

**BASIN ELECTRIC
POWER COOPERATIVE**

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RECEIVED

October 17, 2008

OCT 20 2008

PUBLIC SERVICE COMMISSION

Annette Bendish, Counsel
North Dakota Public Service Commission
600 East Boulevard Avenue, Dept. 408
Bismarck, ND 58505

Dear Annette:

Per your request, enclosed is a draft Findings of Fact, Conclusions of Law and Order for the Belfield/Rhame project.

If you or Jerry have any questions, please do not hesitate to call.

Thank you very much for your work on this important project for Basin Electric and our members in southwestern North Dakota.

Sincerely,

Deborah Fohr Levchak
Staff Counsel

cc: Jerry Lien, PSC
Duey Marthaller, Basin Electric
Kevin Solie, Basin Electric

enclosure

25 **PU-07-169** Filed: 10/20/2008 Pages: 15
Proposed Findings of Fact, Conclusions of Law and Order

Basin Electric Power Coop Inc.

Staff Counsel, Deborah Fohr Levchak

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Basin Electric Power Cooperative
Belfield – Rhame 230kV Transmission Line
Siting Application**

Case No. PU-07-169

FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

Date _____

Appearances

Commissioners Susan E. Wefald, Tony Clark and Kevin Cramer

Deborah F. Levchak, Staff Counsel, Basin Electric Power Cooperative, 1717 East Interstate Avenue, Bismarck, North Dakota 58503, on behalf of Basin Electric Power Cooperative.

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

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

Preliminary Statement

On April 25, 2007, Basin Electric submitted a letter to the Public Service Commission notifying the Commission of its intent to construct a 230kV Transmission Line from the Western Area Power Administration's existing Belfield Substation, east of Belfield, North Dakota, to a new 230kV substation to be built by Basin Electric near Rhame, North Dakota. Basin Electric also requested the Commission shorten the one (1) year waiting period between filing a Letter of Intent and the filing of an Application for a Certificate of Corridor Compatibility.

By a Motion dated July 25, 2007, the Commission acknowledged the Letter of Intent, shortened the one (1) year waiting period between filing a Letter of Intent and a Siting Application to one day, assessed a filing fee of \$100,000.00, and assigned the Project Case No. PU-07-169.

On April 18, 2008, Basin Electric submitted its combined Applications for a Waiver of Procedures and Time Schedules, Certificate of Corridor Compatibility, and a Route Permit for the Belfield to Rhame Transmission Project.

On June 19, 2008, the Public Service Commission issued a Notice of Filing and Notice of Hearing on Basin Electric's Application and found the Applications to be complete conditioned on Basin Electric filing a map detailing the proposed final transmission line structure locations on or before July 22, 2008.

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 July 22, 2008, Basin Electric delivered a map detailing the proposed final transmission line structure locations to the Public Service Commission.

On July 24, 2008, Basin Electric filed a Certification Relating to Order Provisions – Electric Transmission Line Siting, regarding certain conditions to which Basin Electric agreed.

On July 29, 2008 at 10:00 a.m. MDT, a public hearing was held in New England, North Dakota. Basin Electric presented seven witnesses and numerous members of the public offered comments.

On September 9, 2008, in response to Commission requests at the hearing, Basin Electric submitted a letter with the following enclosures:

1. Exhibit 9 – Final Plan and Profile Drawings
2. Exhibit 10 – Information regarding the Bowman Airport – response from North Dakota Aeronautical Commission
3. Exhibit 11 – Report of Consultation with Formation Resources regarding potential uranium mining operations
4. Exhibit 12 – Whooping crane migration flyway map with route overlaid
5. Exhibit 13 – Vegetation Management – Report on right-of-way width in shelterbelts to meet NERC and other standards
6. Exhibit 14 – Electronic copy of route maps (Mike Murray Exhibit)
7. Wetland Delineation Report
8. Cultural Resource Inventory

On October 7, 2008, in response to testimony from an affected landowner at the July 29, 2008 hearing, Basin Electric submitted a letter with an enclosure proposing a reroute of approximately 1.75 miles.

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 Electric provides power to more than 120 member systems serving more than 2.6 million consumers in nine states, including North Dakota.
2. Basin Electric proposes to construct a 230 kV transmission line from the Western Area Power Administration's (Western) existing Belfield Substation east of Belfield, North Dakota, to a new 230kV substation to be built by Basin Electric south of Rhame, North Dakota.

