



Before the Public Service Commission of
The State of North Dakota

In the Matter of the Application of
BASIN ELECTRIC POWER COOPERATIVE
For a Waiver of Procedures and Time Schedules
and a Consolidated Certificate of Corridor Compatibility
and Route Permit for the
North Killdeer Loop Phase I 345-kV Transmission Project

Case No. PU-14-813

Pre-filed Testimony
of
Cris Miller

26 **PU-14-813** Filed: 3/17/2015 Pages: 19
Exhibit 4

Basin Electric Power Cooperative

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Q. **Please state your name, address and occupation.**

A. My name is Cris Miller. My business address is 1717 East Interstate Avenue, Bismarck, North Dakota. I am employed by Basin Electric Power Cooperative as a Senior Environmental Project Specialist.

Q. **Would you please state your educational background and professional experience?**

A. I earned a Bachelor of Science degree from the North Dakota State University, Fargo, North Dakota in 1982 with a major in Civil Engineering. I have been employed with Basin Electric since 1991. I am a Professional Engineer, Registered in the State of North Dakota.

Q. **Mr. Miller, what have been your responsibilities in connection with the North Killdeer Loop Phase I 345 kV Transmission Project?**

A. I am responsible for the overall preparation and coordination of the environmental analysis of this Project within Basin Electric and through our consultant, Burns & McDonnell Engineering Company. This involved working with an interdisciplinary consultant team, contacting and meeting with public officials, coordinating activities with other Basin Electric departments and reviewing and coordinating reports that have been submitted to the Rural Utilities Service, referred to as RUS; Western Area Power Administration, referred to as Western; the United States Forest Service, referred to as the Forest Service; The United States Corps of Engineers, referred to as the Corps; and the North Dakota Public Service Commission and other interested agencies.

Q. **What is the purpose of your testimony in this proceeding?**

A. I will describe the methodology used to delineate the proposed corridor and route and to demonstrate, with respect to environmental considerations, that the proposed

1 corridor and route are in accordance with the North Dakota Energy Conversion and
2 Transmission Facility Siting Act and North Dakota Public Service Commission rules.

3
4 **Q. You mentioned RUS, the Forest Service and Western. What is their involvement
5 with the proposed Project?**

6
7 A. The NKL Phase I Project is subject to the National Environmental Policy Act,
8 otherwise known as NEPA. This review was done in conjunction with the
9 environmental review of the AVS-Neset 345 kV Transmission Project. The Federal
10 Agencies included in the NEPA review are RUS, Western, the Corps and the Forest
11 Service. Western, RUS and the Forest Service have developed an Environmental
12 Impact Statement otherwise known as an EIS, for the Project. RUS is the lead
13 agency and Western and the Forest Service are acting as cooperating agencies.

14
15 **Q. Is the NEPA process a separate process from the PSC Siting Process we are
16 attending here today?**

17
18 A. Yes, it is an independent and separate process by a federal agency or agencies in
19 cooperation with other federal agencies.

20
21 **Q. What is the history and status of the NEPA review of this Project?**

22
23 A. The NEPA evaluation began in mid-2011. The agencies conducted studies and
24 evaluated the environmental impacts for the Project. A Record of Decision issued by
25 each of the federal agencies was required prior to Basin Electric beginning
26 construction on the portion of the Project that was affected by that particular Agency.
27 For the NKL Phase I Transmission Project segment, only a Record of Decision from
28 RUS was required. RUS completed their review and issued their Record of Decision
29 on September 13, 2014.

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31 **Q. So the North Killdeer Loop Project was incorporated into the AVS-Neset 345 kV
32 Project NEPA work?**

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34 A. Yes, that's correct.

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Q. Was any other Federal or State Permit required for the NKL Phase I Transmission Project?

A. No other Federal permits are required for the proposed NKL Phase I Transmission Project.

Q. Mr. Miller has there been any changes to the Application since Basin Electric submitted it?

A. Yes, there is, the application included a third Substation referred to as Roundup Substation. On January 6, 2015, Basin Electric submitted a request to remove this facility from this Application. An amendment to Case Number PU-11-696 was filed in January 2015 to incorporate the Roundup Substation to the AVS-Neset 345 kV Transmission Project.

