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October 19, 2011

PUBLIC SERVICE COMMISSION

North Dakota Public Service Commission
Darrell Nitschke
Executive Secretary
600 E. Boulevard Avenue Dept. 408
Bismarck, ND 58505-0489

Re: Case No. PU-06-312 Contract No. PU-599-10
FPL Energy Oliver County Wind, LLC
230 kV Transmission Line in Oliver County

Dear Mr. Nitschke,

The State of North Dakota, acting through its North Dakota Public Service Commission (NDPSC), Division of Public Utilities, has engaged Keitu Engineers & Consultants, Inc. to perform consulting services for post-construction siting inspections. A final report was sent to you electronically via email. Enclosed is an original and copy of the final report for the post-construction inspection of Case No. PU-06-312.

The Executive Summary identifies items that still need attention by the Commission staff and siting applicant to ensure that the facilities for the project have been constructed in compliance with items identified by the ND Public Service Commission. Once these items are addressed, the Commission can act on final closeout of the construction phase of the project.

Should Commission staff or the NDPSC have any questions, please contact me for assistance.

Sincerely,

Timothy Spilman
Project Manager

Enclosures

91 PU-06-312 Filed: 10/21/2011 Pages: 13
Final report for post-construction inspection



**FPL Energy Oliver County Wind, LLC (Oliver Wind)
542 feet 230 kV Transmission Line
Oliver County, ND**

Prepared by Timothy Spilman, Project Manager, Keitu Engineering & Consultants, Inc.
Final

Executive Summary

Florida Power & Light Energy Oliver County Wind, LLC (Oliver Wind) built a radial electric transmission line that extended from the proposed Oliver Substation approximately 542 feet north to the Square Butte Cooperative's Center Substation (an AC/DC conversion substation) located in Oliver County. Construction of the radial electric transmission line and associated substation facilities began in August 2006 with completion in December 2006. The project allows FPL to contribute 50 MW of renewable energy to the power grid.

FPL Energy had a preconstruction meeting on August 28, 2006, gave the Commission staff a construction schedule, and notified the Commission of its intent to start construction on Thursday, August 31st, 2006. In reviewing the siting application, an Addendum Survey Report (Docket #2 Page 59/81) submitted by Metcalf Archaeological Consultants, Inc. stated that at the time they had arrived on July 13, 2006 to conduct the Class III field inventory, the substation area had already been graded. Civil engineering earthwork had therefore been started prior to the granting of the Route Permit, Certificate of Corridor, and Orders on July 23, 2006. Based on the Addendum Survey Report, FPL did not inform the Commission of its intent to start construction prior to commencement of construction and before the preconstruction meeting. Order #4 and # 6 were not followed.

On July 26, 2006 Tracey Martorano of TTECI on behalf of FPL Energy Oliver County Wind, LLC sent an email (Docket #4) to Commission staff that stated that Oliver Wind would file a 10 year plan according to PSC Regulations. No record was found of the 10 year plan being submitted to the Commission in the case file. The Commission should verify that the 10 year plan was filed according to the PSC Regulations. If a 10 year plan has not been submitted, the Commission should request the plan from Oliver Wind for completion of Order # 5.

Based on Minnkota Power allowing the connection of the transmission line and Oliver collection substation to their system, the construction and operation of the facilities are probably in accordance with all safety requirements. Oliver Wind should provide a letter to the Commission that the transmission line and associated substation facilities were constructed and operate in accordance with the National Electric Safety Code Standards for assurance Order # 7 is complete.



In June 2008, there was a replacement planting. This entire planting failed. A new Tree Mitigation Plan (Docket # 83) was submitted to the Commission on March 24, 2011. On April 6, 2011 the Commission passed the motion (Docket #86) approving the new Tree Mitigation Plan. Replacement planting are to be planted in 2011 and will be inspected each year for three years in 2012, 2013, and 2014 near the anniversary planting date. Order # 15 will have to be evaluated in 2014 for completion of this Order to occur. Oliver Wind will need to send the Commission documentation of the replacement planting and each year's inspection.

No as built design specifications of the transmission line and associated substation facilities were found in the case file. Therefore, Oliver Wind exceeded the three month requirement set forth in Order # 18 to provide as built designs. The Commission should request Oliver Wind provide as built information for the 542 feet transmission line and the Oliver County substation facility.

