and the testimony and exhibits filed on April 25, 2014, May 9, 2014 and May 23, 2014, conditioned upon the Commission accepting the following Stipulation and the Terms and Conditions without any material condition or modification.

I. INTRODUCTION

Applicant proposes to own and construct the Big Stone South to Ellendale 345 kV electric transmission facilities ("Project"). The Project includes new 345 kV electric transmission facilities of approximately 160 to 170 miles in length, which will connect the new Ellendale 345 kV Substation with the Big Stone South Substation. Approximately 150 to 160 miles of transmission facilities will be located in South Dakota. The Project also involves the building of a new 345 kV substation ("Ellendale 345 kV Substation") and substation tie line near Ellendale, North Dakota.

II. PURPOSE

This Stipulation has been prepared and executed by the Parties for the sole purpose of stating the Parties' agreement regarding the issuance of a Facility Permit in Docket No. EL13-028. In consideration of the mutual promises hereinafter set forth, the Parties agree as follows:

1. Upon execution of the Stipulation, the Parties shall file this Stipulation with the Commission together with a joint motion requesting that the Commission issue an order approving this Stipulation in its entirety without condition or modification.



2. This Stipulation includes all terms and conditions of settlement and is submitted with the condition that, in the event the Commission imposes any material changes or conditions to this Stipulation, which are unacceptable to any Party, this Stipulation may, at the option of any Party, be withdrawn and shall not constitute any part of the record in this proceeding or any other proceeding nor be used for any other purpose.
3. This Stipulation shall become binding upon execution by the Parties, provided however, that if this Stipulation does not become effective in accordance with Paragraph 2 above, it shall be null and void. This Stipulation is intended to relate only to the specific matter referred to herein; no Party waives any claim or right, which it may otherwise have, with respect to any matter not expressly provided for herein. No Party or a representative thereof shall directly or indirectly refer to this Stipulation as precedent in any other current or future proceeding before the Commission.
4. The Parties to this proceeding stipulate that all pre-filed exhibits and pre-filed testimony submitted by the Applicant will be made a part of the record in this proceeding.
5. The terms and conditions contained in this Stipulation shall inure to the benefit of and be binding upon the respective successors, affiliates, owners, stockholders, partners, parents, subsidiaries, directors, officers, agents, employees, representatives, attorneys, and assigns of the Parties. In addition, the terms and conditions of this Stipulation, including all facts leading up to the signing of this Stipulation, shall bind the Parties, including consultants, contractors, and retained professionals.
6. This Stipulation constitutes the entire agreement between the Parties and shall be deemed to supersede any other understandings or agreements, whether written, oral, expressed or implied, relating to the Application. This Stipulation may not be amended, modified, or supplemented, and waivers or consents to departures from the terms and conditions of this Stipulation may not be given without the written consent thereto executed by all Parties.
7. This Stipulation shall be interpreted and construed in accordance with the laws of the State of South Dakota.
8. This Stipulation may be executed by electronic mail or facsimile and in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document.
9. The Parties recognize that the Commission has granted intervention to Gerald Pesall, James R. McKane, III, Clark T. Olson, Shuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson (collectively "Intervenors"). The Intervenors are not parties to this Stipulation.
10. The Parties agree that subject to the four elements of proof under SDCL § 49-41B-22,

the Commission has the authority to grant, deny, or grant upon reasonable terms, conditions or modifications a permit for the construction, operation, and maintenance of the Project. The Parties further agree that the Applicant has met its burden of proof pursuant to SDCL § 49-41B-22 and is entitled to a permit to construct the Project as provided in SDCL § 49-41B-24, subject to the following:

III. TERMS AND CONDITIONS OF THE SETTLEMENT STIPULATION

1.

Applicant will obtain all applicable and necessary governmental permits, which reasonably may be required by any governmental authority with jurisdiction, prior to engaging in the particular activity covered by that permit.

2.

Applicant shall construct, operate, and maintain the Project in a manner consistent with: (1) descriptions in the Application, (2) Application supplements, (3) responses to data requests, (4) the Terms and Conditions of the Permit to Construct Facilities, and (5) any applicable industry standards.

3.

Applicant agrees that the Commission's complaint process as set forth in ARSD 20:10:01 shall be available to landowners, other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit.

4.

Applicant shall provide each landowner on whose property the Project is to be constructed or located with the following information:

- a) A copy of the Commission's Order Granting Permit to Construct Facilities;
- b) Detailed safety information describing:
 - 1) Reasonable safety precautions for activities on or near the Project,
 - 2) Known activities or uses that are prohibited near the Project, and
 - 3) Other known potential dangers or limitations near the Project;
- c) Construction/maintenance damage compensation policies and procedures;
- d) Commission's address, website, and phone number; and
- e) Contact person for Applicant, including name, e-mail address, and phone number.

Once the foregoing information has been provided to the landowner, Applicant shall have no

responsibility or duty to update such information except for changes to items b), c), and e) in this paragraph 4.

5.

In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL § 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of the Applicant involved in this Project be made aware of the terms and conditions of this Permit.

6.

Except as otherwise provided in the conditions of this Stipulation, the Applicant shall comply with all mitigation measures set forth in the Application, in Applicant's responses to Staff data requests, Applicant's responses to Intervenor's discovery, and in Applicant's prefiled testimony and exhibits. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.

7.

Applicant will negotiate road use agreements with applicable government authorities with jurisdiction, if required during construction. Applicant will follow the terms of all road use agreements. Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including but not limited to implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal from the road surface of any soils or mud deposits from the road surface when necessary.

8.

Applicant shall comply with the following conditions regarding road protection:

- a) Applicant shall acquire all applicable and necessary permits authorizing the crossing of federal, state, county, and township roads.
- b) Applicant shall coordinate road closures with federal, state and local governments and emergency responders.
- c) Applicant shall implement a regular program of road maintenance and repair throughout the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.
- d) After construction, Applicant shall repair and restore deteriorated roads to the conditions defined in the road use agreement, if applicable, resulting from Applicant's construction traffic, or compensate governmental entities for their repair and restoration of deteriorated roads caused by Applicant, such that the roads are returned to their preconstruction condition.
- e) Privately owned areas used as temporary roads during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.

- f) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to original width after completion of the Project, unless otherwise agreed upon.

9.

Applicant will coordinate with pipeline owners to ensure that the Project does not cause harm to existing pipeline facilities. Applicant will work with pipeline owners to implement any necessary and reasonable mitigation measures.

10.

Applicant will provide signage that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

11.

Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species or native grasslands in the siting area that Applicant becomes aware of and that was not previously reported to the Commission.

12.

Applicant agrees to avoid direct impacts to archaeological and architectural site features that are listed on or that are eligible for listing on the National Register of Historic Places (NRHP), and those that are not evaluated for listing on the NRHP. When NRHP-eligible or listed sites cannot be avoided, Applicant will notify the State Historic Preservation Office (SHPO) and the Commission of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or develop treatment measures.

13.

If, during construction, Applicant discovers what may be a cultural resource, human skeletal remains, or associated funerary objects, Applicant or its agent shall immediately cease work at the location and notify the landowner(s), the SHPO, and other authorities as appropriate (per SDCL § 34-27-25 and SDCL § 34-27-28 in the case of human burials). If it is determined, in coordination with SHPO, that a significant resource is present, Applicant shall develop a plan that is acceptable to the landowner and SHPO that minimizes the adverse impact or threat to the resource.

14.

Applicant shall follow a) all conditions required by any agency permits and b) all final agency recommendations agreed to by Applicants through consultation with those applicable agencies in Exhibit 1, Appendix C. Applicant shall reasonably update the Commission if any of the final agency recommendations agreed to by the Applicant as provided for in this paragraph (14) change from Exhibit 1, Appendix C.

15.

Applicant shall confer with the applicable agencies in the implementation of measures for the protection of avian species consistent with "Suggested Practices for Avian Protection on

Power Lines: The State of the Art in 2006" and "Reducing Avian Collisions with Power Lines: State of the Art in 2012" prepared by the Avian Power Line Interaction Committee.

16.

Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission prior to submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation as required by the NPDES permit. All contractors will be given a copy of the SWPPP and requirements will be reviewed with them prior to the start of construction.

17.

Applicant shall develop and implement a mitigation plan to minimize the spread of soybean cyst nematode, consistent with Exhibit 23, in consultation with a crop pest control expert.

18.

Applicant will repair and restore areas materially impacted by construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration will include replacement of original pre-construction or equivalent quality topsoil to its original elevation, contour, and compaction and reestablishment of original vegetation as close thereto as reasonably practical.

19.

Applicant's obligation with respect to restoration and maintenance of the right-of-way (ROW) shall continue throughout the life of the Project for disturbances caused by the actions of the Applicant. Where the soil is disturbed during construction or maintenance of the line, Applicant shall restore vegetation as appropriate in and along the ROW. For a period of thirty-six (36) months from the energization of the Project, if noxious weeds sprout in restored areas, Applicant will remove/eliminate them. Landowner permission shall be obtained before the initial application of herbicides.

20.

When necessitated by Applicant's actions, Applicant shall restore and clean-up the ROW continuously throughout the duration of the Project's construction as the timing of construction activities result in the need to do so.

21.

Applicant shall stage construction materials in a manner that minimizes adverse impact to landowners as agreed upon between Applicant and the landowners. All excess construction materials and debris shall be removed upon completion of the Project. In addition, any temporary guard poles shall be removed, unless agreed upon otherwise.

22.

Applicant shall, in a manner consistent with its easement agreement with a landowner, repair or replace all private property existing at the time of construction, which is removed or

damaged during all phases of construction, including, but not limited to the following: fences, gates, utility, water supply systems, irrigation, or drainage systems. Applicant shall compensate the landowners for damages or losses to property existing at the time of construction or maintenance that cannot be fully remedied by repair or replacement, including actual crop and livestock losses.

23.

If it becomes necessary to materially deviate from the described centerline to accommodate engineering and applicable safety and construction requirements based upon conditions encountered during construction, all landowners affected by the material deviation and the Commission must be notified in writing at least five working days before the material deviation is expected to occur. Unless otherwise notified by the Commission, the material deviation is deemed approved. For purposes of this paragraph, the term "material deviations" shall mean any action or activity outside the reasonable parameters of the Permit.

24.

Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities existing prior to the date of this Stipulation, unless agreed otherwise by the affected landowner. Applicant shall take appropriate precautions to protect livestock and crops during construction.

25.

The terms and conditions of the Permit shall be made a uniform condition of construction, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied to the property in question and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis which evaluation shall be completed within sixty (60) days unless exigent circumstances require action sooner.

26.

If the presence or operation of the Project causes unreasonable interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

27.

Applicant shall use appropriate preventative measures to prevent damage to paved roads and to remove excess soil or mud from such roadways. Before commencing construction, Applicant shall furnish an indemnity bond in the amount of \$300,000 to comply with the requirements of SDCL § 49-41B-38. Such bond shall be issued in favor of, and for the benefit of, such townships, counties, or other governmental entities whose property is crossed by the transmission facilities or used by associated construction equipment. The bond shall remain in effect until released by the Commission, which release shall not be unreasonably denied.

following completion of the construction and remediation period. Applicant shall give notice of the existence and amount of the bond to all governmental entities whose property is crossed or used by the Project.

28.

Applicant will provide Global Positioning System (GPS) coordinates of proposed structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.

29.

Not less than 30 days prior to commencement of construction work in the field, Applicant will provide to Staff the most current pre-construction design, layout and plans. Applicant also will provide such additional pre-construction information as Staff requests.

30.

Within 90 days of the Project's completion, Applicant shall submit a report to the Commission that provides the following information: 1) as-built location of structures and route, including drawings; 2) status of remedial activities for alleged road damage, alleged landowner property damage, alleged crop damage, alleged environmental damage, or any other alleged damage that resulted from construction activities; and 3) a summary of known landowner complaints and Applicant's responses.

31.

Prior to construction, Applicant will notify public safety agencies providing a schedule and location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, Sheriffs of Brown, Grant, and Day Counties, and Brown, Grant, and Day County Offices of Emergency Management.

32.

Applicant shall provide all landowners information regarding the potential induction of current/voltage on fences and metal objects and mitigation methods that can be applied to eliminate the induction. Applicant will respond to landowners concerns regarding induced current/voltage on fences or other structures within 100 feet of the edge of the right-of-way of the Project and will assist those landowners in determining methods and implementation of mitigation.

33. Applicant shall provide all landowners information regarding possible interference with unlicensed agricultural navigation communication transmitting or receiving equipment and mitigation methods that can be applied to minimize unreasonable interference. Applicant will respond to landowners concerns regarding unreasonable interference with unlicensed agricultural navigation communication transmitting or receiving equipment and will assist those landowners in determining methods and implementation of mitigation.

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SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: 6-9-14

Montana-Dakota Utilities Co.

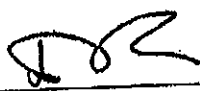
By: Garret Senger

Its: V.P. Regulatory + CAO

SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: _____

Otter Tail Power Company

By:  _____

Its: President _____

SETTLEMENT STIPULATION—DOCKET EL13-028

Dated: June 7, 2014

Karen E. Cremer

Karen E. Cremer
Staff Attorney
South Dakota Public Utilities Commission

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION EL13-028
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

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Transcript of Proceedings
June 10, 2014
Volume I, pages 1-144

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
Brian Rounds
Katlyn Gustafson

APPEARANCES

Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 are required under the Stipulation for approval of
2 material changes within the route.

3 Then just to give you very briefly the status as it
4 is today on options signed on this project, I can tell
5 you that as of the 3rd of June we have 224 options
6 signed. That equals roughly 60 percent of the total line
7 miles on this project. I know we've executed a few more
8 today. I don't have those reflected in here. But so we
9 continue to make progress on getting options signed on
10 the project.

11 Now in terms of the Soybean Cyst Nematode Mitigation
12 Plan, you know, I admitted right away that when this
13 issue was raised by Mr. Pesall's attorney this was not an
14 issue that the owners of this project or the Applicants
15 here were really aware of.

16 You know, we've built a lot of transmission line
17 throughout this area and throughout Minnesota,
18 North Dakota, Montana. This is an issue that at least
19 has not come up in any particular proceeding or it is not
20 something that we have faced before on a project.

21 So as a result, we had to do a little bit of
22 research right away into this issue. And through that
23 research -- and basically what we did was we consulted
24 with South Dakota State University and their extension
25 service. They're well-aware of this issue, and they were

1 able to give us, I think, some good education on this
2 issue as well as discuss with us what our mitigation plan
3 looks like and kind of give us a little bit of advice
4 there.

5 So as a result of those consultations, what we
6 really have determined here is that within the roughly
7 160, 165 miles of the route in South Dakota -- or
8 throughout the whole project, for that matter, we have
9 determined that what needs to be done is that we need to
10 test each individual cultivated field for the presence of
11 the soybean cyst nematode.

12 So we've committed, you know, within the Stipulation
13 that we will follow this mitigation plan. We will test
14 essentially every cultivated field on this project.
15 Based on the results of that testing, we're going to know
16 something more about kind of the density of this problem
17 within our route. In other words, we'll know if this
18 issue is confined to certain areas on the route, whether
19 it's every other field kind of a situation or whether
20 it's, you know, 10, 15 miles that is clean fields,
21 followed by 10, 15 miles of dirty fields.

22 The reason I say that is because in our
23 investigation we determined there are several ways to
24 mitigate the transference of the nematode from one field
25 to the other. And depending on the density of this issue

1 along the route, that is going to determine what is the
2 best method of mitigation or the best method that we will
3 apply to prevent this spread to the best of our ability
4 from a dirty field to a clean field.

5 There are several methods we're looking at that
6 we've found that other companies have used in other parts
7 of the country where this has been an issue in the past.
8 There are things like cleaning stations that you set up
9 at the edge of a so-called dirty field where you will
10 clean the equipment before they leave that field.
11 Therefore, they'll be clean and ready to go into a
12 noninfected or noncontaminated field and not transfer the
13 nematode.

14 There is also the option of what we call clean
15 crew/dirty crew. What that means is, there again,
16 depending on the density and the distribution of these
17 fields, you could actually set up a crew that only works
18 within the clean fields. They don't ever go into a dirty
19 field and vice versa. You set up a dirty crew that their
20 purpose is to only work within the fields that are
21 contaminated and not cross into a field that is not
22 contaminated.

23 Those are a couple of the real, I think, successful
24 methods that have been used on other projects. There's
25 other possibilities such as matting where you're

1 technically not driving in the field; you're driving on
2 wood matting. And that could be used in certain areas
3 maybe where the field conditions are wet enough that we
4 would have a greater concern of spreading contaminated
5 soils.

6 And, you know, I think there are some other things
7 out there that we've read about in terms of, you know,
8 potential lesser risk in, say, winter months when the
9 ground is frozen, things like that.

10 So our mitigation plan has laid out this process
11 where we do the testing followed by an analysis of those
12 results to determine the best methods of mitigation to
13 use. And those methods could actually vary from one area
14 of the line to another, all dependent on, you know,
15 cost-effectiveness, project efficiencies, and just what
16 is the best method to use in that area.

17 So that's how we intend to proceed in mitigating the
18 nematode issue. That is Exhibit 23 also, and so we can
19 read that. And it's also included in paragraph 17 of the
20 Settlement Stipulation.

21 So with that in mind, I guess, in conclusion I just
22 want to say that based on what we believe our Application
23 has done, what other filed testimony that we have filed
24 in this case, and the conditions in the Settlement
25 statement -- or the Settlement Stipulation itself, we the

1 Council was one that we had contacted. We did -- in
2 Appendix C of the Application, we did make contact with
3 the State -- if you just give me a second here, I think I
4 can find it. To the South Dakota Department of
5 Agriculture and South Dakota Department of Environment
6 and Natural Resources, those two agencies, which I assume
7 maybe would know something about it. At least the
8 Department of Agriculture. Also the U.S. Department of
9 Agriculture was contacted.

10 CHAIRMAN HANSON: My recollection, the Soybean
11 Council was the first to have a publication on it,
12 though, in South Dakota. It was quite a few years ago,
13 and they were talking about it in the southeast part of
14 the country.

15 Would you please contact them and have
16 discussions with the Soybean Council as well?

17 THE WITNESS: (Nods head.)

18 CHAIRMAN HANSON: You spoke of cleaning
19 stations, clean and dirty crews, potential matting.
20 Counsel Pesall got into some specifics in that arena, a
21 number of areas that I'm concerned with. It doesn't --
22 the Exhibit 23 states that it may include some of the
23 cleaning stations, clean and dirty crews, things of that
24 nature.

25 Again, in this particular instance do you have

1 any specific criteria?

2 The verbiage just did not leave me with a great
3 deal of confidence. In fact, again, it states that it
4 may include, that you may include some of these items.

5 THE WITNESS: Yeah. I think as I stated in my
6 testimony, what we feel is critical here in determining
7 the type of mitigation is really the prevalence of the
8 nematode along the route.

9 So if worst-case scenario let's say 100 percent
10 of the route is contaminated, then obviously there really
11 isn't mitigation that would be required.

12 But if we have long stretches of contamination
13 and long stretches of noncontaminated fields, then the
14 clean crew/dirty crew option may actually be the best
15 option to use.

16 The cleaning stations I think would be used more
17 in the situation where we have, what do you want to say,
18 oscillation between clean and dirty fields along the
19 route so that it is potentially impractical to use clean
20 and dirty crews.

21 So I guess the purpose of that language in the
22 plan is that we may as a result of determining the
23 density of the problem eliminate some of those mitigation
24 options. I mean, maybe we end up going to nothing but
25 cleaning stations, let's say, as an example.

1 So I think we wanted to keep all of these
2 options on the table until we can really analyze, you
3 know, the significance of the problem along the route and
4 best determine, you know, how to mitigate.

5 CHAIRMAN HANSON: Just a comment. It would seem
6 that if you do find a nematode cyst, that you would only
7 use dirty crews in those areas and that you would use
8 clean crews in all of the other areas so that there would
9 be no cross-contamination.

10 I have a few other questions, but I will
11 acquiescent to my fellow Commissioners at this juncture.

12 Commissioner Nelson, did you have questions?

13 COMMISSIONER NELSON: Just a couple, Mr. Ford.

14 In your initial comments today you mentioned
15 that of the route alternatives that you were looking at
16 there was only one that ended up being rejected. Is that
17 the Podoll area?

18 THE WITNESS: Yes, it is.

19 COMMISSIONER NELSON: And referencing your
20 June 5 and 6 letter to Mr. and Mrs. Lyle Podoll, you
21 indicated that one of the reasons that you couldn't go
22 with their alternative was that it would place them at
23 odds with landowners on the proposed southern route
24 change.

25 My recollection of Mr. Podoll's commentary at

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

=====

IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

EL13-028

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Transcript of Proceedings
June 11, 2014
Volume II, pages 145-385

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
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Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 Sections 4, 19.1, and 20 of the Application, as well as
2 Responses to Staff's First Data Requests, paragraphs 5
3 and 8. Section 4 talks about the benefit of the project
4 through property taxes specifically.

5 Sections 19.1 provides a summary of the
6 socioeconomic conditions of the project and is very
7 typical of what you would see in the Application and is
8 very consistent with applications I've done in the
9 past.

10 Section 20 is employment estimates for the project.
11 And paragraph 5 in the First Data Request Response has
12 additional property and sales tax information details.
13 And paragraph 8 has additional information on employment
14 estimates and impacts to local economy.

15 In regard to soilborne pests, after conversations
16 with over 500 landowners who attended our project open
17 houses, many of those which were farmers and the
18 consultation we requested with NRCS and Department of
19 Agriculture, we were not aware of any issues of soilborne
20 pests.

21 We've addressed the evidence and have responded to
22 the soybean cyst nematode issue as provided by
23 Dr. Tylka's testimony and haven't provided evidence on
24 the soilborne pests as we are not aware of the prevalence
25 of those specific issues raised.

1 I was hired to work almost exclusively on that, and that
2 was my graduate training as well.

3 Q. Can you give the Commission a short explanation of
4 what the soybean cyst nematode is?

5 A. Sure. So generally I start off this explanation by
6 describing nematodes in general. These are microscopic
7 worms that live in water and soil, very common. And most
8 of them are good. They're beneficial.

9 But there are a subset of them that feed on plants.
10 And many of these plant feeding nematodes or plant
11 parasitic nematodes are native to the United States, and
12 they're commonly found in agricultural soils throughout
13 the United States.

14 But there also are a few that are introduced pests.
15 And soybean cyst nematode, which I'll probably refer to
16 as SCN from this point on, is one of those introduced
17 pests.

18 And introduced pests create unique problems in that
19 when they are introduced into a field first off they have
20 no natural enemies because they've never existed there
21 before. So many of the native plant parasitic nematodes
22 are not terribly damaging because there are other things
23 that live in the soil that eat nematodes for lunch, for
24 example.

25 But when you're a new introduced pest you have the

1 benefit of many years for not having any natural enemies.
2 And so that's one of the things that makes soybean cyst
3 nematode or SCN so difficult and so dangerous.

4 It also has aspects of its biology that make it very
5 unique and very damaging. Most nematodes are individual
6 worms that feed from the outside of the root and produce
7 five or 10 offspring. But soybean cyst nematode burrows
8 into the root. It attaches to the vascular tissue, which
9 is in the center of the root, and then the female swells
10 up to form what we refer to as a swollen female. And the
11 reason she swells up is because ovaries develop inside of
12 her that are very large.

13 Eventually the adult swollen female is about the
14 size of a printed period at the end of a sentence. So in
15 a book page or a newspaper. And that swollen female
16 fills up with eggs, 200 to 300 eggs. So a unique aspect
17 of the nematode's biology is that it has a very high
18 reproductive potential.

19 Now the whole life cycle of SCN can be completed in
20 four weeks. So when you think about how many weeks a
21 soybean crop is grown in your state or mine that allows
22 for three or four or five turns of the life cycle,
23 generations. And so that adds to the potential for
24 explosive increases in numbers.

25 And then if mother nature didn't give us enough of a

1 bad hand, that final aspect that makes it terribly
2 difficult to manage is the eggs inside the females. When
3 she dies those eggs can live 10 or more years without a
4 soybean crop being grown. Those eggs go dormant in the
5 soil.

6 So it's a very troublesome pest because of being an
7 introduced pest, having a high number of offspring per
8 individual, a short life cycle, and then very long lived
9 in the soil.

10 Management of soybean cyst nematode consists of
11 checking your fields to know if you have it or not, and
12 then once you've discovered you've got it, you're looking
13 at growing resistant soybean varieties or not growing a
14 host crop like soybeans or using a seed treatment, which
15 is a new management strategy that's just been brought on
16 to the market a couple of years ago.

17 So really check your fields, switch to a resistant
18 soybean variety, don't grow something that's a host crop,
19 or a seed treatment.

20 I want to just touch on the resistant soybean
21 varieties for a second because I don't want to give you
22 the impression that that's a cure. So resistant soybean
23 varieties suppress the reproduction of the nematode, but
24 it doesn't stop reproduction. And also it still suffers
25 some damage.

1 And then as you use the resistance over time, the
2 nematode can become resistant to resistance. So in Iowa
3 where we grow 11 million acres of soybeans, soybean cyst
4 nematode is in 75 percent of the field. It's not a death
5 sentence, but it's a significant economic hit to the
6 soybean production in any field that has it because of
7 these things.

8 And the seed treatment, which is the newest
9 management strategy, in my mind at least the verdict is
10 still out on whether or not they provide any additional
11 benefit or not.

12 Because of everything I've just said, I consider the
13 states of North Dakota, South Dakota, and parts of
14 Minnesota as being in a really unique situation in that
15 there are large tracts of land growing soybeans that
16 don't have soybean cyst nematode yet. And so that's a
17 unique opportunity in terms of management. In many
18 respects the best way to manage soybean cyst nematode is
19 to delay its arrival into a particular field.

20 So I find myself sitting here listening to
21 proceedings thinking of my career in the early '90s in
22 Iowa when soybean cyst nematode wasn't very widespread,
23 and we really beat the drum and talked about managing the
24 movement of soil to slow the spread of the nematode.
25 Once the nematode is present then we've covered already

1 what your management options are.

2 And as far as spread goes, as in my prefiled
3 testimony, anything that moves soil has the ability to
4 move soybean cyst nematode. I just want to bring you
5 back to a mental imagine of a female the size of a period
6 at the end of a sentence. And that little object has 200
7 to 300 offspring inside of her.

8 And so the smallest little particle that's able to
9 hold a period at the end of the sentence, that's the
10 amount of soil that could be moved to move the nematode.

11 Finally, one just short comment. I've heard
12 comments yesterday and today about farmers not mentioning
13 this in discussions and so forth. That doesn't surprise
14 me at all. Soybean cyst nematode has been in Iowa since
15 1978. And I arrived in 1990 and have devoted my career
16 to research and grower education on soybean cyst
17 nematode, and to this day I run into Iowa farmers who
18 were unaware of soybean cyst nematode.

19 So just because the farmer -- don't be alarmed or
20 don't let that throw you a curve ball. Soybean cyst
21 nematode is still somewhat unrecognized even in it the
22 State of Iowa among some farmers.

23 And that concludes the summary of my prefiled
24 testimony.

25 Q. Mr. Tylka, I have just a couple more questions for

1 MR. SUTTON: Sure. It's relevant because the
2 basis for his assumptions are that when you dig into
3 the ground and go from field to field it spreads. My
4 point is there are many other mechanisms out there that
5 have been occurring and will occur, and we have not
6 developed the spread that he's indicating. That's the
7 relevance.

