

**STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**Basin Electric Power Cooperative  
North Killdeer Loop Phase I 345 kV Transmission  
Siting Application**

**Case No. PU-14-813**

**FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER**

**April 29, 2015**

**Appearances**

Commissioners Julie Fedorchak, Brian P. Kalk, and Randy Christmann

Casey J. Jacobson, Senior Staff Counsel, and Anine Lambert, Attorney, Basin Electric Power Cooperative, 1717 East Interstate Avenue, Bismarck, North Dakota 58503, on behalf of Basin Electric Power Cooperative.

Mitchell D. Armstrong, Special Assistant Attorney General, as Counsel for the North Dakota Public Service Commission, State Capitol, 600 East Boulevard Avenue, Bismarck, North Dakota 58505.

Wade C. Mann, Administrative Law Judge, Office of Administrative Hearings, 2911 North 14th Street, Suite 303, Bismarck, North Dakota 58501-1882, as Procedural Hearing Officer.

**Preliminary Statement**

On November 12, 2014, Basin Electric Power Cooperative (Basin Electric) filed with the North Dakota Public Service Commission (Commission) a consolidated application for a Certificate of Corridor Compatibility and Route Permit to construct twenty-eight miles of 345kV electric transmission line and associated facilities in McKenzie County.

Also on November 12, 2014, Basin Electric filed an application for waivers of procedures and time schedules established under North Dakota Century Code Sections 49-22-07.2, 49-22-08, 44-22-13 and 49-22-08.1 and North Dakota Administrative Code Section 69-06-04, 69-06-05, 69-06-01-02. These sections require separate filings, separate notices, and separate hearings on such applications.

On January 6, 2015, Basin Electric filed a letter withdrawing the Roundup Substation near Killdeer, ND, from the application in this proceeding.

On January 21, 2015, the Commission deemed the applications complete and issued a Notice of Filings and Notice of Hearing, scheduling a public hearing on Basin Electric's Applications to begin March 17, 2015 at 9:00 a.m. CDT at Teddy's Residential Suites, 113 9<sup>th</sup> Avenue SE, Watford City, ND 58854. The Notice of Hearing identified the following issues to be considered in the application for waiver of procedures and time schedules:

1. Are the proposed facilities of such length, design, location, or purpose that they will produce minimal adverse effects and that adherence to applicable procedures and time schedules may be waved?
2. Is it appropriate for the Commission to waive any procedures and time schedules as requested in the application?

The Notice of Hearing also identified the following issues to be considered in the application for certificate of corridor compatibility and route permit:

1. Will the location, construction, and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?
2. Is the proposed facility compatible with the environmental preservation and the efficient use of resources?
3. Will the proposed facility location minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

On March 6, 2015, Basin Electric filed a series of maps detailing the proposed transmission line structure placement.

On March 17, 2015, at 9:00 a.m. CDT, a public hearing was held as scheduled.

Having allowed all interested persons an opportunity to be heard and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes the following conclusions:

### **Findings of Fact**

1. Basin Electric is a regional wholesale electric generation and transmission cooperative, organized under the laws of the state of North Dakota, and headquartered in Bismarck, North Dakota. Basin Electric provides power to 138 member distribution systems serving more than 2.8 million consumers in nine states, including North Dakota.

#### **Size, Type, and Preferred Location of Facility**

2. Basin Electric proposes to construct, operate, and maintain approximately 28.1 miles of new 345 kilovolt alternating current electrical transmission line including the proposed Patent Gate 345/115 kV Substation and the proposed Kummer Ridge 345/115 kV Substation. Basin Electric describes the new transmission line as Phase I of the North Killdeer Loop Project (Project). The transmission line and proposed substations will be located in McKenzie County.

3. The 28.1 mile, 345 kV electric transmission line will be single circuited for approximately 27 miles and double circuited for approximately 1 mile. The transmission lines will be constructed using single-pole structures within a 150-foot-wide permanent right of way (ROW).

4. The total cost of the Project is estimated to be \$135 million.

#### **Need for Facility**

5. Basin Electric forecasted in 2011 a need for an additional 538 MW of electric generation by 2016 and used this forecast to develop the original AVS-Neset Project, approved by the Commission in April 2014. The 2013 forecast showed an increased need of 266 MW of electric generation by the 2016-2017 winter season. Basin Electric has determined that the project is needed because of demand for additional electric transmission capacity in the Williston Basin and surrounding area; and to meet reliability and system stability requirements for the region.

