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

Mike Murray

Q. **Mr. Murray, what is your name and business address?**

A. My name is Mike Murray. My business address is 1717 East Interstate Avenue, Bismarck, North Dakota.

Q. **What is your educational background and work experience?**

A. I received an Associates Degree in Business Administration from Bismarck State College. I have worked for Basin Electric since 1990, and in the Right-of-Way Department since 2000. I have personally acquired or overseen the acquisition of over five hundred miles of transmission line easements.

Q. **By whom are you employed and in what capacity?**

A. I am employed by Basin Electric Power Cooperative as the Property and Right-of-Way Manager. In that position, I am responsible for managing all transmission right-of-way assets for Basin Electric. I currently have a staff of nine full-time employees to support the right-of-way needs of Basin Electric.

Q. **Are you a member of any professional associations?**

A. I am a member of the International Right-of-Way Association and I serve as the Chair of the Region 3 of the International Right-of-Way Association. Region 3 consists of the states of ND, SD, MN, IA, NE, KS and MO. I received my Senior Right-of-Way Agent designation in 2007. It is the highest designation granted by the IRWA to members who have achieved professional status through experience, education and examination. I have over 380 hours of continuing education in the field of Property and Right-of-Way through the International Right-of-Way Association.

Q. **What is your role in connection with the proposed Project?**

A. I am the Property and Right-of-Way Manager for this Project. Since 2013, two agents have worked full time on the Project and one agent worked part time on the Project. All of the Right-of-Way Agents assigned to this Project report directly to me. I review

all documented routing issues with my staff, as well as our Project Manager and Transmission Routing Engineers. I review all negotiation issues and give direction in an attempt for voluntary acquisition of easements. I will also oversee the reclamation of the right-of-way after completion of construction.

Q. **Would you please summarize the extent of the contacts that have been made by Basin Electric's Right-of-Way team with the landowners on this proposed Project?**

A. In October 2013, Basin Electric began contacting landowners along the route for survey permission. In August 2014, we began acquiring easements for the Project. We have contacted each and every landowner on the route. Most of these contacts were in person. Some landowners had to be contacted by phone or letter. Many have been contacted several times for a variety of reasons, including the following:

1) To discuss the Project with them and to ask for consent to perform survey activities.
2) To review the route and discuss any issues they may have.
3) Working out adjustments in routing where feasible.
4) To negotiate the easement-this often takes several visits.
5) To keep the landowner apprised of any changes in location or design of the Project.

We make several attempts to visit with the landowner in person; if this fails, we will attempt to contact them by phone. If we are not successful in reaching a landowner in person or by phone, we send a certified letter so they have all of the project information.

Q. **On average, how many times do landowners have contact with a Basin Electric Right-of-Way Agent in the purchasing of an easement?**

A. We did an informal study recently and it showed that we've averaged 19 contacts with a landowner in order to achieve a signed easement for the Project. In one case, we had 39 contacts to get a signed easement.

Q. **As part of your contacts and interactions with landowners, do you and the other Basin Electric Right-of-Way Agents keep a record of these conversations?**

A. Yes.

Q. **How are landowner requests or comments handled?**

A. If the landowner has a specific concern during our meetings, we show them the locations or potential locations of the structures. Should that landowner want to shift a structure, we indicate which one we're working with and get the landowner to tell us where they'd like to see us move that structure and discuss the request with Basin Electric engineering staff. If there's a request for a reroute, we'll go through a little more extensive process of documenting that and then present that case to our engineering for a route review. Ultimately, we cannot satisfy every landowner's concern, but we make every effort to do so.

Q. **Please explain Basin Electric's policy regarding dealing with owners of land over which Basin Electric needs to construct electric utility facilities.**

A. Basin Electric has a long-standing commitment to conduct business in an honest and ethical manner, consistent with the expectations laid out in the Basin Electric Standards of Conduct. Basin Electric's employees, contractors and agents who interact with members of the public in activities such as planning, real estate transactions, and construction of transmission lines and other facilities are required, among other things, to act with honesty and integrity and treat people courteously and in a professional manner at all times.

Q. **Are the easements that will be obtained for the Project limited to a specific purpose?**

A. Yes. The easements only allow Basin Electric the right to install and maintain a single circuit transmission line, or double circuit transmission line and no other purposes are included or allowed within that easement.

Q. **What activities will be restricted within the easement area?**

A. We restrict placing permanent structures under transmission lines, planting of large-growing trees, stockpiling materials under the line or any activity that creates a safety hazard for the operation of the line. There are, however, numerous compatible uses of the right-of-way that do not interfere with the safe and reliable operation of our facilities. Uses such as farming and ranching require no approval by Basin Electric.

