

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Basin Electric Power Coop Inc.
230 kV Transmission Line / Williams & Mountrail Co
Siting Application**

Case No. PU-07-671

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

February 10, 2010

Appearances

Commissioners Kevin Cramer, Tony Clark, and Brian Kalk.

Casey J. Jacobson, Attorney, Basin Electric Power Cooperative, 1717 East Interstate Avenue, Bismarck, North Dakota 58503, on behalf of Basin Electric Power Cooperative.

Annette Bendish, Legal Counsel, North Dakota Public Service Commission, State Capitol, 600 East Boulevard Avenue, Bismarck, North Dakota 58505, on behalf of the Public Service Commission.

Bonnie Fetch, Administrative Law Judge, Office of Administrative Hearings, 1701 North 9th St., Bismarck, North Dakota 58501-1882, as Procedural Hearing Officer.

Preliminary Statement

On September 11, 2007, Basin Electric Power Cooperative, Inc. (Basin) submitted a Letter of Intent (LOI) to the Public Service Commission notifying the Commission of its intent to construct approximately 61 miles of 230 kV Transmission Line from the existing Western Area Power's Williston substation to the existing Tioga substation, owned by Montana-Dakota Utilities. Basin Electric also requested the Commission shorten the one-year waiting period between filing a Letter of Intent and the filing of an Application for a Certificate of Corridor Compatibility.

On September 20, 2007, the Commission acknowledged the LOI, shortened the one-year waiting period between filing a Letter of Intent and a Siting Application to one day and assessed a filing fee of \$100,000.00.

On August 10, 2009, Basin Electric submitted its combined Applications for a Waiver of Procedures and Time Schedules, Certificate of Corridor Compatibility, and a Route Permit for the Williston to Tioga Transmission Project (Application).

On September 29, 2009, the Public Service Commission issued a Notice of Filing and Notice of Hearing on Basin Electric's Application and found the Application to be complete

conditioned on Basin Electric filing a map detailing the proposed final transmission line structure locations on or before October 20, 2009.

The Notice of Hearing identified the following issues to be considered:

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. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?
3. Will the proposed facility locations 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?
4. Is it appropriate for the Commission to waive procedures and time schedules as requested, including the request for a single consolidated application for corridor certificate and route permit?

On October 20, 2009, Basin delivered a map detailing the proposed final transmission line structure locations to the Public Service Commission.

On October 9, 2009, Basin filed a Certification Relating to Order Provisions – Electric Transmission Line Siting, regarding certain conditions to which Basin agreed.

On October 27, 2009, at 10:30 a.m. CDT, a public hearing was held in Williston, North Dakota. Basin presented five witnesses, and numerous members of the public offered comments.

On January 8, 2010 and February 5, 2010, Basin filed minor route realignments with structure location changes to accommodate landowner concerns.

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:

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 provides power to more than 136 member distribution systems serving more than 2.8 million consumers in nine states, including North Dakota.
2. Basin Electric proposes to construct a 230 kV transmission line from Western's existing Williston Substation to Montana-Dakota Utilities Co.'s existing Tioga Substation.

3. The Williston to Tioga 230 kV line will be terminated on take-off structures inside the Williston and Tioga Substation yards. An optical ground wire will be installed on the transmission line for communications and lightning protection.
4. The Williston to Tioga 230 kV transmission line will be constructed, owned and maintained by Basin Electric. The transmission line will be approximately 61 miles long and will be located in Mountrail and Williams Counties.
5. The total cost of the Project is estimated to be \$24 million.
6. The proposed transmission line and associated facilities will be designed and constructed to meet or surpass all relevant state 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, Basin standards, and in accordance with Avian Power Line Interaction Committee suggested practices for raptor-safe design.
7. The transmission line will be constructed on self-supporting galvanized steel single-pole structures. The typical structure will be around 100 feet tall. The top of the pole will be about 10 inches in diameter and the bottom will be about 42 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 directly buried in the ground.
8. The transmission line will be 3-phase and each conductor will be 1.3 inches in diameter with 54 strands of aluminum and seven strands of steel. Above the conductors will be one and one-half inch diameter optical ground wire. The line will require approximately six to seven structures per mile, depending on terrain and other design factors. The right-of-way will be 125 feet wide.
9. Basin Electric states that it has complied with all local land use and planning ordinances.
10. Basin Electric stated that it met with local governmental units to provide a project overview and receive comments in 2008.
11. Basin Electric states that various local, state and federal agencies (41) were contacted for early input into the Project. Ten Native American Tribes were also contacted to solicit their input.
12. A federal environmental assessment is being prepared for the project by the Western Area Power Administration. Basin Electric will file a copy of the final document and any resulting findings with the Commission prior to beginning construction.
13. Section 49-22-16(3) of the North Dakota Century Code provides that an applicant for a route permit from the Commission shall obtain all permits that may be required to construct and operate the transmission facility.
14. 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.