According to the new Tree Mitigation Plan (Docket # 83), Oliver County Wind, LLC (Oliver Wind) is a subsidiary of Nextera Resources, Inc. This may mean that Nextera Resources, Inc. may be a new owner of the transmission line and the Oliver Substation. No other records were found in the case file stating that the transmission line and substation is no longer FPL Energy, 700 Universe Boulevard, Juno Beach, FL. A FPL Energy sign was identified on the substation gate of the Oliver substation during the post construction field inspection. The Commission should verify FPL Energy Oliver County Wind is still the owner and operator. If the facilities in the siting application have changed ownership, a modification to the Route Permit and Certificate of Corridor may be required as part of Order # 19.

FPL Oliver Wind complied with all other Order requests of the Commission.

Preliminary Statement

Florida Power & Light Energy Oliver County Wind, LLC (Oliver Wind) constructed approximately 542 feet of 230 kV electric transmission line and associated substation facilities to interconnect Oliver Wind's proposed wind energy generating project to Square Butte Electric Cooperative's existing Center Substation (an AC/DC conversion substation) in Oliver County, North Dakota. The associated substation facilities include a new collection substation and interconnection modifications at the Center Substation where the electricity generated will be inverted to direct current (DC) for transmission to retail loads in Minnesota. Construction of the radial electric transmission line and associated substation facilities began in August 2006 with completion in December 2006. The project allows FPL Energy to contribute 50 MW of renewable energy to the power grid.

The State of North Dakota, acting through its North Dakota Public Service Commission (NDPSC), Division of Public Utilities, has engaged Keitu Engineers & Consultants, Inc. to perform consulting services for post-construction siting inspections. This report addresses the Orders established by the NDPSC and issues established in File No. PU-06-312.



The Commission orders:

1. Oliver Wind's Application for Waiver of Procedures and Time Schedules is granted.

A July 26, 2006 motion (Docket #04) acknowledged the Letter of Intent, shortened the 1 year waiting period between filing a letter of intent and a siting application to one day, and assessed a fee of \$22,500 for the 230 kV transmission line and associated facilities. Motion passed. Order # 1 is complete.

2. Certificate of Site Compatibility for a Transmission Facility Corridor No. 92 is issued to Oliver Wind, designating a corridor for its proposed transmission line and associated substation facilities as shown on the attached map.

On August 23, 2006, the Commission designated a transmission facility corridor for FPL Energy Oliver County Wind, LLC's described as: a circular-shaped transmission corridor with a radius of approximately one-half mile centered around a point in the SE ¼ of Section 33, T 142N, R 83W. The certificate (Docket #19) was issued in accordance with the Order of the Commission in Case No. PU-06-312 dated August 23, 2006, and is subject to the conditions and limitations noted in the order. Order # 2 is complete.

3. Route Permit for Construction of a Transmission Facility No. 102 is issued to Oliver Wind, granting authority to construct the transmission line and associated substation facilities in the location shown on the attached map.

On August 23, 2006, the Commission designated a transmission facility route for FPL Energy Oliver Wind, LLC's transmission line which is described as: A 230 kV radial electric transmission line beginning at a proposed new Oliver Substation and extending approximately 542 feet in a northerly direction to interconnect with Square Butte Electric Cooperative's existing Center Substation, all within the SE ¼ of Section 33, T 142N, R 83W. The certificate (Docket # 18) was issued in accordance with the Order of the Commission in Case No. PU-06-312 dated August 23, 2006, and is subject to the conditions and limitations noted in the order. Order # 3 was complete.

4. Oliver Wind shall conduct a preconstruction conference prior to commencement of any construction, which must include an Oliver Wind representative, its construction supervisor and a representative of Commission staff to ensure that Oliver Wind fully understands the conditions set forth in this Order.

A preconstruction meeting (Docket #23) was held on August 28th, 2006 at 10:00 AM on site. Participants included Dick Rausch FPL Energy, Larry Levin FPL Energy, Perry Oberg FPL Energy, Jerry Lein North Dakota PSC, Jami Krynski Ventus Energy.



The conference included a review of the Order's 1-19 on pages 3-5 of the "Order" (Docket #20), and a question and answer period. Particular attention was paid to environmental, historical, reclamation, reseeding, tree replanting, and as-built drawings. Oliver wind provided a substation schedule to the Commission's staff at this meeting.