8 MR. SMITH: Do you want to repeat the question
9 and --

10 MR. SUTTON: Would you like me to reask it?
11 Would that be easier?

12 MR. SMITH: Sure.

13 Q. Dr. Tylka, can you tell me how many miles of drain
14 tile have been installed in South Dakota since 1995 when
15 SCN became present?

16 MR. SMITH: I'm going to overrule the objection.
17 If he knows, he can answer. If he doesn't, he can
18 answer.

19 A. I do not know.

20 Q. Now the spread of SCN is caused by the spread of
21 soil particles; is that correct?

22 A. Beyond an inch, yes. It can only spread on its own
23 power about an inch.

24 Q. And soil is moved by farm equipment?

25 A. That is correct.

1 Q. And it can be moved by wind erosion?

2 A. Yes.

3 Q. Also by water erosion?

4 A. I agree.

5 Q. Will you look at paragraph -- or your prefiled
6 direct testimony.

7 MR. SUTTON: Does he have that?

8 Q. Looking at paragraph 12 of Exhibit 101, that's the
9 direct prefiled testimony that you provided is
10 Exhibit 101, correct, Dr. Tylka?

11 A. The document I'm looking at has it as Exhibit 102.

12 Q. Oh, you're right. You're right. Correct. Thank
13 you. Looking at paragraph 12 on page 3, you opine that
14 construction equipment used in the project like the
15 proposed BSSE line can cause SCN to spread farther or
16 more rapidly than ordinary farming practices.

17 Is that your opinion?

18 A. Yeah. Opinion, yes.

19 Q. And then you go on and page 3 and on to page 4 to
20 talk about the basis for that opinion; is that right?

21 A. Yes.

22 Q. And when we look at paragraph 12 in the first
23 paragraph underneath the actual number 12, you answer the
24 opinion yes. And then you say "Soil disturbed by
25 construction equipment would likely result in greater

1 spread of the nematode than soil disturbed by other
2 common occurrences by making the soil more friable,
3 easily crumbled and prone to erosion, compared to soil
4 that is left undisturbed or disturbed just minimally."

5 That's your opinion; correct?

6 A. Yeah.

7 Q. What do you mean by undisturbed?

8 A. Well, undisturbed would be a situation like no-till
9 farming or just not -- nothing dug into the soil.

10 Q. So, for instance, disturbing the soil through till
11 farming practices would disturb and similarly make the
12 soil friable, would it not?

13 A. I wouldn't say similarly is correct.

14 Q. It would make the soil friable; correct?

15 A. Yes.

16 Q. And it would disturb the soil?

17 A. Yes.

18 Q. You're not aware of any academic studies that have
19 been performed indicating construction practices result
20 in the spread of SCN; correct?

21 A. No. I believe I stated that in the prefiled
22 testimony.

23 Q. No is a little ambiguous to the record there. So
24 the answer to my question is correct; correct?

25 A. Correct.

1 among the farmers I have had personal experience with.
2 And I guess I can say that relates back to my opening
3 comments about the awareness of the nematode, and that's
4 what I meant by diligent.

5 Q. Now in your opening comments you also described some
6 mitigation techniques that farmers can employ if they get
7 SCN in their fields; is that right?

8 A. That's correct.

9 Q. And one of those is to grow nonhost crops such as
10 corn?

11 A. That is correct.

12 Q. And another option would be to include nonhost crops
13 like corn as part of a crop rotation; correct?

14 A. Yes.

15 Q. And, in fact, you recommend that to producers who
16 have SCN?

17 A. That's correct.

18 Q. That's part of the techniques used to minimize the
19 effect?

20 A. Correct.

21 Q. Another option would be to plant SCN resistant
22 variety seed; correct?

23 A. Correct.

24 Q. And as part of your work you have completed academic
25 research about the success in using SCN resistant seeds;

1 absence of the nematode.

2 That has become less of an issue over the past
3 20 years, but there still are some SCN resistant soybean
4 varieties that do not have top yield potential. So
5 that's my reason for my answer being it depends on the
6 variety that's chosen.

7 Q. Because of our growing season, as we move further
8 north into areas that have had less pressure from SCN,
9 would the varieties probably have more research done in
10 that area at this point?

11 A. The answer is yes. And there are much fewer
12 varieties available with SCN resistance in the maturity
13 groups grown in South Dakota relative to Iowa. Even
14 right now.

15 MR. SCHURING: Thank you.

16 MR. SMITH: Mr. Morehouse, any questions?

17 MR. MOREHOUSE: Nothing. Thank you.

18 MR. SMITH: Staff, any questions?

19 MS. CREMER: Thank you.

20 CROSS-EXAMINATION

21 BY MS. CREMER:

22 Q. Is there any way to determine how SCN is introduced
23 into a clean field?

24 A. I've never been asked that question in 28 years.

25 Q. Yay for me.

1 COMMISSIONER FIEGEN: Congratulations.

2 A. I don't think so. They all look the same and are
3 genetic the same. I don't think so.

4 Q. And is there any way to determine when SCN was
5 introduced into a clean field?

6 A. Not specifically. Although you could deduce some
7 timing information based on the numbers that are
8 detected. It doesn't show up in full blown force in
9 terms of numbers. It starts out slowly and builds up.

10 Q. And then looking at your Exhibit 105, it's a map.

11 A. Yes.

12 Q. You have that? So if I understood your testimony
13 correctly, where it shows there is SCN, there definitely
14 is in the dark portions of the map?

15 A. It should be red if it were printed in color.

16 Q. Yeah. I printed mine black and white, but okay. If
17 I understood you correctly, those areas that show up
18 white, those may also have SCN and you just haven't found
19 it yet?

20 A. That's correct.

21 MS. CREMER: Okay. Thank you.

22 THE WITNESS: That's a correct statement.

23 MR. SMITH: Is that all the questions you have?

24 MS. CREMER: That's all I have. Thank you.

25 MR. SMITH: We'll turn then to Commissioner

1 and research in fields, or does everything come in to
2 you?

3 THE WITNESS: No. Most of my field research is
4 done on farmers' fields.

5 COMMISSIONER FIEGEN: Okay. So what precautions
6 do you take and your assistants -- I'm sure you have some
7 grad assistants with you.

8 What type of precautions do you take on
9 vehicles, clothing, work boots, all of that?

10 THE WITNESS: Just knock off as much dirt as
11 possible, as much soil as possible. Soil probes is
12 probably another thing that would accumulate soil. We
13 just make sure we're not taking large clods of soil. But
14 we don't steam wash or power wash. We just -- we work in
15 fields with SCN. So we -- yeah.

16 COMMISSIONER FIEGEN: It is really tricky
17 because when an egg of 200 eggs -- that swollen female.

18 THE WITNESS: Female.

19 COMMISSIONER FIEGEN: And it's a point of a
20 period, it is in your boots. Because when I wear work
21 boots they have grooves.

22 THE WITNESS: Absolutely.

23 COMMISSIONER FIEGEN: I can knock off as much
24 soil as I can, but it's still there.

25 THE WITNESS: Yes.

1 COMMISSIONER FIEGEN: So the precautions of the
2 research people are pretty much not going through the
3 washing but mostly knocking off the excess.

4 THE WITNESS: Yeah. And let's be specific. You
5 asked about my particular research group. There may be
6 other research groups in other states where they do use
7 plastic booties on their feet and they do more thorough
8 precautions than I do.

9 COMMISSIONER FIEGEN: Sure. Thank you.

10 THE WITNESS: Yes.

11 COMMISSIONER FIEGEN: Are you aware --
12 especially when I see commercial sprayers out there
13 across the State of South Dakota, but I'm sure across
14 Iowa you have those big commercial sprayers. Are you
15 aware of any mechanisms they take to prevent the spread
16 of diseases?

17 Because, of course, they travel on roads. Roads
18 have mud. So they're picking up things while they're
19 traveling to the farmers, let alone from farm to farm to
20 elevator, all of that.

21 THE WITNESS: Yeah. The answer is no. And
22 forgive me if I'm over answering, but since you're
23 curious about that, the way I pitch managing the movement
24 of soil in Iowa is first in the context that
25 three-fourths of the fields have it. And that percentage

1 maybe some of those nematodes could get baked near the
2 soil surface, and maybe the numbers would be lower than
3 if you had collected to a depth of 8 inches.

4 CHAIRMAN HANSON: Okay. Because there was some
5 discussion it sounded like there needed to be some
6 excavation of some sort in order for it to be
7 transported. But it sounds like -- that seemed to
8 conflict a little bit with one of your other answers when
9 you said -- I believe it might have been Mr. Sutton's
10 question, could it be transported by the wind, and you
11 answered yes.

12 THE WITNESS: Yep.

13 CHAIRMAN HANSON: It could.

14 THE WITNESS: So my answer to your question, to
15 double back on your question, is it's present there at
16 the surface.

17 From a research standpoint where I'm measuring
18 numbers I would worry about only including that upper
19 inch because the numbers might be a little lower. But
20 it's present, and it's available to be wind blown, water
21 washed, all the things that we covered that move soil.

22 CHAIRMAN HANSON: So hunters going from one
23 field to the next, deer running from one field to the
24 next, any animals, badgers, skunks, whatever, rabbits --
25 what about water fowl and birds? They could transport it

1 as well?

2 THE WITNESS: There's actually a paper where
3 somebody has picked through bird droppings and found dead
4 SCN females with live eggs.

5 CHAIRMAN HANSON: It sounds like it's impossible
6 to stop this. This is terrible.

7 THE WITNESS: I mean, it is, but there are
8 certain parts of the country that are in a unique
9 situation. I would never say you can stop it or prevent
10 it, but there's things that could be done to slow it.

11 CHAIRMAN HANSON: And it develops immunity to
12 herbicides and --

13 THE WITNESS: Well, to resistant -- I was using
14 the herbicides as an analogy. But it can develop
15 resistance to the resistant varieties.

16 CHAIRMAN HANSON: What are some other host crops
17 besides soybeans that are grown in South Dakota?

18 THE WITNESS: What are the crops that are grown
19 in South Dakota?

20 CHAIRMAN HANSON: Sorghum, corn.

21 THE WITNESS: Wheat are not hosts.

22 CHAIRMAN HANSON: Wheat. What other --

23 THE WITNESS: So hosts are more into play when
24 you get into North Dakota and Minnesota and you talk
25 about edible beans. There's all kinds of different types

1 Q. What do you mean "not as much"?

2 A. Well, I made the comment here a little bit at the
3 end here I said this project will take more from
4 agriculture and the state of South Dakota than it will
5 return.

6 Q. Well, as I understand it -- and we will get the
7 exhibits in front of you that are your land. They're
8 Exhibits 21A and 21B and 21C.

9 Do you have those exhibits before you?

10 A. Yes, I do. B.

11 Q. 21A, 21B, and 21C.

12 A. Yes. I have A in front of me.

13 Q. Is 21A a true and accurate representation of the
14 land in which the project seeks to put its structures?

15 A. I believe so.

16 Q. The project proposes to put two structures on your
17 property, and those numbers are 457 and 458. Is that
18 your understanding?

19 A. According to this map, yes.

20 Q. And is that your field that's depicted in
21 Exhibit 21A?

22 A. Yes, it is.

23 Q. Do you do till or no-till in that?

24 A. Depends on the year and the conditions of the soil.

25 Q. Do you do both then?

State of South Dakota

EIGHTY-FOURTH SESSION
LEGISLATIVE ASSEMBLY, 2009

400Q0194

SENATE BILL NO. 62

Introduced by: The Committee on Commerce at the request of the Public Utilities Commission

1 FOR AN ACT ENTITLED, An Act to repeal certain provisions regarding the delegation of
2 powers by the Public Utilities Commission.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

4 Section 1. That § 49-1-17 be repealed.

5 ~~—49-1-17. It is a Class 2 misdemeanor for the Public Utilities Commission to delegate any of~~
6 ~~the powers conferred upon it, or the performance of the duties imposed upon it by law, to any~~
7 ~~other person except in cases where express authority has been given by statute.~~



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

IN THE MATTER OF THE APPLICATION OF)	NOTICE OF APPLICATION;
MONTANA-DAKOTA UTILITIES CO. AND)	ORDER FOR AND NOTICE OF
OTTER TAIL POWER COMPANY FOR A)	PUBLIC INPUT HEARING;
PERMIT TO CONSTRUCT THE BIG STONE)	NOTICE OF OPPORTUNITY TO
SOUTH TO ELLENDALE 345 KV)	APPLY FOR PARTY STATUS
TRANSMISSION LINE)	
)	EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345 kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

On August 26, 2013, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status (Order). On August 29, 2013, the Commission electronically transmitted notice of the Application and the intervention deadline of October 22, 2013, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On September 13, 2013, the Order was served on the governing bodies of all counties and municipalities in the project area, and notices of the public hearings were published in project area newspapers as provided in SDCL 49-41B-5.2 and 49-41B-15. On September 13, 2013, the Commission issued an Order Assessing Filing Fee assessing a filing fee not to exceed the statutory maximum of \$360,000 with a minimum fee of the statutory \$8,000 minimum. The public hearings were held as scheduled on October 17, 2013, in Aberdeen and Milbank. On October 18, 2013, Gerald Pesall filed an Application for Party Status. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 13, 2014, the Commission issued a Procedural Scheduling Order setting the matter for formal evidentiary hearing on June 10-12, 2014, in Room 413 of the State Capitol Building in Pierre beginning at 1:00 p.m. CDT with days two and three beginning at 8:00 a.m. CDT. On January 27, 2014, Applicants filed a First Amendment to Application (Amendment).

Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants will be required to serve notice on such landowners and the Commission deems it proper to hold an additional public input hearing. Pursuant to SDCL 49-41B-15 and 49-41B-16, **the Commission will hold an additional public input hearing on the Application on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.**

The purpose of this public input hearing will be to hear public comment regarding the transmission line permit Application, the Amendment, and the Project. At the hearing, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants, Gerald Pesall, and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status may be obtained from the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before April 16, 2014.

Following the public input hearing, the Commission will hold a formal evidentiary hearing as set forth above conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate.

It is therefore

ORDERED, that the Commission will hold an additional public input hearing on the Project on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 17th day of March, 2014.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Joy Lashley</u>
Date:	<u>03.17.14</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

APPENDIX
To Appellee South Dakota Public Utilities Commission’s Brief
Gerald Pesall, Appellant v. Montana Dakota Utilities et al.
#27324

1. Order Granting Intervention and Party Status dated Nov. 6, 2013	1
2. Transcript of Oral Argument Hearing Administrative Appeal (December 23, 2014, Circuit Court Hearing)	2
3. Exhibit 1: Application to the Public Utilities Commission of the State of South Dakota (relevant sections)	4
4. Administrative Record - Alphabetical Index of CIV 14-53	8
5. Affidavit of Service - (001040-001041)	18
6. Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status dated August 26, 2013 (001042-001043)	20
7. Application for Party Status – Gerald Pesall (001477)	22
8. Exhibit 21A - Pesall Property Photograph - Looking North	23
9. Exhibit 21B - Pesall Property Photograph - Looking South	24
10. Exhibit 21C - Pesall Aerial Map	25
11. Order Granting Intervention and Party Status (003525)	26
12. Exhibit 2 - Responses to First Set of Staff Data Requests	27
13. Exhibit 3 - Responses to Second Set of Staff Data Requests	36
14. Exhibit 4 - Answers to First Set of Pesall Discovery	60
15. Exhibit 5 - Answers to Second Set of Pesall Discovery	82
16. Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014	93
17. Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	96
18. Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention	99

Plan	
19. Exhibit 301 - Settlement Stipulation	117
20. Transcript of Proceedings before the Commission, Volume I (June 10, 2014 evidentiary hearing, relevant sections)	112
21. Transcript of Proceedings before the Commission, Volume II (June 11, 2014 evidentiary hearing, relevant sections)	120
22. Senate Bill 62	138
23. Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status dated March 17, 2014	

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND OTTER)
TAIL POWER COMPANY FOR A PERMIT TO)
CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345 kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design.

On August 26, 2013, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status (Order). On August 29, 2013, the Commission electronically transmitted notice of the Application and the intervention deadline of October 22, 2013, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On September 13, 2013, the Order was served on the governing bodies of all counties and municipalities in the project area, and notices of the public hearings were published in project area newspapers as provided in SDCL 49-41B-5.2 and 49-41B-15. The public hearings were held as scheduled on October 17, 2013, in Aberdeen and Milbank. On October 18, 2013, Gerald Pesall filed an Application for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on November 5, 2013, the Commission considered Mr. Pesall's Application for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to Mr. Pesall. It is therefore

ORDERED, that Gerald Pesall's Application for Party Status and intervention is granted.

Dated at Pierre, South Dakota, this 6th day of November, 2013

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.	
By:	<u>Joy Lashley</u>
Date:	<u>11-6-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

1	STATE OF SOUTH DAKOTA)	IN CIRCUIT COURT
	) SS	
2	COUNTY OF DAY)	FIFTH JUDICIAL CIRCUIT
	* * * * *	* * * * *
3)
4	GERALD PESALL,	) CIV. 14-53
)
5	Appellant,)
		) ORAL ARGUMENT HEARING
6	VS.	) ADMINISTRATIVE APPEAL
)
7	MONTANA DAKOTA UTILITIES, OTTER)
	TAIL POWER, SCHURING FARMS, INC.,)
8	BRADLEY MOREHOUSE, AND THE)
	SOUTH DAKOTA PUBLIC UTILITIES)
9	COMMISSION,)
)
10	APPELLEES.)
	* * * * *	* * * * *
11	<u>DATE & TIME:</u>	December 23, 2014
12		2:00 p.m.
13	<u>BEFORE:</u>	THE HONORABLE SCOTT P. MYREN
14		CIRCUIT COURT JUDGE
15		Brown County Courthouse
		Aberdeen, South Dakota 57401
16	<u>LOCATION:</u>	Brown County Circuit Courtroom
17		Brown County Courthouse
18		Aberdeen, South Dakota 57401
19		
20		
21		
22		
23		
24		
25		

1 Mr. Smith, can you hear me?

2 MR. SMITH: I can, Your Honor.

3 THE COURT: And did you want to make other
4 identifications on the record?

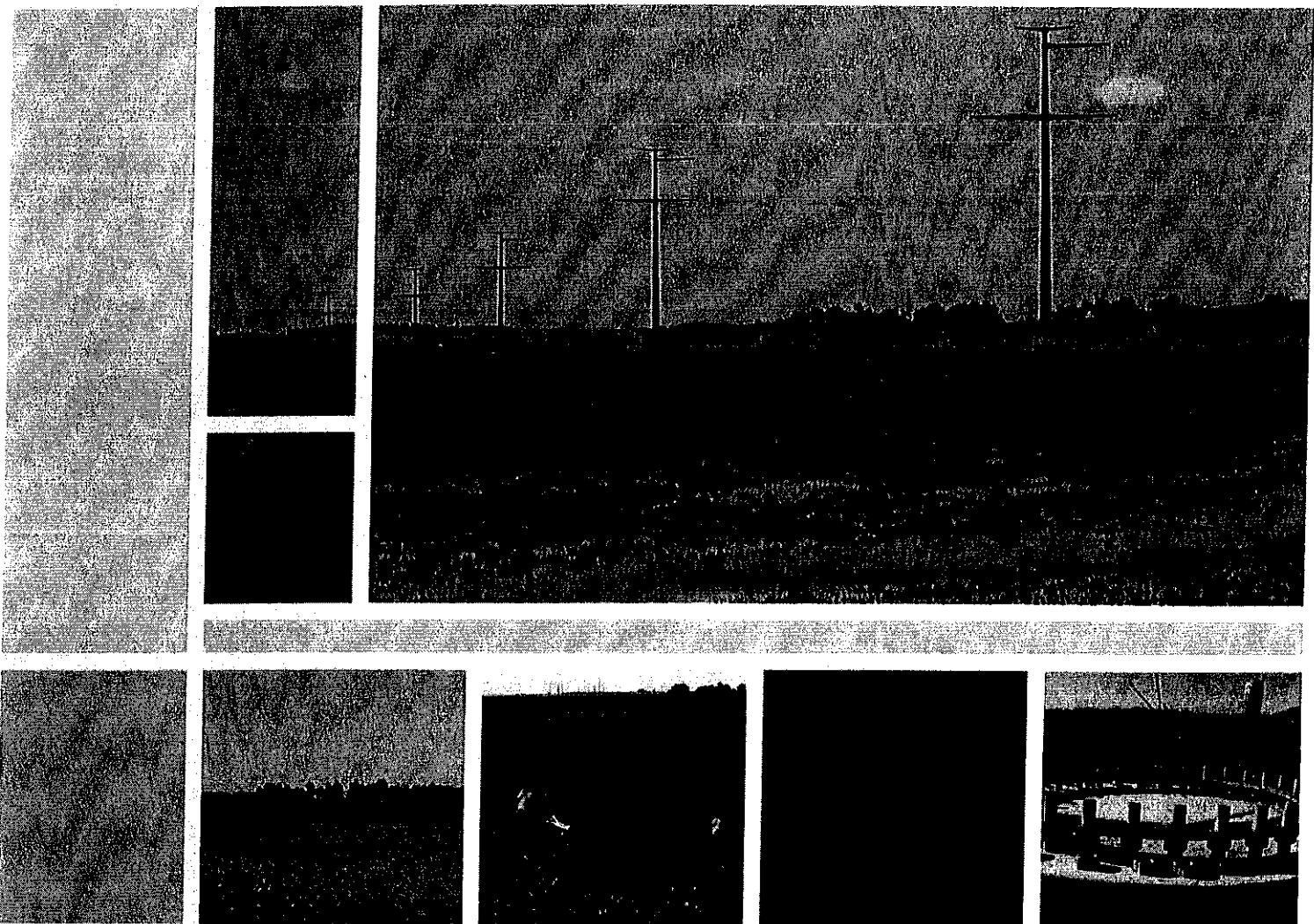
5 MR. SMITH: Well, I'm John Smith, commission counsel for
6 the South Dakota Public Utilities Commission representing
7 the South Dakota Public Utilities Commission this docket.
8 With me in the room today, and we're on speaker phone, is
9 Commissioner Chris Nelson. And that's it.

10 THE COURT: Thank you. And I'll just make sure on the
11 telephone line, was there any other party or any other
12 person that wished to appear before the Court on this
13 matter? If so, just speak up.

14 There are no other appearances being noted on the
15 record.

16 And there is a voluminous record here. I've had the
17 opportunity to review the entire record. And paying
18 particular attention, of course, to the evidentiary hearing
19 and the exhibits that were presented there. And I've also
20 received various briefings from all the parties, which I've
21 had a chance to review.

22 So with the understanding that I've been through all of
23 that material, I will let each of the counsel make their
24 argument. And then as I, I think I explained earlier, I
25 will go back around one additional time for each of the



*Application to the Public Utilities Commission of the
State of South Dakota for a Facility Permit*

**MONTANA-DAKOTA UTILITIES CO. &
OTTER TAIL POWER COMPANY**

Big Stone South to Ellendale Project

AUGUST 14, 2013



BSS+E
Big Stone South to Ellendale

8.0 Alternative Sites (ARSD 20:10:22:12)

8.1 Route Identification and Selection Process

The South Dakota Facility route selection process centered on a multi-faceted approach in which the Applicants considered state and federal requirements, public comments received at public meetings, and extensive analysis of available environmental data. The route development process was primarily driven by extensive public participation and agency coordination programs in both South Dakota and North Dakota. Table 5 provides a general overview of the public involvement efforts undertaken by the Applicants for the Project. Additional information on the public involvement activities conducted for the Project, including materials used during open house meetings, are available on the Project website at www.bssetransmissionline.com. The South Dakota Facility defined in this Application is shown in detail in Exhibit 2.

Table 5. Summary of Public, Agency, and Tribal Involvement Activities

Year	Month	Action
2012	July	<ul style="list-style-type: none"> Project notification letter mailed to North Dakota and South Dakota state and federal agencies
	August	<ul style="list-style-type: none"> Project notification letter mailed to county, state, and local representatives, and non-government organizations in North Dakota and South Dakota Held meetings with North Dakota and South Dakota county zoning and planning representatives (Spink, Clark, Grant, Day, Hamlin, Codington, Brown, Deuel, Marshall, Roberts, Richland, Dickey, and Sargent counties) Held two interagency meetings with state and federal agencies for North Dakota and South Dakota
	September	<ul style="list-style-type: none"> Project website and toll-free Project information line made available to the public (www.bssetransmissionline.com and 888-283-4678) Corridor notification letter for open house meetings mailed to the public, county, state, and city representatives, and non-government organizations in North Dakota, South Dakota, and Minnesota Corridor notification letter for open house meetings mailed to township representatives in North Dakota, South Dakota, and Minnesota

Year	Month	Action
2012	October	<ul style="list-style-type: none"> Meeting with Sisseton Wahpeton Oyate and Standing Rock Sioux Tribal Historic Preservation Offices (THPOs) for Project introduction and study area discussion Corridor notification postcard for open house meetings mailed to landowners within the study corridors Paid advertisements and press releases sent to North Dakota, South Dakota, and Minnesota publications to notify the communities of the study corridor open house meetings Corridor public open house meetings (October 15-18, 2012): <ul style="list-style-type: none"> Wheaton, Minnesota Milbank, South Dakota Webster, South Dakota Aberdeen, South Dakota Ellendale, North Dakota Britton, South Dakota
	November	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter (Issue 1) was posted to the website and hard copies were mailed to stakeholders in the Project open house meeting attendees and those who had commented or signed up for the mailing list
	December	<ul style="list-style-type: none"> <i>Power Delivered</i> Project Newsletter from November sent electronically to contact persons above who provided email addresses
2013	January	<ul style="list-style-type: none"> Conducted interagency meetings for North Dakota and South Dakota state and federal agencies. Follow-up letter sent to agencies which included the meeting minutes and letter from the Applicants Hosted an online webinar and conference call with county representatives in North Dakota and South Dakota including Day, Brown, Grant, Dickey, and Marshall counties to describe the routing process and gather input on preliminary routes followed up with meeting minutes and a message from the Applicants
	February	<ul style="list-style-type: none"> Meeting with South Dakota State Historic Preservation Office (SDSHPO) to discuss expected cultural resource identification efforts and tribal involvement Paid advertisements and press releases sent to North Dakota and South Dakota publications to notify the communities of the routing open house meetings Notification letter for routing open house meetings sent to stakeholders including state, federal, and local agencies, elected officials, and non-governmental organizations (NGOs) Notification postcards for routing open house meetings sent to landowners within the preliminary corridors of the Project and active participants who attended a meeting or submitted a comment Routing public open house meetings (February 25-27, 2013): <ul style="list-style-type: none"> Groton, South Dakota Ellendale, North Dakota Britton, South Dakota Webster, South Dakota Milbank, South Dakota

linked together into numerous alternative preliminary transmission line routes. The Applicants evaluated the preliminary routes, measuring them against both the transmission line routing considerations for the State of South Dakota (SDCL 49-41B-22) and input on sensitive and important resources identified by the public. The transmission line route in South Dakota was selected based on several considerations, including the following:

- Minimizing total length and construction costs
- Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services
- Consideration of effects on public health and safety
- Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities
- Minimizing effects on archaeological, cultural properties, and historic resources
- Minimizing impacts to wetlands, surface waters, and rivers
- Minimizing impacts to rare or endangered species and unique natural resources
- Minimizing effects to airports or other land use conflicts

During public open house meetings conducted during the route identification and selection process, the public identified several criteria that were also considered in the routing process. These criteria included:

- Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields
- Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment
- Avoiding a diagonal route across agricultural fields wherever possible
- Preference for mono-pole structures rather than H-frame structures

Upon determination of the preferred route, notifications were sent to federal and state agencies in May 2013, requesting comment on the preferred route, as shown in Table 5. A table outlining agency contact and copies of the agency material correspondences are provided in Appendix C.