At the Belfield Substation, Western will add a 230 kV bay within the existing substation fence. The Belfield to Rhame 230 kV line will be terminated on a take-off structure inside the Belfield Substation yard.

The Belfield to Rhame 230 kV will be constructed, owned and maintained by Basin Electric. The transmission line will be approximately 74 miles long and pass through Stark, Slope and Bowman Counties.

The Rhame Substation will be constructed, owned and maintained by Basin Electric. Two (2) 230/115 kV transformers with associated switching and control equipment will be installed. The Substation will include a 230 kV area and a 115 kV area. Both the 230kV and 115kV areas will contain power circuit breakers. The 115 kV portion will include switching and control equipment.

New communication systems are also part of the Belfield to Rhame Project. An optical ground wire will be installed on the transmission line. A new microwave tower will be built near the proposed Rhame Substation and a new microwave tower will be built on East Rainy Butte, southwest of New England.

3. The Belfield to Rhame Transmission Line Project is needed as soon as possible to support the reliability and integrity of the electrical transmission system in southwestern North Dakota.
4. The transmission line will be constructed according to 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 and the American Concrete Institute.
5. The total cost of the Project is estimated to be \$33 million. Substation costs are estimated to be \$12 million, the transmission line is estimated at \$19 million and communication facilities are estimated at \$2 million.
6. The transmission line will be constructed on self-supporting galvanized steel single-pole structures. The line will be 3-phase, meaning it uses 3 current carrying conductors. The conductors will be 1.3 inches in diameter. Each conductor has 54 strands of aluminum and 7 strands of steel. Above the conductors will be one ½-inch diameter optical ground wire. The line will require approximately 6 to 7 structures per mile, depending on terrain and other design factors. The right-of-way will be 125 feet wide.

The structures will be single-pole, steel structures. 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.

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.

7. The Rhame Substation will connect with the proposed Belfield to Rhame 230kV transmission line. Two (2) other line terminals in the Substation will connect to the existing 230kV transmission line that connects the Little Missouri and Bowman Substations.

Upper Missouri G & T will own the two 230/115kV power transformers and the 115kV portion of the Rhame Substation.

Slope Electric Cooperative will also own a small distribution bus with two (2) 47kV feeders.

The Rhame Substation also includes one (1) 30' x 60' building to enclose the protection and control equipment, station batteries, station service power equipment and communications equipment.

The entire facility will be fenced with 7' of chain link fence and topped with 1' of 3 barbed wires. The dimensions of the fenced area will be approximately 646' x 685', slightly over 10 acres.

8. The Rhame Substation is designed according to the applicable portions of the National Electrical Safety Code, National Fire Protection Code, Occupational Safety & Health Administration and Rural Utility Service Standards.
9. The two proposed microwave communication towers will each be a self-supporting steel lattice tower approximately 190 feet in height. Each proposed tower will have an associated communications building near its base. The communications buildings will be approximately twenty-four feet in length, thirteen feet in width and twelve feet in height. Each building will have an earth tone aggregate style exterior finish.
10. Basin Electric will file all the necessary FAA documentation to complete Aeronautical Studies for the two proposed towers and will comply with all FAA rules, including lighting requirements. All proposed microwave facilities will be properly coordinated and licensed with the FCC as per applicable FCC regulations.

11. Basin Electric filed a proposed reroute with the Commission on October 7, 2008, explaining information from the affected landowners of Section 32, T139N, R98W and Section 5, T138N, R98W in Stark County, to the effect that land currently in CRP is intended to be put back into cultivation caused Basin Electric to propose a reroute of the line from a diagonal to a route closer and parallel to the property line. The affected landowners are in agreement with the proposed reroute.
12. Basin Electric has complied with all local land use and planning ordinances.
13. In 2007, Basin Electric met with local governmental units to provide a project overview and receive comments.
14. In 2007, Basin Electric contacted various local, state and federal agencies (43) for early input into the Project. Ten Native American Tribes were also contacted to solicit their input.

Evaluation Criteria

15. 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.
16. 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.
17. 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.