6. Basin Electric's Application and testimony described consideration of several alternatives to meet the forecasted demand for additional electric transmission capacity. A no-action alternative was also considered.

#### Study of Preferred Location

7. The United States Department of Agriculture's Rural Utility Service (RUS) issued a Draft Environmental Impact Statement (DEIS) in December 2012 and a Supplemental Draft Environmental Impact Statement (SDEIS) in December 2013 for the Project in cooperation with Western Area Power Administration (Western) and the United States Forest Service (USFS). The DEIS and SDEIS evaluated 1,000-foot corridor routes and addressed the impacts associated with 150-foot-wide Project alignment and ROW within the 1,000-foot corridor related to construction, operation, and maintenance of the proposed Project. The DEIS also included a detailed evaluation and comparison of route alternatives and a no action alternative. The Final EIS was issued in May 2014. The USFS and RUS issued their individual RODs in September 2014. Western's Record of Decision (ROD) was issued in November 2014.

8. Basin Electric selected the proposed route based on a number of factors including: input from landowners and federal and state agencies; avoidance of wetlands; cultural sites and environmentally sensitive areas; compliance with Chapter 49-22 of the North Dakota Century Code and the Commissions siting rules; and feasibility from a design, construction and access perspective.

9. During the route selection process, federal, state, and local departments, agencies and entities who were contacted by and provided feedback to Basin Electric regarding the Project include:

- a. Federal Agencies: Rural Utilities Service; Western Area Power Administration; United States Army Corps of Engineers; United States Fish and Wildlife Service; Natural Resources Conservation Service; United States Department of Agriculture, Farm Services Agency, North Dakota State Office; Federal Aviation Administration; United States Department of the Interior - National Park Service; Environmental Protection Agency; Federal Highway Administration.
- b. North Dakota State Agencies: Department of Transportation; Parks and Recreation Department; State Land Department; Public Service Commission; State Historic Preservation Office; Game and Fish Department; Department of Health.

- c. McKenzie County: Conditional Use Permit; County Road Encroachments; County Floodplain Encroachments.
- d. Tribal Representatives.

10. Sections 5.0 and 8.11 consist of a summary of agency consultations and comments. Included with the summary are mitigation measures that will be taken by Basin Electric to address all of the agency concerns.

11. A National Wetlands Inventory was conducted along the proposed route. No permanent impacts to the wetlands are anticipated as a result of project construction.

12. A Class I and Class III cultural resource survey (pedestrian survey) were conducted along the proposed route. The Class III survey area consisted of a 150 ft. wide area centered on the proposed route centerline, but did not include the entire route due to access issues. The North Dakota Historical Preservation Office concurred that no significant sites or historic properties would be affected by the construction, provided the project remains as described and mapped in Basin Electric's report (Ref 14-0756) and provided that sites 32DU1919, 32DU1920, and 32MZ2657 and site lead 32Dux129 are all avoided by the project.

#### Project Design

13. The proposed transmission line and associated facilities will be designed and constructed to comply with all relevant codes and standards of the Rural Utilities Service, the National Electric Safety Code, the Institute of Electrical and Electronics Engineers, the American Society of Civil Engineers, the American Institute of Steel Construction, the American Concrete Institute and Basin Electric standards.

14. The proposed transmission line will be constructed on self-supporting galvanized steel single-pole structures. The typical structure will be around 115 feet tall. The top of a pole will be about 15 inches in diameter and the bottom will be about 50 inches in diameter. The angle structures will also be single poles and will have concrete foundations and no guy wires. The regular in-line structures will be on concrete foundations or directly buried in the ground.

15. The associated facilities would include two new substations. The Kummer Ridge 345/115 kV Substation would encompass approximately 11 acres within a 41 acre parcel east of Watford City in North Dakota, McKenzie County, Township 150 North,

Range 96 West, Section 23, North ½. The Patent Gate 345/115 kV substation would be located on a 17 acre parcel within a 117 acre parcel located northeast of Alexander in North Dakota, McKenzie County, Township 151 North, Range 100 West, Section 27, SW ¼. Both sites are located on land already owned by Basin Electric. A 345kV/115 kV transformer would be installed at Kummer Ridge. Two 345/115 kV transformers would be installed at Patent Gate. Bus, disconnect switches, circuit breakers, grounding switches and protection and control equipment to support the 345 kV interconnection would also be installed at both sites.

