Carlson McCain

ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

May 2, 2016



Jerry Lein
North Dakota Public Service Commission
600 East Boulevard Avenue, Dept. 408
Bismarck, ND 58505-0480

Dear Mr. Lein:

Carlson McCain, Inc. (CMI) conducted an onsite inspection of the Border Winds Energy Project (Case No. PU-14-031) on April 27, 2016, on behalf of the North Dakota Public Service Commission (PSC). The project consists of installing 75 wind turbines totaling approximately 150 MW of generating capacity and associated facilities in Rolette County, North Dakota.

CMI Inspector Sean Garry met with Joseph Ridley, RES-America, Environmental Supervisor, and Claus Larson, RES-America, Project Manager at the project office northeast of Rolla, ND at Kyle Rd and 107th St NE. Construction progress was discussed and current maps of turbine locations were observed. RES-America Construction, Inc. (RES-America) is the construction contractor for the turbine and earthwork construction.

The project has been progressing since first starting June 23rd, 2014. Last Monday, April 18th, work started again from being shutdown for the winter. All of the turbines are constructed and energized, and the operations and management (O&M) building is also operational. RES-America stated that the 35 man production crew will be on site around the first week of May including the five man environmental crew that is already on site. The plan is to be completed with reclamation and the rest of the project by the first week in August. Mr. Ridley said that regular inspections for the Storm Water Pollution Prevention Plan (SWPPP) have been occurring bi-weekly and after a rainfall event over 0.25 inches. These inspections were observed on file in the (O&M) building. Excel Energy now owns the site and has revised the SWPPP.

Mr. Garry and Mr. Ridley then proceeded to the project area to visually inspect construction, reclamation, and overall site quality. Inspection notes and photos recorded during the site visit are attached to this letter.

Field Review

Weather conditions at the time of the field visit were mostly cloudy, 43 degrees, and an 18 mile per hour wind out of the east. Soil surfaces were pretty moist from the previous week's rainfall, but most of the access roads were accessible and in good structural condition.

Current progress is being completed around the (O&M) building. Trees have been planted and the grades around the outside of the fence have been reworked. Workers are raking the sloped area removing rocks, seeding, and laying erosion control blankets. Low water crossings will be installed in about 30 different

areas of the project. Some are still being decided as to whether they will use a culvert or a composite mat material that can be rolled out. Mr. Ridley explained that culverts need to be cleaned out and many of the radii corners were going to be redone. These areas will get black dirt, reseeded, and erosion control blanket all the way up to the existing vegetation. Electrical crews are going to be doing some maintenance on some of the junction boxes due to settling. Some of the topsoil stockpiles will be moved and used to fill an area near the access road next to the substation to help move the wetland back to its original footprint.

A short length of 53rd Ave NE roadway has been displaced due to heavy traffic on the road near a wetland area. RES-America is working to resolve the situation. In the meantime, the area is clearly marked with traffic cones and some flagging.

The reclamation process and various areas that still needed to be addressed were discussed throughout the inspection with Mr. Ridley, and then briefly with Mr. Larson at the end of the inspection. They knew the areas that required attention and had a plan for how they were going to accomplish the necessary tasks. Aside from these topics, construction procedures appeared to be in compliance with the siting laws and rules, and the applicable Findings of Fact, Conclusions of Law, and Order.

Please contact me at 701-595-7008 if you have any questions or comments.

Respectfully submitted,

Sean Garry
Project Engineer

cc: Mr. Claus Larson – Project Manager, RES-America
Mr. Joseph Ridley – Environmental Supervisor, RES-America

Attachments: Photos


**Figure 1. Photo of area surrounding a junction box that needs some maintenance due to runoff and settling.**


**Figure 2. Photo of a turning radii that needs further reclamation. Culvert clean out, replace and add topsoil, score and seed, and lay ECB to existing vegetation.**


**Figure 3. Turning radii that requires more ECB higher up on the shoulder.**


**Figure 4. One of the low water crossings that was left in a cut across the road to promote runoff to follow its natural flow.**


**Figure 5. Clay and compaction tests still needed at T10.**


**Figure 6. Crane walk area for moving across the road. Ditch will be re-established and the soil removed.**


**Figure 7. Turning radii that needs to be redone. Establish ditch, new black dirt, seeding, and ECB.**


**Figure 8. Small trench dug to alleviate water backup at culvert on 53rd Ave NE near T48 and 49.**


**Figure 9. Looking east from the access road to the substation. Work will be done to provide adequate flow from south to north preventing runoff build up along road.**


**Figure 10. T26 looking south at access road that needs a low water crossing installed to help water move from west to east.**


**Figure 11. Trees around O&M building planted. Straw swaddles will be moved to the top of the slope once ECB is in place.**


**Figure 12. ECB anchored and stapled in place on the slopes surrounding the O&M building.**


**Figure 13. A more permanent channel will be installed to prevent further washouts at this southwest corner of the O&M building.**


**Figure 14. Culverts under 53rd Ave NE where road maintenance will be performed.**