Q. **What is the size of the right-of-way for the proposed Project?**

A. 150 feet

Q. **How many total landowners are crossed with this proposed line and what percentage of the easements has Basin Electric acquired?**

A. We have 44 landowners along the proposed Project and have signed easements with 35 of those or 80%. Due to the numerous re-routes and parcels with multiple owners, we've had contact with approximately 60 landowners regarding this Project.

Q. **Mr. Murray, would you please describe the various considerations Basin Electric used to determine the proposed route.**

A. Many considerations were taken into account in the routing of this line. PSC criteria, including Avoidance and Exclusion areas, topographic features, farmsteads, oil well pads - including existing, permitted and planned; various land uses, engineering constraints, access issues and landowner concerns were all a part of the process. Where feasible, many reroutes took place along this line to minimize landowner concerns.

Q. **Mr. Murray, would you please describe the route for the proposed Project and also some of the alternate route segments which were considered.**

A. **Segment 1 – Patent Gate Substation to Angle Point 3**

This segment is a double circuit line from AP 1 to AP 3 and is approximately 1 mile in length. The proposed Patent Gate Substation is the point of beginning for this segment. The Patent Gate Substation is located 4 miles north of Arnegard or 8 miles east of Alexander in the SW/4 of Section 27, T151N, R100W in McKenzie County.

Segment 1 begins at the take-off structure at the substation and heads slightly southeasterly for 500 feet to AP 1, which is located in SW/4 of Section 27. AP 1 begins a short double circuit segment with the previously PSC permitted AVS to Neset Project. The Project then proceeds northeast for .5 miles to AP 2 located in the SE/4 of Section 27. The Project then takes a northeasterly diagonal for approximately .5 miles to AP 3 located in SW/4 of Section 26. AP 3 ends the double circuit portion of the Project. This series of diagonals is designed to avoid an oil pad planned for 11 well heads located in the SE1/4 of Section 27, just south and parallel to AP2.

Segment 2 – Angle Point 3 to Angle Point 7

This segment is approximately 7.75 miles in length. From AP 3 the Project continues southeasterly for .6 miles to AP 4 which is located in the NW/4NW/4 of Section 36, T151N, R100W. This diagonal was necessary to position the Project 200 feet south of the section line in an attempt to address routing concerns in the next segment.

The Project continues due east for 4 miles to AP 5 located in the NW/4NW/4 of Section 34. The alignment 200 feet south of the section line was necessary to avoid a cemetery located in Section 29 and many residences and oil pads north and south of the proposed alignment as well as fit between the Reservation Telephone Cooperative ROW and the County Road ROW. Many variations of this segment both up to one mile north and up to one mile south of the section line were reviewed by engineering and the adjacent landowners with no alignment reaching full landowner agreement in this area. With an equal amount of crop land both north and south of the roadway/section line, this segment did not appear to present any more or less

impact to farming or ranching operations. Engineering and the right of way team determined this alignment to have the highest landowner consent of all options reviewed.

From AP 5 the Project makes a southeasterly diagonal for .7 miles to AP 6 located in the NE/4 of Section 34. This bump to the 1/16th line was at the landowners request to avoid an alignment too close to the residence located in the S/2S/2 of Section 27. In an effort to avoid additional residences in Sections 25 and 35 and have the least impact to cropland, the Project continues due east along the 1/16th line for 2.4 miles to AP 7 located in the NW/4NW/4 of Section 31, T151N, R98W.

Segment 3 – Angle Point 7 to Angle Point 11

This segment is approximately 6.2 miles in length. From AP 7, the Project continues northeasterly for 1 mile to AP 8 located in the E/2E/2 of Section 30, T151N, R98W. This diagonal was necessary due to terrain issues, landowner feedback and acceptance as well as to avoid a residence located in Section 31 and a planned residence located in Section 32.

From AP 8 the Project turns due east and runs 75 feet south of the quarter line for 1.4 miles to AP 9 located in the W/2 of Section 28. This 75 foot offset was necessary to avoid a private driveway and minimize impact to cropland. From AP 9, the Project makes a slight northeast adjustment back to the quarter line with AP 10 and then continues due east for 3.6 miles to AP 11 located in the W/2W/2 of Section 30, T151N, R97W. This quarter line proved to be a natural property division line, minimized cropland impact and had a good level of landowner acceptance.

Segment 4 – Angle Point 11 to Angle Point 14

This segment is approximately 4.4 miles in length. From AP 11, the Project heads due south for 1.3 miles adjacent to a public section line to AP 12 located in the SW/4 of Section 31, T151N, R97W. From AP 12, the Project heads in a southeastern direction for 1.2 miles to AP 13 located in the W/2W/2 of Section 5, T150N, R97W. From AP 13, the Project heads due east for 1.9 miles to AP 14 located in the E/2E/2 of Section 4.