16. The Project will be constructed with an aluminum steel reinforced conductor, 1.8 inches in diameter with 76 strands of aluminum and 19 strands of steel. Above the conductor will be an optical ground wire and a steel ground wire both of which are approximately ½ inch in diameter. The transmission line will require approximately five to six structures per mile, depending on terrain and other design factors. The permanent ROW will be 150 feet wide.

17. Construction of the Project is expected to begin in the spring of 2015 and is anticipated to be complete by the end of 2016.

#### Siting Criteria

18. North Dakota Administrative Code, Chapter 69-06-08 sets forth certain criteria to guide the Commission in evaluating the suitability of granting an application for a Certificate of Corridor Compatibility and a Route Permit for a transmission facility. The criteria as set forth in Section 69-06-08-02 are classified as Exclusion Areas, Avoidance Areas, Selection Criteria and Policy Criteria. North Dakota Administrative Code, Chapter 69-06-08 provides that Exclusion and Avoidance Areas may be located within a corridor, but at no given point shall such an area encompass more than 50% of the corridor width, unless there is no reasonable alternative. North Dakota Administrative Code, Section 69-06-08-02 provides that a transmission facility route must not be sited within an Exclusion Area. A transmission facility route must not be sited within an Avoidance Area unless the Applicant shows under the circumstances there are no reasonable alternatives.

19. In accordance with the Commission's Selection Criteria, a corridor or route may be designated if it is demonstrated that any significant adverse impacts that will result from the location, construction and maintenance of the transmission facility will be of an acceptable minimum or managed at an acceptable minimum. In accordance with the

Commission's Policy Criteria, preference may be given to an applicant demonstrating certain benefits from the adoption of certain policies and practices.

20. Basin Electric submitted information in its Application and testimony at the hearings, concerning compliance with the Commission Exclusion and Avoidance Area criteria as applied to the proposed Corridor and Route.

21. Basin Electric evaluated a 150 foot wide study area centered upon the proposed route for exclusion and avoidance areas.

22. The 150 foot wide study area includes no exclusion areas. The route crosses no exclusion areas.

23. There are areas within the 150 foot wide study area and which are crossed by the route that are geographically unstable, and are therefore avoidance areas. Approximately half an acre of terrain exists near an intermittent tributary of Northfork Creek where landslides have occurred in the past. However, the geographically unstable areas identified as landslide areas would be spanned by the transmission line, with no structures placed in the susceptible areas. Prior to structure construction, further geotechnical assessments will be conducted to minimize the potential development of landslides in susceptible areas.

24. There are no businesses or residences within 500 feet of the proposed route.

25. Basin Electric submitted information in its application and through testimony that any significant adverse effects from the location, construction and maintenance of the transmission facility as they relate to the Selection Criteria listed in Section 69-06-08-1(3) of the North Dakota Administrative Code, will be at an acceptable minimum or will be managed and maintained at an acceptable minimum.

26. Basin Electric submitted information in its application and through its testimony to demonstrate its commitment to maximize the benefits of the proposed transmission facility to meet the Policy Criteria set forth in Section 69-06-08-1(4) of the North Dakota Administrative Code.

## Measures to Minimize Impact

27. Basin Electric will implement mitigation measures to minimize indirect impacts to surface water and wetland resources, such as erosion and sedimentation control Best Management Practices. Basin Electric will require its contractor to secure required storm water construction permits for the project from the North Dakota Department of Health.
28. Standard Mitigation and Conservation Measures and Best Management Practices are included as Appendix G of the Application.
29. To help avoid potential impacts to avian species along the proposed route during operation of the transmission line, bird flight diverters will be installed as determined in consultation with Western and the United States Fish and Wildlife Service.
30. Surveys for raptor and migratory birds will be done prior to construction of the Project with consultation from the United States Fish and Wildlife Services, Western Area Power Administration, and the North Dakota Game and Fish Department.
31. Basin Electric made other representations and agreements as contained in the Certification Relating to Order Provisions – Transmission Facility Siting with accompanying Tree and Shrub Mitigation Specifications, executed by Basin Electric on March 9, 2015.

