

150 MW Thunder Spirit Wind Project, Minnesota Power (PSC Case No. PU-11-601)

Permit Compliance Review

NDPSC Contract No.: PU-688-13-EE

Reporting Period: December 9, 2013 – September 10, 2015

Prepared By: Houston Engineering, Inc. / Josh Kadrmas, Environmental Engineer, Emmy Baskerville, Environmental Scientist and Bart Schultz, Project Manager

General:

Houston Engineering, Inc. (HEI) was contractually hired by the North Dakota Public Services Commission (NDPSC) to complete the construction inspection activities, as part of the 150 MW Thunder Spirit Wind Project, (PSC Case No. PU-11-601). The following is a summary of the work completed to date and the anticipated timeframe for the completion of the permit compliance review. One environmental compliance site visit has been completed, one additional site visit is planned during the construction process, and one final compliance site visit will occur after construction is complete. This field inspection report (Report #1) is for the initial site visit which occurred in September 2015.

Summary of Activities / Items Completed to Date:

Report #1 documents the first site visit since construction was initialized. The focus of this initial site visit was environmental compliance inspection on areas of the wind project that were actively under construction. HEI met with Chris Aepelbacher and Wells McGiffert from Allete Clean Energy, and drove throughout active construction site. HEI visited all of the turbine sites, except for sites 21 through 25. HEI noted that surface grading and foundation installation had occurred on most of the sites and that tower and blade assembly was well underway.

The first environmental compliance visit focused on the access roads, collector line right-of-ways, and pads that had been completed or were under construction. HEI utilized maps and data from the applicant to aid in the identification of the exclusion, avoidance and selection criteria, as outlined within the permit. All wetland crossings for collector line right-of-ways had been bored, and most of the collector lines had been installed. Where disturbed areas were adjacent to existing wetlands, silt fence was observed. Cultural resources and associated buffering areas were bounded by metal fence posts and roped-off.

The temporary communication tower was located in the cultural resource area (Area) between Turbine site 19 and 2nd Street North. See **Photo 9**. Four - 4x4 posts had been driven into the ground in the area. According to Wells and Chris, the tower was inadvertently installed while the contractor was setting up onsite, and before survey could mark the exclusion area. HEI personnel were informed that the PSC had already been notified and that Allete was working with Beaver Creek Archeology to mitigate the disturbance.

All areas observed under construction had appropriately placed erosion control (silt fencing). In addition, appropriate construction signage along public roads was observed within the heavy equipment areas. Aside from the communication tower, no violations were observed.

Future Activities for the next reporting period:

HEI will perform the second permit compliance trip as construction progresses to further assess permit compliance for the construction activities. Based on the current pace of construction, HEI anticipates that the next site visit will occur in the late fall 2015 or early spring 2016. Additionally, HEI will complete one final permit compliance site visit after construction ends to verify that all permit compliance issues have been addressed, focusing on road restoration and restoration of open soil areas. Based on the current pace of construction, HEI anticipates that this compliance visit will occur in late summer or early fall of 2016.

Photos



Photo 1:
Completed turbine site, awaiting final preparation of seed bed.



Photo 2:
Topsoil respreads on reclaimed right-of-way.



Photo 3:
Fenced-off cultural resource area, near Turbine 13.



Photo 4:
Foundation and
subsurface
grading complete
at Turbine 13.



Photo 5:
Completed
subsurface
grading at Pad
for Turbine 9.



Photo 6: Re-
spreading topsoil
over excavated
slope near
Turbine 8.



Photo 7: Tower sections and nacelle staged on the pad for Turbine 15.



Photo 8: Looking north at collector line right-of-way from the pad site for Turbine 14.



Photo 9: Temporary communication tower accidentally installed in cultural area, west of Turbine 19.



Photo 10:
Preparing to
assemble tower
at Turbine 27.



Photo 11:
Tower sections
and nacelle
staged on the pad
for Turbine 26.



Photo 12:
Preparing to
raise blade
assembly at
Turbine 36.



Photo 13:
Looking east at
wetland that
crosses collector
line right-of-way
between
Turbines 36 and
37.



Photo 14:
Looking north at
wetland that
crosses collector
line right-of-way
between
Turbines 36 and
37.

