

March 22, 2019

# Study Plan for Cultural Resources Level III Intensive Surveys for the Deuel Harvest North Wind Farm

Per the request of Invenergy LLC (INVENERGY), Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell, CONSULTANT) has prepared this scope of work for supplemental information and efforts for the proposed 310.1-megawatt (MW) Deuel Harvest North Wind Farm (Project).

Cultural resource efforts included in this scope of work assume no Federal Nexus exists for the Project. If a Federal Nexus were to be initiated for the review or permitting of the Project, additional levels of effort to evaluate the cultural resources for the Project would be developed.

## Level III Intensive Field Survey

INVENERGY has developed a Component Footprint which includes a buffer around most Project components. The buffers on Project components include potential turbine locations (250-foot radius), access roads (100-foot on either side of the centerline), collector lines (50-foot on either side of the centerline), and crane paths (50-foot buffer on either side of the centerline). Other Project components, such as the Project substations, the Operations and Maintenance building, and laydown areas, will not have buffers applied.

Burns & McDonnell has completed Level III intensive field survey of approximately 15% of the Component Footprint. This study plan includes completing Level III intensive field survey of the remaining 85% of the Component Footprint. Field efforts will focus on proposed turbine locations as the initial priority, with related Project infrastructure evaluated while in-route to turbine locations. Project infrastructure not associated with the direct access of a turbine will be evaluated last during the field survey. Burns & McDonnell assumes the area of the remaining 85% of the Component Footprint will not exceed 2,400 acres.

Historic archaeological sites will be mapped and documented in the field. If they have intact features or appear to have research potential, they may be recommended for avoidance. However, many historic archaeological sites in this region can be mitigated through archival research. If surface rock features such as cairns or tipi rings are identified, no shovel testing or other disturbance to the site area and features will occur. They will be recorded and photographed and recommended for avoidance. Shovel testing or coring may be used to delineate the vertical and horizontal limits of other types of sites investigated. Any cultural resources will be photo-documented and recorded with Global Position System (GPS) equipment with sub-meter accuracy. Archaeological sites will be documented on archaeological site forms from the South Dakota Archaeological Research Center. The goal of the surveys will be to identify these sites and assist in avoiding, minimizing, or mitigating direct impacts to significant cultural resources.



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#### Reporting

Geographic Information System (GIS) data detailing cultural resources locations recommended for avoidance will be compiled. An Intensive Survey Report for the complete Component Footprint will be prepared following guidelines established by the South Dakota State Historical Society (SHPO).

### **Unanticipated Discoveries Plan for Cultural Resources**

Burns & McDonnell will develop an Unanticipated Discoveries Plan for Cultural Resources. This Plan will include procedures and contact information for the Project in the event that construction activities result in the discovery of cultural resources or human remains. The draft, review, and final report delivery schedule for this document will mirror the schedule of the Level III Intensive Survey Cultural Resources Report.

## **Commitments to Schedule**

Below is a proposed implementation schedule for efforts included in Task 1.

| Task 1   | Due Date/<br>Anticipated Schedule |
|--|-----------------------------------|
| Complete cultural resource desktop review                                  | March 29, 2019                    |
| Initiate cultural resource field surveys                                   | April 1, 2019*                    |
| Complete cultural resource field surveys                                   | May 24, 2019*                     |
| Provide INVENERGY draft cultural resources report                          | June 24, 2019*                    |
| INVENERGY provide consolidated comments on draft cultural resources report | July 1, 2019*                     |
| Provide INVENERGY final cultural resources report                          | July 10, 2019*                    |

(\*) Cultural resource field surveys require no snow cover of the areas being evaluated. Schedule does not include delays associated with snow cover.