## Conclusions of Law

1. The Commission has jurisdiction over this proceeding under North Dakota Century Code Chapter 49-22.
2. The Project proposed by Basin Electric is a transmission facility as defined in North Dakota Century Code Section 49-22-03(12).
3. The location, construction and operation of the proposed Project will produce minimal adverse effects of the environment and upon the welfare of the citizens of North Dakota.
4. The application submitted by Basin Electric meets the corridor and route evaluation criteria required by Chapter 49-22 of the North Dakota Century Code.

5. The proposed transmission facility survey area and route will minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.
6. The proposed Project is compatible with the environmental preservation and the efficient use of resources.
7. It is appropriate for the Commission to approve a corridor less than ten percent of its length.

From the foregoing Findings of Fact and Conclusions of Law, the Commission now makes its:

### **Order**

The Commission Orders:

1. Basin Electric Power Cooperative's request for waiver of procedures and time schedules is granted.
2. Certificate of Corridor Compatibility No. 167 is issued to Basin Electric, designating a corridor for the construction, operation and maintenance of the proposed approximately 28.1 mile, 345 kilovolt electric transmission line to be located in McKenzie County, North Dakota. For purposes of the Certificate, the designated corridor is 150 feet wide centered on the electric transmission line route.
3. Route Permit No. 179 is issued to Basin Electric granting authority to construct and operate an approximately 28.1 mile, 345 kilovolt electric transmission line to be located in McKenzie County, North Dakota. The designated route for this purpose is depicted by red dashed lines and yellow dots identified in maps labeled as route and structure locations for Patent Gate-Kummer Ridge 345kV Transmission Project – marked as Exhibit 7.
4. Basin Electric shall complete Class III cultural resource surveys on all remaining parcels and shall file with the Commission documentation showing SHPO concurrence with the findings set forth in the associated reports prior to beginning construction on

any un-surveyed parcel.

5. Basin Electric shall obtain approval from the Commission or Commission staff prior to any changes in structure locations.

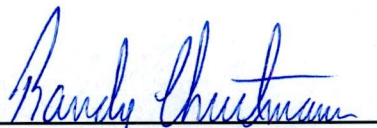
6. The March 9, 2015, Certification Relating to Order Provisions - Transmission Facility Siting (Certification), with accompanying Tree and Shrub Mitigation Specifications, is incorporated by reference and attached to this Order with the following modifications:

- a. The second to last word in Certification Provision 5 is hereby changed from "weekly" to "monthly."
- b. Certification Provision 35 is hereby removed.
- c. The phrase "and clearance to proceed has been given by the Commission" is hereby removed from Certification Provision 36.

7. To the extent there are any conflicts or inconsistencies between Basin Electric's Applications and the March 9, 2015, Certification, the Certification provisions along with the alterations in Order Provision 6 above control.

8. The Company is required to comply with the applicable laws, rules, and/or regulations in the event it desires to construct another or a different energy conversion facility than was specified in the application within the site granted in this proceeding.

**PUBLIC SERVICE COMMISSION**

  
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**Randy Christmann**  
Commissioner

  
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**Julie Fedorchak**  
Chairman

  
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**Brian P. Kalk**  
Commissioner

**PUBLIC SERVICE COMMISSION  
STATE OF NORTH DAKOTA**

**Certificate of Corridor Compatibility  
Number 167**

*This is to certify that the Commission has designated a corridor for a Basin Electric Power Cooperative electric transmission facility in McKenzie County, North Dakota.*

*This certificate is issued in accordance with the Commission's Findings of Fact, Conclusion of Law and Order in Case No. PU-14-813 dated April 29, 2015, and is subject to the conditions and limitations noted in the Order.*

*Bismarck, North Dakota, April 29, 2015.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**



**Executive Secretary**



**Commissioner**

**PUBLIC SERVICE COMMISSION**  
**STATE OF NORTH DAKOTA**

**Route Permit**  
**Number 179**

*This is to certify that the Commission has designated a route for a Basin Electric Power Cooperative electric transmission facility in McKenzie County, North Dakota.*

*This permit is issued in accordance with the Commission's Findings of Fact, Conclusion of Law and Order in Case No. PU-14-813 dated April 29, 2015, and is subject to the conditions and limitations noted in the Order.*