8.2 Alternatives Considered and Selected

The Applicants initially considered multiple alternatives for the South Dakota Facility. The Applicants evaluated preliminary routes in South Dakota based on the factors listed above and the comments received from the public. The study corridor in Minnesota was considered but not selected for the following reasons:

- Need to complete permitting process in an additional state
- Crossing of the Bois de Sioux and Minnesota Rivers which are classified as Section 10 Rivers, regulated by the United States Army Corps of Engineers (USACE), and requiring additional federal review and permitting
- Increased length resulting in increased potential effects and cost
- Engineering challenges associated with crossing Big Stone Lake north of Ortonville, Minnesota

STATE OF SOUTH DAKOTA)
)
 COUNTY OF DAY)

IN CIRCUIT COURT
 FIFTH JUDICIAL CIRCUIT

GERALD PESALL)
)
 VS.)
)
 MONTANA DAKOTA UTILITIES, OTTERTAIL POWER,)
 SCHURING FARMS INC., BRADLEY MOREHOUSE, SDPUC)

ALPHABETICAL INDEX
 18CIV14000053

NO.	DATE	CHRONOLOGICAL INDEX	PAGE NUMBER
1.	09/23/13	Aberdeen American News' Affidavit of Publication	1068
2.	10/11/13	Aberdeen American News' Affidavit of Publication	1098
3.	04/23/14	Aberdeen American News' Affidavit of Publication	1858
4.	05/20/14	Aberdeen American News' Affidavit of Publication	3830
5.	10/17/13	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Valuation Guidelines for Properties with Electric Transmission Lines distributed by Dean Podoll, Aberdeen, S.D.; Comments, photos, maps from Dean Podoll, Aberdeen, S.D.; Transcript of Public Input Hearing; and Exhibit 1	1100-1102 (Sealed envelope 1103-1108) 1109-1343
6.	05/20/14	Aberdeen Public Hearing - Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status Application for Party Status; Sign-in Sheet Confidential (not available to the public); Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; Lyle Podoll's Letter; Transcript; Exhibit 50 - Presentation by Otter Tail Power Co. and Montana-Dakota Utilities Co.; and Exhibit 50A - Revised Potential Route Changes	3560-3563 (Sealed envelope 3564-3566) 3567-3828
7.	08/26/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1040 - 1043
8.	09/13/13	Affidavit of Service; and Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status	1064-1067
9.	08/13/14	Agenda of PUC Ad Hoc Commission Meeting	8292-8293
10.	09/10/13	Agenda of PUC Commission Meeting	1045 - 1048
11.	04/30/14	Agenda of PUC Commission Meeting	3518-3521
12.	08/06/14	Agenda of PUC Commission Meeting	8214-8219
13.	11/05/13	Agenda to PUC Commission Meeting	1501-1506
14.	09/19/14	Amended Certificate of Service	8345-8346

15.	6/20/14	Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); Redlined - Amended Settlement Stipulation (Montana-Dakota Utilities Co. and Otter Tail Power Company, and the Staff of the South Dakota Public Utilities Commission); and Certificate of Service	7949-7972
16.	01/27/14	Amendment to Application Dated January 27, 2014; Certificate of Service; Amended Pages of Application - Redlined ; and Amended Pages of Application	1516-1539

17.	06/03/14	<p>Applicants Montana-Dakota Utilities Co. and Otter Tail Power Company's Exhibit List and Certificate of Service; Exhibit 1 – Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public); Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to the Application; Exhibit 2 - Responses to First Set of Staff Data Requests; Exhibit 3 - Responses to Second Set of Staff Data Requests ; Exhibit 4 - Answers to First Set of Pesall Discovery ; Exhibit 5 - Answers to Second Set of Pesall Discovery; Exhibit 6 - BSSE 9 - Map Showing Preferred Route; Exhibit 7 - Route Change Request Form; Exhibit 8 - Pesall's First Requested Route Change; Exhibit 9 - Route Change Matrix (BSSE 29- 31) Confidential (not available to the public) ; Exhibit 10 - MISO Tariff Attachment FF; Exhibit 11 - Affidavit of Mailing for October 17 Public Input Hearing; Exhibit 12 - Affidavit of Mailing for May 20 Public Input Hearing; Exhibit 13 - Updated Table of Public Outreach; Exhibit 14 - Danny Frederick CV; Exhibit 15 - Jon Lemman CV; Exhibit 16A - Henry Ford Pre-filed Testimony Dated April 25, 2014; Exhibit 16B - Henry Ford Pre-filed Rebuttal Testimony Dated May 9, 2014; Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014; Exhibit 17 - Jason Weiers Pre-filed Testimony Dated April 25, 2014; Exhibit 18 - Angela Piner Pre-filed Testimony Dated April 25, 2014; Exhibit 19 - Danny Frederick Pre-filed Testimony Dated April 25, 2014; Exhibit 20 - Jon Lemman Pre-filed Testimony Dated April 25, 2014; Exhibit 21A - Pesall Property Photograph - Looking North; Exhibit 21B - Pesall Property Photograph - Looking South; Exhibit 21C - Pesall Aerial Map; Exhibit 22 - Morehouse and Schuring Aerial Map; Exhibit 23 - June 3, 2014 Draft of Soybean Cyst Nematode Prevention Plan; Exhibit 24 - Power Point Presentation for October 17, 2013, Public Input Hearing; Exhibit 25 - Route Map Dated June 10, 2014; Exhibit 50 - Power Point Presentation from May 20, 2014, Public Input Hearing; and Exhibit 50A - Revised Maps of Route Changes</p>	<p>3894-4735 (Sealed envelope 4736-4912) 4913-5002 (Sealed envelope 5003-5005) 5006-5566</p>
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24.	4/25/14	Certificate of Service; Affidavit of Mailing of Landowner Notice Letter; Exhibit A - Letter to Landowners; Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status; Map Showing Route Changes; and Exhibit B - Landowners	1889-1900
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26.	08/04/14	Comments of Carol Rydberg ; Comments of Carol Rydberg Confidential (not available to the public); PUC Staff's Response to Carol Rydberg ; PUC Staff's Response to Carol Rydberg Confidential (not available to the public); and August 6, 2014, Agenda of Commission Meeting	8203 (Sealed envelope 8204) 8205 (Sealed envelope 8206) 8207-8212
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34.	04/25/14	Direct Testimony of Gregory Tylka and Certificate of Service; Gregory Tylka Resume; and Amended Certificate of Service (was filed on 6/9/14 correcting typo)	1865-1888

35.	04/25/14	Direct Testimony of Henry Ford; Exhibit 1 – Application; Exhibit 1 – Project; Overview; Exhibit 2 - Detail of South Dakota Facility ; Exhibit 3 – Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 - Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies; B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011) ;Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information; Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ;Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public); Appendix H - Preliminary Transmission Structure Typical Drawings; Exhibit 1A - Amendment to Application; Exhibit 2 - Responses to Staff's First Data Requests; Exhibit 3 - Responses to Staff's Second Data Requests ; Exhibit 4 - Responses to Gerald Pesall's First Set of Discovery Requests to Applicants; Exhibit 5 - Responses to Gerald Pesall's Second Set of Discovery Requests to Applicants; Exhibit 6 - Map of Preliminary Routes ; Exhibit 7 - Landowner Request Form; Exhibit 8 - Map of Pesall Re-Route; Request for Confidential Treatment for Ford Exhibit 9; and Exhibit 9 Confidential (not available to the public);	1901-2759 (Sealed envelope 2760-2936) 2937-3028 (Sealed envelope 3029-3031)
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62.	06/11/14	Exhibit 16C - Henry Ford Pre-filed Supplemental Rebuttal Testimony Dated May 23, 2014	7681-7683
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103.	08/23/13	Montana-Dakota Utilities Co. and Otter Tail Power Co.'s Application - Cover Pages; Application; Exhibit 1 - Project Overview; Exhibit 2 - Detail of South Dakota Facility; Exhibit 3 - Topography; Exhibit 4 - MISO MVP Project Map; Exhibit 5 - State and Federal Lands; Exhibit 6 - Bedrock Geology; Exhibit 7 - Quaternary Surficial Geology; Exhibit 8 - Water Resources; Exhibit 9 – Aquifers; Exhibit 10 - Land Cover; Appendix A - South Dakota Facility Description; Appendix B - MISO Studies B.1 - Multi-Value Project Portfolio, Results and Analyses (Midwest ISO 2012); B.2 - Northwest Exploratory Study completed during MISO Transmission Expansion Plan 2005 (Midwest ISO 2005); B.3 - Regional Generation Outlet Study completed during MISO Transmission Expansion Plan 2009 and 2010 (Midwest ISO 2010); B.4 - "Multi-Value Project Portfolio – Results and Analyses" paraphrased in MISO Transmission Expansion Plan 2011 (Midwest ISO 2011); Appendix C - Agency Material Correspondence; Appendix D - South Dakota Soil Series Information;(Begin confidential in sealed envelope) Appendix E - Native Habitats Classification Memorandum Confidential (not available to the public); Appendix F - Bald Eagle Stick Nest and Sharp-Tailed Lek Survey Report Confidential (not available to the public) ; Appendix G - Cultural Resources Level I Records Search Confidential (not available to the public) (end confidential sealed envelope); and Appendix H - Preliminary Transmission Structure Typical Drawings	13-851 (Sealed envelope 852-1026) 1027 – 1032
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106.	08/01/14	Montana-Dakota Utilities Co. and Otter Tail Power Company Post-Hearing Reply Brief; and Certificate of Service	8169-8186
107.	10/21/13	Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's First Data Requests Dated September 19, 2013; BSSE 1 - Exhibit 1 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Map; BSSE 2 - Exhibit 2 of Data Request 2 - Geologic Cross Section Big Stone South to Ellendale 345 kV Transmission Line Project - Elevation Chart; BSSE 3 - Brown County Water Supply; BSSE 4 - Day County Water Supply; BSSE 5 - Grant County Water Supply; Exhibit BSSE 6 - Resources Providing Information for Water Supply Source; BSSE 7 - Exhibit 1 of Data Request 9 Preliminary Routes Big Stone South to Ellendale 345 kV Transmission Line Project; BSSE 8 - Sample Photograph ; and Certificate of Service	1478-1496

108.	07/18/14	Montana-Dakota Utilities Co. and Otter Tail Power Proposed Findings of Fact and Conclusions of Law; Proposed Order Granting Permit to Construct Facilities; Montana-Dakota Utilities Co. and Otter Tail's Motion for Leave to Submit Documentary Evidence; Exhibit 26 - Big Stone South to Ellendale 345kV Transmission Line Project Route Change Request Denial; Exhibit 26A - Map; Exhibit 301A - Amended Settlement Stipulation; Montana-Dakota Utilities Co. and Otter Tail Initial Post-Hearing Brief; and Certificate of Service	8094-8144
109.	04/15/14	Montana-Dakota Utilities Co. and Otter Tail Power's Request for Confidential Treatment of Information of Documents Produced in Response to Staff's Second Set of Data Requests and Certificate of Service; and Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014; Response 2-11 - BSEE 329 - 331 Confidential (not available to the public); Response 2-11 - BSSE 64-267 Confidential (not available to the public); Response 2-16 - BSSE 268-332; and Certificate of Service	1553-1577 (Sealed envelope 1578-1784) 1785-1845
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128.	04/16/14	PUC Staff's Letter to Grant County Review regarding Notice of Public Hearing; and Notice of Public Hearing	1852-1854

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131.	07/31/14	PUC Staff's Response to Arnold and Darlene Dennert; and PUC Staff's Response to Arnold and Darlene Dennert Confidential (not available to the public)	8152-8155 (Sealed envelope 8156-8159)
132.	08/06/14	Randy Schuring's, Schuring Farms, Email regarding August 6, 2014, Commission Meeting	8213
133.	04/16/14	Replacement Page 20 for Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Data Requests Dated March 10, 2014 which was filed on April 15, 2014; and Certificate of Service	1846-1848
134.	08/23/13	Request for Confidential Treatment of Information	1038 - 1039
135.	07/11/14	Schuring Farms' Common Crop Insurance Policy	8035-8074
136.	06/20/14	Schuring Farms' Email regarding Crop Insurance Policy; AgriDex's Fax; and USDA's Article	7973-7976
137.	06/26/14	Schuring Farms' Insurance Policy Provisions	7977-7980
138.	07/11/14	Schuring Farms' RCIS - MPCl Policy Review/Change Form	8032-8034
139.	06/03/14	Schuring Farms, Inc.'s Prefiled Exhibits; Exhibit 201 - 49-41B-4.4. Trans-State Transmission Facility--Eminent Domain--Acquisition of Fee in Land Contiguous to Right-Of-Way--Divestiture of Agricultural Land; Exhibit 202 - 49-41B-4.2. Trans-State Transmission Line--Criteria Required; Exhibit 203 - ARSD 20:10:22:12. Alternative Sites; Exhibit 204 - ARSD 20:10:22:18. Land Use; Exhibit 205 - ARSD 20:10:22:23. Community Impact; and Exhibit 206 - ARSD 20:10:22:13. Environmental Information	3886-3893
140.	08/23/13	Service List	1033-1035
141.	06/11/14	Staff's Exhibit - Exhibit 301 - Settlement Stipulation	7933-7943
142.	05/23/14	Supplemental Rebuttal Testimony of Henry Ford; and Certificate of Service	3881-3885
143.	05/23/14	Surrebuttal Testimony of Gregory Tylka; Map - Current Presence of SCN in Eastern South Dakota; Historic, Archived Documents; and Certificate of Service	3831-3880
144.	08/13/14	Transcript of PUC Ad Hoc Commission Meeting	8296-8323
145.	08/06/14	Transcript of PUC Commission Meeting of 8/6/14	8225-8290
146.	10/08/13	Webster Reporter & Farmer's Affidavit of Publication; Aberdeen American News' Affidavit of Publication; Grant County Review's Affidavit of Publication; and Certificate of Service	1093-1097
147.	07/18/14	Webster Reporter and Farmer's Affidavit of Publication	8146-8147
148.	08/29/13	Weekly Filing for the Period August 22, 2013, through August 28, 2013	1044
149.	04/14/14	Wiles & Rylance's Letter regarding Applications for Party Status	1547

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

**IN THE MATTER OF THE APPLICATION)
OF MONTANA-DAKOTA UTILITIES CO.)
AND OTTER TAIL POWER COMPANY FOR)
A PERMIT TO CONSTRUCT THE BIG)
STONE SOUTH TO ELLENDALE 345 KV)
TRANSMISSION LINE)**

AFFIDAVIT OF SERVICE

EL13-028

I, Joy Lashley, under oath, do swear, that on August 26, 2013, I by mailing the same to them by United States Post Office First Class Mail and electronically served, Notice of Application; Order for and Notice of Public Input Hearings; Notice of Opportunity to Apply for Party Status and Affidavit of Service to the list of persons below. I further swear that the attached list is a true and correct list of all persons who are parties in Docket EL13-028.

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities
Commission
500 E. Capitol Ave.
Pierre, SD 57501
patty.vangerpen@state.sd.us

Ms. Karen Cremer
Staff Attorney
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Commission
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Mr. Darren Kearney
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Ms. Jennifer Smestad
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215 S Cascade St.
Fergus Falls, MN 56538-0496
jsmestad@ottertail.com

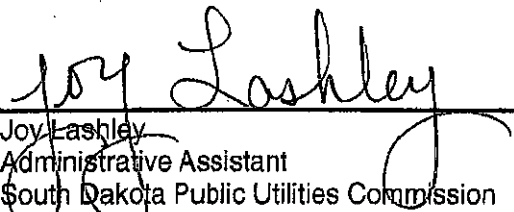
Mr. Daniel S. Kuntz
Associate General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
1200 West Century Avenue
Bismarck, ND 58506-5650
dan.kuntz@mduresources.com

001040

Ms. Maxine Fischer
Brown County Auditor
25 Market St. Ste 1
Aberdeen, SD 57401
maxine.fischer@browncounty.sd.gov

Ms. Sandra Raap
Day County Auditor
711 W. First St. Ste. 204
Webster, SD 57274
dcaud@itctel.com

Ms. Karen Layher
Grant County Auditor
210 E. Fifth Ave.
Millbank, SD 57252
karen.layher@state.sd.us


Joy Lashley
Administrative Assistant
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501

Subscribed and sworn to
before me this 26th day
of August, 2013.


Notary Public - South Dakota

(SEAL)

My Commission Expires _____, 20____
Pierre, SD 57501

TINA DOUGLAS
My Commission Expires
April 14, 2017

001041

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

IN THE MATTER OF THE APPLICATION OF)	NOTICE OF APPLICATION;
MONTANA-DAKOTA UTILITIES CO. AND)	ORDER FOR AND NOTICE OF
OTTER TAIL POWER COMPANY FOR A)	PUBLIC INPUT HEARINGS;
PERMIT TO CONSTRUCT THE BIG STONE)	NOTICE OF OPPORTUNITY TO
SOUTH TO ELLENDALE 345 KV)	APPLY FOR PARTY STATUS
TRANSMISSION LINE)	
)	EL13-028

On August 23, 2013, jointly Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a Delaware corporation, and Otter Tail Power Company, a Minnesota corporation, (jointly, the Applicants) filed with the South Dakota Public Utilities Commission (Commission) an Application for a Facility Permit for the Big Stone South to Ellendale 345-kV Transmission Line project (Application) and a Motion to Schedule Prehearing Conference (Motion). The Application requests Commission approval of a permit to construct a 345-kilovolt (kV) transmission line of approximately 150 to 160 miles in South Dakota (Project). The line will cross the South Dakota and North Dakota border in Brown County, South Dakota, and extend south and east through Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City. Modifications to the Project may occur depending on the final route permitted, land rights, and final engineering design. The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26 and 49-41B and ARSD Chapter 20:10:22.

Pursuant to SDCL 49-41B-15 and 49-41B-16, the Commission will hold public input hearings on the Application on Thursday, October 17, 2013:

(1) at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. (parking available without permit in the lot along Washington Street between 12th and 14th Avenues - driving directions and map at <http://www.northern.edu/about/pages/directions.aspx> and <http://www.northern.edu/about/PublishingImages/wirelessmap.pdf>)

(2) at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D.

The purpose of these public input hearings will be to hear public comment regarding the transmission line permit Application and the Project. At the hearings, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status will be available at the public input hearings or may be obtained from

the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before October 22, 2013.

Following the public input hearings, the Commission may schedule a formal evidentiary hearings conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts. Absent a contested issue, the Commission will schedule the matter for decision at a regular or special meeting of the Commission.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. It is therefore

ORDERED, that the Commission will hold public input hearings on the Project at noon (12:00 p.m. CDT) in the Centennial Rooms of the Student Center on the campus of Northern State University, 1200 South Jay Street, Aberdeen, S.D. and at 7:00 p.m. CDT in the Community Room of the Milbank Visitor Center, 1001 East Fourth Avenue, Milbank, S.D. It is further

ORDERED, that pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, applications for party status must be filed on or before October 22, 2013, and that pursuant to SDCL 49-41B-17.1, a party who wishes to receive personal service of all material filed in this matter shall make a specific request to the Commission for personal service, which may be included in the application for party status.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 26th day of August, 2013.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Loy Lashley</u>
Date:	<u>8-26-13</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

001043

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION
OF MONTAN-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE BIG
STONE SOUTH TO ELLENDALE 345 KV
TRANSMISSION LINE

APPLICATION FOR PARTY

STATUS

EL13-028

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40,

Gerald Pesall

(Name of Applicant)

petitions the Public Utilities Commission to be granted party status in the above-referenced facility permit proceeding.

Gerald Pesall

Signature of Applicant

GERALD PESALL

Print or Type Name

Address: 15062-430th ave
Sib., SD 57274

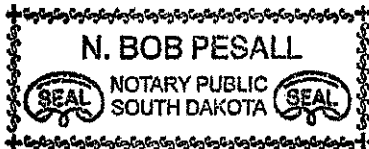
605-359-1039
Phone Number

E-mail Address

Name of Organization (if applicable)

10-17-13
Date

Subscribed and sworn to before me this 17 day of October, 2013.



(Seal)

[Signature]
Notary Public

My Commission expires: 12-20-18

NOTE:

Consistent with SDCL 49-41B-17 and ARSD 20:10:22:40, this application must be filed with the Public Utilities Commission with 60 days from the date the application was filed, unless the deadline is extended by the Commission.

Executive Director
South Dakota Public Utilities Commission
500 East Capitol
Pierre, SD 57501-5070
Fax: 866-757-6031
Electronic Filing: <http://puc.sd.gov/EFilingOptions.aspx>

001477

Looking north on Pesall property. Culvert in grass area ahead of photo.



**Pesall Site
Approach
View**

Structure 457

Structure 458

Proposed Centerline

EXHIBIT 21A

Looking south on Pesall property, from north end of property. Culvert indicated at post in ditch.

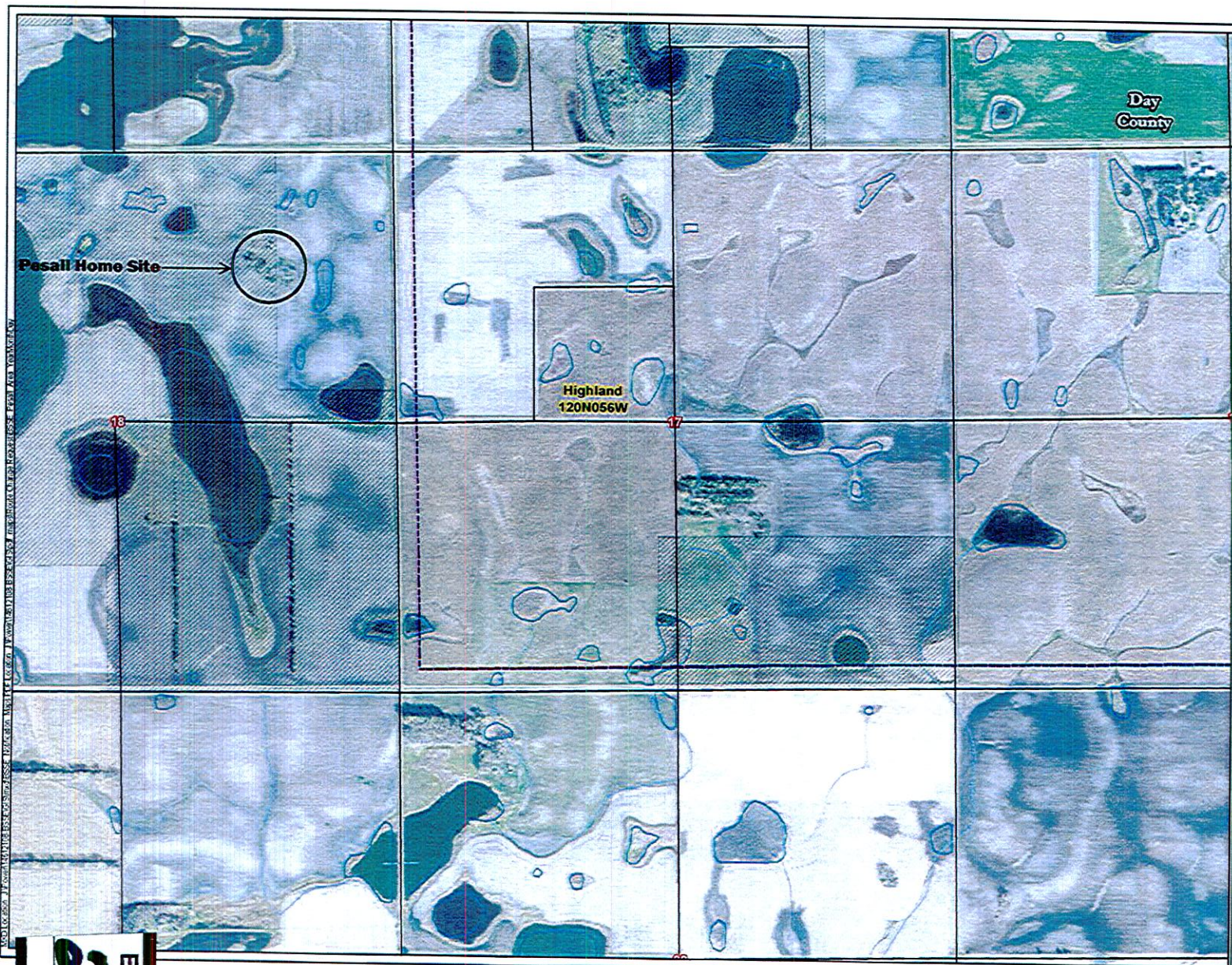
**Structure 457
(off screen)**

Structure 458

Proposed Centerline

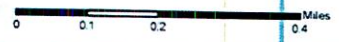
**Pesall Home Site
Approx. 1/4 Mile
West (off screen)**

EXHIBIT 21B



BSS+E
Big Stone South to Ellendale

345 kV Transmission Project

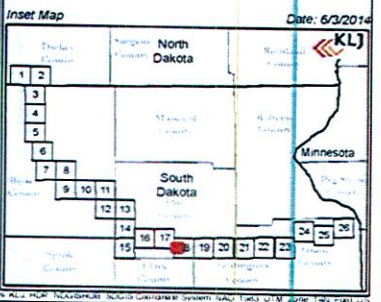


LEGEND

- | | |
|-----------------------|--------------------|
| USFWS Easement | Centerline |
| USFWS Limited NWR | Route (5-15-2014) |
| Grassland | Railroads |
| Wetland | Railroad |
| Geopolitical | Abandoned Railroad |
| Townships | Utilities |
| Counties | Electric |
| Sections | Oil/Gas |

PRELIMINARY DRAFT LOCATIONS

This map was produced by the N.J. GIS Division utilizing ESRI's ArcMap 10.2 and Windows Professional Evaluation. KLJ Inc. has compiled this map according to conventional cartographic standards, using what is thought to be the most reliable information available. KLJ does not give or warrant freedom from errors or omissions and disclaims any legal responsibility or liability for interpretations made from the maps or documents based thereon.



21C
EXHIBIT

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

**IN THE MATTER OF THE APPLICATION OF)
MONTANA-DAKOTA UTILITIES CO. AND)
OTTER TAIL POWER COMPANY FOR A PERMIT)
TO CONSTRUCT THE BIG STONE SOUTH TO)
ELLENDALE 345 KV TRANSMISSION LINE)**

**ORDER GRANTING
INTERVENTION AND PARTY
STATUS**

EL13-028

On August 23, 2013, Montana-Dakota Utilities Co., a division of MDU Resources, and Otter Tail Power Company (jointly, Applicants) filed an application with the South Dakota Public Utilities Commission (Commission) for a permit to construct a 345 kV transmission line of approximately 150 to 160 miles in Brown, Day, and Grant counties to the Big Stone South Substation in Grant County, South Dakota, near Big Stone City (Project). On October 18, 2013, an Application for Party Status was filed by Gerald Pesall. On November 6, 2013, the Commission issued an Order Granting Intervention and Party Status to Gerald Pesall. On January 27, 2014, Applicants filed a First Amendment to Application. Due to Applicants having made some route changes in certain areas of the Project which will result in some additional landowners coming within the half-mile Project corridor, Applicants have served notice on such landowners, and the Commission has scheduled an additional public input hearing on May 20, 2014, at Aberdeen, S.D. An intervention deadline of April 16, 2014, was set.

On April 14, 2014, James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson filed Applications for Party Status. The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B, particularly 49-41B-17, and ARSD Chapter 20:10:22, specifically 20:10:22:40.