Q. Mr. Miller, the ND Siting Act discusses corridors and routes for transmission lines, can you please describe corridors and routes?

A. The Siting Act defines a corridor as the general location of a transmission facility and a route is the specific location within a corridor.

Q. Mr. Miller, what is the size of the corridor in this Project?

A. The corridor is 28 miles in length and the route and corridor widths are one and the same. The 345 kV single circuit, which occupies approximately 27 miles and one mile of 345/345 kV double circuit portion both have a 150 foot wide corridor. The double circuited portion of the Project will be common with the corridor and route approved in previous commission action in the AVS-Neset 345 kV Transmission Project PU-11-696. As the corridor and route are the same widths, throughout the rest of my testimony when referring to the route, I will be referring to the route and corridor unless specifically mentioned.

Q. Are you familiar with Section 69-06-05-02(5) of the ND Administrative Code?

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A. Yes.

Q. Can you please describe what it says?

A. The width of a corridor must be at least ten percent of its length, but not less than one mile or greater than six miles unless otherwise determined by the Commission.

Q. Mr. Miller, earlier you testified that the corridor in this Project is 150 feet. Why is it appropriate for the Commission to approve this corridor?

A. While Section 49-22 – Energy Conversion and Transmission Facility Siting Act – requires a utility to obtain a Corridor Compatibility Certificate, followed by obtaining a Route Permit, Section 49-22-07.2 of the North Dakota Century Code provides that the Commission may waive procedures and time schedules upon a finding that “the proposed facility is of such length, design, location, or purpose that it will produce minimal adverse effects.” Based upon the investigation and analysis set forth in Basin Electric’s Consolidated Application, approving this request is appropriate because the proposed Project will produce minimal adverse effects through its design, location and purpose. In determining whether the proposed Project will result in minimal adverse effects, Basin Electric conducted extensive corridor, route corridor, and route evaluation for the Project using the criteria set forth in the Siting Act, the Siting Rules, and the Commission’s Guidelines.

In connection with obtaining funding for the proposed Project from RUS, Basin Electric has been involved in a federal review process to identify a preferred corridor and determine the proposed Project’s potential adverse environmental effects. The extensive corridor analysis conducted by Basin Electric prior to and during the RUS review process identified only minimal adverse effects and proposed mitigation measures to reduce those potential effects, all of which supports granting Basin Electric’s corridor waiver request and allowing Basin Electric to propose a 150-foot wide corridor.

1 As the first step in preparing the NEPA documents for the Project, including the North
2 Killdeer Loop Phase I facilities, Basin Electric initially identified two six-mile wide study
3 corridors, which were selected to allow for consideration of multiple route corridor
4 options. Basin Electric sought public input from residents and landowners in and near
5 the study corridors, as well as a host of federal, state, and local agencies and
6 governmental representatives, to assist Basin Electric in identifying the most
7 appropriate macro-corridors within the six-mile wide study corridors. A network of 46
8 individual, 1000-foot-wide route corridors segments were initially developed within the
9 six-mile wide macro-corridors to avoid constraints and take advantages of opportunity
10 areas while simultaneously taking public and agency comments under consideration.
11 Of the numerous route corridors composed of the 46 segments, one 1,000-foot
12 corridor was selected and identified in the Draft EIS as preferred for the Project.
13 Within that 1,000 corridor, Basin Electric identified a 150-foot-wide right-of-way
14 corridor which was used to assess the potential Project related effects in RUS' Final
15 EIS and approved in Records of Decision by RUS, Western Area Power
16 Administration, and the U.S. Forest Service.

17
18 The in-depth environmental review of potential study, macro, and route corridors
19 conducted during the RUS process allows Basin Electric to present its combined
20 application for a Certificate of Corridor Compatibility and Route Permit on a 150-foot
21 wide corridor identified as a result of the RUS process designed and located in a
22 manner to minimize any potential adverse effects, as well as avoid the confusion or
23 uncertainty for landowners, agencies, governmental representatives, and tribal
24 representatives that could occur with a wider corridor and unspecified centerline.
25 Thus, under the circumstances presented, it is appropriate for the Commission to
26 approve the 150-foot corridor.

