

# EXHIBIT S

## HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES

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## Introduction

This exhibit provides information about the proposed Facility's compliance with OAR 345-021-0010(1)(s), providing evidence to support a finding by the Council as required by OAR 345-022-0080. For this Exhibit the study area described in OAR 345-001-0010(2) and the study area described in OAR 345-01-0010(57) refer to the same areas and are defined as the area within the Facility site boundary and 0.5 mile outside the Facility site boundary.

Pursuant to OAR 345-021-0010(1)(s), information concerning the location of archaeological sites or objects may be exempt from public disclosure under ORS 192.502(4) or ORS 192.501(11). This information is marked as "confidential" in this exhibit and is being submitted separately. The Applicant requests that the Department and the Council keep this information confidential to the extent permitted by law.

In 2010, the Applicant completed a field survey for approximately 15,720 acres of lands within the Baseline Wind site boundary. Facility components will be located within areas where the field survey has occurred and will avoid resources identified. Should Facility components need to be located outside these areas, additional field survey will occur. As noted in Exhibit B and shown in Figure B1 and Figure B1a, there are a few areas where a portion of the Facility site boundary overlaps with a portion of the Montague Wind Power Facility site boundary. Figure S1 shows areas previously surveyed and areas where a field survey was completed for the Baseline Wind Energy Facility. Figure S2 shows the resources identified during the survey (note: this figure is confidential and not for public distribution). Specific information about these resources, including a thorough review of the background research, an environmental and cultural context, the survey methodology, resource forms, and maps showing the location of each resource, can be found in Attachment S1, which is also confidential and not for public distribution. The following sections support the requirements of OAR 345-02100010(1)(s).

### S.1 Resources Listed, or Eligible for Listing, on the National Register of Historic Places

*(A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the National Register of Historic Places;*

#### **RESPONSE**

Resources listed, or likely to be eligible for listing, on the NRHP reported to be within the Facility site boundary are listed in Table S1 and are discussed in sections that follow.

**Table S1: Eligible or Potentially Eligible Cultural Resources within the Facility Site Boundary**

Resource Name	Resource Description	Notes/Source
Oregon National Historic Trail	Historic trail	A segment of the ONHT runs through a portion of the site boundary SHPO (2008a) Several segments were investigated during survey of the Montague Wind Power Facility, and intact portions of the ONHT were not identified. The portions of the trail that have been investigated and identified are eligible for listing on the NRHP.

**Table S1: Eligible or Potentially Eligible Cultural Resources within the Facility Site Boundary**

Resource Name	Resource Description	Notes/Source
The Weatherford Barn	Historic building	Recorded by Startz (1987a). At the time of recordation (Startz, 1987a), it was very well maintained and still in use. This resource is eligible for listing on the NRHP.
Union Pacific Railroad	Historic railroad	This resource is undocumented.. The railroad follows a historic alignment and while it has not been documented, it should be considered a historic resource. It may be eligible for the NRHP.
35GM249	Archaeological site	Recorded by Sharpe et al. (2010).
35GM251	Archaeological site	Recorded by Sharpe et al. (2010).
1692-04	Archaeological site	Identified during Baseline Wind field survey (Ragsdale et al., 2011).
1692-07	Archaeological site	Identified during Baseline Wind field survey (Ragsdale et al., 2011).
1692-204	Archaeological site	Identified during Baseline Wind field survey (Ragsdale et al., 2011).
1692-206	Archaeological site	Identified during Baseline Wind field survey (Ragsdale et al., 2011).
1692-208	Archaeological site	Identified during Baseline Wind field survey (Ragsdale et al., 2011).
1692-211	Archaeological site	Identified during Baseline Wind field survey (Ragsdale et al., 2011).