In reviewing the siting application, an Addendum Survey Report (Docket #2 Page 59/81) submitted by Metcalf Archaeological Consultants, Inc. stated that at the time they had arrived on July 13, 2006 to conduct the Class III field inventory, the substation area (location of associated substation facilities) had already been graded. Civil engineering earthwork had therefore been started prior to the granting of the Route Permit, Certificate of Corridor, and Orders on July 23, 2006. Based on the Addendum Survey Report, FPL did not have a preconstruction conference prior to commencement of any construction. Jerry Lein with the NDPSA could verify that construction had begun prior to the preconstruction meeting as the preconstruction meeting was held on site and he was there. Order # 4 was not followed.

5. Oliver Wind shall comply with the rules and regulations of all other agencies having jurisdiction over any phase of the project, and shall provide copies of all licenses and permits to the Commission prior to construction of the transmission lines.

North Dakota Administrative Code § 69-06-01-05 lists 21 state agencies that are entitled to notice of Oliver Wind's proposed action. Email notifications were sent on July 19, 2006 to the agencies on the list that Oliver Wind believes could have a material interest in the project. A copy of the email notifications are provided as Exhibit 3. The following agencies were emailed:

- United States Fish and Wildlife Service (USFWS)
- North Dakota State Water Commission (NDSWC)
- North Dakota Game and Fish Department (NDGFD)
- North Dakota Historic Preservation Office (NDSHPO)
- Department of Transportation
- Parks and Recreation Department
- Aeronautics Commission
- Land Department - Michael Haupt
- Department of Health - Dave Glatt (Chief)

As of the date of the application submittal, no responses were received.

The US Fish and Wildlife Service replied to the notification from Oliver Wind (Docket # 12 & # 15). The Ecological Services ND Field Office determined that the project as described would not have significant impact on fish and wildlife resources. No endangered or threatened species were known to occupy the project area.

On July 31, 2006 the State Historical Society of North Dakota authored a letter (Docket #13) stating that it had reviewed the "Addendum to Oliver County Wind Farm: a Class III Cultural Resource Inventory in Oliver County, ND: Substation and Transmission Line," prepared by Metcalf Archaeological Consultants. The SHPO office concurred with "No Significant Sites



Affected” and “No Historical Properties Affected” determination of the site identified in the project information.

The ND Parks & Recreation Department replied to their notification on August 23, 2006 (Docket # 29). They reviewed the proposal from Oliver Wind to construct approximately 532 feet of 230 kV transmission line and associated substation facilities located in Section 33, T142N, R83W, Oliver County. Their agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined did not affect state park lands that they manage or Land and Water Conservation Fund recreation projects that they coordinate. The North Dakota Natural Heritage Inventory had limited rare species information from the project area. The ND Parks & Recreation Department had records for the occurrence of *Potamogeton vaginatus* (sheathed pondweed) in the facilities section and in a section adjacent to the project area indicating that the habitat in the project area may be suited for this specie or other rare, threatened, sensitive or endangered species. Regarding any reclamation efforts, they recommend that any impacted areas be revegetated with species native to the project area.

Midwest ISO evaluates requests for transmission service, identifies the most effective means of serving the demand for energy in the region, and manages the reliable flow of electricity across 13 states in the Midwest including North Dakota. FPL Energy Oliver County Wind is not a member of Midwest ISO. Therefore, FPL Energy Oliver Wind is not under the jurisdiction of Midwest ISO policies, procedures requirements, tariffs and rate requirements.

Other agencies had an opportunity to mandate any requirements to be follow by their agency but did not respond. None of the agencies had any objection to the Oliver Wind Project. All rules and regulations from other agencies having jurisdiction over any phase of the project were followed. No licenses and permits to construction were found in the case file.

On July 26, 2006 Tracey Martorano of TTECI on behalf of FPL Energy Oliver County Wind, LLC sent an email (Docket #4) to Commission staff that stated that Oliver Wind would file a 10 year plan according to PSC Regulations. No record was found of the 10 year plan being submitted to the Commission in the case file. The Commission should verify that the 10 year plan was filed according to the PSC Regulations. If a 10 year plan has not been submitted, the Commission should request the plan from Oliver Wind for completion of Order # 5.