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28 **Q. Can you please give a general description of the route?**

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30 **A.** The proposed route right-of-way, excluding the two substations, encompasses
31 approximately 511 acres of land. Approximately 28 acres of land will be required for
32 permanent land conversion for the two proposed substations.
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1 The route lies within McKenzie County in western North Dakota and is oriented to
2 avoid Exclusion and Avoidance Areas to the extent practicable. The route crosses
3 lands located in the Missouri Plateau region of western North Dakota. Based on the
4 United States Geological Survey GAP Land Cover Data Set, for the approximately 28
5 miles of 150-foot right-of-way excluding the 17 acre Patent Gate and the 11 acre
6 Kummer Ridge substations, impacts 511 acres of land. Of the 28 miles, the route
7 crosses approximately 16 miles of prairie grasslands, slightly over eight miles of
8 croplands, 3 miles of shrub and sparse vegetation, less than one mile of wetlands and
9 0.3 miles of lands considered woodlands. The approximately eight miles of croplands
10 represents 30% of the route. The route crosses lands predominately owned by
11 private entities and individuals. Approximately two miles of the route cross lands
12 owned by the State of North Dakota. There are no federally owned and managed land
13 segments crossed by the Project.

14
15 **Q. Who participated in the route selection process?**

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17 **A.** A multidisciplinary team at Basin Electric including Environmental, Engineering and
18 Right-of-Way personnel worked together in the route selection process. In addition,
19 consultants to Basin Electric, including staff from Burns & McDonnell Engineering
20 Company played a major role in the route delineation process.

21
22 **Q. Would you describe the general philosophy and objectives used by Basin
23 Electric in the delineation and selection of the proposed route?**

24
25 **A.** The process used by Basin Electric in the analysis of the study area and eventual
26 identification of the route is based upon a deductive approach that is from the general
27 to the specific. This approach entails starting with a broad study area and then
28 narrowing and refining it by incorporating data and other input gathered from
29 landowners, public agencies and environmental databases to the point where all
30 defined routes are identified in the study area.

31
32 The ultimate goal of the route selection process was to locate a suitable line route
33 between the two end points, while adhering to the PSC's Avoidance and Exclusion
34 Area criteria and minimizing environmental, cultural, socioeconomic impacts,

1 engineering and construction costs. Landowner's preferences for the proposed route
2 location strongly influenced the Project's route. Further, restrictions were identified by
3 the rapidly changing landscape in western North Dakota as the entire Project falls
4 within the direct Bakken oil development area, with the installation of new oil wells and
5 supporting infrastructure all have provided additional challenges to the routing efforts.
6

7 **Q. Mr. Miller, did Basin Electric incorporate public input in the route selection**
8 **process?**

9
10 **A.** Yes. Public scoping meetings were held November 15, 2011 and November 16, 2011
11 in compliance with the scoping provisions of the NEPA implementation regulations.
12 These meetings were conducted in Williston and Killdeer. The purpose of the
13 meetings was to aid in the federal decision-making process and to assist in the
14 formulation of issues to be addressed by RUS's EIS. The comments received during
15 this meeting were also considered in the route selection process. The Project's
16 correspondence from officials and agencies contacted are presented in the Appendix
17 of the Application. In total, over 50 agencies, organizations, or officials were
18 contacted for input. Fourteen Native American Tribes were also contacted to solicit
19 their input on the Project. Public comment hearings on the Draft EIS and Final EIS
20 were held in January 2012 and January 2014 in Killdeer and Williston. Further,
21 through the McKenzie County Planning and Zoning Process all adjacent landowners
22 were contacted and informed of the Planning and Zoning meeting on February 9,
23 2015. The comments received during these meetings were considered in the route
24 selection process.
25

26 **Q. Mr. Miller, please describe the route selection process within the EIS Corridors?**

27
28 **A.** In the initial stages of the Draft EIS, Project alternatives were identified and evaluated.
29 Each alternative analyzed a six-mile wide corridor. Studies were performed that
30 identified human and natural attributes that presented concerns for either alternative.
31 Human attributes included municipal or other populated areas, public lands, roads,
32 transmission lines and railroads. Natural attributes included wildlife, vegetation,
33 wetlands, special status species, topography and cultural resources.
34