At its regularly scheduled meeting on April 30, 2014, the Commission considered James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status. Applicants did not object. The Commission voted unanimously to grant intervention and party status to James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson. It is therefore

ORDERED, that James R. McKane III, Clark T. Olson, Schuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson's Applications for Party Status and intervention are granted.

Dated at Pierre, South Dakota, this 1st day of May, 2014.

CERTIFICATE OF SERVICE
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.
By: <u>Joy Lashley</u>
Date: <u>5.1.14</u>
(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner

003525

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
FIRST DATA REQUESTS DATED
SEPTEMBER 19, 2013

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
First Data Requests dated September 19, 2013, states as follows:

- 1) Per ARSD 20:10:22:10, please "provide a description of present and estimated consumer demand and estimated future energy needs of those customers to be directly served by the proposed facility."

RESPONSE: The Big Stone South – Ellendale 345 kV project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint the infrastructure needed to support the renewable energy mandates for all the states in the MISO footprint. The need for the proposed Big Stone South – Ellendale 345 kV line is driven by demand across the MISO footprint.

The planning study for the MVP portfolio included transmission projects covering all the states in the MISO footprint. The generation assumptions in this study included about 890 MW of future generation in South Dakota by the year 2021, and over 1400 MW by the year 2026 that could be delivered anywhere within MISO through the proposed MVP projects, which includes the Big Stone South – Ellendale 345 kV line. The Big Stone South – Ellendale 345 kV line will allow future generators to interconnect to the transmission system.

Due to the interconnected nature of the transmission system, the project will also support the transmission system outside of MISO in South Dakota and North Dakota by providing a new high voltage source to the existing transmission system.



- 2) Please provide cross sections of the bedrock geology and surficial geology to depict the major subsurface variations in accordance with ARSD 20:10:22:14(3). An example from docket EL09-015 is attached.

RESPONSE: In accordance with ARSD 20:10:22:14(3), "A written summary of the geological features of the plant, wind energy, or transmission site using the topographic 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" is provided as BSSE 1-2. The geologic cross section of the South Dakota Facility was prepared using publically available data for surface elevation, depth to bedrock, surficial geology, and bedrock geology. Since borehole data has not yet been collected for the Project, detailed geologic information was not available to construct the cross section. Therefore, the cross section provides a generalized view of the underlying geology along the South Dakota Facility (BSSE 1-2). Limitations to the cross section that may exist including small, localized variations in bedrock geology are not shown. The overlying unconsolidated material also varies locally along the South Dakota Facility from silts and clays to sand and gravel, but for simplicity, these materials have been shown as one unit, called Unconsolidated Deposits (BSSE 2). In addition, information on thicknesses of the underlying bedrock units along the South Dakota Facility was not available. Because of this and to avoid a large vertical exaggeration, the thicknesses of the units are not accurately shown on the cross section (these unknowns are shown with question marks or a dashed line on BSSE 2). This is not considered a significant limitation since the proposed structure foundations will likely be 50-feet deep or less.

Areas of shallow bedrock (less than 50 feet) were identified in two distinct areas along the South Dakota Facility. The first is located in the vicinity of Mile 4, where the underlying Pierre Shale is approximately 30 feet from the surface (BSSE 2). The second occurs near Mile 55 to Mile 65, where the underlying bedrock is also the Pierre Shale and can be less than 20 feet from the surface (BSSE 2).

Sources:

1. Bedrock Geology and Bedrock Contours, South Dakota Department of Environment and Natural Resources, Geological Survey. Link to the file - http://www.sdgs.sd.edu/pubs/pdf/esd/bedrock_20040630.zip
2. Quaternary Surficial Geology, United States Geological Survey, Quaternary Map of the Dakotas: <http://pubs.usgs.gov/imap/i-1420/n1-14/downloads/dakotasGIS/>
3. Elevation Contours, USGS National Elevation Dataset

- 3) Are drainage patterns in Exhibit 8 representative of both before and after construction drainage patterns?

RESPONSE: The drainage patterns as shown on Exhibit 8 of the Application represent both before and after construction drainage patterns. The Applicants do not anticipate changes to drainage patterns after construction.

- 4) Per ARSD 20:10:22:18(1)(c), please provide a map with the municipal water supply and water sources for organized rural water districts.

RESPONSE: See attached water supply maps for Day, Grant and Brown Counties numbered BSSE 3-5. The attached maps were developed by KLLJ Engineering. The resources that were used to develop these maps are found on attached BSSE 6.

- 5) Per ARSD 20:10:22:23(2), please provide forecasts on the immediate and long-range impact of property and other taxes of the affected taxing jurisdictions.

RESPONSE: Property taxes in South Dakota for a transmission line project such as this are paid to each county where the project will be located. The tax bill as prepared by each county is based on that county and/or township's mill levy. The value basis used by the County is determined by the State of South Dakota through a central assessment process for projects of this type. The assessment that the State applies to the project is based on a number of criteria including the total investment in the project as well as indicators on how the company stands on a financial basis. Indicators such as Market, Cost, and Income are all used in this determination. The assessed value in each county is then calculated on a per mile basis for the project within each county. The State then provides this assessed value to each affected County who then applies the appropriate mill levy in effect at the time. Based on the current effective composite tax rates for South Dakota, we estimate a yearly property tax bill in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

The Applicants' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

- 6) Provide further support that transmission lines do not affect land/property values as identified in section 19.1.2.

RESPONSE: Section 19.1.2 of the Application states, among other things, that "The South Dakota Facility is not expected to have significant short- or long-term effects on land values." The Application does not state that the transmission line will not affect land/property values. Applicant continues to believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

- 7) Per ARSD 20:10:22:23(6), please provide Applicant's plans to coordinate with local and state office of disaster services in the event of an accidental release or emergency.

RESPONSE: The risk of accidental release of contaminants related to this transmission project is, as described in further detail in the Application, limited to small-scale environmental exposures arising from construction or significant maintenance work. As referenced in the Application, the Applicants will adopt Best Management Practices to prevent, monitor, contain and report the contaminants. Due to the nature of this project, the Applicants do not anticipate any large-scale releases of contaminants that would give rise to the need for disaster services from any local or state offices.

- 8) Per ARSD 20:10:22:24, please provide more detailed employment estimates than what is found in section 20.0 of the application. Specifically, please provide the estimated annual employment expenditures of the Applicant, the contractors, and subcontractors during the construction phase of the proposed facility.

RESPONSE: It is anticipated that the number of workers who will be involved with the various tasks leading up to and directly involved with the construction of the BSSE Project will range from 75-150. These tasks include surveying, geotechnical studies, material deliveries, Right-of-Way clearing, and line construction. The actual number of workers will fluctuate as various tasks are initiated and completed during the course of the Project. It is anticipated that most of the workers will be from outside the local area; therefore, the impact to the local economies will be through costs such as workers' expenditures for hotel rooms, travel trailer site rentals, meals, gas and miscellaneous supplies. The impact to the local economies, not including property taxes, from the BSSE Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

9) Per ARSD 20:10:22:35(3), please provide a map of the major alternative routes.

RESPONSE: Please see BSSE 7, "Major Alternative Routes," as an illustration of the preliminary routes, which are the major alternative routes considered for the Project.

10) How is ongoing maintenance (e.g., vegetation management, annual inspections) of the transmission line going to be split between the Applicants?

RESPONSE: A decision on how ongoing maintenance will be split has not been decided. It is anticipated that one company will likely perform that type of maintenance on the entire line and the costs would be shared between Otter Tail Power Co. and Montana-Dakota Utilities.

11) In addition to the EMP concerns addressed in section 23.4, are there any known safety concerns with regard to farming around structures (e.g., collisions)?

RESPONSE: Yes. Accidental collision with a structure would be a safety concern with regard to farming around structures. The use of single-pole structures minimizes the risk of collisions.

12) Please describe, in greater detail, the two proposed fiber optic regeneration stations.

RESPONSE: The requirements for the fiber optic regeneration stations will be determined through joint consultation between the communications departments of the Applicants. The purpose of the fiber optic regeneration station is to monitor and amplify the fiber optic signal between the two substation endpoints when the distance between the substations exceeds approximately 75 miles. Typical fiber optic regeneration facilities consist of a small prefabricated building, approximately 8 ft x 8 ft., or 8 ft x 12 ft.. A slab foundation will be required to support the building. The building will house electronic equipment and vehicle access will be required as well as a power source. The buildings are typically located on or near the transmission line right-of-way, near a road access, and near an overhead distribution line. The installation may also include a backup generator. It is anticipated that two fiber optic regeneration stations will be required for the BSSE Project, located at the approximate one-third points along the route. See attached sample photograph numbered BSSE 8.

13) Per ARSD 20:10:22:05, notwithstanding those mentioned in Table 24 of the Application, is the Applicant aware of the need to notify any additional governmental entities?

RESPONSE: To the best of Applicants' knowledge at this time, no additional governmental entities need to be notified other than what is contained in the Application.

- 14) In section 8.1, it is identified that the transmission line route was selected based on several considerations. Please provide an analysis or demonstration that compares the preferred route to the alternative routes for each of the considerations listed, using measures that the Applicant deem appropriate.

RESPONSE: In response to this data request, the "preferred route" would refer to the South Dakota Facility as filed in the Facility Permit Application and shown in Data Response No. 9 numbered BSSE 7. In addition, the "alternative routes" as referenced in this data request would refer to the preliminary routes through Dickey and Sargent counties in North Dakota and which then proceed south through western Marshall and the northwestern portion of Day counties to roughly Bristol, South Dakota where there is a commonality in the routing. See BSSE 7.

A route through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length and may have better soils from a constructability perspective for the structure foundations. The Applicants received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands. No homes are located within the right-of-way, and no homes are expected to be displaced by the South Dakota Facility. The Applicants are committed to working with homeowners and other landowners along the route to address concerns.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

In addition, the Applicants have been working with Native American tribes agencies who expressed that the preferred route was more desirable than the alternative route due to the higher percentage of the preferred route that crosses tilled land compared to the alternative routes which crossed larger percentages of pasture/prairie land. The tilled land in general has a lower probability of containing intact, undisturbed areas of importance to the tribes.

Both the preferred and the alternative routes minimize effects to Federal Aviation Administration airports and other land use conflicts.

Route development involves the analysis of many diverse criteria and the preferred route minimizes effects to populated areas and the natural environment, while also taking engineering constraints, overall length, and cost into account. The Applicants have addressed concerns expressed by stakeholders during the routing process and selected a single-pole structure to minimize potential effects with the smallest structure footprint and longer spans to reduce the number of structures.

STATE OF NORTH DAKOTA)
)
COUNTY OF BURLINGHAM) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

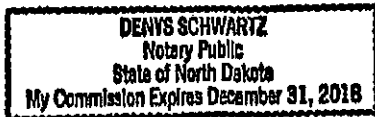
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests; but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 21 day of October, 2013.

MONTANA-DAKOTA UTILITIES CO.

By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 21st day of October, 2013.



Denys Schwartz
Notary Public - South Dakota
(SEAL)

My Commission Expires: 12/31/18

STATE OF MINNESOTA)
)
) SS,
)
COUNTY OF OTTER TAIL)

Jason Waters, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response,

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's First Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 18th day of October, 2013.

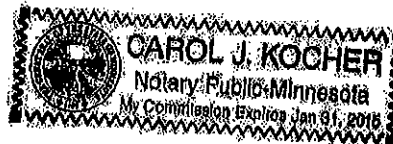
OTTER TAIL POWER COMPANY

By Jason J. Waters
Jason Waters
His Manager, Delivery Planning

Subscribed and sworn to before me this 18th day of October, 2013.

Carol J. Kocher
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015



BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S RESPONSES TO STAFF'S
SECOND DATA REQUESTS DATED
MARCH 10, 2014

Montana-Dakota Utilities Co. and Otter Tail Power Company, for its responses to Staff's
Second Data Requests dated March 10, 2014, states as follows:

- 2-1) Referring to page 103 of the Aberdeen Public Hearing transcript, what criteria eliminated a route from Ellendale, ND to Havana, ND, then cutting diagonally across the Coteau Hills to Sisseton, and then following the slope rail line from Sisseton to Milbank?

RESPONSE: Page 103 of the transcript contains a general potential route as suggested by Mr. Lyle Podoll. Based on the general route description of Mr. Podoll, the following explanation is provided as to why the final preferred route did not follow Mr. Podoll's proposed route corridor:

- A study corridor and preliminary routes were considered from Ellendale, ND to the general Havana, ND area, but eliminated as the preferred route due to constraints as described in the third paragraph of the Applicant's response to Question 14 of the first set of SDPUC data requests. As stated from the response to data request 1-14 of the Staff's first data requests: "The alternative routes through Dickey and Sargent counties require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the land. The South Dakota Game, Fish, and Parks Department also had concerns with the alternative routes in Marshall County being located



close to waterbird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.”

- The Coteau Hills area was eliminated from consideration during the study corridor development phase, because of concerns expressed by several state and federal agencies and Native American tribes due to the relatively high density of protected species, high quality prairie habitat, federally and state owned and managed lands, and potential cultural resources. In addition, there were engineering concerns with the steep, rolling topography and numerous bodies of water and drainage ways.
- The slope rail line from Sisseton to Milbank was not considered for several reasons, including the fact that it crosses through several towns and a relatively high density of federally owned and managed lands. Additional information on why active railroads were not carried forward for the final preferred route is included below in the response to the Staff’s Data Request 2-31.

- 2-2) Referring to pages 69-75 of the Aberdeen Public Hearing transcript, Mr. Jones proposed an alternate route with the Applicant. Did the Applicant review Mr. Jones’ alternate route? If so, what was the outcome of the route review?

RESPONSE: Yes, the Project has reviewed Mr. Jones’s requested changes to the proposed route. The Project has been working to try to develop a change to the proposed route through the Jones Family properties and is in discussions with him. Three potential routes options have been discussed, including route proposals by Mr. Jones and his son. The Project continues to evaluate these proposed routes with Mr. Jones.

- 2-3) Please explain what factors eliminated the options of overbuilding or reconditioning existing transmission lines that are located in the siting area.

RESPONSE: Using existing transmission corridors to double circuit high voltage transmission lines were excluded from the routing criteria due to concerns relating to degradation of the system reliability, operational challenges, and a higher cost, as discussed more fully below. Furthermore, most existing transmission lines are not owned by either of the Owners and thus Owners do not have the right to use many of these existing lines.

Reliability Concerns

Double-circuiting ("overbuilding") the Big Stone South to Ellendale 345 kV line with portions of other existing transmission lines may be feasible, but benefits of the Project are diminished. Generally, double circuiting high voltage transmission is not preferred due to the possible degradation of system reliability. For example, if a structure with two transmission lines is compromised (or both lines are out of service because of a lightning strike or other event), the reliability of the transmission system is compromised. Building the Project on separate structures and within a separate route is important for making sure the existing and the new circuits are both available, don't interfere with each other, and provide back-up transmission paths for outages of other area transmission circuits.

Furthermore, an interim challenge with overbuilding an existing transmission line is the extended outage time of existing transmission lines associated with the construction period of the Project. This extended outage time of existing transmission circuits can last several months thus jeopardizing the reliability of the system. The transmission system is generally planned and operated to provide reliable service without an interruption of service for single (N-1) contingencies. Having an existing transmission line de-energized for an extended period of time puts the transmission system in a vulnerable state due to the increased likelihood of another outage concurrent with the existing circuit being overbuilt (N-2) with the new Project. Outages of 2 or more circuits simultaneously raises significant reliability concerns that could lead to an interruption of service to customers due to depressed voltages or overloaded facilities. Therefore, extended outages of existing transmission lines causes interim operating concerns when overbuilding existing lines with the Project.

Operational Challenges

Maintenance activities would be challenging when overbuilding existing transmission lines. Maintenance related activities on a line that is adjacent to an energized circuit is dangerous. It requires special equipment, specially trained personnel, and extraordinarily rigorous safety measures. These special requirements also increase the cost of maintaining the system.

Higher Cost

Double circuit construction or reconductoring existing circuits is also more costly than single circuit construction. Having two separate circuits on a common structure requires more robust structures to safely handle increased mechanical loadings due to wind and ice. These robust structures typically require stronger foundations. Reconductoring existing lines is also problematic given the design voltage of the Project (345 kV) and operating voltage of existing lines in the area (highest voltage of 230 kV). Reconductoring existing lines to a higher voltage would require converting several existing substations to a higher voltage (from 230 kV to 345 kV), which would require installing new equipment at these existing substations.

The factors discussed above lead to diminished reliability benefits, more operational challenges, and a higher cost when considering the options of overbuilding or reconductoring existing lines than by building the Project along an entirely new corridor. As a result, the Owners have adopted design and routing criteria that, except in extraordinary circumstances, exclude these options from consideration.

- 2-4) Please explain the MISO MTEP planning process and summarize the findings of the MTEP 11 report, clearly stating in language that the public can understand the need for the transmission line. In addition, please clearly identify what transmission grid constraints will be resolved, what NERC contingencies will be mitigated, what public policy objectives will be achieved, and what wholesale electric market benefits are expected as a result of constructing the line.

RESPONSE:

MISO MTEP Planning Process

MISO's planning process is based on an annual cycle that is referred to as the MISO Transmission Expansion Planning (MTEP) process. The MTEP process adheres to the nine planning principles outlined in FERC Order No. 890.¹ These planning principles result in an open and transparent regional planning process with interaction from a broad stakeholder group, which results in recommendations for transmission expansion that are reported in the MTEP report and submitted for approval to the MISO board of directors. The annual planning process typically concludes with MISO board of director approval occurring in December of each year.

Findings of MTEP11 Report

The MVP portfolio analyses evaluated the expected future conditions on the MISO regional transmission grid. The analysis found that the Project will be needed in order to ensure the continued reliable operation of the Otter Tail Power Company and Montana-Dakota Utilities Co. transmission systems into the future. Furthermore, the MVP portfolio allows for a more efficient dispatch of generating resources, spreading the benefits of low cost generation to South Dakota and throughout the MISO footprint. These benefits were outlined through a series of studies that quantified the economic benefits of the low cost generation resources that can be reliably delivered with the addition of the MVP transmission.

¹ Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, FERC Stats. & Regs. ¶ 31,241, order on reh'g, Order No. 890-B, 123 FERC ¶ 61,299 (2008), order on reh'g, Order No. 890-C, 126 FERC ¶ 61,228 (2009), order on clarification, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

Transmission Constraints Resolved

The construction of the Project will enable Otter Tail Power Company and Montana-Dakota Utilities Co. to reliably deliver the energy this area needs today and into the future. The Project improves the reliability of the bulk electric system in the area. Reliability studies performed by MISO for the Project have identified the following transmission issues are mitigated as a result of the Project during contingencies prescribed in the NERC transmission planning standards (referred to as single contingency (N-1) and double contingency events (N-2)):

- Oakes – Ellendale 230 kV Line
- Aberdeen – Ellendale 115 kV Line
- Oakes – Forman 230 kV Line
- Forman 230/115 kV Transformer
- Aberdeen Jct. – Aberdeen 115 kV Line
- Forman 230 kV Bus Tie
- Ellendale 230/115 kV Transformer
- Heskett 230/115 kV Transformer

The construction of the Project will address these loading issues by providing an alternative transmission path for energy to flow during contingencies.

Public Policy Objectives

Throughout the course of the MVP studies, public policy objectives were considered as state Renewable Portfolio Standards (RPS) that are in place across the MISO footprint. The MVP portfolio is a group of seventeen transmission projects distributed across the MISO footprint that enables the reliable delivery of the aggregate of current state RPS within MISO. The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across MISO. As determined through the MVP studies, this amount of wind energy is anticipated to meet state renewable energy mandates across the MISO region beyond 2026.

Furthermore, construction of the Project will contribute to a robust transmission system across MISO that will be available to provide needed transmission capacity to maintain reliable service in the event that legislation or environmental regulation leads to the retirement of some coal-fired generating plants and the addition of gas-fired generating plants. This Project, along with the rest of the MVP portfolio offers a versatile transmission plan that will be effective regardless of future generation fuel-types.

Wholesale Electric Market Benefits

The wholesale electric market benefits that are expected as a result of constructing the Project in conjunction with the rest of the MVP portfolio are primarily associated with savings realized by reduced transmission congestion and increased fuel savings. As mentioned previously, the MVP portfolio allows for a more efficient dispatch of generation resources, opening markets to competition, and spreading the benefits of low cost generation throughout the MISO footprint.

In addition to congestion and fuel savings of an estimated \$12.4 - \$40.9 Billion in present value benefits, the MISO studies have also shown quantifiable benefits as a result of the MVPs for the following generation and transmission aspects as well.

1. **Operating Reserves**
 - a. The MVP portfolio decreases congestion on the system, increasing the transfer capability into several key areas that would otherwise have to maintain additional operating reserves under certain system conditions.
 - i. A reduction in operating reserves results in estimated present value benefits of \$28M - \$87M.
2. **System Planning Reserve Margin**
 - a. The MVP portfolio reduces congestion across MISO thereby reducing the amount of generation required to meet the planning reserve margin for a one day in 10 years loss of load expectation.
 - i. A reduction in the system planning reserve margin results in estimated present value benefits of \$1.0B - \$5.1B.
3. **Transmission Line Losses**
 - a. The MVP portfolio reduces the overall system losses, which also reduces the generation needed to serve the load and losses on the system.
 - i. A reduction in transmission line losses results in estimated present value benefits of \$111M - \$396M.
4. **Wind Turbine Investment**
 - a. The MVP portfolio allows a balance of wind turbine investment between remote generation placement relying on transmission for delivery to load and local generation closer to load. Placing wind regionally to leverage the best available wind resources requires a robust transmission system.
 - i. Leveraging wind turbine installations in optimal locations across MISO results in estimated present value benefits of \$1.4B - \$2.5B.
5. **Transmission Investment**
 - a. The MVP portfolio will eliminate some future reliability upgrades.
 - i. Eliminating future transmission upgrades results in estimated present value benefits of \$226M - \$794M.

The analysis performed by MISO has found that the MVP portfolio overall will produce an estimated \$15.5 to \$49.2 Billion in present value benefits to the aggregate MISO footprint under existing energy policies (See Figure 1). This range of savings is derived based on the period over which benefits are calculated, discount rates applied, and assumptions about growth rates of energy and demand.²

² See MVP Report.

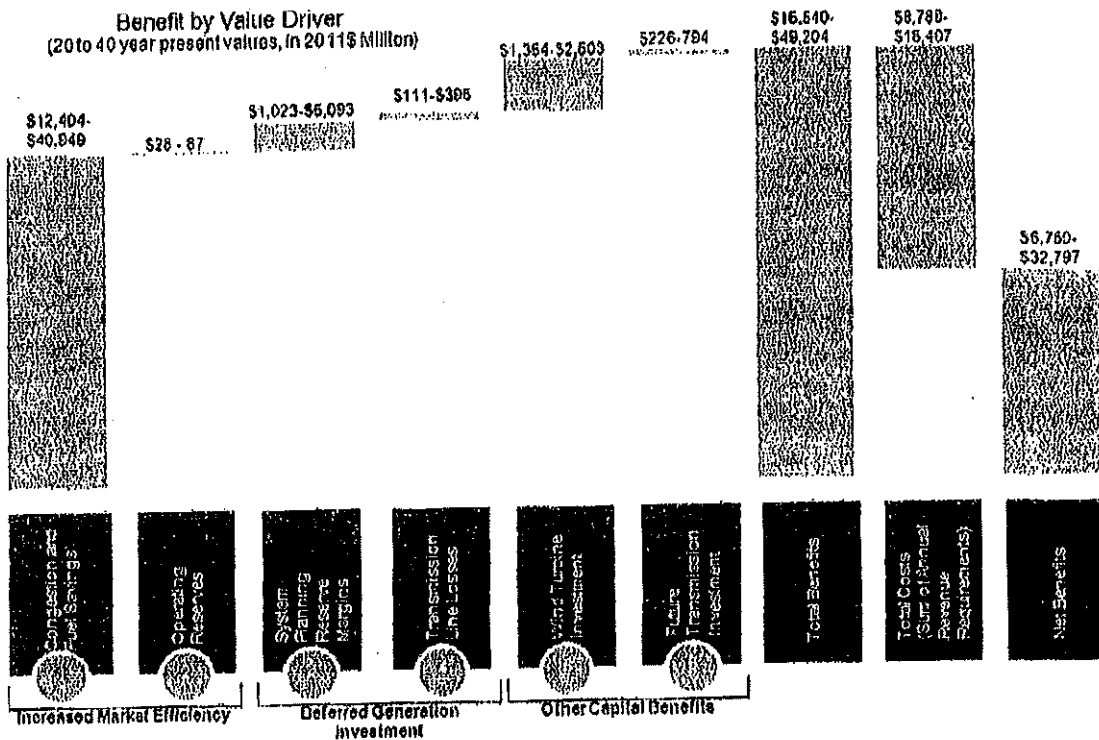


Figure 1 – Estimated Present Value Benefits of MVP Portfolio

When compared to the present value of the revenue requirements for the MVP portfolio, the portfolio produces total benefits of between 1.8 to 3.0 times the costs on a present value basis, under existing policies. When these system-wide benefits were evaluated for their distribution within the MISO footprint, benefits to Local Resource Zone 1 were between 1.6 and 2.9 times the portfolio costs to Local Resource Zone 1. Zone 1 is comprised of MISO member companies within Minnesota, South Dakota, North Dakota, and parts of Wisconsin and Montana.³ (see Figure 2)

³ See MVP report – Benefit-Cost ratios are shown on page 6 of the publicly available document.

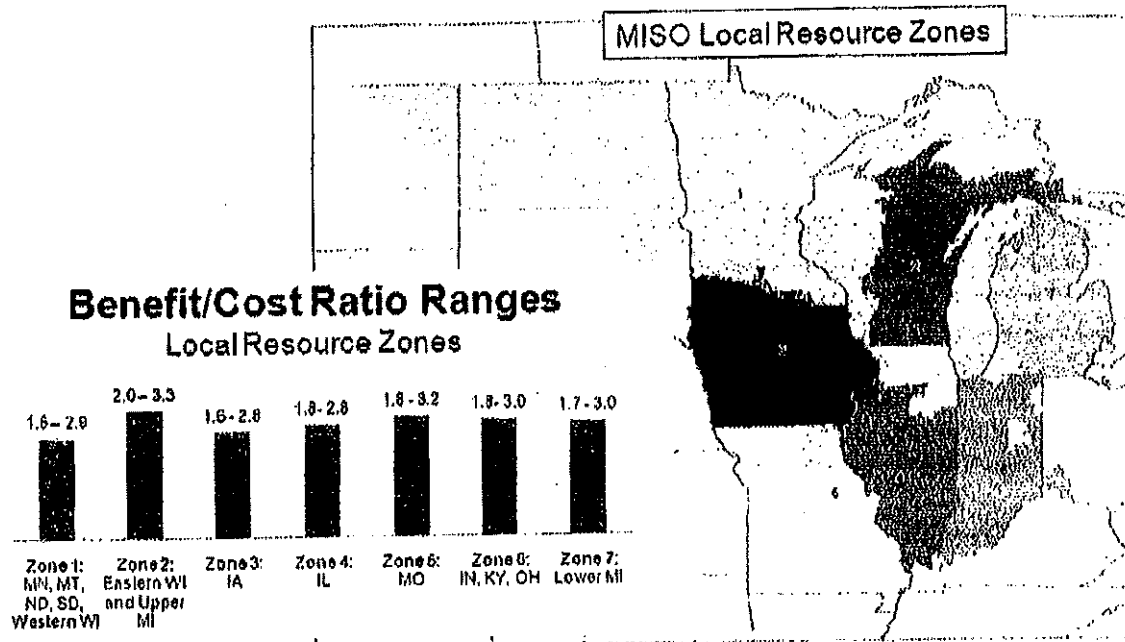


Figure 2 – Benefit-Cost Ratios to Local Resource Zones Across MISO

- 2-5) The application provides L50 audible noise, which means that 50% of the expected data points are greater than the stated value. Please provide the worst-case (i.e. maximum) noise level landowners can expect to be exposed to during the life of the facility, as well as the L10 (if available), for both fair and foul weather conditions.