- 6. Oliver Wind shall inform the Commission of its intent to start construction prior to commencement of construction and, once construction has started, shall keep the Commission updated on construction activities on a weekly basis.**

A preconstruction meeting (Docket #23) was held on August 28, 2006 at 10:00 AM on site. FPL Energy gave the Commission staff a construction schedule and notified the Commission of its intent to start construction on Thursday, August 31st, 2006. A substation construction schedule was provided that day. Initial civil engineering earthwork was not part of the schedule provided. FPL submitted Daily Progress reports (Docket #25-28, 30-78) to the Commission starting on



August 31, 2006. The last Daily Progress report was on December 12, 2006. FPL did provide progress reports once they notified the Commission of a start date.

In reviewing the siting application, an Addendum Survey Report (Docket #2 Page 59/81) submitted by Metcalf Archaeological Consultants, Inc. stated that at the time they had arrived on July 13, 2006 to conduct the Class III field inventory, the substation area had already been graded. Civil engineering earthwork had therefore been started prior to the granting of the Route Permit, Certificate of Corridor, and Orders on July 23, 2006. Based on the Addendum Survey Report, FPL did not inform the Commission of its intent to start construction prior to commencement of construction. Order # 6 was not followed.

7. Oliver Wind shall construct and operate the transmission line and associated substation facilities in the manner described in its application and in accordance with the National Electric Safety Code and all applicable safety requirements.

FPL Energy Oliver County Wind LCC (transmission line and Oliver substation) constructed the transmission line and substations in accordance with the application and NESC standards. The proposed Plan & Profile Drawing for the Oliver County transmission (Docket # 16), overall site plans in the application exhibits, construction schedule, progress reports, and post construction field inspection identified that construction was in accordance with NESC. The new transmission line was required to pass between two existing transmission lines. NESC clearance had to be maintained. The two existing lines were probably de-energized during the stringing and sagging of the conductors and shield wires as a safety requirement. The transmission tangent structure proposed drawing identified the design loading criteria and structure loads for each loading case. Conductors and shield wire were installed using the controlled tension method. Items such as hot work permits, hi-pot testing, inspecting/torquing busses, adjusting switches, installing busses and jumpers, performing function testing, SCADA check, relay and surge testing, and working the final substation punch list were mentioned in the progress reports. These items assure the construction of the substation facilities will operate in a safe manner. Daily safety construction meetings were held.

No Amended Application proposed substation drawings or final as built drawings were found in the case file. The Oliver substation was to be constructed to the National Electric Safety Code Standards (NESC). Protective relaying, transformers, switches, breakers, fusing, SCADA, and control wiring were part of the project. Based on proposed construction design information, construction pictures, a post construction field inspection from outside of the substation fence; the FPL transmission line and associated substation facilities appeared to be constructed in accordance with applicable safety requirements. The Oliver substation converts 34.5 kV to a stepped up voltage of 230 kV.

The transmission line and substation were completed with the exception of a few parts needing replacing based on the progress report of October 2, 2006 (Docket #62). Wind towers were brought on line after this date. Based on Minnkota Power allowing the connection of the transmission line and Oliver collection substation to their system, the construction and operation of the facilities are probably in accordance with all safety requirements. Oliver Wind should



provide a letter to the Commission that the transmission line and associated substation facilities were constructed and operate in accordance with the National Electric Safety Code Standards for assurance Order # 7 is complete.

8. Oliver Wind 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 which Oliver Wind becomes aware of and which were not previously reported to the Commission.

The N.D. Natural Heritage Program (NDNHP) database query identified no federally listed threatened or endangered animal/plant species previously documented within the corridor (or route).

The whooping crane may occur within the proposed corridor. The total population of whooping cranes in the wild is 188. As such, observations are infrequent and in North Dakota they occur during migration. Construction occurred during fall migration which is from late-August to mid-October. No sightings of whooping crane activity occurred during construction based on progress reports. USFWS Ecological Services in Bismarck, ND had been consulted.

A survey focused on identifying raptor stick-nests along the transmission route (tree nests) was conducted during the first week of May 2005. No nests were identified within the transmission route. A wetlands survey was conducted in April 2006. There are no wetlands that could be impacted by construction or operation of the proposed facility.