15. 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.

16. 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.

17. In accordance with the Commission's Selection Criteria, a corridor or route may be approved 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.

18. 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.

19. Basin Electric evaluated a Corridor width of six miles.

20. Basin Electric submitted information in its Application and testimony at the October 27, 2009 hearing, concerning compliance with the Commission Exclusion and Avoidance Area Criteria as applied to the proposed Corridor.

21. At no point within the proposed corridor does an Exclusion or Avoidance Area encompass more than 50% of the Corridor width.

22. Basin Electric submitted information in its Application and testimony at the October 27, 2009 hearing, concerning compliance with the Commission Exclusion and Avoidance Areas criteria as applied to the proposed route.

23. The proposed route does not include any Exclusion Areas. The proposed corridor contains several small municipal parks, campgrounds or recreational areas within or near the communities of Williston, Tioga and Ray that are avoided by the proposed route. State sensitive animal and plant species occur within the proposed corridor, but none are anticipated to be irreversibly damaged.

24. No rare or unique resources have been identified along the route. It is not anticipated that the proposed transmission facility will impact rare and unique resources. Raptors, waterfowl, and other bird species may be affected by the construction and placement of the proposed 230 kV transmission line. To help avoid potential impacts to avian species along the proposed route during construction and operation of the transmission line, the transmission line will use suspension insulation with a clearance of approximately 84 inches in order to eliminate the potential for electrocution of raptors. In addition, bird flight diverters will be installed in areas determined in consultation with the Western Area Power Administration biologist.

25. The proposed route does not cross any Avoidance Areas. There are no rural residences or places of business within 500 feet of the proposed route.

26. A wetland delineation was conducted along the proposed route. No permanent impacts to the wetlands are anticipated as a result of project construction. Structures are not anticipated to be placed in wetland areas. Basin Electric will provide a 100 ft. buffer zone around wetlands, whenever feasible, to prevent impacts; wetland areas along the line route will be avoided or spanned. 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 permits for the project from the North Dakota Department of Health.

27. A Class I file search and Class III cultural resource pedestrian survey were conducted along the proposed route. The survey area consisted of a 200 ft. wide corridor centered on the proposed route centerline. Numerous prehistoric and historic sites were identified during the Class III survey and all were avoided during routing of the proposed transmission line. It is unlikely that paleontological resources would be affected by the project.

28. A Class I records and file search revealed 148 archaeological sites in the corridor. The recorded sites include prehistoric sites, historic sites and architectural sites. All of these sites were avoided during detailed routing.

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

30. 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), North Dakota Administrative Code.

Conclusions of Law

1. The Commission has jurisdiction over this proceeding under Chapter 49-22 of the North Dakota Century Code.

2. The 230 kV transmission line proposed by Basin Electric is a transmission facility as defined in Section 49-22-03(12), of the North Dakota Century Code.

3. The location, construction, and operation of the proposed transmission facility will produce only 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 corridor 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 transmission facility is compatible with the environmental preservation and the efficient use of resources.

7. The requested waivers of procedures is justified based upon: the minimal impacts on the environment and the welfare of the citizens of North Dakota; the lack of objection to the proposed transmission facility by federal, state and local government bodies and agencies or by the majority of landowners along the route; and the objective to have a reliable integrated transmission system in North Dakota.