RESPONSE: Only L50 audible noise values were calculated for the transmission line. The noise exposure of an individual depends on their position with respect to the transmission line and weather conditions. The transmission line noise levels at the edge of the right-of-way are shown on Table 17 contained in Section 14.3.2 of the Application, as amended.

- 2-6) Footnote 1 of amended Table 17 (pg. 59 of the Application) identifies that the Noise levels are representative of a current of 500 amps. Footnote 3 of amended Table 22 (pg. 94 of the Application) identifies the Maximum Operating Condition is based on ~2,000 amps. What is the maximum amount of current that will flow on the line during the life of the facility? Further, please explain how any expected additional current flow (beyond 500 amps) will affect noise levels if not already answered in response to data request 2-5.

RESPONSE: Current flow is not expected to exceed 2,000 amps during the life of the facility. Audible noise of transmission lines is not a function of the current

flowing in the conductors. Therefore, higher current will not cause higher audible noise levels nor will lower currents reduce the audible noise levels.

- 2-7) Please provide a list of requested route changes that includes: 1) location of the requested route change, 2) a brief description of the request, 3) current status of the request, 4) how the Applicant responded to the request, and 5) a justification for either approving or denying the request. Further, ensure the list includes the following requested route changes that PUC Staff is aware of:

- i. Three miles east of Garland Township, 9-125-63, (120th Street and 390th Ave), and
- ii. ¾ of a mile east out of Westport.

RESPONSE: See BSSE 329 to 331, which describes the proposed route "changes," the location of the route change, a brief description of the route change request, current status of the request, how the Owners responded to the request, and a justification for either approving or denying the request. The Owners request confidential treatment of this document pursuant to ARSD 21:10:01:41. Owners are separately filing a request for confidential treatment.

- 2-8) If not already provided in response to data request 2-7, please provide any known route changes that deviate from the route set forth in the initially filed application.

RESPONSE: None, other than the route changes identified in response to data request 2-7.

- 2-9) Please provide any known landowner concerns, how the Applicant is addressing the concerns, and when the Applicant believes the concerns will be resolved.

RESPONSE: It is unclear what is meant as landowner "concerns." Concerns could include requests for route changes, questions about the Project, and comments relating to the Project. The Owners have in the past and will continue in the future to work to address landowner concerns and comments through continued public meetings, posting frequently asked questions on the Project website, sending newsletters, communicating with landowners through the website and hotline, having personal meetings with the landowners, and written and telephonic communications with landowners. Due to the size of the Project, Owners believes that landowner concerns will continue to be raised prior to permitting, after permitting, before, during and after construction, and post-

construction. Some landowner concerns can and have been resolved. Some landowner concerns may not be able to be resolved. Once construction commences, the Project anticipates developing a process for the landowners affected by the construction to submit comments or concerns.

As to some of the specific concerns or comments raised by landowners, some of these concerns or comments were made at the public input hearings in Aberdeen and Milbank on October 17, 2013. Some of the comments are indicated in the discussion of the route change requests discussed in the response to Staff's Data Request 2-7. Regarding Gerald Pesall, his concerns are addressed in his answers to the Owners' interrogatories. The Project met with Mr. Pesall and his counsel on April 10, 2014, in an effort to address his concerns. The discussions with Mr. Pesall during this meeting are confidential settlement discussions. Finally, additional comments and concerns are discussed in response to Staff's Data Request 2-29 addressing why landowners have not yet signed options.

- 2-10) Please explain the Applicant's average response time for inquiries that were submitted by the general public through the BSSE's toll-free information line and website written inquiry processes.

RESPONSE: The Project has a variety of channels through which the general public can submit comments, including a toll-free information line, a comment form on the project website, an email address, comment forms at open houses, and a mailing address. Response time data through all channels shows that the overall average time from when the Project received a comment to the first response to the commenter was approximately 10 days.

- 2-11) Referring to page 93, line 9, of the Aberdeen Public Hearing transcript, please provide the study referenced by Mr. Fasteen that determined the easement prices being offered.

RESPONSE: Mr. Fasteen was referring to countywide appraisal documents, which are produced at BSSE 64 to 267. The Owners request confidential treatment of these documents pursuant to ARSD 20:10:01:41. The Owners are separately filing a request for confidential treatment. Mr. Fasteen also was referring to USDA/NASS, South Dakota Field Office, South Dakota 2012 County Level Land Rents and Values ("USDA Survey"). Mr. Fasteen viewed the USDA

survey previously, but no longer has it in his possession, and he can no longer access the version of USDA study viewed on line.

- 2-12) Referring to page 95, line 9, of the Aberdeen Public Hearing transcript, please provide a summary of any follow-up discussions that occurred between the Applicant and Mr. Sperry regarding irrigation center pivot plans and plans for installing a corner system.

RESPONSE: The Project had multiple communications with Mr. Sperry regarding this matter in December of 2013. The Project evaluated placing structures to adjust the span length such that the transmission line structures could be installed without impacting the anticipated center pivot unit of the corner system. Currently, a potential route change is being evaluated by the Project that would eliminate the need to cross the applicable property.

- 2-13) Please explain how residences that are located within 500 feet of the transmission line, yet not required to sign an easement as the line does not cross their property, are compensated for any potential future losses to property values.

RESPONSE: Only landowners from whom an easement is needed to encumber their property to construct the Project receive compensation. As stated in response to data request 1-6 from the Staff's first set of data requests, the Owners do not expect that the Project will have significant short or long term effects on property values.

- 2-14) Please provide a description of setback requirements for each township road, county road, or state road the preliminary route parallels. If no set back requirements will be of factor, please identify such.

RESPONSE: The preferred route parallels various roads, including township roads, county roads, and state roads in each of three counties: Brown, Day, and Grant. Pursuant to SDCL Ch. 11-2, the regulations of the set back from the right-of-way of all highway, roadways, roads, and streets, including state and township roads, are established by the respective county's commission and/or planning commission. Each of the counties through which the preliminary route is located employs county ordinances relating to zoning and certain use regulations. The setback requirements vary by county and also, to a lesser degree, by zoning districts within each county. Roads the preferred route is anticipated to parallel in Brown County are located in Ag Preservation and Mini-Ag Zoning Districts, which have a one hundred foot (100') setback

requirement as required in Sections 4.0606 and 4.0706 of the Brown County Zoning Ordinances. In Day County, pursuant to Section 2601 of the Day County Ordinances, the preferred route is required to be setback fifty feet (50') from all roads designated by Day County to be part of the Day County Highway System. This fifty foot (50') requirement does not apply to other roads located in Day County. In Grant County, pursuant to Section 1101.04(2) of the Zoning Ordinances for Grant County, there is a requirement for a one hundred foot (100') front yard in property zoned "A" Agricultural District.

- 2-15) Please explain the factors that resulted in the need to parallel an existing transmission line located along the south side of 148th St, beginning at the Hwy 12 and 148th St split, as shown on Exhibits 2.33 through 2.35 of the Application. Does paralleling an existing transmission line create any additional risk to public safety?

RESPONSE:

The reason to be on the south side of 148th Street (Exhibit 2.33 and 2.34) was to maximize the distances from the largest number of homes possible. Furthermore, there is also a cemetery located on the north side of 148th Street east of 472 Ave. that was also avoided. In this location, the line being paralleled is not a transmission line but a distribution line. The paralleling of the Project with a distribution line does not create a safety issue. In some instances, paralleling a transmission line can create reliability concerns for the transmission system as discussed in the response to the Staff's second set of data requests number 2-3. The paralleling of this distribution line does not, however, create such reliability concerns or other safety concerns.

- 2-16) Please provide a list of all units of local government that have formally expressed concern regarding the project. Please include any related record of correspondence.

RESPONSE: See BSSE 268 to 320 which includes correspondence from Farmington Township, Highland Township, and Valley Township, and the Project's correspondence with the board of supervisors or board chairman for those townships and the board chairman.

Prior to filing the Facility Permit Application, the concerns raised by Farmington, Highland and Valley Townships were incorporated into the application. Agricultural concerns raised by Farmington, Highland, and Valley Townships were addressed in sections 14.4 and 19.2. The application also addressed the concerns of Highland and Valley Townships regarding safety and property valuation in sections 23.4 and 19.1.2 respectively. The website also

includes answers in our FAQs related to agriculture and health and safety. One time payments were addressed in the October 2013 Power Delivered newsletter, which is contained at BSSE 321 to 322.

2-17) Has the Applicant, or its agents, trespassed on private property?

RESPONSE: To the best of the Owners' knowledge at this time, no trespassing has occurred.

2-18) How will the Applicant ensure soil and plant-borne pests are not transmitted from field to field?

RESPONSE: As stated in the answer to interrogatory number 9 in Gerald Pesall's Second Set of Discovery to Applicants: "The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Applicants' experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields."

2-19) Has the Applicant, in its experience in building and operating high voltage transmission lines ever experienced complaints of radio, TV, communications (e.g. CBs, two way radios, cell phones, etc.), dairy electronics, or GPS (including GPS, differential GPS and RTK) surveying or navigation interference? Please specify to what extent and how the Applicant handled such interference.

RESPONSE: The Owners operate approximately 5,700 miles of transmission lines and are not aware of any complaints in regards to interference with to TV, communication, dairy electronic, or GPS systems. The Owners have had occasions where AM radio reception is impacted, but after passing under the line reception is immediately restored. The general public will notice this momentary interference in their vehicle radio in some instances when traveling under or near transmission facilities.

- 2-20) Referring to page 115 of the Aberdeen Public Hearing transcript, did the Applicant follow up with Ms. Seurer regarding her question about dairy electronics? How was this resolved?

RESPONSE: The Project communicated with Ms. Seurer at the Aberdeen Public Hearing. The Project also is continuing to work to schedule a meeting with Ms. Seurer to review and better understand her technology. In owning and maintaining over 5,700 miles of transmission lines, the Owners have not experienced any negative affects of the transmission line on dairy electronics.

- 2-21) Will the proposed facility increase the potential for liability of the affected landowners? Why or why not?

RESPONSE: The proposed facility will not increase the potential for liability for the affected landowners. The Owners maintain property, casualty, and liability insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

- 2-22) How will the Applicant mitigate lost agriculture production associated with the project's operation, specifically as a result of farming around poles placed within fields?

RESPONSE: The anticipated lost agricultural production associated with farming around poles is being included as part of the easement payment provided by the Project.

- 2-23) Please provide a description of how the Applicant intends to monitor and mitigate construction impacts on roadways.

RESPONSE: As stated in answer to interrogatory number 8 to Gerald Pesall's Second Set of Discovery Requests to Applicant: "As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (i.e, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond

required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.”

- 2-24) Please provide an explanation of how pole placement is discussed with affected landowners, including who contacts the landowner, when the contact is made (specifically in relation to the timing of the landowner signing an easement), and how the landowner’s feedback is taken into account in the final placement.

RESPONSE: The discussion of pole placement varies from landowner to landowner. Initially, when land agents for the Project first started contacting landowners, the preliminary pole locations had not been determined. As a result, the Project did not discuss the placement of pole locations with the landowners. The land agents instead showed a map indicating the proposed route, without any indication of pole placement. The land agents communicated to landowners that they could reasonably expect approximately 5 pole structures per mile. Some landowners signed options based on these initial communications, and thus, the Project may not have discussed pole placement with the landowners.

Later, when the Project determined the preliminary placement of the pole structures, land agents were provided a map detailing the proposed route and the preliminary structure location. The scale on the map prevents determining the exact pole location on a parcel of property. During face to face meetings with landowners, land agents would show them the preliminary pole placements if requested. Land agents also provided copies of maps showing preliminary pole placements to requesting landowners. The final pole locations are not reflected on these preliminary maps. Additional landowners have signed the options after seeing the preliminary pole locations.

If requested by a landowner, the Project also has offered and will provide staking of preliminary pole locations on landowner property once the Project is able to survey the property.

The final pole structure location will not be determined, however, until the final design stage. If the landowner has expressed concerns about the pole placement during the option discussions, their input would be considered in the final location. The timing of the final design stage vis-à-vis signing of easements has not been determined but the Project has and will continue to discuss pole placement with landowners.

2-25) If landowners prefer to have poles placed along a fence line rather than out in a field, how does the Applicant accommodate such a request? Has the company made any route changes as a result of such requests to date?

RESPONSE: Each proposed route change is analyzed to see what, if any, impacts could result from the landowner's request. A design goal is to run the centerline as straight as possible between the dead-end structures, which are approximately five (5) miles apart. Therefore every route change request goes through a standard review process. This review process involves a committee consisting of a company representative from each Owner, design engineer, environmental, right-of-way, and legal teams. This committee considers the following review criteria when evaluating route changes:

- Safety, proximity to state, county township roadways
- Zoning restrictions
- Effect of other existing easements or encumbrances, if any
- Other option agreements that have been obtained with the adjoining landowners
- Whether the affected landowners within 1-2 miles along the route on either side of the property agree with the proposed route change
- ~~Whether there are any environmental impacts caused by the proposed route change~~
- Whether any cultural resource impacts are caused by the proposed route change
- Whether the line be constructed and maintained at the requested location
- Economic considerations

If it appears there are no identifiable impacts with the request after this review is completed, the right-of-way land agents will visit the neighboring landowners to obtain their opinion of a route change on their property as well. If practical to honor the request to move the route change, the Project will attempt to do so. If the impacts are too great, or if the route change is not mutually agreed upon by adjacent landowners, the requested relocation might not be possible. The Project has made some route and pole changes to honor requests placing the structures near fence lines rather than in the field. See also the response to Data Request 2-7.

2-26) At the public hearing in Aberdeen, the Applicant was asked to consider easement terms that were not perpetual, similar to the 99-year term in North Dakota. Has the

Applicant made any changes to the easement term lengths it is offering to landowners along the route?

RESPONSE: No, because the Project expects that the useful life of the transmission line may exceed 99 years.

- 2-27) On page 60 of the Aberdeen Public Hearing transcript, Mr. Ford stated "if maybe this parcel of land is becoming unfarmable because of these reasons, we need to look at something different" in response to Ron Ringgenberg's concern of not being able to utilize aerial spraying as a result of the facility. Since the hearing, has the Applicant worked with Mr. Ringgenberg or other similarly situated landowners to solve these types of problems? If so, please explain how the Applicant plans to mitigate the impact of these problems.

RESPONSE: There have been personal conversations with all landowners who are willing to meet and discuss their specific concerns.

The installation of a transmission line does not prevent aerial applications. A transmission line has a similar, but perhaps lesser impact to aerial applications as a tree row if installed in the direction of the farming application. The applicators are able to fly parallel to the transmission line and let the chemical spray drift under the line to effectively treat their crops.

At this time, the Project has not identified any locations, including but not limited to Mr. Ringgenberg's property, where the transmission line will prevent aerial spray applications.

- 2-28) Please provide an update on progress the applicant has made on easement acquisition.

RESPONSE: Currently the Project is only obtaining options rather than easements. Landowners who have signed options have committed themselves to signing of easements. Approximately 55% of line miles worth of parcels have signed options through April 10, 2014.

- 2-29) For easements (or easement options) not yet acquired, please provide an explanation as to why the landowners have not yet signed and, further, if any landowners are refusing to work with the Applicant.

RESPONSE: As indicated in response to Staff's Data Request 2-28, approximately 55% of the line miles have been signed as of April 10, 2014.

There are several reasons for landowners not signing the easement option. Some landowners are waiting to see if the Facility Permit from the State is issued. Other landowners are waiting on a person or event unrelated to the Project, such as, but not limited to whether other landowners are going to sign options and review of the easement options by the landowner's attorney, family member or renter. Other landowners are waiting on changes to the option and easement documents to reflect their individualized concerns. Other landowners are waiting for evaluation of a proposed route change.

Regarding the small percentage of landowners who have stated opposition to the Project, there are a multitude of reasons they have not signed the options. While some landowners have expressed general objection to the project, others have expressed more specific objections. Some of these objections were communicated at the public input hearings occurring on October 17, 2013, at Aberdeen and Milbank. The more specific objections fall into several general categories:

- Objections to the location of the line
- Economic concerns, including but not limited to complaints that the amount of the easement payment is not sufficient, devaluation of property, and request for annual payments, effect on whether the landowner will obtain wind farms or subdivide their property

- Concerns that the project will negatively affect farming practices, such as but not limited to effect on efficiency of farming equipment, affect on GPS guidance, loss of yield, impacts on aerial spraying, effect on center pivot units, and impact on livestock
- Concerns about the effect of the transmission line on human health
- Concerns about the impact of the transmission line on wildlife
- Effects of the construction process on both their farm property and the roads
- Peer pressure from other landowners, neighbors, family, and landowners not to sign the options

The Project has and will continue to work with landowners to address these concerns.

- 2-30) Did the Applicant consider following abandoned railroad right-of-way in determining the route? If so, for what reasons did the Applicant choose not to utilize it?

RESPONSE: The Applicant did consider following abandoned railroad right-of-ways as part of the routing process for the Project. Overall the preferred route selected reflects the best balance of the project routing criteria. Preliminary routes along abandoned railroad tracks were not carried forward for the preferred route for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. Additionally, the terrain near abandoned railroads may have steep side slopes away from the railroad bed that may not accommodate preferred construction or maintenance methods. In other areas the abandoned railroad right-of-way have been completely plowed under by the landowner in some parcels, and a transmission line would therefore cut through the middle of a cultivated fields. A comment from many landowners was to follow field lines and section lines to avoid diagonally traversing a cultivated field.

- 2-31) Did the Applicant consider following railroad rights-of-way that are currently in use? If so, for what reasons did the Applicant choose not to utilize them?

RESPONSE: The Applicant did consider following active railroad rights-of-way in the routing process for the Project. As stated in the response to Staff's Data Request 2-30 and 2-32, long stretches of routes along railroad tracks were removed from consideration for a variety of reasons, including the fact that railroads tend to run through towns that the Project would have to be routed around. It was also determined that construction of the transmission line would not be feasible along the railroad in the Waubay area due to the increasing water levels in the surrounding lakes. Field surveys confirmed that certain route segments along the railroad were also removed from consideration because of the presence of homes, businesses, and water challenges. The Project also considered the induction effects and the safety concerns presented by the Project being located parallel to an existing railroad.

Additional engineering challenges and safety concerns that were considered as well. As stated above in the answer to Staff's Data Request 2-30, the terrain near railroads may have steep side slopes away from the railroad that may not accommodate preferred construction or maintenance methods. In addition, railroad right-of-way widths vary along a railroad and it would be very difficult

to share right-of-way with a railroad. Therefore the transmission line would likely have many bends and inflections to follow the railroad right-of-way, and/or be further out into a cropped field in areas where the right-of-way is wider. And finally, trains that derail where a transmission line runs parallel to it could potentially cause a disruption in electrical service and a safety hazard if derailed cars were to collide with a nearby transmission line structure.

- 2-32) If induction of rails is a reason listed in the previous two questions, what steps could the Applicant take to mitigate issues with induction and, further, what impact would those steps have on project costs?

RESPONSE: The best method for reducing the effects of induced voltage in parallel facilities such as railroads is to route the transmission line so that it is a safe distance away from the railroad or applicable parallel facility. If a transmission line remains close to the railroad then a study must be performed to evaluate induced voltage issues. Mitigation techniques and costs can vary significantly depending on the results of the study and particulars of the situation. Options for mitigation include: installation of a grounding conductor, replacement or upgrade of railroad signaling equipment, installation of AC drain filters, and reconfiguring the size of the signal track blocks. Costs can be into the millions of dollars depending on the level of mitigation required.

- ~~2-33) Per the suggestion by Mr. Welk on pages 109 and 110 of the Aberdeen Public Hearing transcript, was a letter provided to Mr. Feickert regarding disbursement of property taxes? If so, please provide the letter. If not, please provide the information requested.~~

RESPONSE: A letter has been sent to Mr. Feickert, which is attached at BSSC 323 to 328 and which contains the requested information as to the disbursement of property taxes.

- 2-34) Are corner structures going to have guy-wires? If so, what additional impacts would guy-wires have on landowners and/or farming operations? Further, will the Applicant construct a corner structure without guy-wires should a landowner request such?

RESPONSE: Corner structures located on cultivated land will not have guy-wires. Corner structures located on non-cultivated land could have guy wires depending upon the terrain and location of the structure. If a landowner with corner structures on non-cultivated land requests a structure without guy-wires, then the Project may consider that request on a case-by-case basis.

STATE OF NORTH DAKOTA)
) :SS.
COUNTY OF Burleigh)

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

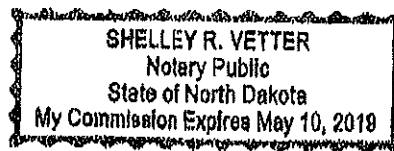
MONTANA-DAKOTA UTILITIES CO.

By *Henry Ford*
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 15th day of April, 2013.

Shelley R. Vetter
Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
)
) :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

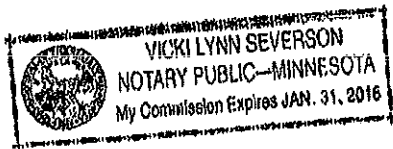
He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Staff's Second Data Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information in the is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 15th day of April, 2013.

OTTER TAIL POWER COMPANY

By Jason J. Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 15th day of April, 2013.



Vicki Lynn Severson
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015

CERTIFICATE OF SERVICE

I, Thomas J. Welk, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on this 15th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 64 to 267 and BSSE 329 to 331, for which confidential treatment has been requested, and a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
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Ms. Karen Cremer
Staff Attorney
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Mr. Brian Rounds
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Mr. Darren Kearney
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And a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Responses to Staff's Second Set of Data Requests to Applicants Dated March 10, 2014 was served via e-mail and first-class mail as well as a CD containing BSSE 268 to 328 was transmitted via first-class mail to the following addresses listed:

Ms. Jennifer Smestad
General Counsel
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Mr. Daniel S. Kuntz
Associate General Counsel
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Ms. Maxine Fischer
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Ms. Sandra Raap
Day County Auditor
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Ms. Karen Layher
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Mr. Bob Pesall - Representing: Gerald Pesall
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Flandreau, SD 57028
bob@pesall.com



Thomas J. Welk

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S FIRST SET OF DISCOVERY
REQUESTS TO APPLICANTS DATED
JANUARY 28, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

**Terry Fasteen,
Kadrmas, Lee & Jackson, ROW Services
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Angela Piner, Project Manager Environmental Scientist
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angela.piner@hdrinc.com

Jason Weiers, Manager – Delivery Planning
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Phone: 218-739-8311
jweiers@otpc.com

2. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have to property values for real property lying under or within ½ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based. Include in your answer both urban and rural property values.

ANSWER: Section 19.1.2 of the South Dakota Facility Permit Application (“the Application”) states, among other things, that “The South Dakota Facility is not expected to have significant short- or long-term effects on . . . land values”

Owners believe that the South Dakota Facility will not have significant short- or long-term effects on land values due to the relatively minimal footprint of the Project. The Project anticipates constructing approximately 5 or 6 monopoles per mile with a span of 700-1,200 feet between poles. The permanent impact is less than 5 acres of the nearly 1,600 acres temporarily and permanently affected by the Project.

3. Describe the impact, if any, applicants contend the installation of the proposed transmission line will have on common species of livestock, including cattle, horses, swine, and poultry which are, or may be, kept under or within $\frac{1}{4}$ mile of the proposed route, and any facts, studies, or expert opinions upon which that contention is based.

ANSWER: As stated in sections 19.2.2 and 23.4.5 of the Application, no impacts are anticipated to livestock operations due to the Project for the reasons stated in these sections of the Application.

4. Describe the level of soil compaction, if any, applicants contend will result from construction and maintenance of the transmission line, the impact that compaction may have on the productivity of the property, the time, effort, and cost which would be required to restore the soil to its original condition, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: Soil compaction likely will only occur during construction of the Project. As stated in section 10.3 of the Application, any temporary compaction impact caused by the construction process will be decompacted and restored to preconstruction contours to the extent practicable. No long term impacts from soil compaction are expected because of the decompaction and remediation process described in section 10.3 of the Application.

5. State whether applicants have prepared any estimates, and if so, provide those estimates together with the facts, studies, or expert opinions upon which they are based, as to the total dollar value for:
 - a. Annual lost productivity due to proposed transmission line's impact on livestock along the entire length of the proposed line.
 - b. Annual lost productivity due to soil compaction and interference with farming operations caused from construction and ongoing maintenance along the entire length of the proposed line.
 - c. Total reduction in real property values along the entire length of the proposed line, both for property lying under the proposed route and for adjacent property within $\frac{1}{2}$ mile.

ANSWER: As discussed in sections 14.1.2 and 19.2 of the Application, and as indicated in answers to interrogatories numbers 2, 3, and 4 above, the permanent impact is expected to be minimal. The Owners have not prepared annual estimates of lost productivity, and no such annual estimates are required to be prepared.

6. State the impact on road maintenance requirements and costs, if any, which the applicants contend will be incurred by state and local governments as a result of increased road use during initial construction and as a result of ongoing maintenance, and the facts, studies, or expert opinions upon which that contention is based.

ANSWER: As indicated in Section 19.3 of the Application, there will be no impacts on road maintenance requirements and costs. While the roads in the vicinity of the Project will see increased usage during the construction phase of the Project, the Owners do not anticipate any permanent impacts to the area road maintenance. Any damage to area roads will be monitored and repaired during construction and following completion of construction of the Project.

7. State the number of actual residential or commercial customers in South Dakota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any,
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire MISO footprint ("Midwest Region") the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in South Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the Multi-Value Projects ("MVPs") are described more fully in the report issued by MISO called "Multi-Value Project Portfolio -- Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a high priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of South Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other South Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for all customers in South Dakota resulting from the Project or the rest of the MVPs.
- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in South Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested party on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the approximately 75-150 workers involved in activities leading up to and directly involved with the construction of the Project. The impact to the local economies, not including

property taxes, from the Project is estimated to range from \$3 million to \$7 million through the construction period of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes (property taxes, contractor tax, excise tax, sales tax, and use tax) which will increase the tax base for counties in which this facility is located. Based on the current effective composite tax rates for South Dakota, the Owners estimate a yearly property tax payment in the range of \$1.75 to \$2.25 million. This equals an approximate tax per mile of transmission line in the range of \$11,200 to \$14,500 in South Dakota based on approximately 155 miles of line. On a county by county basis, this calculates to property taxes of approximately \$715,000 to \$885,000 for Brown County, \$535,000 to \$755,000 for Day County, and \$490,000 to \$605,000 for Grant County.

Furthermore, the Owners' preliminary projections of sales/use taxes and contractor excise taxes paid during the project range from \$5.5 million to \$9 million.