1 The initial macro-routes were evaluated with consideration of constraints present
2 within the study area such as cities and towns, Lake Sakakawea, the Little Missouri
3 River and the Missouri River. A network of individual 1000-foot route corridors was
4 developed within the six-mile wide macro-routes to avoid constraints and take
5 advantage of opportunity areas while considering public and agency comments.
6 Within the preferred 1,000-foot route alternative, a 150-foot wide route was selected.
7

8 **Q. Mr. Miller, why was the proposed route chosen over the Alternatives analyzed?**

9
10 **A.** The final route alternative was chosen after careful analysis of the regional electrical
11 system factors related to construction and operation requirements. This analysis was
12 focused on a location that would meet the Project's purpose and need; be consistent
13 with planned and anticipated system needs; meet design and reliability standards;
14 avoid and minimize impacts to environmentally-sensitive resources; be reasonable,
15 technically feasible and economically viable.
16

17 **Q. Mr. Miller, were there engineering guidelines that were also considered in this**
18 **process?**

19
20 **A.** Yes. Areas that were considered less suitable for construction and operation of a
21 transmission line included:
22

- 23 1) Crossings involving other high voltage transmission lines;
- 24 2) Steep slopes which could pose maintenance and erosion problems;
- 25 3) Areas requiring unusually long spans;
- 26 4) Areas lacking reasonable access for construction and maintenance;
- 27 5) Areas of questionable foundation stability; and
- 28 6) Areas with existing infrastructure.
29

30 **Q. Mr. Miller, earlier you stated that a factor in selection of the proposed route is**
31 **the PSC Avoidance and Exclusion Area criteria. Please describe what an**
32 **"Exclusion Area" is.**
33

1 A. From the North Dakota Administrative Code, Chapter 69-06-08-02(1), an Exclusion
2 Area is a geographical area that must be excluded in the consideration of a route for a
3 transmission facility.

4

5 **Q. Please describe what an "Avoidance Area" is.**

6

7 A. From the North Dakota Administrative Code, Chapter 69-06-08-02(2), An Avoidance
8 Area is a geographical area that may not be considered in the routing of a
9 transmission facility unless the applicant shows that under the circumstances there is
10 no reasonable alternative.

11

12 **Q. Mr. Miller, do the Public Service Commission Siting Act and Rules provide any
13 further direction regarding Exclusion and Avoidance Areas?**

14

15 A. Yes, Section 49-22-05.1, provides that the five hundred feet for an inhabited rural
16 residence Avoidance Area may be waived by the owner of the inhabited rural
17 residence in writing. Also, Chapter 69-06-08-02 of the North Dakota Administrative
18 Code provides that, "Exclusion and Avoidance Areas may be located within a corridor,
19 but at no given point may such an area or areas encompass more than 50% of the
20 corridor width, unless there is no reasonable alternative."

21

22 **Q. Mr. Miller, I am going to ask you a series of questions regarding the PSC
23 Transmission Facility Corridor and Route Criteria Exclusion Areas. Does the
24 proposed route contain any Exclusion Areas?**

25

26 A. No.

27

28 **Q. Mr. Miller, at any given point within the route, does an Avoidance Area as
29 identified in Section 69-06-08-02(2) exist?**

30

31 A. Yes. The route crosses approximately 145 feet of terrain in Section 20, Township
32 150N, Range 96W, within McKenzie County where landslides have occurred
33 previously. There is no reasonable alternative for this as the landowners are in

1 agreement of the route in this area and this area will be spanned by the line so no
2 structures will be placed in any geologically unstable areas.

3
4 **Q. Mr. Miller, earlier you testified that no Exclusion Areas existed in the route in**
5 **the form of archeological sites. Were there any cultural sites found within the**
6 **28 mile route?**

7
8 A. Yes. There were 21 cultural resources identified in the Class I File Search that are
9 within the route or located within one-fourth mile of the route. Only two sites and four
10 site leads of the 21 resources were located within the corridor. Site leads are
11 potential site locations. During the Class III survey, Metcalf Archaeological
12 Consultants revisited the two recorded site leads and determined that none are
13 located within the right-of-way of the project. They also recorded two additional sites.