*Bismarck, North Dakota, April 29, 2015.*

**ATTEST:**

**PUBLIC SERVICE COMMISSION**

  
**Executive Secretary**

  
**Commissioner**



**STATE OF NORTH DAKOTA**  
**PUBLIC SERVICE COMMISSION**

**Basin Electric Power Cooperative  
North Killdeer Loop Phase I 345 kV Transmission  
Siting Application**

**Case No. PU-14-813**

**CERTIFICATION RELATING TO ORDER PROVISIONS - TRANSMISSION FACILITY  
SITING**

I am Amanda Waugler, a representative of Basin Electric Power Cooperative ("Company") with authority to bind Company to requirements to be set forth by the Commission in its Order and I certify the following:

1. Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission will be subject to the conditions and criteria set forth in Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.
2. Company agrees to hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order.
3. Company agrees to comply with the rules and regulations of all other agencies having jurisdiction over any phase of the transmission facility including all city, township, and county zoning regulations.
4. Company understands and agrees that it shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the transmission facility that requires said license or permit.
5. Company agrees to inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the transmission facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated on construction activities on a weekly basis.

6. Company understands and agrees that any Certificate of Corridor Compatibility or Route Permit issued by the Commission is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission's order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.
7. Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission's order issuing a Certificate of Corridor Compatibility or Route Permit, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.
8. Company agrees to construct and operate the transmission facility in the manner described in Company's application, in any late filed exhibits, and supplemental materials (Application). To the extent there are any conflicts or inconsistencies between Company's Application and the provisions in this Certification Relating to Order Provisions, the Certification provisions control.
9. Company agrees to report promptly to the Commission the presence in the permit area of any critical habitat or threatened species, endangered species, bald eagles, or golden eagles of which Company becomes aware and which were not previously reported to the Commission.
10. Company understands and agrees that all cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office and approved prior to the start of any fieldwork and construction activity in the affected area.
11. Company understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society and clearance to proceed is given by the Commission.
12. Company understands and agrees that all buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Company to open cut the road.
13. Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.

14. Company understands and agrees that construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures approved by the Commission are taken.
15. Company understands and agrees that all topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas where cuts will be made, must be stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. After backfilling is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced.
16. Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.
17. Company understands and agrees that its obligation for reclamation and maintenance of the right-of-way will continue throughout the life of the transmission facility.
18. Company understands and agrees that its obligation for reclamation and maintenance of the transmission facility, associated facilities, and roadways will continue throughout the life of the transmission facility.
19. Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.
20. Company understands and agrees that it shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the construction of the transmission facility.
21. Company understands and agrees that it shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the transmission facility.
22. Company understands and agrees that it shall repair or replace all drainage tile broken or damaged as a result of construction and operation of the transmission facility.

23. Company understands and agrees that staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.
24. Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.
25. Company understands and agrees that it shall, as soon as practicable upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.
26. Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the transmission facility.
27. Company understands and agrees that it shall advise the Commission of any extraordinary events which take place at the site of the transmission facility, including injuries to any person, or the death of any threatened or endangered species on the site within five business days of such event.
28. Company understands and agrees that it shall advise the Commission of the discovery of a large number of dead birds or bats on the site within five business days of such event.
29. Company understands and agrees that, prior to beginning construction of the transmission facility at a location, it shall send a letter to each landowner with whom an easement was executed for that location specifying the name and phone number of the company representative who is responsible for receiving and resolving landowner issues for the life of the easement.
30. Company understands and agrees that it will file with the commission the name and phone number of the current company representative who is responsible for receiving and resolving landowner issues for the transmission facility. The company will update this information whenever there is a change to the current company representative for the life of all easements for the transmission facility.
31. Upon request, Company agrees to provide the Commission with engineering design drawings of the transmission facility prior to construction.
32. Company understands and agrees that it shall inform the Commission in writing of any plans to modify the transmission facility or of any plans to modify the site plan for the transmission facility. Company understands and agrees to obtain written approval from the Commission prior to any modifications to the site plan or the

transmission facility. Approval may be granted after notice and opportunity for hearing.