8. State the number of actual residential or commercial customers in Minnesota which applicants contend will benefit from the construction of the proposed line, the facts, studies, or expert opinions upon which that contention is based, and describe in detail:
 - a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
 - b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.
 - c. Any other measurable benefits that those residential and commercial customers may be able to observe.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in Minnesota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the Midwest Region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
 - b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are members of MISO. Therefore, all customers in the state of Minnesota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP, the Owners are not familiar with the portion of MVP costs other Minnesota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in Minnesota resulting from the Project or the rest of the MVPs.
 - c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. Although these benefits will not be as great as the states in which construction will occur, it is feasible that Minnesota may reap the benefits of some local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of some workers involved in activities leading up to and directly involved with the construction of the Project. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.
9. State the number of actual residential or commercial customers in North Dakota which applicants contend will benefit from the construction of the proposed line,

the facts, studies, or expert opinions upon which that contention is based, and describe in detail:

- a. The current and projected increase in service reliability those residential and commercial customers will experience, if any.
- b. The current and projected average cost for electrical services those residential and commercial customers will experience, if any.

ANSWER: The Project involves a high voltage transmission line, developed collaboratively as a MISO Multi-Value Project (MVP) to increase transmission capacity to provide the entire Midwest Region the infrastructure needed to support the renewable energy mandates for all the states in the Midwest Region.

The Owners are not able to identify the number of actual residential or commercial customers in North Dakota that will benefit from the construction of the Project because transmission system modeling involved in identifying high voltage transmission facilities is not done to the individual customer level. Rather, benefits from the construction of a transmission project are identified on the basis of geographic areas. Since the need for the Project is driven by demand across the Midwest Region, benefits are quantified regionally rather than on a state-by-state basis.

The numerous benefits offered by this Project and the rest of the MVPs are described more fully in the report issued by MISO called "Multi-Value Project Portfolio - Results and Analyses" included as Appendix B.1 to the Application (specifically, see Section 8 of this report for the quantifiable benefits of the MVPs to the MISO region).

- a. Maintaining reliable service to customers is always a priority of the Owners. As stated in Section 6.1 of the Application (Page 19), the construction of this Project will benefit the Owners' customers by enhancing connections across the transmission system to be better able to withstand system failures. Additionally, the Project will remove overloads on local transmission facilities as more generation facilities are constructed in the region. Furthermore, due to the interconnected nature of the transmission system, the Project will also support the transmission system outside of MISO by providing a new high voltage source to the existing transmission system.
- b. As stated in sections 4.0 and 6.0 of the Application, the Big Stone South to Ellendale project is one of seventeen MVPs approved by the MISO. The purpose of these MVPs is to reduce the wholesale cost of energy delivery for the consumers across the Midwest Region by enabling the delivery of low-cost generation to load, reduce congestion costs, and increase system reliability. Because the benefits of the MVPs are spread throughout MISO, the costs of these MVPs are shared among all customers who are served by utilities that are

members of MISO. Therefore, all customers in the state of North Dakota who are served by utilities within MISO will receive quantifiable benefits and a portion of the costs associated with the MVPs. Outside of OTP and MDU, the Owners are not familiar with the portion of MVP costs other North Dakota customers will receive from these other MISO member utilities and therefore are not able to quantify the current and projected average cost for electrical services for customers in North Dakota resulting from the Project or the rest of the MVPs.

- c. In addition to the benefits discussed above and found within the MISO report of Appendix B.1 of the Application, other benefits of the Project are discussed in sections 4.0 and 19.1.2 of the Application. These included both short-term and long-term benefits. The presence of this Project in North Dakota will allow for flexibility in serving customer growth and new generation resources in the State by having access to a robust transmission line bolstering the existing transmission system. Interconnections to this line will be open to any interested parties on a non-discriminatory basis in accordance with rules established by the Federal Energy Regulatory Commission (FERC) and administered by MISO on behalf of the Owners. Local commercial residents are expected to reap the benefits of local economic development as a result of the Project, namely from lodging, meals, and other consumer goods and services of the workers involved in activities leading up to and directly involved with the construction of the Project.

Long-term benefits to residential and commercial customers also will include a variety of taxes which will increase the tax base for Dickey County. Furthermore, the Project will improve the ability to serve present and future economic development in the area. Electricity is one of the foundations of the economic development in the country.

10. Describe in detail nature of the Ellendale substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Ellendale 345-kV Substation will be constructed and owned by Montana-Dakota. It will be located about 1.5 miles west of Ellendale, North Dakota, along the west side of 87th Avenue SE in Section 9, Ellendale Township (Township 129N, Range 63W), Dickey County, and across the street from the existing Montana-Dakota Ellendale 230-kV Substation, which is located in Section 10 of Ellendale Township. The footprint of the substation will be approximately 11.3 acres. Construction of the new Ellendale 345-kV Substation will involve the installation of two 345-kV circuit breakers, one 345-kV line termination structure, five 345-kV disconnect switches, one 345-kV/230-kV 300/400/500 Mega Volt Ampere (MVA) Auto-Transformer, a 345-kV Shunt Line Reactor, eight 230-kV circuit breakers, twenty-one 230-kV disconnect switches, four 230-kV line termination

structures, associated arresters, Capacitive Voltage Transformers (CVTs), bus work, and protective relaying and controls required to support the circuit breakers. The existing Merricourt, Tatanka, and Hankinson 230-kV lines will be relocated to terminate in this substation, as well as an Ellendale 230-kV tie line back to the original Ellendale 230-kV Substation.

11. Describe in detail nature of the Big Stone substation, to which the proposed transmission line is projected to connect, and any other transmission lines, generating facilities, or other facilities which will be directly connected to that substation.

ANSWER: The Big Stone South substation will be a 345/230kV substation that will be constructed to allow two new 230kV lines and two new 345kV lines. The 230kV lines will extend between the existing Big Stone Power plant and this new substation. One 345kV line will connect this facility to the new Ellendale 345kV substation and the second 345kV line will connect this facility to the Brookings County 345kV substation.

This new substation will be located in the NE1/4 of the NW1/4 of section 24, Township 121N, Range 47W. The new substation includes four 230kV breakers for the incoming 230kV lines from the existing Big Stone Power plant 230kV substation. Two 345/230/13.8 kV, 448MVA transformers, with 25 Mvar reactors, will step-up the voltage to 345kV for two new 345kV lines. The 345kV bus will have four 345kV breakers to provide protection for these transformers and the new 345kV lines. A new control house and a fenced area of approximately 600 x 600 feet and will be located on 39 acres.

12. Describe in detail the impact, if any, applicants contend that the proposed transmission line would have on the usability and productivity of agricultural equipment which is guided by global positioning systems (GPS), or by ground base transmitter systems, when used under or within ¼ mile of the transmission line. Identify any facts, studies, or expert opinions upon which that contention is based.

ANSWER: Section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

The Application references an IEEE study by Silva & Olsen, 2002, that studied the impact of overhead conductors on GPS signals. The study found that the overhead conductors did not block or affect the use of GPS satellite signals.

13. Describe in detail the impact, if any, applicants contend the proposed transmission line will have on wild game species common to the area where the line is to be constructed, including but not limited to its impact on whitetail deer, walleye pike, northern pike, ring-neck pheasant and Canadian geese.

ANSWER: Section 11.0 of the Application describes the anticipated effects to water resources, including fishery resources. Because the Project will span all streams and lakes, no impacts to fish species or fishing uses will occur.

Section 12.0 of the Application also describes the anticipated impacts to terrestrial wildlife species, including game species. Once constructed, the transmission line could result in impacts to avian game species through collisions. The Project will work with proper wildlife authorities, both State and Federal, to identify areas where bird diverters may need to be installed to minimize potential collisions. In addition, the transmission line will be designed considering the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection On Power Lines: State of the Art in 2006 to minimize the potential for electrocution.

The Project is not anticipated to affect the population of any game species in the region it crosses.

14. Describe in detail the methodology used to select the proposed route, the specific factors by the applicants in selecting the proposed route, including but not limited to total cost, engineering constraints, and legal concerns.

ANSWER: Section 8.1 of the Application lays out the detailed methodology used to select the proposed route. As listed on page 26 of the Application, the line route in South Dakota was selected based on several factors, including:

- **Minimizing total length and construction costs**
- **Minimizing impacts to humans and human settlements, including (but not limited to) displacement, noise, aesthetics, cultural values, recreation, and public services**
- **Consideration of effects on public health and safety**
- **Offsetting existing ROW (roadway or other utility ROW) or section lines to minimize impacts to land-based economies, including (but not limited to) agricultural fields and mining facilities**
- **Minimizing effects on archaeological, cultural properties, and historic resources**
- **Minimizing impacts to wetlands, surface waters, and rivers**
- **Minimizing impacts to rare or endangered species and unique natural resources**
- **Minimizing effects to airports or other land use conflicts**
- **Constructing the transmission lines near existing roadway ROW or close to the half section lines to minimize impacts to agricultural fields**
- **Placing structures to minimize impacts to agricultural production/allow for the movement of farm equipment**
- **Avoiding a diagonal route across agricultural fields wherever possible**
- **Preference for mono-pole structures rather than H-frame structures**

As described above, engineering constraints and costs were two of many criteria considered. Legal concerns considered in the routing process included confirming potential routes could be constructed consistent with applicable federal, state, and local laws and regulations. The proposed route was selected based upon the evaluation of the foregoing routing criteria.

The Owners continue to evaluate possible changes to the proposed route based upon discussions with landowners. The changes to the route may occur both before the hearing on the Application, and after the hearing. If a material change in the proposed route is adopted by the Owners before the hearing, the Owners will identify that change to the proposed route as part of the prefiled testimony consistent with the deadlines imposed by the Commission or at the hearing. For material route changes after the hearing, the Owners will update the Commission through the appropriate processes.

15. Describe each alternative proposed route considered by the applicants prior to selecting the currently proposed route.

ANSWER: The attached map numbered BSSE 9 shows the preliminary routes that were considered by the Owners prior to selecting the preferred route.

Between the Ellendale Substation and the general vicinity of the town of Bristol, there were two main route alternatives considered; one that follows the ultimately selected route south into South Dakota, and one that heads east from the Ellendale area for approximately 35 to 40 miles before turning south into South Dakota. This second main route alternative had several smaller alternative segments. One location with alternative segments occurs approximately ten miles east of Ellendale, where the alternatives are located 0.5 to 1 mile apart. Another set of alternative segments is located at the North Dakota/South Dakota border crossing area, where the alternatives parallel each other at a distance of approximately 2 to 5 miles apart, for a length of approximately twenty miles.

Between the Bristol area and the Big Stone South Substation, there were several other areas with minor route alternatives. These respective areas usually consist of parallel route alternatives, generally 0.5 to two miles apart.

16. For each alternative route so-identified, describe in detail how the factors set out in your answer to request #14 were considered, and the reason(s) why that alternative route was ultimately rejected.

ANSWER: Section 8.2 of the Application describes the methodology used in selecting the proposed route and rejecting the alternative routes.

The routes through western Marshall and the northwestern portion of Day counties was not selected because the preferred route is shorter in length, and expected to have better soils for construction activities and structure foundations. The Owners received several comments regarding very wet soils in the western portion of Marshall County. Additionally, from a constructability perspective, the northern portion of Day County contains many large surface waters and wetlands that would be challenging to span and may require more structures to be placed within surface waters or wetlands.

The alternative routes through Dickey and Sargent counties would require a crossing of the U.S. Fish and Wildlife Services' (USFWS) Dakota Lake National Wildlife Refuge and U.S. Bureau of Reclamation Oakes Research Area in North Dakota. In addition, one of the alternative routes would be located close to or potentially cross the Hecla Sand Prairie area in northwestern Marshall County, which is an area of conservation interest to the USFWS and they hold many grassland easements on the lands. The South Dakota Game, Fish, and Parks Department had also had concerns with the alternative routes in western Marshall County being located close to water bird colonies. Lastly, the alternative routes would cross more prairie or grassland areas through western Marshall County and Sargent and Dickey counties in North Dakota compared to the preferred route.

Additionally, the proposed route differs from the preliminary route for approximately six miles in T120N R56W (Highland Township) and T120N R57W (York Township) in Day County. The preliminary route was rejected in this area because of engineering and constructability constraints associated with crossing the Horseshoe Lake area.

17. Identify any state or federal renewable energy standards which applications contend the proposed line will enable them to meet.

ANSWER: The proposed line is one of the MVPs which, in total, will enable the most economic development and construction of renewable energy projects in the Midwest Region. This includes a combination of local and regional generation projects detailed in section 4.2 in the MVP report included as Appendix B.1 of the Application. In order to spur renewable energy projects, many states have adopted renewable energy standards, which are laws which mandate that a certain amount of energy produced or purchased by its regulated electric utilities must be generated by qualifying renewable energy projects. The transmission studies performed by MISO used in the identification of the Big Stone South to Ellendale project, along with the balance of the MVPs, were based on existing state renewable energy standards in place during the course of the study (primarily during 2011). The study results indicate that the MVP portfolio will enable transmission of 41 Million Megawatt hours (MWh) of wind energy per year across the Midwest Region. As determined through the MVP studies, this amount of wind energy is anticipated to meet the state renewable energy mandates across the Midwest Region beyond 2026.

Additional information related to the state renewable energy standards facilitated by the Project and the rest of the MVPs can be found in sections 4 and 7 of the MVP report, included as Appendix B.1 of the Application.

18. With respect to the energy to be transmitted on the proposed line, identify the existing or anticipated generating facilities from which that energy will be produced, and the amount of energy anticipated from each.

ANSWER: The Big Stone South to Ellendale 345 kV line will be an integral part of the high voltage transmission system. As such, the line will be available to carry energy from a variety of generating facilities, regardless of fuel type. Due to the interconnected nature of the regional transmission system, the generation that will flow on this line will depend on a number of variables. Too many variables exist to definitively identify the existing or anticipated generating facilities that will have energy transmitted on the Big Stone South to Ellendale 345 kV line. These variables include (among several other factors) generation patterns, load levels, and outages of existing generation or transmission. Therefore, identifying the exact amount of energy from a specific generator flowing across a particular transmission line is not possible. However, if wind-rich areas in eastern South Dakota are developed with future renewable

generation, this future generation will have energy transmitted along this Project given its geographic proximity to these wind-rich areas. BSSE 11 attached is a wind resource map with the route corridor of the Project shown on the same map. As stated in Section 4 of the Application, the Project will increase system capacity which in turn allow for additional opportunities for development of generation, including renewable energy sources, in South Dakota.

19. Describe in detail the percentage of the total energy to be transmitted on the proposed transmission line which will pass to or from the Big Stone South to Brookings County, and/or Brookings County to South East Twin Cities lines once all three projects enter service, and annually thereafter through the year 2024..

ANSWER: Once these three separate Multi-Value Projects (MVPs) are constructed, the total energy transmitted along these three projects will be highly correlated to one another, given their geographic location and electrical connectivity. The Big Stone South to Ellendale 345 kV line will share a common termination point with the Big Stone South to Brookings County 345 kV line at the Big Stone South substation. Likewise, the Big Stone South to Brookings County 345 kV line will share a common termination point with the Brookings County to South East Twin Cities line at the Brookings County substation. Identifying expected or even anticipated energy transmitted on the Big Stone South to Ellendale line in comparison to the other two projects will depend on a number of variables (as described in interrogatory #18).

Based on knowledge of the transmission system in this region, the flow of energy in this area will generally be from northwest to southeast, flowing from Ellendale to Big Stone South to Brookings County and then to the Southeast Twin Cities. However, transmission facilities often experience bi-directional flows and therefore could also flow from southeast to northwest depending on the conditions present on the transmission grid.

20. Describe in detail the insurance policies or other liability protections, if any, applicants will maintain for themselves against claims which relate to the towers, wires, and other components of the proposed transmission line, and the means by which that protection will be maintained through the useful life of the proposed transmission line.

ANSWER: The Owners maintain property and casualty insurance coverage customary for the utility industry. Operational risk management procedures are in place to help protect life and property throughout construction and operation of the proposed transmission line.

21. In the event that agricultural production activities near the proposed transmission line damage or interfere with the operation of the line (including, for example, a GPS guided tractor colliding with a monopole), describe in detail any liability

protection which applicants will provide to agricultural producers in the event of third party claims against those producers for interruption of service or other damages..

ANSWER: The Owners maintain property and casualty insurance coverages customary for the utilities industry, including general liability insurance. In the event of a claim that falls within the scope of this coverage, the law of torts would apply.

22. Describe in detail the anticipated maintenance schedule for the towers, lines, substations and other components of the proposed transmission line, and the amount of time each are anticipated to remain in operation.

ANSWER: The Owners anticipate they will inspect the towers, components, and conductors at a minimum of twice a year associated with routine maintenance. A patrol typically would be conducted in the spring and fall of each year to minimize the environmental impact. These patrols/inspections typically take two to three weeks per year and are for the most part confined to the facility right of way. If problems are discovered during these inspections, and are not emergency in nature, typically repairs can be scheduled in fall or winter. If for some reason repairs would have to be scheduled when the crops are still in the field the landowner would be compensated for any damages associated with those repairs.

The right of way would be managed as part of the Owners vegetation management program which consists of removal of trees and other vegetation that could interfere with the reliability of the facility, which usually occurs on a four year cycle. This typically takes around three or four weeks per cycle and is scheduled to be performed in the fall or winter.

The substations maintenance consists of inspections, vegetation management, equipment testing, etc. and is typically confined to the fenced area within the substation with the exception of vegetation management which includes just outside the fence and driveways. These items are completed throughout the year and typically take around eight weeks to complete.

The Owners expect the line to be in service for perpetuity. There are not currently have any plans to remove any of our transmission system. However, as noted above, the facilities will require ongoing maintenance in order to operate safely and reliably.

RESPONSES TO DOCUMENT REQUESTS

1. Tower components, insulators, footings, foundations, guy-wires, and any other attachments for the towers which will be used generally to construct the proposed

transmission line and those which would be specifically used upon property owned by Gerald Pesall.

RESPONSE: See BSSE 10 attached.

2. The exact location where the lines and towers for the proposed transmission line would be located in located Day County, South Dakota for the currently selected route and any alternative routes being considered.

RESPONSE: See BSSE 12 to 63. These documents reflect the preliminary estimates of the location of the lines and towers. The exact location of the lines and towers in Day County has not yet been determined.

3. The Big Stone Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

4. The Brookings County substation, including a description of any transmission lines which will directly connect to it.

OBJECTION: The Owners object to disclosing this information because the Brookings County substation is not part of the Project, and the requested documents exceed the scope of permissible discovery under SDCL 15-6-26(b) and ARSD 20:10:01:01.02. The Owners further object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

5. The Ellendale Substation, including a description of any transmission lines other than the proposed transmission line which will directly connect to it.

OBJECTION: Owners object to production of these documents, which are critical energy infrastructure information which is subject to restricted access by applicable federal regulations, including 18 CFR 388.113.

STATE OF MINNESOTA)
) :SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Discovery Requests, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 26 day of February, 2014.

OTTER TAIL POWER COMPANY

By Jason J Weiers
Jason Weiers
Its Manager, Delivery Planning

Subscribed and sworn to before me this 26th day of February, 2014.

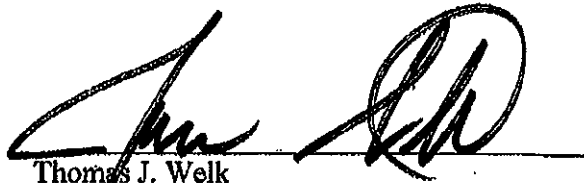


Vicki Lynn Severson
Notary Public - South Dakota
(SEAL)

My Commission Expires: Jan. 31, 2015

AS TO OBJECTIONS:

Dated February 26, 2014



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CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 26th day of February 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's First Set of Discovery Requests to Applicants Dated January 28, 2014 was served via first-class mail to the following addresses listed:

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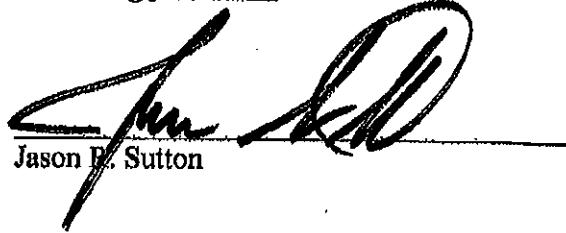
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Jason E. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER
COMPANY'S ANSWERS TO GERALD
PESALL'S SECOND SET OF
DISCOVERY REQUESTS TO
APPLICANTS DATED MARCH 5, 2014**

Montana-Dakota Utilities Co. and Otter Tail Power Company (collectively "the Owners"), for its Responses to Gerald Pesall's Second of Discovery Requests to Applicants dated March 5, 2014, states as follows:

ANSWERS TO INTERROGATORIES

1. State the name, title, contact information and relationship to the applicants of each individual, other than counsel, who assists in preparing answers to these discovery requests.

ANSWER: The answers were prepared based on the knowledge of employees of Otter Tail Power Company, Montana-Dakota Utilities Company, Power Engineers, Inc., Kadrmas, Lee & Jackson and HDR Engineering, Inc. as a whole. The primary persons are as follows, who do not have personal knowledge of all the answers.

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2. State the full name, address, telephone number, and occupation of each witness and/or expert from whom you intend to present testimony in this proceeding, and provide a summary of the facts and opinions which each is expected to provide

ANSWER: At this time, Owners intend to call the following witnesses who are all qualified as experts:

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Angela Piner, Project Manager Environmental Scientist
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The specific substance of the testimony will be disclosed in the prefiled testimony deadlines imposed by the Public Utilities Commission of South Dakota (“the Commission”), but generally, these witnesses will provide the testimony to establish the Owners’ burden of proving that the Commission should issue the requested permit for the Big Stone South to Ellendale Project (“the Project”).

3. Describe in detail the projected cost difference between the currently proposed route and the other potential routes examined by the applicants for the construction of the transmission facility.

ANSWER: The Owners have not calculated the projected cost differential between the currently proposed route and the other potential routes identified in BSSE 9, which was produced as part of the Owners' response to Gerald Pesall's First Set of Discovery Requests to Applicant. The best estimate of cost is the length of the proposed route. The rejected preliminary route shown on BSSE 9, which goes through Marshall County and western Day County, is longer than the proposed route. The length of the proposed route and corresponding cost was not the sole basis, however, for selecting the proposed route. Instead, the proposed route was selected based on the route selection process and considerations discussed in section 8.1 of Application to Public Utilities Commission of the State of South Dakota, as amended ("the Application").

4. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon persons using either pacemakers, cochlear implants, or similar devices while under or near the transmission line.

ANSWER: Owners do not anticipate any impact on persons with pacemakers, cochlear implants, or similar devices while under or near the transmission line at ground level.

5. Describe in detail the impact, if any, which applicants contend the proposed facility may have upon electronically controlled planting equipment when operated under or near the transmission line.

ANSWER: Owners do not expect that transmission line electric and magnetic fields will impact electronic controls of planting equipment. Isolated cases of interference related to GPS based systems are possible but unlikely.

As stated in answer to interrogatory number 12 in Gerald Pesall's First Set of Discovery Requests to Applicants dated January 28, 2014, section 14.4 of the Application addresses any impact of the Project on the use of global positioning systems (GPS). There are two possible impacts to GPS systems: (1) a line-of-sight obstruction; and (2) electric field corona from high voltage power lines. The Project will have no effect on the usability and productivity of GPS or ground based transmitter systems.

Regarding "line of sight" obstructions, the Project's impact to GPS systems is similar to the impact from trees, buildings or other line-of-sight obstructions. Any limited line of sight impact on the GPS system caused by the Project's structures is expected to be temporary and will be eliminated once the equipment or GPS receiver moves such that the structure no longer impedes the line of sight between the receiver and the GPS satellites at issue.

Some GPS systems also make use of real-time kinematic (RTK) systems to improve the accuracy of the GPS system by making use of the ultra-high frequency radio communication range. RTK systems are ground based GPS systems. RTK signals are transmitted from antennas that are typically only a few meters high, and thus, transmission line towers are not expected to produce much blocking of the line of sight signals from these sources either. Repositioning of the RTK base station antenna should resolve any line of sight interference issues if they occur.

Regarding electric field corona from the Project, there is no expected impact. Electric field corona from high voltage transmission lines can produce radio frequency emissions, but they are primarily below the frequencies used for satellite and ground based GPS systems. Therefore, the radio frequency broadcast produced by high voltage power lines is very unlikely to interfere with or overcome GPS signals.

6. In the event a landowner's average crop yields are reduced due to construction activities during the construction process, or as a result of ongoing maintenance, describe the compensation, if any, which applicants will provide to landowners to offset reduced crop insurance payments in future years.

ANSWER: If damage occurs to crops during the construction process, the Owners will pay for the crops damaged, including hay land. The damage payment for standing crop shall be determined by the following formula (acres x yield x price per bushel/ton).

The Owners will strive to work with the landowner to jointly establish the acres affected by construction. To determine the yield component, the Owners will consider the yield obtained by the landowner on the remainder of the field affected and historical data. The price per bushel shall be determined by the market rate at the time of the crop damage.

The Owners will pay a lump sum payment equal twice the amount of the crop damage payment calculated pursuant to the formula discussed above. The Owners pay twice the amount of the crop damage calculated to reflect future yield reductions caused by the construction.

Actual crop damages from maintenance operations will be reimbursed by the Project.

7. State the average cost per linear foot to construct the proposed transmission line on the currently proposed route.

ANSWER: The Owners have not calculated the cost per linear foot of constructing the Project. As stated in section 5.0 of the Application, the total estimated cost of the Project is \$293 to \$370 million in 2013 dollars. Of this amount, according to

section 5.0 of the Application, the cost of transmission line portion of the Project is \$265 million to \$342 million. As stated in section 2.0 of the Application, the Project includes approximately 160 to 170 miles of transmission line. These estimates can be used to calculate a range of anticipated costs for building each mile of the transmission line.

8. In answer to your Interrogatory No. 6 of Gerald Pesall's First Set of Discovery Requests, you indicate that road damage will be monitored and repaired. Describe in detail who will provide monitoring and repair services, and how they will be provided.

ANSWER: As part of the construction of the Project and the use of best management practices during the construction, it is expected that road damage, if any, will be minimal. Nevertheless, a person or party (*i.e.*, engineer, project manager, construction manager, construction contractor) will be assigned responsibility to monitor any road damage. At this time, the identity of the person or party responsible for monitoring any road damage has not been determined. The Project will work with the entity that has authority over the road in making a damage assessment. The Project plans to repair road damage either through either the use of a contractor or by compensating the government entity to restore the road. In addition, the bond required by the Commission in connection with the issuance of the permit will be available to provide security of payment for any road damage.

9. Describe in detail the impact, if any, applicants contend the construction of the proposed facility will have on the field-to-field transmission of soil and plant-borne pests, including but not limited to the soybean cyst nematode, and the "sudden death syndrome" fungus, and any preventative measures applicants will take to prevent the transmission of the same during construction and ongoing maintenance of the proposed facility.

ANSWER: The Owners contend that the construction of the Project will have no impact on the field-to-field transmission of soil and plant borne pests. Based on the Owners experience in constructing, operating, and maintaining 5,700 miles of transmission lines in North Dakota, South Dakota, Minnesota, Montana, and Wyoming, the construction and maintenance of these lines has not materially contributed to the field-to-field transmission of soil or plant-borne pests. Any field-to-field transmission of soil or plant-borne pests would be no greater than would be expected as a result of standard farming practices, such as moving farming equipment between fields.

10. Describe in detail any alternative means by which applicants may comply with clean energy mandates imposed by the State of Minnesota in the event that the application is denied.

ANSWER: The Owners assume that the reference to "clean energy mandates imposed by the State of Minnesota" means renewable portfolio standards that apply in Minnesota, which requires that 25% of retail energy sales must come from

renewables by 2025 and 1.5% of retail energy sales coming from solar energy by 2020.

Montana-Dakota Utilities Co. is not subject to Minnesota's clean energy mandates because it does not serve customers within the State of Minnesota. Otter Tail Power Company ("OTP") does serve customers within the State of Minnesota and therefore is subject to the requirements imposed by Minnesota.