At the pre-construction conferences with the Commission's staff (Docket # 23), Oliver Wind understood and agreed that it 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 they becomes aware of during construction. A review of the weekly construction progress reports (Docket #25-28, 30-78) did not note any critical habitat in the area during construction. No report of any critical habitat of threatened or endangered species, or of bald or golden eagle's notification to the Commission was found in case file. Therefore, Order # 8 is complete.

9. If any cultural resource, paleontological, archeological, historical, or grave site is discovered during construction, it must be marked, preserved, and protected from further disturbances until a professional examination can be made by the State Historical Society, a report of such examination is filed with the Commission and clearance to proceed is given by the Commission.

With respect to archaeological/cultural resources, Oliver Wind's consultant conducted a Class I review of historic and archeological records through the North Dakota State Historic Preservation Office (SHPO) that was completed in 2005. They also conducted a Class III pedestrian survey on July 13, 2006. Results for these studies did not identify any archaeological/cultural resources. Refer to Exhibit 5 for the "Negative Survey Report Form" in the application.



Consistent with the Act and the Guidelines, archaeological, cultural, and historic resources were to be avoided by the Oliver Wind construction team.

On July 31, 2006 the State Historical Society of North Dakota authored a letter (Docket #13) stating that it had reviewed the "Addendum to Oliver County Wind Farm: a Class III Cultural Resource Inventory in Oliver County, ND: Substation and Transmission Line," prepared by Metcalf Archaeological Consultants. The SHPO office concurred with "No Significant Sites Affected" and "No Historical Properties Affected" determination of the site identified in the project information.

No cultural resource, paleontological site, archeological site, historical site, or grave site was discovered during construction. This is based on review of construction progress reports and verification that no correspondence was identified in the case file. Order # 9 was followed.

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 or working areas during construction shall be restored to their original condition.

The main north/south road to the site is 33rd Avenue SW. This road curves southwest and becomes 24th Street SW. These two main roads and an existing substation access road were used to the site. According to the construction progress reports (Docket # 56-61) Wanzek Construction performed road maintenance. The post construction field inspection and Google Earth 6/21/2007 imagery verified the roads were restored to their original condition. Order # 10 is complete.

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.

Construction activity reports were used to evaluate Order # 11. Early September weekly progress reports mentioned a "Fire Ban" due to dry weather during the project. Construction was suspended on September 16, 2006 (Docket # 37) due to rain. No construction activity occurred on September 22-24, 2006 (Docket # 42 & #43) due to rain. Construction activity was slowed during October due to snow. Winter weather advisory (October 28th) and wind chill advisory (October 29th) slowed and halted some construction activity.

Based on review of the progress reports, construction was suspended or delayed when weather conditions were such that construction should not occur. Order # 11 was followed.

12. Reclamation and clean-up along the right-of-way must be continuous and coordinated with construction.

Debris associated with the transmission line construction can be packaging material, insulator crates, conductor reels, and wrapping. It may also include excess excavated soil and removed vegetation. Excess soil and vegetation was distributed along the transmission right-of-way for the



conduit trenching between the two stations and one transmission structure. The application stated that the spoil was to be placed to adjacent upland areas.

According to the daily progress report (Docket #30) on September 8, 2006 the topsoil was set on the sides. In the September 11, 2006 progress report (Docket #32), a picture was found of FPL contractor demonstration proper compaction around the foundations. Compactions around foundations are an important part of reclamation. On September 28th progress report (Docket #45), a picture of grading with proper runoff ability was found. On October 13th progress report (Docket #55) the top soil was dressed up. Miscellaneous dirt work was done on December 4th. In the late October progress reports, Wanzek construction worked on roads and road repair. In the November 2 progress report (Docket #62), rock was delivered for the substation ground. Clean-up was documented on the October 9th, October 13th, December 11th, and December 15th progress reports.

The Oliver substation land is now used for industrial use. The substation area was graveled and fenced. In reviewing the construction site using Google Earth 6/21/2007 imagery and a post construction field inspection, reclamation and clean-up occurred. Disturbed areas between the substation fences were restored to their original condition to the maximum extent practicable.

Clean up of the transmission line and substation construction sites, including removing and disposing of debris occurred. The post construction field inspection verified clean up was satisfactory. Reclamation along the right-of-way was continuous and coordinated with construction. Order #12 was completed satisfactory.