33. Company agrees to provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.
34. Company understands and agrees that the authorizations granted by any Certificate of Corridor Compatibility or Route Permit issued by the Commission for the transmission facility are subject to modification by order of the Commission if deemed necessary to protect further the public or the environment.
35. Company understands and agrees that in the event Company desires to construct, within any corridor granted by a Certificate of Corridor Compatibility in this proceeding, a transmission facility or energy conversion facility that was not included in Company's application in this proceeding, Company shall apply to the Commission for a Route Permit or Site Certificate for the facility.
36. Company shall notify the Commission, as soon as reasonably possible, if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined and clearance to proceed has been given by the Commission.
37. Company understands and agrees that the corridor certificate and route permit are subject to suspension or revocation and may, after hearing, be suspended or revoked for failure to comply with the Commission's order, requirements of the One-Call Excavation Notice System under North Dakota Century Code Chapter 49-23, the conditions and criteria of the certificate or permit or subsequent modification, or

failure to comply with applicable statutes, or rules, regulations, standards, and permits of other state or federal agencies.

Dated this 9<sup>TH</sup> day of MARCH, 2015.

**Basin Electric Power Cooperative**

By Amanda Wabcker  
Amanda Wabcker

Its PROJECT MANAGER

**STATE OF NORTH DAKOTA**  
**PUBLIC SERVICE COMMISSION**

**Basin Electric Power Cooperative  
North Killdeer Loop Phase I 345 kV Transmission  
Siting Application**

**Case No. PU-14-813**

**Tree and Shrub Mitigation Specifications**

**Inventory**

1. Trees and shrubs anticipated to be cleared, including those that are considered invasive species or noxious weeds (e.g., *Caragana arborescens*, *Elaeagnus angustifolia*, *Rhamnus cathartica*, *Tamarix chinensis*, *T. parviflora*, *T. ramosissima*, *Ulmus pumila*), must be inventoried before cutting. The inventory must record the location, number, and species of trees and shrubs.
2. In windbreaks, shelterbelts and other planted areas, trees or shrubs anticipated to be cleared, regardless of size, must be inventoried for replacement.
3. In native growth areas, trees anticipated to be cleared that are 1 inch diameter at breast height (dbh) or greater must be inventoried for replacement.
4. In native growth areas, shrubs anticipated to be cleared in the permanent right-of-way must be inventoried for replacement.
5. In native growth areas outside the permanent right-of-way, shrubs must be cut flush with the surface of the ground, taking care to leave the naturally occurring seed bank and root stock intact. If soil disturbance is necessary, the native topsoil must be preserved and replaced after construction. Shrubs must be allowed to regenerate naturally where native topsoil is preserved and replaced. Where native topsoil is not preserved and replaced, shrubs anticipated to be cleared must be inventoried for replacement.
6. In native growth areas, trees and shrubs may be inventoried by actual count or by a sampling method that will properly represent the woody vegetation

population. A sampling plan developed by the company, filed with the North Dakota Public Service Commission (Commission) and approved prior to the start of construction must define the sampling method to be used for trees, for tall shrubs and for low shrubs. The data from the sample plots must be extrapolated to the total acreage of the wooded area to be cleared to determine the species and quantity of trees and shrubs to be replaced.

### **Clearing for Construction**

7. Trees and shrubs must be selectively cleared, leaving mature trees and shrubs intact where practical.
8. The maximum width of clear cuts through windbreaks, shelterbelts and all other wooded areas is 50 feet, unless otherwise approved by the Commission.
9. If the area of trees or shrubs actually cleared differs from the area inventoried, the difference in number of trees and shrubs to be replaced must be noted on the inventory.

### **Replacement**

10. Prior to tree and shrub replacement, documentation identifying the number and variety of trees and shrubs removed, as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings, must be filed with the Commission for approval.
11. Two 2-year-old saplings must be planted for every one tree removed. Two shrubs (stem cuttings) must be planted for every one shrub removed.
12. Except in the case of invasive or noxious species, trees and shrubs must be replaced by the same species or similar species, suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service. Invasive or noxious species must be replaced by similar non-invasive or non-

noxious species suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.

13. Landowners must be given the option of having replacement trees and shrubs planted on the landowner's property, either on or off the right-of-way. The landowner must also be given the opportunity to waive those options in writing in order to have replacement trees and shrubs planted off the landowner's property.
14. At the conclusion of the project, documentation identifying the actual number, variety, type, location and date of the replacement plantings must be filed with the Commission.
15. Tree and shrub replacements must be inspected annually, in September, for three years. The first annual inspection must be at least one year from the anniversary date of the original plantings. A report of each annual inspection must be submitted to the Commission by October 1 of each year, documenting the condition of plantings and any woodlands work completed as of September of each year. If after the third annual report the survival rate is less than 75%, the Commission may order additional planting(s).