## S.2 Archaeological Objects and Sites on Private Lands within the Field Survey Area

*(B) For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area;*

### **RESPONSE:**

ORS 358.905(1)(a) defines an archaeological object as an object, “(A) [i]s at least 75 years old; (B) [i]s part of the physical record of an indigenous or other culture found in the state or waters of the state; and (C) [i]s material remains of past human life or activity that are of archeological significance including, but not limited to, monuments, symbols, tools, facilities, technological by-products and dietary by-products.” ORS 358.905(1)(c)(A) defines an archaeological site as a “geographic locality in Oregon, including but not limited to submerged and submersible lands and the bed of the sea within the state's jurisdiction, that contains archaeological objects and the contextual association of the archaeological objects with: (i) [e]ach other; or (ii) [b]iotic or geologic remains or deposits.” Furthermore, according to the SHPO, archaeological sites in Oregon are defined as ten or more artifacts and/or the presence of an archaeological feature, whereas archaeological isolates consists of nine or less artifacts (SHPO, 2011b).

The cultural field survey area for the Facility is the area within the Facility site boundary. Within this area there are resources that have been identified during previous

investigations and resources that were found and evaluated by the Applicant to support the proposed Facility project.

In addition, there is one historic resource (the Hale Homestead Tree) which is listed as eligible on the Oregon Historic Sites Database within the Facility site boundary (Startz, 1987b). The Hale Homestead Tree once grew at this location (Startz, 1987b); however during the 2010 field survey, the Applicant's survey crews went to the location and discovered that the tree no longer exists. Because the tree no longer exists, it cannot be considered for the NRHP (Ragsdale et al., 2011). There are also four historic architectural resources (Utse Farmstead, 1692-202, 1692-22/23, and 1692-213) that are within the Facility site boundary. The Utse Farmstead was identified as part of the Montague Wind Power Facility project Iberdrola Renewables, Inc., 2010 by Sharpe et al. (2010). The others were recorded by Ragsdale et al. (2011).

All of these resources have been recommended as not eligible for the NRHP (Ragsdale et al., 2011; Iberdrola Renewables, Inc., 2010) and are not considered further in this exhibit pursuant to OAR 345-022-0090. As of September 2011, however, the Oregon SHPO had not yet concurred with these recommendations.

### **S.2.1 Previously Identified Sites within the Field Survey Area**

There is one potential archaeological site (the ONHT) and two previously recorded archaeological sites (35GM249 and 35GM251) within the field survey area.

### **S.2.2 Oregon National Historic Trail**

According to data on file with the SHPO, a segment of the ONHT ran through a portion of the site boundary (SHPO, 2008a). Several segments were investigated during a field survey of the Montague Wind Power Facility, and intact portions of the ONHT were not identified. If Facility components are located outside areas surveyed as part of the Montague Wind Power Facility, additional investigation will be required to determine whether intact portions of the ONHT are present and whether it retains integrity and contributes to the overall eligibility of the ONHT. The portions of the trail that have been investigated and identified are eligible for listing on the NRHP.

### **S.2.3 Site 35GM249**

Site 35GM249 is a previously identified site located within the Facility site boundary. It was recorded during the field survey for the Montague Wind Power Facility and consists of rock a historic-era, stacked rock feature or cairn located on a bedrock outcrop (Sharpe, 2009). The modern topographic map shows a grave on the same landform. However, the original recorders (Sharpe, 2009) conducted additional research that strongly indicates that the cairn is not a grave, but is likely rather a historic marker used by sheepherders who once occupied the area. Given the cairn's location on bedrock outcrop, it is also unlikely that a grave is located in the vicinity. The site has not been evaluated for the NRHP.

### **S.2.4 Site 35GM251**

Site 35GM251 is a previously identified site located within the Facility site boundary. It was recorded during the field survey for the Montague Wind Power Facility and consists of a historic homestead site dating from the late nineteenth to early twentieth century

(Sharpe et al., 2010; McClintock, 2009a). The site contains a historic debris scatter and four depression features. Although the site was originally recommended not eligible to the NRHP by the investigators, the SHPO lists the site as potentially eligible presumably because of the possibility that the features are the remains of one or more structures.

### **S.3 Archeological Sites Newly Identified within the Field Survey Area**

There were 19 archaeological sites identified during the field survey. Sites being recommended as potentially eligible on the NRHP are listed in Table S1.