14
15 For the Patent Gate Substation, one cultural site was identified on the 117 acre
16 parcel, but will not be impacted by construction and operation of the substation.
17 Because this site will be avoided, no further evaluation of this site will be pursued.
18 One cultural resource was located in the 41 acre Kummer Ridge parcel; however, the
19 resource was determined to be not eligible for the National Register of Historic Places
20 and no avoidance is necessary.

21
22 There are no planned structure locations within any cultural sites. All cultural sites
23 that are unevaluated or eligible for the National Register of Historic Places within the
24 right-of-way will be identified and flagged so they are not disturbed during
25 construction. Metcalf Archaeological Consultants worked closely with staff from
26 WAPA and the North Dakota State Historical Society in the evaluation of cultural
27 resources for the Project. Therefore, no impacts to significant cultural resources are
28 anticipated from the Project.

29
30 **Q. Has the entire route been surveyed for cultural resources?**

31
32 A. No. Approximately 25% of the route remains to be surveyed.

33

1 Q. **Why are there areas along the route that have not been surveyed and what's**
2 **Basin Electric's plan to do that?**

3

4 A. Basin Electric has not been successful in acquiring survey permission for the
5 remaining lands. Once access is given, Basin Electric will survey the remaining
6 areas. This will be done before any construction on these segments begins.

7

8 Q. **Has Basin Electric assessed the visual impacts associated with the proposed**
9 **Project?**

10

11 A. Yes. The proposed Project has incorporated multiple mitigation measures that reduce
12 the visual impacts. Measures such as utilization of single-pole structures, which
13 provide a much smaller footprint than the traditional four-legged steel-lattice structure
14 that have traditionally been used in the construction of transmission lines of this size.
15 Additionally, The Project evaluated the use of either galvanized or weathered steel
16 material to blend into the surroundings. It is the general consensus that galvanized
17 steel material blends into the landscape in areas such as what is present for this
18 Project, thus, minimizing the visual impact of our project.

19

20 Q. **Mr. Miller, NDCC Section 49-22-09 of the North Dakota Energy Conversion and**
21 **Transmission Facility Siting Act lists 11 factors to guide the PSC in evaluation**
22 **of Corridors and Routes. I will now ask you a series of questions directed to**
23 **the relevant factors.**

24

25 **Did Basin Electric evaluate the impacts to public health and welfare, natural**
26 **resources and the environment, expected from the North Killdeer Loop Phase I**
27 **Transmission Project?**

28

29 A. Yes. Basin Electric's Application addressed these issues. Specifically, the
30 construction and operation techniques were addressed in Chapter 3 and impacts to
31 the environment and mitigation measures in relation to the route were addressed in
32 Chapter 4 of the Application. The Project will not have any significant impacts to
33 Public Health and Welfare, Natural Resources, or the Environment.

34

1 Q. **Did Basin Electric evaluate technologies to minimize adverse environmental**
2 **effects?**

3

4 A. The proposed Project utilizes the most recent transmission technologies and systems
5 that minimize impacts to the environment. Specifically the incorporation of self-
6 supporting single-pole structures and taking the opportunity to double circuit with our
7 AVS-Neset 345 kV systems as it enters the Patent Gate Substation will minimize the
8 impact to current land uses, as well as minimizes the impacts to biological and cultural
9 resources.

10

11 Q. **Did the proposed Project evaluate irreversible and irretrievable commitment of**
12 **natural resources?**

13

14 A. Yes. The irreversible and irretrievable resource commitments are related to the use of
15 non-renewable resources and the effects that the use of these resources have on
16 future generations. Irreversible effects primarily result from use or destruction of a
17 specific resource that cannot be replaced within a reasonable time frame. Irretrievable
18 resource commitments involve the loss in value of an affected resource that cannot be
19 restored as a result of the action. There are few commitments of resources
20 associated with this Project that are irreversible and irretrievable. Those resources
21 primarily related to construction, specifically aggregate resources, concrete steel and
22 hydrocarbon fuel.

23

24 Q. **Did the proposed Project evaluate direct and indirect economic impacts?**

25

26 A. Yes. The direct economic impacts included impacts associated with a small amount
27 of agricultural land being removed from production due to the transmission line. In
28 general, the areas surrounding each structure can still be utilized for its existing land
29 use, and landowners will be compensated for the land occupied by the transmission
30 line. The remaining direct and indirect economic impacts are primarily positive.
31 Personal income will be generated for the residents of the county and the state by
32 circulation and recirculation of the dollars paid out by Basin Electric as business
33 expenditures and state and local taxes.