8. The proposed transmission facility is of such length, design, location, and purpose that it will produce minimal adverse effects.

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

Order

The Commission orders:

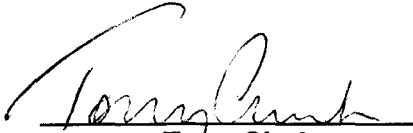
1. Basin Electric's Application for a Waiver of Procedures is granted.
2. A Certificate of Corridor Compatibility for Transmission Facility Corridor No. 111 is issued to Basin Electric, designating a Corridor for its proposed transmission facility as described in Basin Electric's Application and presented at the hearing.
3. A Route Permit for Transmission Facility No. 121 is issued to Basin Electric granting authority to construct the proposed transmission line as described in the Application and presented at the hearing.
4. Notwithstanding North Dakota Century Code Section 49-22-03 (3), or any interpretation to the contrary, Basin Electric agrees that in the event Basin Electric desires to construct, within this Certificate of Corridor Compatibility, a new transmission facility that is not included in this Order, Basin Electric shall apply for a Route Permit in the Corridor identified in this Order.
5. Basin Electric shall conduct a preconstruction conference prior to commencement of any construction, which must include a Basin Electric representative, its construction supervisor, and a representative of Commission staff to ensure that Basin Electric fully understands the conditions set forth in this Order.
6. Basin Electric will comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed transmission facility. Prior to commencing construction of any phase of the proposed project, Basin Electric shall obtain all other necessary approvals and permits for construction of such phase and provide copies to the Commission prior to the construction of each such phase.
7. Basin Electric shall inform the Commission of its intent to start construction on the transmission facility prior to the commencement of construction, and, once construction has started, Basin Electric shall keep the Commission updated of construction activities on a weekly basis.

8. Basin Electric shall construct and operate the transmission facility in the manner described in its Application and at the hearing, and in accordance with all applicable safety requirements.
9. Basin Electric shall promptly report to the Commission the presence in the permit area of any critical habitat of threatened or endangered species, or of bald or golden eagles that Basin Electric becomes aware of and that were not previously reported to the Commission.
10. If any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, earth disturbing activities in the immediate vicinity of the discovery must be halted. The resource must be marked, preserved and protected from further disturbances until a professional examination can be made and consultation with the State Historical Preservation Office. A report of such examination must be filed with the Commission, and clearance to proceed must be given by the Commission.
11. All pre-existing roads and lanes used during construction must be restored to a condition that will accommodate their previous use and areas used as temporary roads during construction must be restored to their original condition.
12. Construction must be suspended when weather conditions are such that construction activities will cause irreparable damage, unless adequate protection measures approved by the Commission are taken.
13. Reclamation along the right-of-way shall be continuous and coordinated with construction.
14. Reclamation, fertilization and reseeding is to be done by Basin Electric according to the Natural Resource Conservation Service recommendations unless otherwise specified by the landowner and approved by the Commission.
15. Basin Electric will comply with the Commission's Tree and Shrub Mitigation Specifications attached to this Order except that the width of clear cuts through windbreaks, shelterbelts and all other wooded areas shall be limited to 125 feet rather than 50 feet.
16. Basin Electric's obligation for reclamation and maintenance of the right-of-way shall continue throughout the life of the transmission facilities.
17. Basin Electric shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the transmission line.
18. Basin Electric shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the proposed transmission facilities.
19. Structure location changes filed January 8, 2010 and February 5, 2010 are approved and Basin Electric shall obtain approval from the Commission or from Commission staff prior to any further changes in structure locations.
20. Basin Electric shall provide the Commission with a copy of the facility alignment plan and profile drawings showing the facility as built (hard copy and electronic versions), and an

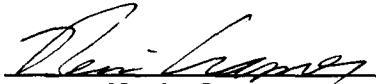
electronic version of the as-built facility that can be imported into ESRI GIS mapping software, within three months of the completion of the construction.