Regardless of whether the permit for the Project is granted or denied, OTP would embark on a similar approach to that which it has historically taken when adding generation resources to comply with Minnesota's clean energy mandates.

OTP currently provides about 19% of its total retail sales from wind energy. To date, all of OTP's wind energy has been added cost effectively.

As mentioned in sections 4 and 6 of the Application, the Project, along with the rest of the MVPs, will reduce the wholesale cost of energy delivery for consumers across MISO by increasing transmission capacity. If the Application is denied, the Project may not be built, thereby jeopardizing the benefits the MVP portfolio offers to the MISO region, which includes South Dakota. Without these benefits, energy prices in the MISO region could be higher, therefore increasing costs to consumers system-wide.

STATE OF NORTH DAKOTA)
)
COUNTY OF Burdick) :SS.

Henry Ford, being duly sworn is the authorized agent of Montana-Dakota Utilities Co., for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 1st day of April, 2014.

MONTANA-DAKOTA UTILITIES CO.

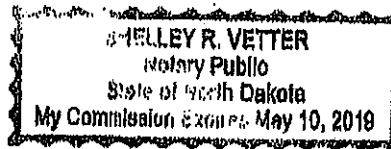
By [Signature]
Henry Ford
Its Director - Electric Transmission Engineering

Subscribed and sworn to before me this 1st day of April, 2014.

[Signature]

Notary Public
(SEAL)

My Commission Expires: _____



STATE OF MINNESOTA)
)SS.
COUNTY OF Otter Tail)

Jason Weiers, being duly sworn is the authorized agent of Otter Tail Power Company, for purposes of the response.

He states that he does not have personal knowledge of all the facts recited in the foregoing Responses of Montana-Dakota Utilities Co. and Otter Tail Power Company to Gerald Pesall's Second Set of Discovery Requests to Applicants, but the information has been gathered by and from employees, contractors of the owners of Big Stone South to Ellendale Project; and that the information is verified by him as being true and correct on behalf of the owners of the Big Stone South to Ellendale Project.

Dated this 4th day of April, 2014.

OTTER TAIL POWER COMPANY

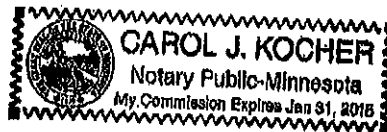
By Jason J. Weiers
Jason Weiers

Its Manager, Delivery Planning

Subscribed and sworn to before me this 4th day of April, 2014.

Carol J. Kocher
Notary Public
(SEAL)

My Commission Expires: Jan. 31, 2015



CERTIFICATE OF SERVICE

I, Jason R. Sutton, do hereby certify that I am a member of the law firm of Boyce, Greenfield, Pashby & Welk, LLP, attorneys for Montana-Dakota Utilities Co. and Otter Tail Power Company and that on the 7th day of April, 2014, a true and correct copy of Montana-Dakota Utilities Co. and Otter Tail Power Company's Answers to Gerald Pesall's Second Set of Discovery Requests to Applicants Dated March 5, 2014 was served via first-class mail to the following addresses listed:

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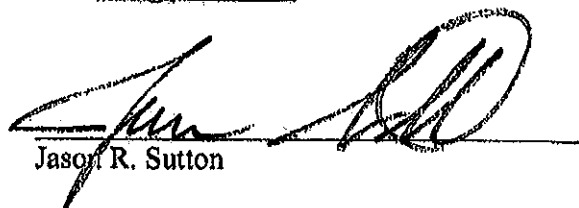
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Jason R. Sutton

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD REBUTTAL
TESTIMONY**



1 HENRY FORD REBUTTAL TESTIMONY

2 **Q. Please state your name, employer, and work address.**

3 A. My name is Henry Ford. I am the Director of Electric Transmission Development for
4 Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND
5 58501.

6 **Q. Did you prepare and direct testimony regarding the Big Stone South to
7 Ellendale Project ("the Project")?**

8 A. Yes, I did.

9 **Q. What is the purpose of your rebuttal testimony?**

10 A. To address the testimony of Gregory Tylka, Ph.D, who prepared direct testimony on
11 behalf of Gerald Pesall, and which was filed with the South Dakota Public Utilities Commission
12 ("the Commission"). Specifically, I am going to address Dr. Tylka's testimony about the alleged
13 effect of the construction of the Project on the possible spread of soybean cyst nematode
14 ("SCN").

15 **Q. Other than Gerald Pesall, has anyone else expressed concern regarding the
16 effect of the construction of the Project on transmission of SCN?**

17 A. No. Landowners, local governments, or governmental agencies who have
18 communicated with the Project have never discussed SCN or the effect of the Project on the
19 spread of SCN.

20 **Q. Has MDU ever encountered allegations that construction or maintenance of
21 transmission projects will increase the spread of SCN in any of MDU's other transmission
22 projects?**

1 A. No, this case is the first time where alleged spread of SCN has been raised as a
2 concern.

3 **Q. How many miles of transmission line does MDU have?**

4 A. MDU owns and maintains approximately 3,000 miles of transmission line.

5 **Q. What experience has co-owner Otter Tail Power Company (OTP) had regarding**
6 **SCN in the construction and maintenance of transmission lines?**

7 A. Like MDU, OTP has not encountered the complaint that construction or maintenance
8 of a transmission line spreads SCN.

9 **Q. When was the first time the Project learned anyone had concerns that the**
10 **construction or maintenance of the transmission line would spread SCN?**

11 A. Upon receiving the direct filed testimony of Dr. Tylka, which was filed by Gerald
12 Pesall on April 24, 2014.

13 **Q. What steps are Project taking in light of Dr. Tylka's testimony?**

14 A. The Project intends to research the effect construction or maintenance of the
15 transmission line might likely have on the spread of SCN.

16 **Q. How do you propose updating the Commission regarding the Project's plan for**
17 **addressing SCN?**

18 A. Because SCN is a new issue for the Project, and because the short time frame for
19 rebuttal testimony after Gerald Pesall filed Dr. Tylka's testimony, the Project needs additional
20 time to complete their study and research. Following the completion of our study and research,
21 the Project will supplement their prefiled rebuttal testimony.

22 **Q. Does this complete your prefiled rebuttal testimony at this time?**

23 A. Yes.

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

In the Matter of the Transmission Permit for the
Big Stone South to Ellendale Project

EL13-028

**HENRY FORD SUPPLEMENTAL
REBUTTAL TESTIMONY**



1 **Q. Please state your name, business address, and current employment position.**

2 A. My name is Henry Ford. I am the Director of Electric Transmission Development for
3 Montana-Dakota Utilities Co. ("MDU"). My business address is 400 N. St., Bismarck, ND
4 58501.

5 **Q. Have you previously prepared any testimony in this matter?**

6 A. Yes, I prepared direct testimony filed on April 25, 2014. I also prepared rebuttal
7 testimony that was filed on May 9, 2014.

8 **Q. In your rebuttal testimony, did you indicate what steps the Project was taking to
9 address Dr. Tylka's testimony about soybean cyst nematode ("SCN")?**

10 A. Yes. I indicated that the Project was researching the effect of the construction and
11 maintenance of the transmission line on the spread of SCN.

12 **Q. What research has the Project done?**

13 A. The Project consulted with South Dakota State University regarding the presence of
14 SCN in Brown, Day, and Grant Counties, and how SCN is spread. The Project also reviewed
15 academic literature on SCN.

16 **Q. What did your research indicate?**

17 A. SCN is present in Brown, Day, and Grant Counties, but the Project is not aware at this
18 time what particular parcels within those counties have SCN present. SCN can be spread in any
19 method that dirt is spread from field to field.

20 **Q. Why is the Project unaware of the particular parcels containing SCN?**

21 A. The Project is unaware of which landowners have tested for SCN and which parcels
22 the South Dakota State University extension office may have tested in the project area.

1 Additionally, the extension office would not be able to provide any information that may be
2 available because the information is private.

3 **Q. Can the construction of the Project contribute to the spread of the SCN?**

4 A. Based on our research, anything that causes dirt to move from field to field can cause
5 spread of SCN, including wind, erosion, farming practices, and the construction of the Project.

6 **Q. Based on the research, does the Project intend to engage in any mitigation to
7 reduce the spread of SCN?**

8 A. Yes, we are intending to adopt and implement a plan.

9 **Q. Please describe the mitigation plan.**

10 A. The Project is still developing a mitigation plan. Although not yet finalized, the
11 Project is considering five components to the plan -- consultation, sampling, cleaning, training,
12 and monitoring. The details of the mitigation will depend on the results of consultation and
13 sampling.

14 **Q. When do you expect the mitigation plan to be filed?**

15 A. I expect a working draft mitigation plan to be filed before the evidentiary hearing on
16 June 10 so that I can testify about it at the hearing.

17 **Q. What plans does the Project have regarding addressing the possible spread of
18 SCN through maintenance activities?**

19 A. The mitigation plan will address reasonable and appropriate efforts to reduce the
20 spread of SCN during maintenance activities.

21 **Q. Does this complete your supplemental rebuttal testimony?**

22 A. Yes.

Soybean Cyst Nematode Mitigation Plan

Background Information

The soybean cyst nematode (*Heterodera glycines*) (SCN) has been identified throughout the Project area and was first identified in 1997¹ in the three counties within which the Project traverses. The SCN can be spread through the movement of affected soil. It moves very slowly through wind-blown soils, wind and water erosion, and cultivation practices and has been known to survive in the soil for a decade².

The Project developed a mitigation plan described below to reduce the risk of spreading SCN from affected to non-affected fields. This mitigation plan has the following approach:

- Perform a field assessment to identify the presence or absence of the SCN within cultivated fields crossed by the Project right-of-way (ROW)
- Identify acceptable measures to mitigate spreading SCN during construction
- Hold construction crews accountable through inspection and monitoring during construction

Mitigation Plan

Field Assessment

Sampling for SCN commonly targets high probability areas in cultivated fields, which includes field lines, field entrances, and low spots³. The goal of the field assessment is to identify the presence or absence of the SCN in the cultivated fields crossed by the Project. The sampling protocol will be completed in accordance with the South Dakota State University protocol.

Mitigation Measures

Mitigating the spread of SCN from an existing affected field to a non-SCN affected field, a variety of measures may be utilized, which are dependent on soil conditions, weather conditions, topography, distance traveled, equipment type, and cost. Unfortunately, one mitigation measure alone is not a "catch-all" and will be determined on a site-specific basis. Measures to assist in the control of soils on equipment may include: cleaning stations, utilizing clean crews for non-affected fields and a dirty crew for affected fields, equipment mats, and

¹ Strunk, Connie. 2013. Soybean Cyst Nematodes: An expanding pest in South Dakota.

<http://igrow.org/agronomy/soybeans/soybean-cyst-nematodes-an-expanding-pest-in-south-dakota/>

² Niblack, T. L., K. N. Lambert, and G. L. Tylka. 2006. A Model Plant Pathogen from the Kingdom Animalia: *Heterodera glycines*, the Soybean Cyst Nematode. Annual Review of Phytopathology 44: 283-303

³ Smolik, J.D., M.A. Draper. 2007. Soybean Cyst Nematode South Dakota Extension Fact Sheet 902-A. SDSU Plant Science Department. http://pubstorage.sdstate.edu/AgBio_Publications/articles/FS902A.pdf



Big Stone South to Ellendale

weather-dependent construction (i.e. frozen and dry soils). The measures ultimately used will depend on the results of the sampling effort, cost, resource availability, and contractor input.

Inspection/Monitoring

The Project is committing to training and identifying individuals responsible for monitoring construction personnel in their implementation of this plan.

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

**IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY
FOR A PERMIT TO CONSTRUCT THE
BIG STONE SOUTH TO ELLENDALE 345
KV TRANSMISSION LINE**

SETTLEMENT STIPULATION

EL13-028

It is hereby stipulated and agreed by and among Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly "Applicant"), and the South Dakota Public Utilities Commission Staff ("Staff") (jointly "Party" or "Parties"), that the following Settlement Stipulation ("Stipulation") may be adopted by the South Dakota Public Utilities Commission ("Commission") in the above-captioned matter. In support of its Application to the Public Utilities Commission of the State of South Dakota for a Facility Permit ("Facility Permit"), Applicant does hereby offer this Stipulation, the Application filed August 23, 2013, as amended, and all responses submitted by the Applicant to the Staff's data requests, all responses to Gerald Pesall's discovery requests, and the testimony and exhibits filed on April 25, 2014, May 9, 2014 and May 23, 2014, conditioned upon the Commission accepting the following Stipulation and the Terms and Conditions without any material condition or modification.

I. INTRODUCTION

Applicant proposes to own and construct the Big Stone South to Ellendale 345 kV electric transmission facilities ("Project"). The Project includes new 345 kV electric transmission facilities of approximately 160 to 170 miles in length, which will connect the new Ellendale 345 kV Substation with the Big Stone South Substation. Approximately 150 to 160 miles of transmission facilities will be located in South Dakota. The Project also involves the building of a new 345 kV substation ("Ellendale 345 kV Substation") and substation tie line near Ellendale, North Dakota.

II. PURPOSE

This Stipulation has been prepared and executed by the Parties for the sole purpose of stating the Parties' agreement regarding the issuance of a Facility Permit in Docket No. EL13-028. In consideration of the mutual promises hereinafter set forth, the Parties agree as follows:

1. Upon execution of the Stipulation, the Parties shall file this Stipulation with the Commission together with a joint motion requesting that the Commission issue an order approving this Stipulation in its entirety without condition or modification.



2. This Stipulation includes all terms and conditions of settlement and is submitted with the condition that, in the event the Commission imposes any material changes or conditions to this Stipulation, which are unacceptable to any Party, this Stipulation may, at the option of any Party, be withdrawn and shall not constitute any part of the record in this proceeding or any other proceeding nor be used for any other purpose.
3. This Stipulation shall become binding upon execution by the Parties, provided however, that if this Stipulation does not become effective in accordance with Paragraph 2 above, it shall be null and void. This Stipulation is intended to relate only to the specific matter referred to herein; no Party waives any claim or right, which it may otherwise have, with respect to any matter not expressly provided for herein. No Party or a representative thereof shall directly or indirectly refer to this Stipulation as precedent in any other current or future proceeding before the Commission.
4. The Parties to this proceeding stipulate that all pre-filed exhibits and pre-filed testimony submitted by the Applicant will be made a part of the record in this proceeding.
5. The terms and conditions contained in this Stipulation shall inure to the benefit of and be binding upon the respective successors, affiliates, owners, stockholders, partners, parents, subsidiaries, directors, officers, agents, employees, representatives, attorneys, and assigns of the Parties. In addition, the terms and conditions of this Stipulation, including all facts leading up to the signing of this Stipulation, shall bind the Parties, including consultants, contractors, and retained professionals.
6. This Stipulation constitutes the entire agreement between the Parties and shall be deemed to supersede any other understandings or agreements, whether written, oral, expressed or implied, relating to the Application. This Stipulation may not be amended, modified, or supplemented, and waivers or consents to departures from the terms and conditions of this Stipulation may not be given without the written consent thereto executed by all Parties.
7. This Stipulation shall be interpreted and construed in accordance with the laws of the State of South Dakota.
8. This Stipulation may be executed by electronic mail or facsimile and in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document.
9. The Parties recognize that the Commission has granted intervention to Gerald Pesall, James R. McKane, III, Clark T. Olson, Shuring Farms, Inc., Bradley R. Morehouse, and Kevin Anderson (collectively "Intervenors"). The Intervenors are not parties to this Stipulation.
10. The Parties agree that subject to the four elements of proof under SDCL § 49-41B-22,

the Commission has the authority to grant, deny, or grant upon reasonable terms, conditions or modifications a permit for the construction, operation, and maintenance of the Project. The Parties further agree that the Applicant has met its burden of proof pursuant to SDCL § 49-41B-22 and is entitled to a permit to construct the Project as provided in SDCL § 49-41B-24, subject to the following:

III. TERMS AND CONDITIONS OF THE SETTLEMENT STIPULATION

1.

Applicant will obtain all applicable and necessary governmental permits, which reasonably may be required by any governmental authority with jurisdiction, prior to engaging in the particular activity covered by that permit.

2.

Applicant shall construct, operate, and maintain the Project in a manner consistent with: (1) descriptions in the Application, (2) Application supplements, (3) responses to data requests, (4) the Terms and Conditions of the Permit to Construct Facilities, and (5) any applicable industry standards.

3.

Applicant agrees that the Commission's complaint process as set forth in ARSD 20:10:01 shall be available to landowners, other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit.

4.

Applicant shall provide each landowner on whose property the Project is to be constructed or located with the following information:

- a) A copy of the Commission's Order Granting Permit to Construct Facilities;
- b) Detailed safety information describing:
 - 1) Reasonable safety precautions for activities on or near the Project,
 - 2) Known activities or uses that are prohibited near the Project, and
 - 3) Other known potential dangers or limitations near the Project;
- c) Construction/maintenance damage compensation policies and procedures;
- d) Commission's address, website, and phone number; and
- e) Contact person for Applicant, including name, e-mail address, and phone number.

Once the foregoing information has been provided to the landowner, Applicant shall have no

responsibility or duty to update such information except for changes to items b), c), and e) in this paragraph 4.

5.

In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL § 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of the Applicant involved in this Project be made aware of the terms and conditions of this Permit.

6.

Except as otherwise provided in the conditions of this Stipulation, the Applicant shall comply with all mitigation measures set forth in the Application, in Applicant's responses to Staff data requests, Applicant's responses to Intervenor's discovery, and in Applicant's prefiled testimony and exhibits. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.

7.

Applicant will negotiate road use agreements with applicable government authorities with jurisdiction, if required during construction. Applicant will follow the terms of all road use agreements. Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including but not limited to implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal from the road surface of any soils or mud deposits from the road surface when necessary.

8.

Applicant shall comply with the following conditions regarding road protection:

- a) Applicant shall acquire all applicable and necessary permits authorizing the crossing of federal, state, county, and township roads.
- b) Applicant shall coordinate road closures with federal, state and local governments and emergency responders.
- c) Applicant shall implement a regular program of road maintenance and repair throughout the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.
- d) After construction, Applicant shall repair and restore deteriorated roads to the conditions defined in the road use agreement, if applicable, resulting from Applicant's construction traffic, or compensate governmental entities for their repair and restoration of deteriorated roads caused by Applicant, such that the roads are returned to their preconstruction condition.
- e) Privately owned areas used as temporary roads during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.

- f) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to original width after completion of the Project, unless otherwise agreed upon.

9.

Applicant will coordinate with pipeline owners to ensure that the Project does not cause harm to existing pipeline facilities. Applicant will work with pipeline owners to implement any necessary and reasonable mitigation measures.

10.

Applicant will provide signage that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

11.

Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species or native grasslands in the siting area that Applicant becomes aware of and that was not previously reported to the Commission.

12.

Applicant agrees to avoid direct impacts to archaeological and architectural site features that are listed on or that are eligible for listing on the National Register of Historic Places (NRHP), and those that are not evaluated for listing on the NRHP. When NRHP-eligible or listed sites cannot be avoided, Applicant will notify the State Historic Preservation Office (SHPO) and the Commission of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or develop treatment measures.

13.

If, during construction, Applicant discovers what may be a cultural resource, human skeletal remains, or associated funerary objects, Applicant or its agent shall immediately cease work at the location and notify the landowner(s), the SHPO, and other authorities as appropriate (per SDCL § 34-27-25 and SDCL § 34-27-28 in the case of human burials). If it is determined, in coordination with SHPO, that a significant resource is present, Applicant shall develop a plan that is acceptable to the landowner and SHPO that minimizes the adverse impact or threat to the resource.

14.

Applicant shall follow a) all conditions required by any agency permits and b) all final agency recommendations agreed to by Applicants through consultation with those applicable agencies in Exhibit 1, Appendix C. Applicant shall reasonably update the Commission if any of the final agency recommendations agreed to by the Applicant as provided for in this paragraph (14) change from Exhibit 1, Appendix C.

15.

Applicant shall confer with the applicable agencies in the implementation of measures for the protection of avian species consistent with "Suggested Practices for Avian Protection on

Power Lines: The State of the Art in 2006" and "Reducing Avian Collisions with Power Lines: State of the Art in 2012" prepared by the Avian Power Line Interaction Committee.

16.

Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission prior to submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation as required by the NPDES permit. All contractors will be given a copy of the SWPPP and requirements will be reviewed with them prior to the start of construction.

17.

Applicant shall develop and implement a mitigation plan to minimize the spread of soybean cyst nematode, consistent with Exhibit 23, in consultation with a crop pest control expert.

18.

Applicant will repair and restore areas materially impacted by construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration will include replacement of original pre-construction or equivalent quality topsoil to its original elevation, contour, and compaction and reestablishment of original vegetation as close thereto as reasonably practical.

19.

Applicant's obligation with respect to restoration and maintenance of the right-of-way (ROW) shall continue throughout the life of the Project for disturbances caused by the actions of the Applicant. Where the soil is disturbed during construction or maintenance of the line, Applicant shall restore vegetation as appropriate in and along the ROW. For a period of thirty-six (36) months from the energization of the Project, if noxious weeds sprout in restored areas, Applicant will remove/eliminate them. Landowner permission shall be obtained before the initial application of herbicides.

20.

When necessitated by Applicant's actions, Applicant shall restore and clean-up the ROW continuously throughout the duration of the Project's construction as the timing of construction activities result in the need to do so.

21.

Applicant shall stage construction materials in a manner that minimizes adverse impact to landowners as agreed upon between Applicant and the landowners. All excess construction materials and debris shall be removed upon completion of the Project. In addition, any temporary guard poles shall be removed, unless agreed upon otherwise.

22.

Applicant shall, in a manner consistent with its easement agreement with a landowner, repair or replace all private property existing at the time of construction, which is removed or

damaged during all phases of construction, including, but not limited to the following: fences, gates, utility, water supply systems, irrigation, or drainage systems. Applicant shall compensate the landowners for damages or losses to property existing at the time of construction or maintenance that cannot be fully remedied by repair or replacement, including actual crop and livestock losses.

23.

If it becomes necessary to materially deviate from the described centerline to accommodate engineering and applicable safety and construction requirements based upon conditions encountered during construction, all landowners affected by the material deviation and the Commission must be notified in writing at least five working days before the material deviation is expected to occur. Unless otherwise notified by the Commission, the material deviation is deemed approved. For purposes of this paragraph, the term "material deviations" shall mean any action or activity outside the reasonable parameters of the Permit.

24.

Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities existing prior to the date of this Stipulation, unless agreed otherwise by the affected landowner. Applicant shall take appropriate precautions to protect livestock and crops during construction.

25.

The terms and conditions of the Permit shall be made a uniform condition of construction, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied to the property in question and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis which evaluation shall be completed within sixty (60) days unless exigent circumstances require action sooner.

26.

If the presence or operation of the Project causes unreasonable interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

27.

Applicant shall use appropriate preventative measures to prevent damage to paved roads and to remove excess soil or mud from such roadways. Before commencing construction, Applicant shall furnish an indemnity bond in the amount of \$300,000 to comply with the requirements of SDCL § 49-41B-38. Such bond shall be issued in favor of, and for the benefit of, such townships, counties, or other governmental entities whose property is crossed by the transmission facilities or used by associated construction equipment. The bond shall remain in effect until released by the Commission, which release shall not be unreasonably denied.

following completion of the construction and remediation period. Applicant shall give notice of the existence and amount of the bond to all governmental entities whose property is crossed or used by the Project.

28.

Applicant will provide Global Positioning System (GPS) coordinates of proposed structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.

29.

Not less than 30 days prior to commencement of construction work in the field, Applicant will provide to Staff the most current pre-construction design, layout and plans. Applicant also will provide such additional pre-construction information as Staff requests.

30.

Within 90 days of the Project's completion, Applicant shall submit a report to the Commission that provides the following information: 1) as-built location of structures and route, including drawings; 2) status of remedial activities for alleged road damage, alleged landowner property damage, alleged crop damage, alleged environmental damage, or any other alleged damage that resulted from construction activities; and 3) a summary of known landowner complaints and Applicant's responses.

31.

Prior to construction, Applicant will notify public safety agencies providing a schedule and location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, Sheriffs of Brown, Grant, and Day Counties, and Brown, Grant, and Day County Offices of Emergency Management.

32.

Applicant shall provide all landowners information regarding the potential induction of current/voltage on fences and metal objects and mitigation methods that can be applied to eliminate the induction. Applicant will respond to landowners concerns regarding induced current/voltage on fences or other structures within 100 feet of the edge of the right-of-way of the Project and will assist those landowners in determining methods and implementation of mitigation.

33. Applicant shall provide all landowners information regarding possible interference with unlicensed agricultural navigation communication transmitting or receiving equipment and mitigation methods that can be applied to minimize unreasonable interference. Applicant will respond to landowners concerns regarding unreasonable interference with unlicensed agricultural navigation communication transmitting or receiving equipment and will assist those landowners in determining methods and implementation of mitigation.

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SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: 6-9-14

Montana-Dakota Utilities Co.

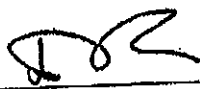
By: Garret Senger

Its: V.P. Regulatory + CAO

SETTLEMENT STIPULATION—DOCKET EL 13-028

Dated: _____

Otter Tail Power Company

By:  _____

Its: President _____

SETTLEMENT STIPULATION—DOCKET EL13-028

Dated: June 7, 2014

Karen E. Cremer

Karen E. Cremer
Staff Attorney
South Dakota Public Utilities Commission

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION EL13-028
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

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Transcript of Proceedings
June 10, 2014
Volume I, pages 1-144

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
Brian Rounds
Katlyn Gustafson

APPEARANCES

Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
Randall Schuring, Intervener
Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 are required under the Stipulation for approval of
2 material changes within the route.

3 Then just to give you very briefly the status as it
4 is today on options signed on this project, I can tell
5 you that as of the 3rd of June we have 224 options
6 signed. That equals roughly 60 percent of the total line
7 miles on this project. I know we've executed a few more
8 today. I don't have those reflected in here. But so we
9 continue to make progress on getting options signed on
10 the project.

11 Now in terms of the Soybean Cyst Nematode Mitigation
12 Plan, you know, I admitted right away that when this
13 issue was raised by Mr. Pesall's attorney this was not an
14 issue that the owners of this project or the Applicants
15 here were really aware of.

16 You know, we've built a lot of transmission line
17 throughout this area and throughout Minnesota,
18 North Dakota, Montana. This is an issue that at least
19 has not come up in any particular proceeding or it is not
20 something that we have faced before on a project.

21 So as a result, we had to do a little bit of
22 research right away into this issue. And through that
23 research -- and basically what we did was we consulted
24 with South Dakota State University and their extension
25 service. They're well-aware of this issue, and they were

1 able to give us, I think, some good education on this
2 issue as well as discuss with us what our mitigation plan
3 looks like and kind of give us a little bit of advice
4 there.

5 So as a result of those consultations, what we
6 really have determined here is that within the roughly
7 160, 165 miles of the route in South Dakota -- or
8 throughout the whole project, for that matter, we have
9 determined that what needs to be done is that we need to
10 test each individual cultivated field for the presence of
11 the soybean cyst nematode.

12 So we've committed, you know, within the Stipulation
13 that we will follow this mitigation plan. We will test
14 essentially every cultivated field on this project.
15 Based on the results of that testing, we're going to know
16 something more about kind of the density of this problem
17 within our route. In other words, we'll know if this
18 issue is confined to certain areas on the route, whether
19 it's every other field kind of a situation or whether
20 it's, you know, 10, 15 miles that is clean fields,
21 followed by 10, 15 miles of dirty fields.