18. 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.
19. 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 evaluated a Corridor width of six (6) miles.
21. Basin Electric submitted substantial information in its Application and testimony at the July 29, 2008 hearing, concerning compliance with the Commission Exclusion and Avoidance Area criteria as applied to the proposed Corridor.
22. At no point within the proposed corridor does an Exclusion or Avoidance Area encompass more than 50% of the Corridor width.
23. Basin Electric submitted substantial information in its Application and testimony at the July 29, 2008 hearing, concerning compliance with the Commission Exclusion and Avoidance Areas criteria as applied to the proposed route.
24. The proposed route does not cross any Exclusion Areas.
25. The proposed route does not cross any Avoidance Areas.
26. Several landowners and/or interested persons testified at the July 29, 2008 hearing that they objected to the proposed route avoiding the Little Missouri National Grasslands, which the Commission has identified as an Avoidance Area.
27. Basin Electric testified at the July 29, 2008 hearing that in compliance with North Dakota Administrative Code, Section 69-06-08-02 the corridor and route were selected to avoid crossing the Little Missouri Grasslands and, furthermore, that given the end points of the

line, Basin Electric had a reasonable alternative and thus avoided the National Grasslands.

28. No permanent impacts to the wetlands are anticipated as a result of project construction. Structures would not 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.

29. A Class III cultural resource survey (pedestrian survey) was conducted along the proposed route. The survey area consisted of a 200 ft. wide corridor centered on the proposed route centerline and at the proposed Rhame Substation site. With the exception of approximately three miles where access was denied from the landowner and an area in Section 14, T132N, R101W where the route was moved about ¼ mile to the north, the entire proposed route was inventoried for cultural resources. These unsurveyed areas, as well as the reroute identified in the October 7, 2008 letter to the PSC, will be surveyed prior to construction.

A total of 11 sites and 8 isolated finds were identified during the Class III inventory. The 11 sites consisted of four prehistoric lithic scatters, two historic farmsteads, one historic homestead, a historic bridge, a dump, a railroad, and a stock pen. Of the 11 sites, 9 are recommended by the field archaeologist as not eligible for the National Register of Historic Places and two are unevaluated at this time. The two (2) unevaluated sites include a historic railroad and a prehistoric lithic scatter. The railroad would be spanned by the proposed transmission line, thus, avoiding any direct impact of the site, and the prehistoric lithic scatter is located outside of the project disturbance area and thus, would be avoided by project construction.

The class I cultural resource investigation (literature review) indicated that archaeological or historic sites have not been found on the proposed Rhame Substation site. Cultural resources were not observed during the Class III pedestrian survey that

was conducted within the proposed Rhame Substation site. Therefore, impacts to cultural resources are not anticipated from construction. Similarly, cultural resources were not observed during pedestrian surveys that were conducted at the proposed East Rainy Butte or Rhame Substation microwave tower sites.

Paleontological resources have not been identified along the transmission line route; however, if the present, it is likely that they would be found within the exposed bedrock of the Little Badlands area or outcrops of other formations. Basin Electric will complete a field survey for paleontological resources within the construction right-of-way and other disturbance areas in exposed rock areas along the route.

30. Basin Electric submitted substantial 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.
31. Basin Electric submitted substantial 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 Application submitted by Basin Electric meets the corridor and route evaluation criteria required by Chapter 49-22 of the North Dakota Century Code.

4. 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.
5. The proposed transmission facility is compatible with the environmental preservation and the efficient use of resources.
6. 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.
7. The requested waivers of procedures and time schedules are 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.

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 and Time Schedules is granted.
2. A Certificate of Corridor Compatibility for Transmission Facility Corridor No. _____ is issued to Basin Electric, designating a Corridor for its proposed transmission facility as described in Basin Electric's Application.
3. A Route Permit for Transmission Facility No. _____ is issued to Basin Electric granting authority to construct the proposed transmission line and associated substation and microwave facilities.

4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. If any cultural resource, paleontological, archeological, historical, 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.

10. 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.
11. 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.
12. Reclamation along the right-of-way shall be continuous and coordinated with construction.
13. Reclamation, fertilization and reseeding is to be done by Basin Electric according to the Natural Resource Conservation Service or USFWS recommendations for CRP, native prairie and other non-cropped lands unless otherwise specified by the landowner and approved by the Commission.
14. 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.
15. Basin Electric's obligation for reclamation and maintenance of the right-of-way shall continue throughout the life of the transmission facilities.
16. Basin Electric shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the path of the transmission line.
17. 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.
18. Basin Electric shall obtain approval from the Commission or from Commission staff prior to any changes in structure locations.

19. 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.

20. 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

Susan E. Wefald
President

Kevin Cramer
Commissioner