21. The authorizations granted by the Corridor Certificate and Route Permit are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

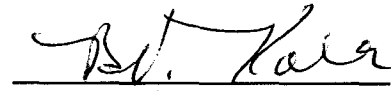
PUBLIC SERVICE COMMISSION



**Tony Clark
Commissioner**



**Kevin Cramer
Chairman**



**Brian P. Kalk
Commissioner**

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

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230 kV Transmission Line/Williams & Mountrail Co.
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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*), shall be inventoried before cutting. The inventory shall 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, shall 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 shall be inventoried for replacement.
4. In native growth areas, shrubs anticipated to be cleared in the permanent right-of-way shall be inventoried for replacement.
5. In native growth areas outside the permanent right-of-way, shrubs shall 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 shall be preserved and replaced after construction. Shrubs shall 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 shall be inventoried for replacement.
6. In native growth areas, trees and shrubs may be inventoried by actual count or by 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 shall define the sampling method to be used for trees, for tall shrubs and for low shrubs. The data from the sample plots shall 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 shall be selectively cleared, leaving mature trees and shrubs intact where practical.
8. The width of clear cuts through windbreaks, shelterbelts and all other wooded areas shall be limited to 50 feet or less 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 shall be noted on the inventory.

Replacement

10. Prior to replacement, documentation identifying the number and variety of trees removed as well as the mitigation plan for the proposed number, variety, type, location and date of replacement plantings shall be filed with the Commission for approval.

11. Tree replacement shall be on a 2 to 1 basis with 2-year-old saplings. Shrub replacement shall be on a 2 to 1 basis with stem cuttings.

12. Trees and shrubs shall be replaced by the same species or similar species, except in the case of invasive species or noxious weeds, suitable for North Dakota growing conditions as recommended by the North Dakota Forest Service.

13. Landowners shall be given the option of having replacement trees/shrubs planted off the right-of-way on the landowner's property or waiving that requirement in writing and allowing those replacement trees or shrubs to be planted at alternative locations.

14. At the conclusion of the project, documentation identifying the actual number, variety, type, location, and date of the replacement plantings shall be filed with the Commission.

15. Tree and shrub replacements shall be inspected once a year for three years, on about the anniversary of the plantings, and, on or shortly before October 1 of each year, a report shall be submitted to the Commission documenting the condition of replacement planting and any woodlands work completed. If after three years from the anniversary of the plantings the survival rate is less than 75%, the Commission may order additional planting(s).

**PUBLIC SERVICE COMMISSION
STATE OF NORTH DAKOTA**

Route Permit

Certificate Number 121

This is to certify that the Commission has designated a transmission facility route for Basin Electric Power Cooperative's approximately 61 miles of 230-kilovolt electric transmission line and associated facilities extending from the existing Williston Substation to the existing Tioga Substation in Williams and Mountrail Counties of North Dakota.

This certificate is issued in accordance with the Order of this Commission dated February 10, 2010 in Case No. PU-07-671 and is subject to the conditions and limitations noted in the Order.

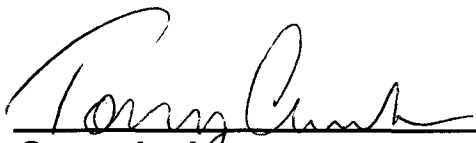
Bismarck, North Dakota, February 10, 2010.

ATTEST:

PUBLIC SERVICE COMMISSION



Executive Director
Acting



Commissioner

**PUBLIC SERVICE COMMISSION
STATE OF NORTH DAKOTA**

Certificate of Site Compatibility for a Transmission Facility Corridor

Certificate Number 111

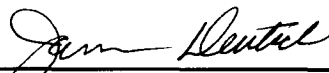
This is to certify that the Commission has designated a transmission facility corridor for Basin Electric Power Cooperative's approximately 61 miles of 230 kV electric transmission line and associated facilities extending from the existing Williston Substation to the existing Tioga Substation in Williams and Mountrail Counties of North Dakota.

This certificate is issued in accordance with the Order of this Commission dated February 10, 2010 in Case No. PU-07-671 and is subject to the conditions and limitations noted in the Order.

Bismarck, North Dakota, February 10, 2010.

ATTEST:

PUBLIC SERVICE COMMISSION



Executive Director
Acting



Commissioner