13. Reclamation, fertilization, and reseeding is to be done by Oliver Wind according to the National Resources Conservation Service and County Farm Service Agency recommendations for CRP, native prairie and other lands, unless otherwise specified by the landowners and approved by the Commission.

No records were found in case file about reseeding and fertilization. The substation site was graveled and fenced. The land between the two substations needed to be reclaimed, fertilized, and reseeded according to National Resources Conservation Service and County Farm Service Agency recommendations. In reviewing the construction site using Google Earth 6/21/2007 imagery, the aerial view shows that the trenches for the conduit between the stations still needed permanent revegetation. Reseeding and fertilizing may have occurred but permanent revegetation had not occurred as of 6/21/2007. The post construction field inspection on October 17th, 2011 verified revegetation has occurred and is satisfactory.

Reclamation, fertilization, and reseeding were done in accordance with National Resources Conservation Service and the North Dakota Parks and Recreation recommendations). Order #13 is complete.

14. Oliver Wind's obligation for reclamation and maintenance of the right-of-way will continue throughout the life of the transmission lines.



Regular maintenance and inspections are performed during the life of the facility to ensure its continued integrity. Periodic inspections are performed by ground personnel, or by aerial means for the transmission line. The transmission line has two spans with a total length of 542 feet in length. The transmission line is only 330 feet in length between the two substations. Inspections are limited to the right-of-way. If problems are found during inspection, repairs are usually assigned to construction crews. The substation is graveled and fenced. Oliver Wind conducts substation inspections and service orders are established if maintenance is required. Weed control is part of annual maintenance for stations. The post construction field inspection and review of imagery of Google Earth verified weed control at the facilities. New "Danger- High Voltage Keep Out" signs were installed on the fencing of the south half of the substation. Station signing will fade due to sunlight over time. New signs were installed prior to the post construction field inspection. The transmission ROW was a width of 120 feet with a length of 330 feet. The transmission line ROW is grassland and requires no annual maintenance. Mowing along the outside of the substation fence occurred prior to the field inspection also. "Buried Fiber Copper Cable" line marker signs were observed between the two substations during the post construction inspection.

Based on a post construction field inspection and Google Earth imagery, FPL Oliver Wind has performed reclamation and maintenance of the right-of way since the facilities have been energized. Order #14 has been followed since the facilities were energized.

15. Trees and other wooded vegetation must be replaced with saplings that are two or more years old at a rate of two for every one removed along the route. The landowner 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 replacement plantings of trees/shrubs elsewhere. Oliver Wind shall inspect tree replacements once a year for three years and send a report on or shortly before November 1 of 2007, 2008 and 2009 to the Commission documenting work completion and condition of woodlands planting. The Commission may order additional plantings if survival rates are less than 75% of the required ratio of two for one.

Trees were removed from only one location, a shelterbelt running along the southeast side of the existing Square Butte Electric Cooperative Center Substation, owned by Minnkota Power. A total of 103 trees and shrubs were removed from within project right-of-ways. The total number of trees/shrubs to be replaced based on this inventory is 206, assuming a 2:1 replacement ratio.

In June 2008, there was a replacement planting for this Project of 306 Caragana shrubs which were installed on Minnkota's property (at approximately a 3:1 ratio replacement). This entire planting failed. A new Tree Mitigation Plan (Docket # 83) was submitted to the Commission on March 24, 2011. The new plan spelled out the planting for Minnkota will be installed in the spring or early summer of 2011. The planting of 208 trees and shrubs will be in Section 33, Township 142N, Range 83W. Minnkota will be responsible for making arrangements to cultivate the area and prepare the soil for planting. The Oliver County Soil Conservation District will plant



replacement trees and install weed barrier fabric. Trees will be 2-year-old saplings and shrubs will be stem cuttings.

Replacement plantings are to be inspected each year for three years in 2012, 2013, and 2014 near the anniversary planting date. The number and type of each surviving tree or shrub will be recorded. Notes on the condition of the saplings are to be taken. Survival rates will be calculated and a report is to be submitted to the PSC before November 1 of each fall documenting this information. If the survival rate after three years is less than 75 percent, additional plantings may be ordered based on consideration by the PSC. On April 6, 2011 the Commission passed the motion (Docket #86) approving the new Tree Mitigation Plan.