34

1 Q. **Does the proposed Project impact existing development plans of the state, local**
2 **government and private entities at or in the vicinity of the route?**

3

4 A. It is reasonably foreseeable that areas within the route will be considered for gas and
5 oil development. The location of the route is not expected to inhibit the potential for
6 future gas and oil development with the current methods currently employed in the oil
7 and gas industry. Further, Basin Electric has coordinated placement of the proposed
8 Project with oil and gas developers located near the Project area.

9

10 Q. **What are the effects on biological resources within the route?**

11

12 A. Chapter 4 of the Application discusses in great detail the potential impacts to
13 biological resources such as wetlands, vegetation, wildlife and rare and unique
14 species. Basin Electric has implemented measures to avoid and minimize effects to
15 biological resources. The impact of the Project on biological resources is expected to
16 be minimal. The Project will be designed to minimize impacts to avian species.

17

18 Q. **Are there any impacts to the threatened and endangered species caused by the**
19 **proposed Project?**

20

21 A. Threatened and Endangered Species concerns of the Project were addressed by the
22 U.S. Fish and Wildlife. A Biological Assessment for the Project was prepared by
23 Western and submitted to the Agency. The U.S. Wildlife Service addressed issues
24 specific to their Agency's responsibility through their Biological Opinion specific to the
25 Project. Basin Electric has incorporated the mitigation measures identified through
26 this consultation process.

27

28 Q. **Will the Project have any impacts to the operation of airports?**

29

30 A. The proposed Project is located approximately four miles from the Watford City
31 Municipal Airport. Screening analysis indicates that no FAA obstruction analysis was
32 required for structures that will be located near the Watford City Airport.

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34 Q. **Has the Project addressed issues raised by agencies?**

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A. Agency comments varied accordingly to agency function and jurisdiction, but agency comments generally emphasized a desire to minimize impacts to environmental resources, which Basin Electric has done by incorporating the mitigation measures into the Project.

Q. Please explain how this route represents the orderly siting of transmission facilities.

A. The route that is presented here is a work product of input from multiple local, county, state and federal offices, as well as the multitude of landowners input. Basin Electric believes that this route is a balance between a viable cost effective project and one that satisfactorily minimizes impacts.

Q. Please explain how this route results in the efficient use of resources.

A. From the natural resource point of view, the route does not impact areas that have been identified as significant federal or state-wide importance. From a more global perspective, the Project represents a vital resource in the transmission infrastructure required to support the region, incorporates design features such as self-supporting, single pole structures that present a minimal footprint to the environment, that when weighed against each other benefit verses impacts, in my opinion, represents an efficient use of resources.

Q. Please explain the alternatives analyzed and rejected.

A. Initially a six mile wide EIS corridor was identified for this Project segment. Within the EIS corridor, a network of two 1,000 foot corridors was developed with the final route alternative chosen after careful analysis.

Q. Mr. Miller, is the route proposed by Basin Electric based solely on economic considerations?

A. No.

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Q. Mr. Miller, I will now ask you a series of questions related to the PSC Transmission Facility Selection Criteria. How does the preferred route demonstrate that significant adverse effects, if any, upon agriculture will be kept to an acceptable minimum? Please address this issue in terms of farmsteads, cropland and interference with irrigation.

A. In selecting the final route, Basin Electric attempted to select a route that would minimize impact to agricultural production. Basin Electric believes that one of the best methods to minimize impacts to agriculture is to place transmission structures on rangeland and grassland to the extent possible. The majority of the route utilizes single-pole self-supporting structures placed on quarter section lines and the edge of fields or property lines to reduce impacts to farming operations.

The construction and operation of this Project will have minimal effect upon agriculture production. Temporary construction disturbances will be confined to the right-of-way and access roads. Should soil-compaction occur along the right-of-way, Basin Electric will return the land to its pre-construction state, if possible. Further, landowners will be compensated for crop loss that occurs as a result of construction.

Q. What impact will construction and operation of the proposed Project have on land which an owner can demonstrate that soil, topography, drainage and an available water supply that makes the land economically suitable for irrigation?