#### **S.3.1 Site 1692-04 (Potentially Eligible)**

Site 1692-04 is a historic domestic artifact scatter situated within an active agricultural field on the north side of a shallow drainage. The site dates to the late nineteenth and early twentieth century. Over 200 artifacts were observed, including tin can fragments; ironstone ceramic fragments; ferrous metal items, such as harness hardware, stove parts, and square nails; various colors of glass fragments, including solarized glass; a fragment of a whetstone; and a shell fragment. Historic map research indicates that a structure was once located within the Facility site boundary, near a concentration of artifacts, and additional buried archaeological materials may be present that could not be fully assessed during the field survey. Although it has not yet been formally evaluated, the site appears to be potentially eligible for the NRHP.

#### **S.3.2 Site 1692-05**

Site 1692-05 is a historic domestic artifact scatter situated within an agricultural field on the east side of a gently sloping drainage. The site dates to the late nineteenth and early twentieth century. It consists of a light scatter of approximately 30 artifacts, including crockery and porcelain ceramic fragments; a fragment of leather; various colors of glass fragments, including solarized glass; and various metal items, such as sheet metal fragments, a cast iron wheel, and a cast iron trailer hitch. The site is not associated with any features, structures, or buildings, and it likely represents a single dumping episode situated on the edge of a property boundary. As such, it does not appear to be eligible for the NRHP.

#### **S.3.3 Site 1692-07 (Potentially Eligible)**

Site 1692-07 consists of a historic agricultural artifact scatter, a remnant concrete foundation of a multi-room structure, and a subterranean concrete structure. The site is situated in an agricultural field and a drainage. It dates from the late nineteenth through the twentieth century. Over 100 historic artifacts and modern materials were identified, including various pieces of farm equipment, a door hinge, colorless and amber glass fragments, metal fuel cans, 1-gallon cans, and 25- and 50-gallon drums, barbed wire, and galvanized pipe. The concrete foundation remains may be the remnants of a multi-roomed livestock barn, and the subterranean concrete structure is likely a cistern. Additional buried archaeological materials may be present that could not be fully assessed during the field survey. Although it has not yet been formally evaluated, the site appears to be potentially eligible for the NRHP.

**S.3.4 Site 1692-08**

Site 1692-08 is a sparse historic domestic artifact scatter situated in an agricultural field. The site dates to the late nineteenth and early twentieth century. Eighteen artifacts were identified, including ceramic fragments, a non-diagnostic piece of rubber, a trailer hitch, and several glass fragments of various colors, including solarized glass. The site is not associated with any features, structures, or buildings, and it likely represents a single dumping episode. The site does not appear to be eligible for the NRHP.

**S.3.5 Site 1692-10**

Site 1692-10 is a historic domestic and agricultural artifact scatter situated in a small dry drainage on the edge of an agricultural field. The site dates to the late nineteenth and early twentieth century. Approximately 34 artifacts were identified and included ceramic fragments; various colors of glass fragments, including cobalt and solarized glass; several cans, including a tobacco tin; and metal agricultural items such as chicken wire, barrel hoops, and barbed wire. Although it is in good condition, it consists of a sparse scatter that likely represents a single dumping episode. Furthermore, it lacks association with any features, structures, or buildings. The site does not appear to be eligible for the NRHP.

**S.3.6 Site 1692-21**

Site 1692-21 is a historic domestic and agricultural artifact scatter situated in the fork of two small drainages. It is partially in an agricultural field and spills over the edge of a ridge. The site dates from the late nineteenth century through the 1940s and consists of approximately 50 artifacts. Domestic artifacts include green, colorless, and brown glass and bottle fragments; a piece of decorative purple glass; earthenware fragments; a Dr. Lyons tooth powder tin, which dates anytime from the 1880s to the 1940s; and an Owens-Illinois medicine bottle. The remaining majority of the artifacts are agricultural and include remnant pieces of farm equipment whose functions cannot be determined due to the degraded nature of the objects, many fragmentary pieces of sheet metal, and other miscellaneous metal objects, such as a gas can, barrel hoops, and a wooden axle and wheel with metal fittings. The site is not directly associated with a structure or feature and suffers from erosion. It does not appear to be eligible for the NRHP.