22 The reason I say that is because in our
23 investigation we determined there are several ways to
24 mitigate the transference of the nematode from one field
25 to the other. And depending on the density of this issue

1 along the route, that is going to determine what is the
2 best method of mitigation or the best method that we will
3 apply to prevent this spread to the best of our ability
4 from a dirty field to a clean field.

5 There are several methods we're looking at that
6 we've found that other companies have used in other parts
7 of the country where this has been an issue in the past.
8 There are things like cleaning stations that you set up
9 at the edge of a so-called dirty field where you will
10 clean the equipment before they leave that field.
11 Therefore, they'll be clean and ready to go into a
12 noninfected or noncontaminated field and not transfer the
13 nematode.

14 There is also the option of what we call clean
15 crew/dirty crew. What that means is, there again,
16 depending on the density and the distribution of these
17 fields, you could actually set up a crew that only works
18 within the clean fields. They don't ever go into a dirty
19 field and vice versa. You set up a dirty crew that their
20 purpose is to only work within the fields that are
21 contaminated and not cross into a field that is not
22 contaminated.

23 Those are a couple of the real, I think, successful
24 methods that have been used on other projects. There's
25 other possibilities such as matting where you're

1 technically not driving in the field; you're driving on
2 wood matting. And that could be used in certain areas
3 maybe where the field conditions are wet enough that we
4 would have a greater concern of spreading contaminated
5 soils.

6 And, you know, I think there are some other things
7 out there that we've read about in terms of, you know,
8 potential lesser risk in, say, winter months when the
9 ground is frozen, things like that.

10 So our mitigation plan has laid out this process
11 where we do the testing followed by an analysis of those
12 results to determine the best methods of mitigation to
13 use. And those methods could actually vary from one area
14 of the line to another, all dependent on, you know,
15 cost-effectiveness, project efficiencies, and just what
16 is the best method to use in that area.

17 So that's how we intend to proceed in mitigating the
18 nematode issue. That is Exhibit 23 also, and so we can
19 read that. And it's also included in paragraph 17 of the
20 Settlement Stipulation.

21 So with that in mind, I guess, in conclusion I just
22 want to say that based on what we believe our Application
23 has done, what other filed testimony that we have filed
24 in this case, and the conditions in the Settlement
25 statement -- or the Settlement Stipulation itself, we the

1 Council was one that we had contacted. We did -- in
2 Appendix C of the Application, we did make contact with
3 the State -- if you just give me a second here, I think I
4 can find it. To the South Dakota Department of
5 Agriculture and South Dakota Department of Environment
6 and Natural Resources, those two agencies, which I assume
7 maybe would know something about it. At least the
8 Department of Agriculture. Also the U.S. Department of
9 Agriculture was contacted.

10 CHAIRMAN HANSON: My recollection, the Soybean
11 Council was the first to have a publication on it,
12 though, in South Dakota. It was quite a few years ago,
13 and they were talking about it in the southeast part of
14 the country.

15 Would you please contact them and have
16 discussions with the Soybean Council as well?

17 THE WITNESS: (Nods head.)

18 CHAIRMAN HANSON: You spoke of cleaning
19 stations, clean and dirty crews, potential matting.
20 Counsel Pesall got into some specifics in that arena, a
21 number of areas that I'm concerned with. It doesn't --
22 the Exhibit 23 states that it may include some of the
23 cleaning stations, clean and dirty crews, things of that
24 nature.

25 Again, in this particular instance do you have

1 any specific criteria?

2 The verbiage just did not leave me with a great
3 deal of confidence. In fact, again, it states that it
4 may include, that you may include some of these items.

5 THE WITNESS: Yeah. I think as I stated in my
6 testimony, what we feel is critical here in determining
7 the type of mitigation is really the prevalence of the
8 nematode along the route.

9 So if worst-case scenario let's say 100 percent
10 of the route is contaminated, then obviously there really
11 isn't mitigation that would be required.

12 But if we have long stretches of contamination
13 and long stretches of noncontaminated fields, then the
14 clean crew/dirty crew option may actually be the best
15 option to use.

16 The cleaning stations I think would be used more
17 in the situation where we have, what do you want to say,
18 oscillation between clean and dirty fields along the
19 route so that it is potentially impractical to use clean
20 and dirty crews.

21 So I guess the purpose of that language in the
22 plan is that we may as a result of determining the
23 density of the problem eliminate some of those mitigation
24 options. I mean, maybe we end up going to nothing but
25 cleaning stations, let's say, as an example.

1 So I think we wanted to keep all of these
2 options on the table until we can really analyze, you
3 know, the significance of the problem along the route and
4 best determine, you know, how to mitigate.

5 CHAIRMAN HANSON: Just a comment. It would seem
6 that if you do find a nematode cyst, that you would only
7 use dirty crews in those areas and that you would use
8 clean crews in all of the other areas so that there would
9 be no cross-contamination.

10 I have a few other questions, but I will
11 acquiescent to my fellow Commissioners at this juncture.

12 Commissioner Nelson, did you have questions?

13 COMMISSIONER NELSON: Just a couple, Mr. Ford.

14 In your initial comments today you mentioned
15 that of the route alternatives that you were looking at
16 there was only one that ended up being rejected. Is that
17 the Podoll area?

18 THE WITNESS: Yes, it is.

19 COMMISSIONER NELSON: And referencing your
20 June 5 and 6 letter to Mr. and Mrs. Lyle Podoll, you
21 indicated that one of the reasons that you couldn't go
22 with their alternative was that it would place them at
23 odds with landowners on the proposed southern route
24 change.

25 My recollection of Mr. Podoll's commentary at

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THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

=====

IN THE MATTER OF THE APPLICATION
OF MONTANA-DAKOTA UTILITIES CO.
AND OTTER TAIL POWER COMPANY FOR A
PERMIT TO CONSTRUCT THE BIG STONE
SOUTH TO ELLENDALE 345 kV
TRANSMISSION LINE

EL13-028

=====

Transcript of Proceedings
June 11, 2014
Volume II, pages 145-385

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BEFORE THE PUBLIC UTILITIES COMMISSION

GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF

John Smith
Karen Cremer
Greg Rislov
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Thomas Welk and Jason Sutton, Applicants
Bob Pesall, Intervener
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Bradley Morehouse, Intervener

Reported By Cheri McComsey Wittler, RPR, CRR

1 Sections 4, 19.1, and 20 of the Application, as well as
2 Responses to Staff's First Data Requests, paragraphs 5
3 and 8. Section 4 talks about the benefit of the project
4 through property taxes specifically.

5 Sections 19.1 provides a summary of the
6 socioeconomic conditions of the project and is very
7 typical of what you would see in the Application and is
8 very consistent with applications I've done in the
9 past.

10 Section 20 is employment estimates for the project.
11 And paragraph 5 in the First Data Request Response has
12 additional property and sales tax information details.
13 And paragraph 8 has additional information on employment
14 estimates and impacts to local economy.

15 In regard to soilborne pests, after conversations
16 with over 500 landowners who attended our project open
17 houses, many of those which were farmers and the
18 consultation we requested with NRCS and Department of
19 Agriculture, we were not aware of any issues of soilborne
20 pests.

21 We've addressed the evidence and have responded to
22 the soybean cyst nematode issue as provided by
23 Dr. Tylka's testimony and haven't provided evidence on
24 the soilborne pests as we are not aware of the prevalence
25 of those specific issues raised.

1 I was hired to work almost exclusively on that, and that
2 was my graduate training as well.

3 Q. Can you give the Commission a short explanation of
4 what the soybean cyst nematode is?

5 A. Sure. So generally I start off this explanation by
6 describing nematodes in general. These are microscopic
7 worms that live in water and soil, very common. And most
8 of them are good. They're beneficial.

9 But there are a subset of them that feed on plants.
10 And many of these plant feeding nematodes or plant
11 parasitic nematodes are native to the United States, and
12 they're commonly found in agricultural soils throughout
13 the United States.

14 But there also are a few that are introduced pests.
15 And soybean cyst nematode, which I'll probably refer to
16 as SCN from this point on, is one of those introduced
17 pests.

18 And introduced pests create unique problems in that
19 when they are introduced into a field first off they have
20 no natural enemies because they've never existed there
21 before. So many of the native plant parasitic nematodes
22 are not terribly damaging because there are other things
23 that live in the soil that eat nematodes for lunch, for
24 example.

25 But when you're a new introduced pest you have the

1 benefit of many years for not having any natural enemies.
2 And so that's one of the things that makes soybean cyst
3 nematode or SCN so difficult and so dangerous.

4 It also has aspects of its biology that make it very
5 unique and very damaging. Most nematodes are individual
6 worms that feed from the outside of the root and produce
7 five or 10 offspring. But soybean cyst nematode burrows
8 into the root. It attaches to the vascular tissue, which
9 is in the center of the root, and then the female swells
10 up to form what we refer to as a swollen female. And the
11 reason she swells up is because ovaries develop inside of
12 her that are very large.

13 Eventually the adult swollen female is about the
14 size of a printed period at the end of a sentence. So in
15 a book page or a newspaper. And that swollen female
16 fills up with eggs, 200 to 300 eggs. So a unique aspect
17 of the nematode's biology is that it has a very high
18 reproductive potential.

19 Now the whole life cycle of SCN can be completed in
20 four weeks. So when you think about how many weeks a
21 soybean crop is grown in your state or mine that allows
22 for three or four or five turns of the life cycle,
23 generations. And so that adds to the potential for
24 explosive increases in numbers.

25 And then if mother nature didn't give us enough of a

1 bad hand, that final aspect that makes it terribly
2 difficult to manage is the eggs inside the females. When
3 she dies those eggs can live 10 or more years without a
4 soybean crop being grown. Those eggs go dormant in the
5 soil.

6 So it's a very troublesome pest because of being an
7 introduced pest, having a high number of offspring per
8 individual, a short life cycle, and then very long lived
9 in the soil.

10 Management of soybean cyst nematode consists of
11 checking your fields to know if you have it or not, and
12 then once you've discovered you've got it, you're looking
13 at growing resistant soybean varieties or not growing a
14 host crop like soybeans or using a seed treatment, which
15 is a new management strategy that's just been brought on
16 to the market a couple of years ago.

17 So really check your fields, switch to a resistant
18 soybean variety, don't grow something that's a host crop,
19 or a seed treatment.

20 I want to just touch on the resistant soybean
21 varieties for a second because I don't want to give you
22 the impression that that's a cure. So resistant soybean
23 varieties suppress the reproduction of the nematode, but
24 it doesn't stop reproduction. And also it still suffers
25 some damage.

1 And then as you use the resistance over time, the
2 nematode can become resistant to resistance. So in Iowa
3 where we grow 11 million acres of soybeans, soybean cyst
4 nematode is in 75 percent of the field. It's not a death
5 sentence, but it's a significant economic hit to the
6 soybean production in any field that has it because of
7 these things.

8 And the seed treatment, which is the newest
9 management strategy, in my mind at least the verdict is
10 still out on whether or not they provide any additional
11 benefit or not.

12 Because of everything I've just said, I consider the
13 states of North Dakota, South Dakota, and parts of
14 Minnesota as being in a really unique situation in that
15 there are large tracts of land growing soybeans that
16 don't have soybean cyst nematode yet. And so that's a
17 unique opportunity in terms of management. In many
18 respects the best way to manage soybean cyst nematode is
19 to delay its arrival into a particular field.

20 So I find myself sitting here listening to
21 proceedings thinking of my career in the early '90s in
22 Iowa when soybean cyst nematode wasn't very widespread,
23 and we really beat the drum and talked about managing the
24 movement of soil to slow the spread of the nematode.
25 Once the nematode is present then we've covered already

1 what your management options are.

2 And as far as spread goes, as in my prefiled
3 testimony, anything that moves soil has the ability to
4 move soybean cyst nematode. I just want to bring you
5 back to a mental imagine of a female the size of a period
6 at the end of a sentence. And that little object has 200
7 to 300 offspring inside of her.

8 And so the smallest little particle that's able to
9 hold a period at the end of the sentence, that's the
10 amount of soil that could be moved to move the nematode.

11 Finally, one just short comment. I've heard
12 comments yesterday and today about farmers not mentioning
13 this in discussions and so forth. That doesn't surprise
14 me at all. Soybean cyst nematode has been in Iowa since
15 1978. And I arrived in 1990 and have devoted my career
16 to research and grower education on soybean cyst
17 nematode, and to this day I run into Iowa farmers who
18 were unaware of soybean cyst nematode.

19 So just because the farmer -- don't be alarmed or
20 don't let that throw you a curve ball. Soybean cyst
21 nematode is still somewhat unrecognized even in it the
22 State of Iowa among some farmers.

23 And that concludes the summary of my prefiled
24 testimony.

25 Q. Mr. Tylka, I have just a couple more questions for

1 MR. SUTTON: Sure. It's relevant because the
2 basis for his assumptions are that when you dig into
3 the ground and go from field to field it spreads. My
4 point is there are many other mechanisms out there that
5 have been occurring and will occur, and we have not
6 developed the spread that he's indicating. That's the
7 relevance.

8 MR. SMITH: Do you want to repeat the question
9 and --

10 MR. SUTTON: Would you like me to reask it?
11 Would that be easier?

12 MR. SMITH: Sure.

13 Q. Dr. Tylka, can you tell me how many miles of drain
14 tile have been installed in South Dakota since 1995 when
15 SCN became present?

16 MR. SMITH: I'm going to overrule the objection.
17 If he knows, he can answer. If he doesn't, he can
18 answer.

19 A. I do not know.

20 Q. Now the spread of SCN is caused by the spread of
21 soil particles; is that correct?

22 A. Beyond an inch, yes. It can only spread on its own
23 power about an inch.

24 Q. And soil is moved by farm equipment?

25 A. That is correct.

1 Q. And it can be moved by wind erosion?

2 A. Yes.

3 Q. Also by water erosion?

4 A. I agree.

5 Q. Will you look at paragraph -- or your prefiled
6 direct testimony.

7 MR. SUTTON: Does he have that?

8 Q. Looking at paragraph 12 of Exhibit 101, that's the
9 direct prefiled testimony that you provided is
10 Exhibit 101, correct, Dr. Tylka?

11 A. The document I'm looking at has it as Exhibit 102.

12 Q. Oh, you're right. You're right. Correct. Thank
13 you. Looking at paragraph 12 on page 3, you opine that
14 construction equipment used in the project like the
15 proposed BSSE line can cause SCN to spread farther or
16 more rapidly than ordinary farming practices.

17 Is that your opinion?

18 A. Yeah. Opinion, yes.

19 Q. And then you go on and page 3 and on to page 4 to
20 talk about the basis for that opinion; is that right?

21 A. Yes.

22 Q. And when we look at paragraph 12 in the first
23 paragraph underneath the actual number 12, you answer the
24 opinion yes. And then you say "Soil disturbed by
25 construction equipment would likely result in greater

1 spread of the nematode than soil disturbed by other
2 common occurrences by making the soil more friable,
3 easily crumbled and prone to erosion, compared to soil
4 that is left undisturbed or disturbed just minimally."

5 That's your opinion; correct?

6 A. Yeah.

7 Q. What do you mean by undisturbed?

8 A. Well, undisturbed would be a situation like no-till
9 farming or just not -- nothing dug into the soil.

10 Q. So, for instance, disturbing the soil through till
11 farming practices would disturb and similarly make the
12 soil friable, would it not?

13 A. I wouldn't say similarly is correct.

14 Q. It would make the soil friable; correct?

15 A. Yes.

16 Q. And it would disturb the soil?

17 A. Yes.

18 Q. You're not aware of any academic studies that have
19 been performed indicating construction practices result
20 in the spread of SCN; correct?

21 A. No. I believe I stated that in the prefiled
22 testimony.

23 Q. No is a little ambiguous to the record there. So
24 the answer to my question is correct; correct?

25 A. Correct.

1 among the farmers I have had personal experience with.
2 And I guess I can say that relates back to my opening
3 comments about the awareness of the nematode, and that's
4 what I meant by diligent.

5 Q. Now in your opening comments you also described some
6 mitigation techniques that farmers can employ if they get
7 SCN in their fields; is that right?

8 A. That's correct.

9 Q. And one of those is to grow nonhost crops such as
10 corn?

11 A. That is correct.

12 Q. And another option would be to include nonhost crops
13 like corn as part of a crop rotation; correct?

14 A. Yes.

15 Q. And, in fact, you recommend that to producers who
16 have SCN?

17 A. That's correct.

18 Q. That's part of the techniques used to minimize the
19 effect?

20 A. Correct.

21 Q. Another option would be to plant SCN resistant
22 variety seed; correct?

23 A. Correct.

24 Q. And as part of your work you have completed academic
25 research about the success in using SCN resistant seeds;

1 absence of the nematode.

2 That has become less of an issue over the past
3 20 years, but there still are some SCN resistant soybean
4 varieties that do not have top yield potential. So
5 that's my reason for my answer being it depends on the
6 variety that's chosen.

7 Q. Because of our growing season, as we move further
8 north into areas that have had less pressure from SCN,
9 would the varieties probably have more research done in
10 that area at this point?

11 A. The answer is yes. And there are much fewer
12 varieties available with SCN resistance in the maturity
13 groups grown in South Dakota relative to Iowa. Even
14 right now.

15 MR. SCHURING: Thank you.

16 MR. SMITH: Mr. Morehouse, any questions?

17 MR. MOREHOUSE: Nothing. Thank you.

18 MR. SMITH: Staff, any questions?

19 MS. CREMER: Thank you.

20 CROSS-EXAMINATION

21 BY MS. CREMER:

22 Q. Is there any way to determine how SCN is introduced
23 into a clean field?

24 A. I've never been asked that question in 28 years.

25 Q. Yay for me.

1 COMMISSIONER FIEGEN: Congratulations.

2 A. I don't think so. They all look the same and are
3 genetic the same. I don't think so.

4 Q. And is there any way to determine when SCN was
5 introduced into a clean field?

6 A. Not specifically. Although you could deduce some
7 timing information based on the numbers that are
8 detected. It doesn't show up in full blown force in
9 terms of numbers. It starts out slowly and builds up.

10 Q. And then looking at your Exhibit 105, it's a map.

11 A. Yes.

12 Q. You have that? So if I understood your testimony
13 correctly, where it shows there is SCN, there definitely
14 is in the dark portions of the map?

15 A. It should be red if it were printed in color.

16 Q. Yeah. I printed mine black and white, but okay. If
17 I understood you correctly, those areas that show up
18 white, those may also have SCN and you just haven't found
19 it yet?

20 A. That's correct.

21 MS. CREMER: Okay. Thank you.

22 THE WITNESS: That's a correct statement.

23 MR. SMITH: Is that all the questions you have?

24 MS. CREMER: That's all I have. Thank you.

25 MR. SMITH: We'll turn then to Commissioner

1 and research in fields, or does everything come in to
2 you?

3 THE WITNESS: No. Most of my field research is
4 done on farmers' fields.

5 COMMISSIONER FIEGEN: Okay. So what precautions
6 do you take and your assistants -- I'm sure you have some
7 grad assistants with you.

8 What type of precautions do you take on
9 vehicles, clothing, work boots, all of that?

10 THE WITNESS: Just knock off as much dirt as
11 possible, as much soil as possible. Soil probes is
12 probably another thing that would accumulate soil. We
13 just make sure we're not taking large clods of soil. But
14 we don't steam wash or power wash. We just -- we work in
15 fields with SCN. So we -- yeah.

16 COMMISSIONER FIEGEN: It is really tricky
17 because when an egg of 200 eggs -- that swollen female.

18 THE WITNESS: Female.

19 COMMISSIONER FIEGEN: And it's a point of a
20 period, it is in your boots. Because when I wear work
21 boots they have grooves.

22 THE WITNESS: Absolutely.

23 COMMISSIONER FIEGEN: I can knock off as much
24 soil as I can, but it's still there.

25 THE WITNESS: Yes.

1 COMMISSIONER FIEGEN: So the precautions of the
2 research people are pretty much not going through the
3 washing but mostly knocking off the excess.

4 THE WITNESS: Yeah. And let's be specific. You
5 asked about my particular research group. There may be
6 other research groups in other states where they do use
7 plastic booties on their feet and they do more thorough
8 precautions than I do.

9 COMMISSIONER FIEGEN: Sure. Thank you.

10 THE WITNESS: Yes.

11 COMMISSIONER FIEGEN: Are you aware --
12 especially when I see commercial sprayers out there
13 across the State of South Dakota, but I'm sure across
14 Iowa you have those big commercial sprayers. Are you
15 aware of any mechanisms they take to prevent the spread
16 of diseases?

17 Because, of course, they travel on roads. Roads
18 have mud. So they're picking up things while they're
19 traveling to the farmers, let alone from farm to farm to
20 elevator, all of that.

21 THE WITNESS: Yeah. The answer is no. And
22 forgive me if I'm over answering, but since you're
23 curious about that, the way I pitch managing the movement
24 of soil in Iowa is first in the context that
25 three-fourths of the fields have it. And that percentage

1 maybe some of those nematodes could get baked near the
2 soil surface, and maybe the numbers would be lower than
3 if you had collected to a depth of 8 inches.

4 CHAIRMAN HANSON: Okay. Because there was some
5 discussion it sounded like there needed to be some
6 excavation of some sort in order for it to be
7 transported. But it sounds like -- that seemed to
8 conflict a little bit with one of your other answers when
9 you said -- I believe it might have been Mr. Sutton's
10 question, could it be transported by the wind, and you
11 answered yes.

12 THE WITNESS: Yep.

13 CHAIRMAN HANSON: It could.

14 THE WITNESS: So my answer to your question, to
15 double back on your question, is it's present there at
16 the surface.

17 From a research standpoint where I'm measuring
18 numbers I would worry about only including that upper
19 inch because the numbers might be a little lower. But
20 it's present, and it's available to be wind blown, water
21 washed, all the things that we covered that move soil.

22 CHAIRMAN HANSON: So hunters going from one
23 field to the next, deer running from one field to the
24 next, any animals, badgers, skunks, whatever, rabbits --
25 what about water fowl and birds? They could transport it

1 as well?

2 THE WITNESS: There's actually a paper where
3 somebody has picked through bird droppings and found dead
4 SCN females with live eggs.

5 CHAIRMAN HANSON: It sounds like it's impossible
6 to stop this. This is terrible.

7 THE WITNESS: I mean, it is, but there are
8 certain parts of the country that are in a unique
9 situation. I would never say you can stop it or prevent
10 it, but there's things that could be done to slow it.

11 CHAIRMAN HANSON: And it develops immunity to
12 herbicides and --

13 THE WITNESS: Well, to resistant -- I was using
14 the herbicides as an analogy. But it can develop
15 resistance to the resistant varieties.

16 CHAIRMAN HANSON: What are some other host crops
17 besides soybeans that are grown in South Dakota?

18 THE WITNESS: What are the crops that are grown
19 in South Dakota?

20 CHAIRMAN HANSON: Sorghum, corn.

21 THE WITNESS: Wheat are not hosts.

22 CHAIRMAN HANSON: Wheat. What other --

23 THE WITNESS: So hosts are more into play when
24 you get into North Dakota and Minnesota and you talk
25 about edible beans. There's all kinds of different types

1 Q. What do you mean "not as much"?

2 A. Well, I made the comment here a little bit at the
3 end here I said this project will take more from
4 agriculture and the state of South Dakota than it will
5 return.

6 Q. Well, as I understand it -- and we will get the
7 exhibits in front of you that are your land. They're
8 Exhibits 21A and 21B and 21C.

9 Do you have those exhibits before you?

10 A. Yes, I do. B.

11 Q. 21A, 21B, and 21C.

12 A. Yes. I have A in front of me.

13 Q. Is 21A a true and accurate representation of the
14 land in which the project seeks to put its structures?

15 A. I believe so.

16 Q. The project proposes to put two structures on your
17 property, and those numbers are 457 and 458. Is that
18 your understanding?

19 A. According to this map, yes.

20 Q. And is that your field that's depicted in
21 Exhibit 21A?

22 A. Yes, it is.

23 Q. Do you do till or no-till in that?

24 A. Depends on the year and the conditions of the soil.

25 Q. Do you do both then?

State of South Dakota

EIGHTY-FOURTH SESSION
LEGISLATIVE ASSEMBLY, 2009

400Q0194

SENATE BILL NO. 62

Introduced by: The Committee on Commerce at the request of the Public Utilities Commission

1 FOR AN ACT ENTITLED, An Act to repeal certain provisions regarding the delegation of
2 powers by the Public Utilities Commission.

3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

4 Section 1. That § 49-1-17 be repealed.

5 ~~—49-1-17. It is a Class 2 misdemeanor for the Public Utilities Commission to delegate any of~~
6 ~~the powers conferred upon it, or the performance of the duties imposed upon it by law, to any~~
7 ~~other person except in cases where express authority has been given by statute.~~



The purpose of this public input hearing will be to hear public comment regarding the transmission line permit Application, the Amendment, and the Project. At the hearing, Applicants will present a brief description of the Project, following which interested persons may appear and present their views, comments and questions regarding the Application. A copy of the Application is on file with the Brown, Day, and Grant County Auditors pursuant to SDCL 49-41B-15(5) and at the Commission's office in Pierre. The Application and all other documents in the case, including detailed maps of the Project, may be accessed on the Commission's web site at www.puc.sd.gov under Commission Actions, Commission Dockets, Electric Dockets, 2013 Electric Dockets, EL13-028.

Pursuant to SDCL 49-41B-17 and ARSD 20:10:22:40, the parties to this proceeding are currently the Applicants, Gerald Pesall, and the Commission. Any person residing in the area of the Project; each municipality, county, and governmental agency in the area where the Project is proposed to be sited; any non-profit organization formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the Project is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission. Applications for party status may be obtained from the Commission's web site or by contacting the Commission. Applications for party status must be received by the Commission on or before April 16, 2014.

Following the public input hearing, the Commission will hold a formal evidentiary hearing as set forth above conforming to SDCL Chapter 1-26 to consider any issues raised by any intervening party, Commission Staff, or the Commission itself. At such formal hearing, all parties will have the opportunity to appear, present evidence, and cross-examine the other parties' witnesses and exercise all other rights afforded by SDCL Chapters 1-26, 49-1, and 49-41B and ARSD Chapters 20:10:01 and 20:10:22, including rights of appeal to the courts.

For approval, the Applicants must show that the proposed transmission Project will comply with all applicable laws and rules, 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, will not substantially impair the health, safety or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region with due consideration having been given to the views of governing bodies of affected local units of government. Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate.

It is therefore

ORDERED, that the Commission will hold an additional public input hearing on the Project on Tuesday, May 20, 2014, at 6:30 p.m. CDT in Meeting Room D & H, Ramada Aberdeen Hotel and Conference Center, 2727 Sixth Ave. SE, Aberdeen, S.D. 57401.

Pursuant to the Americans with Disabilities Act, these hearings will be held in physically accessible locations. Please contact the Public Utilities Commission at 1-800-332-1782 at least 48 hours prior to the hearing if you have special needs so arrangements can be made to accommodate you.

Dated at Pierre, South Dakota, this 17th day of March, 2014.

CERTIFICATE OF SERVICE	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, by facsimile or by first class mail, in properly addressed envelopes, with charges prepaid thereon.	
By:	<u>Joy Lashley</u>
Date:	<u>03.17.14</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Gary Hanson
GARY HANSON, Chairman

Chris Nelson
CHRIS NELSON, Commissioner

Kristie Fiegen
KRISTIE FIEGEN, Commissioner