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Archaeological Survey Report Summary

To	Emmons-Logan Wind, LLC
Subject	Emmons-Logan Energy Center Class III: Intensive Archaeological Resources Inventory Emmons and Logan Counties, North Dakota
From	AECOM
Date	November 5, 2018

Introduction and Purpose

Emmons-Logan Wind, LLC (Emmons-Logan Wind), a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC, proposes to construct the Emmons-Logan Wind Energy Center (Project), located approximately five miles (mi) (8.05 kilometer [km]) northeast of the city of Linton in Emmons and Logan Counties, in south-central North Dakota. The Project consists of up to 123 turbines, access roads, underground electrical collection systems, collection substations, an operations and maintenance (O&M) building, meteorological evaluation (Met) towers, a construction laydown area, and a batch plant.

The Project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (Commission) (Case No. PU-18-280); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under North Dakota Century Code (NDCC) 49-22-09 – Factors to be considered in evaluating application and designations of sites, corridors, and routes. The purpose of this investigation is to provide the necessary information for the SHSND review by confirming the presence or absence of archaeological sites within the Survey Corridor, as more particularly described below.

The Survey Corridor includes all areas within the Project site plan that may be permanently or temporarily affected during construction of the Project and is based on:

- The turbine layout dated October 9, 2018;
- The service road layout dated October 25, 2018;
- The electrical collection line route layout dated October 25, 2018;
- The meteorological (Met) tower layout dated June 7, 2018;
- The collection substation and switchyard layout dated October 25, 2018;
- The O&M building layout dated May 7, 2018;
- The batch plant area layout June 22, 2018;
- The construction laydown area layout dated June 22, 2018; and
- The crane path layout dated June 19, 2018.

For these Project facilities, AECOM surveyed:

- A 600 foot (ft) (182.88 meter [m]) diameter circular area centered on the proposed turbine locations;
- A 232 ft (70.7 m) corridor for the service roads;
- A 50 to 100 ft (15.24 m) corridor for the collection lines;
- A 600 ft (182.88 m) diameter circular area centered on the proposed Met tower locations;
- A 30 acre (ac) (2.0 hectare [ha]) area for the collection substation and switchyard;
- A 5 ac (2.0 ha) area for the O&M building;
- A 5 ac (2.0 ha) area for the batch plant; and
- A 20 ac (12.1 ha) area for the proposed construction laydown area.

These areas comprise the Survey Corridor, which includes 4122.7 ac (1668.4 ha).

Results

The literature review identified no previously recorded archaeological sites or site leads within the Survey Corridor.

During the Phase I Intensive Cultural Resource Survey, AECOM documented 69 archaeological sites including 20 Native American sites and 24 Native American isolated finds/site leads; three Euro-American abandoned farmsteads, seven Euro-American artifact scatters, and six Euro-American isolated finds; and nine rock piles of undetermined cultural affiliation. A total of 898 shovel test probes were completed in medium to high probability areas of the Survey Corridor with low ground surface visibility.

A survey for Sites of Religious and Cultural Significance to Tribes (SRCSTT) was also undertaken for the Project by Traditional Cultural Surveyors (TCS) from the Cheyenne River Sioux, Rosebud Sioux, Spirit Lake, Standing Rock Sioux, and Yankton Sioux Tribes. One hundred and forty-three SRCSTT were documented and recorded on North Dakota State Historic Preservation Office's (ND SHPO) Cultural Heritage Forms by AECOM on behalf of the participating tribes.

Recommendations

AECOM recommends avoidance of all cultural resources that are potentially eligible for listing on the National Register of Historic Places (NRHP), sites deemed culturally sensitive, or sites that have not been evaluated for eligibility following the guidelines outlined by the ND SHPO. For this investigation, Emmons-Logan has committed to avoiding effects to archaeological resources that could be considered archaeologically or culturally significant. In the absence of a formal evaluation of the significance of the identified archaeological resources, AECOM recommends that resources, with the exception of isolated finds, be avoided. It is AECOM's understanding that the current proposed infrastructure incorporates all recommended avoidance buffers. If the Project is redesigned in such a way that a resource cannot be avoided, AECOM recommends additional investigation that would constitute formal evaluation of site significance.

AECOM is not recommending avoidance for all 24 Native American isolated finds (**Table 1**), all six historic Euro-American isolated finds (**Table 2**), and all seven historic Euro-American artifact scatters (**Table 3**), as it was determined through pedestrian survey and shovel test probes that the areas contained low density with little to no potential for intact subsurface deposits. A buffer is also not recommended for two historic Euro-American farmsteads (32EM1176 and 32EM1175), as they were also determined not eligible for the NRHP.

Per the recommendation of the participating tribes, all SRCSTT should be considered eligible for the NRHP; avoidance is recommended.

Table 1: Native American Isolated Finds Not Recommended for Avoidance

32EMX1455	32EMX1456	32EMX1457	32EMX1459	32EMX1460	32EMX1461
32EMX1462	32EMX1463	32EMX1464	32EMX1465	32EMX1466	32EMX1467
32EMX1468	32EMX1472	32EMX1474	32EMX1475	32EMX1476	32EMX1477

32EMX1478	32EMX1480	32EMX1481	32EMX1482	32LOX64	32LOX65
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Table 2: Historic Isolated Finds Not Recommended for Avoidance

32EMX1469	32EMX1470	32EMX1471	32EMX1473	32EMX1479	32LOX66
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Table 3: Historic Scatters Not Recommended for Avoidance

32EM1167	32EM1168	32EM1171	32EM1172	32EM1173	32EM1174
32LO135					

AECOM is recommending a 25-foot avoidance buffer for one historic Euro-American farmstead (32EM1166).

For the rock piles of undetermined cultural affiliation, henceforth referred to as Unassociated Rock Piles (URPs), AECOM is recommending a 50-foot buffer on all nine of the documented URPs (**Table 4**).

Table 4: URPs Recommended for a 50-foot Avoidance Buffer

32EM1098	32EM1104	32EM1105	32EM1107	32EM1112	32EM1118
32LO120	32LO121	32LO122			

AECOM is also recommending a 50-foot buffer on 17 Native American sites (**Table 5**).

Table 5: Native American Sites Recommended for a 50-foot Avoidance Buffer

32EM1099	32EM1101	32EM1106	32EM1108	32EM1109	32EM1110
32EM1111	32EM1113	32EM1114	32EM1115	32EM1116	32EM1117
32EM1163	32EM1164	32EM1165	32EM1169	32EM1170	

AECOM is recommending a 100-foot buffer on three Native American sites (**Table 6**).

Table 6: Native American Sites Recommended for a 100-foot Avoidance Buffer

32EM1100	32EM1102	32EM1103
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If these sites and their associated avoidance buffers can be avoided during construction, then AECOM recommends a determination of *No Historic Properties Affected* as documented and mapped in the Class III: Cultural Resources Inventory report. If areas beyond the Survey Corridor are to be used during construction, AECOM recommends completion of an addendum Class III cultural resources survey to determine the presence or absence of any cultural resources within these areas. The Class III report will be submitted to ND SHPO and concurrence will be obtained prior to construction of the Project. Once the ND SHPO concurrence letter is received it will be submitted to the Commission.