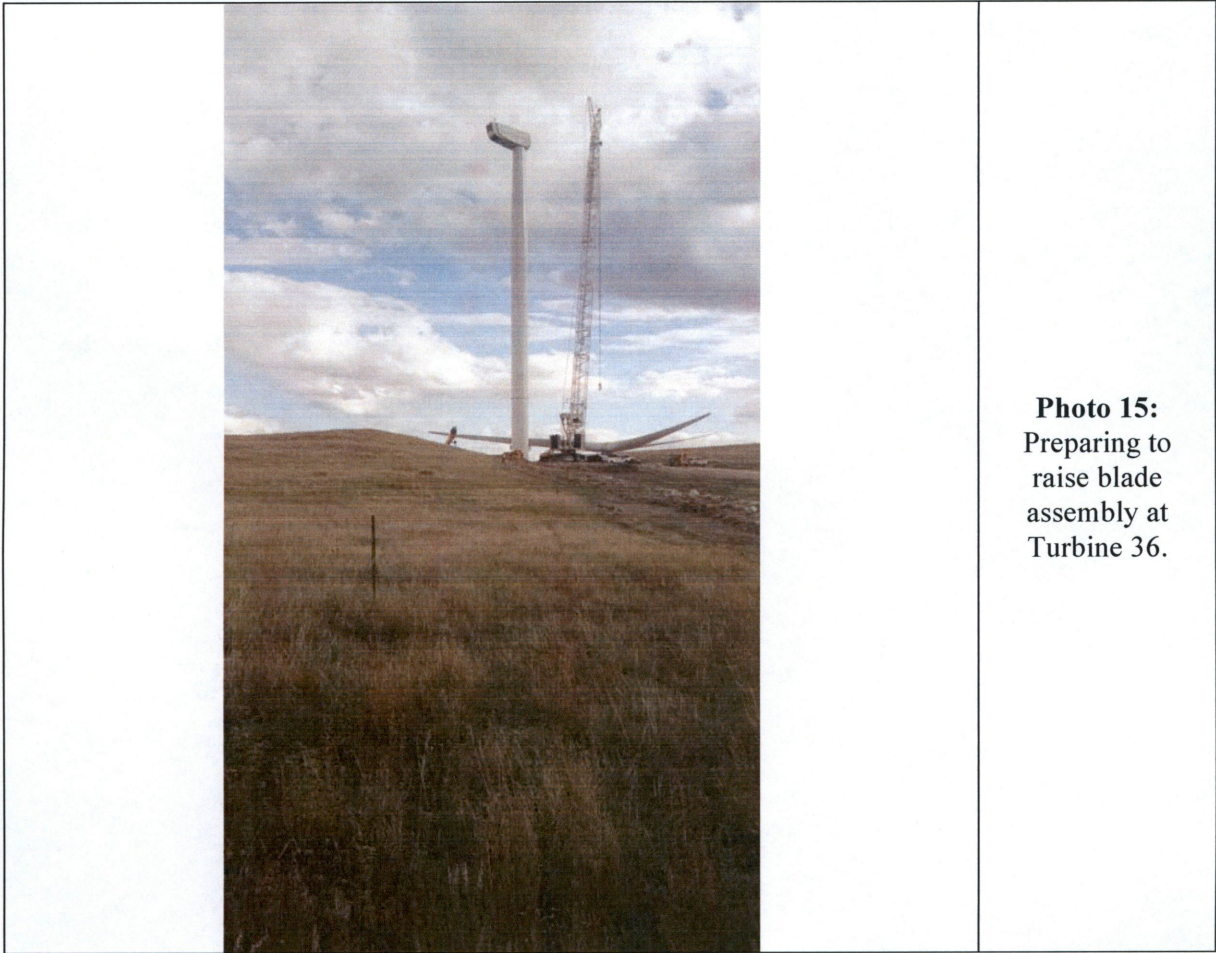


Photo 15:
Preparing to
raise blade
assembly at
Turbine 36.

Field Data

Thunder Spirit 6077-006

Date 9-10-15	Day Thursday
Hours Worked	
Working Days Charged	Total Working Days to Date
Reasons for Time not Charged	

Weather

Sunny

Engineering Staff

Josh Kadomas, HEI

Work in Progress

1455 Meet Chris Aepelbacher and Wells McGillfert on site. Received an update of project status.
1515 A temporary repeater tower for communication onsite was set on a cultural site west of tower 19 before it was marked by survey. Allece has already notified the PSC and consulted w/ Beaver Creek. Begin site tour.
1730 Finished tour. Some areas were noted to Chris + Wells where additional bioroll or silt fence would better protect existing vegetation. These did not appear to be storm water violations.

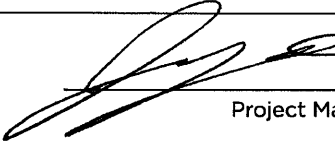
Contractor's Labor Force 1740 leave site

Chris Aepelbacher, Thunder Spirit - Allece
Wells McGillfert " "

Contractor's Equipment Summary

Project Visitors

55351


Project Manager Signature