This series of angle points is the result of as many as 12 alternatives being studied in an effort to satisfy landowner concerns, avoid a highly active area of scoria mining, gravel pits, occupied residences, newly erected farm buildings, an existing and series of planned oil pad expansions in Section 31, T151N, R97W, minimize impacts to cropland and difficult terrain issues. This segment has a high percentage of landowner approval, attempts to minimize a landowner concern of having a diagonal route, and follows a natural break in the terrain for better access and constructability.

Segment 5 – Angle Point 14 to Angle Point 19

This segment is approximately 5.6 miles in length. From AP 14, the Project heads in a southeasterly direction for 1.3 miles to AP 15 located in the NW/4 of Section 11, T150N, R97W. From AP 15, the Project continues in a southerly direction for 1 mile to AP 16 located in the SE/4 of Section 11, continuing southeast for 1.1 miles to AP 17 located in the SE/4 of Section 13, continuing southeast for 1 mile to AP 18 located in the NW/4 of Section 19, T150N, R96W, and then continuing in a southeastern direction for 1.2 miles to AP 19 located in the E/2 of Section 20.

This series of diagonals was necessary to avoid occupied residences, avoid scoria operations, minimized terrain issues, aligned for appropriate crossings of the Northfork Road NW, Northfork Creek and State Hwy. 23. This diagonal also avoided an oil pad located in the N1/2NE1/4 of Section 14 and residences in the SE1/4SE1/4 of Section 13, T150, R97. This alignment then adjusts the project far enough south for the eventual tie into the Kummer Ridge Substation. This segment of the Project was routed with close interaction of affected landowners and had 100% easement acquisition.

Segment 6 - Angle Point 19 to the Kummer Ridge Substation

This segment is approximately 3 miles in length. From AP 19, the Project heads due east for 1.3 miles to AP 20 located in the E/2 of Section 21, T150N, R96W. This quarter line alignment splits between active scoria mine operations, avoids oil pads and takes advantage of running along property lines.

From AP 20, the Project heads in a southeasterly direction for .6 miles to AP 21 located in the SE/4, of Section 22. This diagonal was necessary to move south of a

Verizon cell towers fall distance and aligns with a tree row at the landowner's request. This segment had 100% easement acquisition. An alternate route further north was evaluated but eliminated due to the cell tower, a cemetery and oil development.

From AP 21, the Project heads due east for 1 mile to AP 22 located in the S/2 of Section 23 which aligns the project for entry into the Kummer Ridge Substation. This segment has good landowner support. From AP 22, the Project heads due north for .2 miles to the take-off structure of the Kummer Ridge Substation.

Q. **This Project involves two new substations. Does Basin Electric have rights to those lands?**

A. Yes. Land has been purchased for both the Kummer Ridge and Patent Gate Substation sites.

Q. **Mr. Murray, what is the role of the Property and Right-of-Way Division in reclaiming the right-of-way at the completion of construction?**

A. The Property and Right-of-Way Division will oversee the entire reclamation process. The reclamation contractor will report directly to our Right-of-Way office in Watford City, ND. Right-of-Way Agents will be on site on a regular basis to monitor progress and make sure reclamation is completed to landowners and Basin Electric's satisfaction.

Q. **Mr. Murray, can you please explain Basin Electric's reclamation practices for transmission line right-of-ways?**

A. The construction contractor will be responsible for re-grading all disturbed easement and access areas. Basin Electric will then bring on a local reclamation contractor who specializes in the reclamation techniques required to re-establish the growth or cover all of the disturbed areas of the Project.

In crop land, compaction will be addressed and landowners will be compensated for damage to any crops during construction. In pasture land, our reclamation contractor

will re-seed to the native grasses that were present prior to construction. In CRP fields, we will replant the cover based on FSA rules and guidance. All damages associated with our activities will be addressed with the landowner for settlement at completion of construction.

Basin Electric will work with landowners regarding tree replacements. This will be done on a 2:1 ratio for those affected landowners who opt for the trees to be replaced, according to the PSC's Tree and Shrub Mitigation Plan.

Basin Electric will be responsible for weeds by providing weed control within the easement area for three consecutive years after construction. During operation of the transmission line Basin Electric will continue to reclaim the right-of-way and settle any damages caused during maintenance activities.

Q. **Can you describe the efforts Basin Electric has made to avoid impacts to oil and gas activities during the siting of the proposed Project?**

A. Throughout the permitting and planning process of the proposed Project, we began to see a tremendous amount of wells develop near the area of the proposed Project. So beginning in June 2014, my right-of-way agents began contacting owners of permitted wells located within one-half mile of the proposed Project to determine exact locations of the oil/gas activities so as to not interfere with the proposed Project. These discussions resulted in numerous route modifications. We continue to have discussions with developers and owners in the area to avoid future conflicts with oil and gas activities.

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

A. Yes.