Order # 15 cannot be completed until 2014 due to the 3 year inspection of replacement planting. Evaluation of Order # 15 will have to occur in 2014 or later. Oliver Wind will need to send the Commission documentation of the replacement planting in 2011 and each of the 3 year's inspections.

16. Oliver Wind shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the project.

The siting application listed no residences within the corridor and one communication tower within the corridor. Based on data from the North Dakota State GIS Hub, two communication towers (microwave tower) and associated facilities are located within the proposed corridor. Oliver Wind is to coordinate with operators of towers near the proposed route to avoid any interference with tower operations. Oliver Wind anticipated that the proposed facility will have no adverse impact on radio, television, or other communication or electronic control facilities.

Insulators and hardware used on the line were standard design to provide nearly corona free operation, as well as reduce audible noise and radio and television interference. Television and radio interference is possible when a facility has hardware that is not tightened properly on energized lines.

Following construction, there is a minimal amount of sound from the proposed facility as the result of corona effects. Corona effects occur when air molecules near conducting wire are ionized due to changes in the electric field intensity at the conductor surface, producing audible noise, radio noise, small amounts of ozone, and corona-related energy loss. Corona-generated audible noise from transmission lines and substations is generally described as a crackling or hissing noise. Noise also will occur sometimes due to arcing in substations when switching or pulling of high side disconnects. This noise is most noticeable when conductors are wet (as a result of precipitation). During dry weather, noise is barely perceptible, creating only a sporadic crackling sound. Utility companies purchase land around substation and lines sometimes because of this. Minnkota Power owns the property around their Square Butte Switchyard, the transmission line, and the FPL Energy Oliver County Substation.

No record of television or residential radio interference was found in the Commission's case file. Order #16 is complete.



17. Oliver Wind shall obtain approval from the Commission or from Commission staff prior to any changes in structure locations.

No records were found in the Commission case file documenting a change in structure location of the transmission line or the substation facility. The original structure locations were documented in Exhibits of the siting application. A picture of the as built transmission location was found on the September 22, 2006 construction progress report (Docket # 42). No as built plan and profile drawing of the transmission or site plan of the substation facility was submitted to the Commission for comparison of proposed Exhibit 2A. Google Earth 6/21/2007 imagery was used verified final construction spans of 313 feet from the FPL Oliver County Substation to the transmission structure. This distance is the same as the proposed distance given in the proposed site application exhibits. Google Earth 6/21/2007 imagery was also used to determine the two substation fences are 330 feet apart. The proposed was 336 feet on the site application proposed exhibits. This is an acceptable tolerance. The post construction field inspection verified that the transmission structure and substation were in the proposed locations. Order #17 is complete.

18. Oliver Wind shall provide the Commission with a copy of the design specifications for construction showing the location of the transmission line and associated substation facilities as built. Oliver Wind shall provide this information within three months of the completion of construction.

No as built design specifications of the transmission line and associated substation facilities were found in the case file. Therefore, Oliver Wind exceeded the three month requirement set forth in Order # 18 to provide as built designs. The Commission should request Oliver Wind provide as built drawings for the 542 feet transmission line and the Oliver County substation facility.

19. The authorization granted by the corridor certificate and route permit is subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

Should the Commission deem necessary in the future to modify the corridor certificate and route permit it can do so if deemed necessary to further protect the public or the environment. According to the new Tree Mitigation Plan (Docket # 83), Oliver County Wind, LLC (Oliver Wind) is a subsidiary of Nextera Resources, Inc. This may mean that Nextera Resources, Inc. may be a new owner of the transmission line and the Oliver Substation. No other records were found in the case file stating that the transmission line and substation is no longer FPL Energy, 700 Universe Boulevard, Juno Beach, FL. A FPL Energy sign was identified on the substation gate of the Oliver substation during the post construction field inspection. The Commission should verify FPL Energy Oliver County Wind is still the owner and operator. If the facilities in the siting application have changed ownership, a modification to the Route Permit and Certificate of Corridor may be required. No other information was found in the case file to deem that the Commission should modify the Certificate of Corridor Compatibility (Number 92) and Route Permit (Number 102) of June 27, 2007. Facility ownership should be investigated by the Commission before Order #19 is completed.