A. There are no lands currently being irrigated along the proposed route. Further, the routing philosophy of utilization of section lines as much as possible in areas of agricultural fields would have minimal impacts to future irrigation projects.

Q. What impact will construction and operation of the proposed facilities have on surface draining and flow patterns?

A. No impacts are expected.

1 Q. **Do you anticipate any significant adverse effects on noise-sensitive land uses**
2 **resulting from the location, construction, and maintenance of the proposed**
3 **transmission line?**

4
5 A. Sensitive noise receptors within the area include rural residents living in scattered
6 locations on farmsteads and those living in developed areas; however, these areas
7 were avoided to the extent practicable during the detailed routing process. Temporary
8 noise impacts would result from construction activities, most likely consisting of the
9 sounds of equipment back-up warning devices and diesel engine operation.
10 Temporary construction noise would be limited to no more than a few days at any
11 particular location along the proposed line and would be mitigated by scheduling work
12 to daylight hours, particularly when near sensitive receptors.

13
14 Q. **Will the proposed Project have any visual impacts to the adjacent areas?**

15
16 A. Visual resources within the proposed route largely consist of broad expanses of
17 cultivated fields, rangeland, and grasslands. The route traverses the region known as
18 the Missouri Plateau. Because of the gently rolling terrain in the proposed route, the
19 transmission structures will be visible in the general proximity. To minimize visual
20 impacts to these areas, the Project incorporated the structure design that minimizes
21 the visual footprint as compared to steel lattice type designs.

22
23 A condition placed on the McKenzie County Conditional Use Permit for the two
24 Substations require the utilization of earth tones for buildings. The project has
25 incorporated this condition in our building design.

26
27 Q. **Do you anticipate any significant impacts on areas of extractive or storage**
28 **resources?**

29
30 A. No. Oil and gas development is ongoing in northwest North Dakota; in areas that the
31 Project and oil activities are in close proximity, Basin Electric and the oil companies
32 have coordinated to minimize impacts to individual Projects. There are no known oil
33 well permits issued for areas within the route. The area is also served by the local

1 rural water district to meet the local potable water needs. No known water well
2 exploration is occurring within the route.

3
4 **Q. Do you anticipate any significant impacts on wetlands?**

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6 A. There are wetlands that are localized areas within the proposed route. The route
7 spans approximately 7.9 acres of wetlands, of which less than one acre is classified
8 as an emergent type wetland. As no structures are located within known wetlands,
9 and no wetland vegetation will be cleared, no impacts to wetlands are anticipated.

10
11 **Q. Do you anticipate any significant impacts on woodlands or wooded areas?**

12
13 A. There are approximately 5.5 acres of wooded areas including shelter belts within the
14 route. Therefore, the ability to maintain the appropriate clearance heights to satisfy
15 the requirements of the North American Electric Corporation is easily achievable. The
16 necessity to remove those woody species will be identified in the Tree and Shrub
17 Survey that will be performed on the final route right-of-way. A Tree and Shrub
18 Mitigation Plan will be developed for the Project and will be approved by the
19 Commission.

20
21 **Q. Mr. Miller, will it be possible to route in the preferred route so as not to violate
22 any city or county zoning ordinances?**

23
24 A. Yes. Two material laydown yards, the two substations and approximately 28 miles of
25 transmission lines required Conditional Use Permits from McKenzie County.
26 Conditional Use Permits for the Patent Gate and Kummer Ridge Substations were
27 issued by McKenzie County on February 17, 2015.

28
29 On February 9, 2015, the McKenzie County Planning and Zoning Board tabled our
30 request for the Conditional Use Permit for the transmission portion of the Project.
31 Planning and Zoning Board members expressed their wishes for Basin Electric to
32 continue negotiations with affected landowners to successfully acquire easements.
33 The Conditional Use Permit application will be reviewed by the McKenzie County
34 Planning and Zoning Board on April 13, 2015.

1

2 Q. **Are there any additional permits needed to begin construction of the proposed**
3 **Project?**

4

5 A. The only remaining permit is the Conditional Use Permit from McKenzie County.
6 Upon receipt of the Permit, it will be filed with the Commission.

7

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

9

10 A. Yes.

11