**S.3.7 Site 1692-26**

Site 1692-26 is a historic domestic and agricultural artifact scatter situated on a slight northeast facing slope in an agricultural field. The site dates from the late nineteenth century through about 1940 and consists of approximately 30 artifacts. Artifacts include green, colorless, and solarized glass fragments; pieces of ceramic plates and cups; tin can fragments; farm equipment remnants; and an axe head. The site is a dump that is not associated with any features, structures, or buildings. The site does not appear to be eligible for the NRHP.

**S.3.8 Site 1692-27**

Site 1692-27 is a historic domestic and agricultural artifact dump and scatter situated in a drainage at the edge of an agricultural field. The site dates to roughly the mid twentieth century and consists of over 150 artifacts, including farm equipment remnants, electric heaters, car parts, barbed and hay wire, ironstone ceramic fragments, and machine made

bottle glass. While some of the artifacts identified may date to as early as the 1930s, others may date into the 1960s or later. The site appears to represent two or more dumping episodes from the mid twentieth century, and it is not associated with any features, structures, or buildings. The site does not appear to be eligible for the NRHP.

### **S.3.9 Site 1692-29**

Site 1692-29 consists of a piece of historic agricultural equipment and a related artifact scatter. The piece of agricultural equipment consists of a wooden wagon with minimal metal accessories, suggesting it dates to an early era, likely between 1881, when wheat production began in the area, until 1930, when tractors replaced wagons. About ten artifacts are scattered about the wagon and include miscellaneous wagon parts and two additional wagon wheels. The site is not associated with any features, structures, or buildings. Because agricultural equipment and wagons are ubiquitous across the landscape, the site has little potential to yield additional important information relating to the history of the area. The site does not appear to be eligible for the NRHP.

### **S.3.10 Site 1692-30**

Site 1692-30 consists of two pieces of historic agricultural equipment and a related artifact scatter north of a shallow drainage. The agricultural equipment consists of a wooden wagon, or farm truck, and an all-steel construction harrow. Both could date as early as circa 1890 and both were out of common use by the 1930s. A scatter of more than 10 pieces of various agricultural equipment parts are scattered around the farm equipment. The site is not associated with any features, structures, or buildings. Because such agricultural equipment is ubiquitous across the landscape, the site has little potential to yield additional important information relating to the history of the area. The site does not appear to be eligible for the NRHP.

### **S.3.11 Site 1692-36**

Site 1692-36 consists of four pieces of historic agricultural equipment and a related artifact scatter situated at the edge of an agricultural field on the western slope of a shallow, northward trending drainage. The agricultural equipment consists of the remnants of four all-wooden threshers. Harris Manufacturing Company is printed on at least one of the threshers. Harris Manufacturing Company was in business between 1857 and 1891; in 1891 the Harris Manufacturing Company merged with the Massey Company to become the Massey-Harris Company (Massey-Harris, 2010). More than 10 pieces of historic agricultural debris are scattered about the site. Modern agricultural equipment, including a hay feeder and a poured concrete watering trough, are also situated in the nearby area. Although it is in good condition, the site is limited to agricultural equipment and related artifacts that are not associated with any features, structures, or buildings. Because agricultural equipment is ubiquitous across the landscape, the site has little potential to yield additional important information relating to the history of the area. The site does not appear to be eligible for the NRHP.

### **S.3.12 Site 1692-200**

Site 1692-200 is a historic domestic artifact scatter situated in an active agricultural field on a slight south-facing slope. The site dates from the early to mid twentieth century and consists of more than 45 artifacts. Artifacts include scrap metal, ceramic fragments, bottle

fragments and unidentifiable fragments of aqua, colorless, solarized, and brown glass. The site consists of a relatively sparse artifact scatter and appears to represent a single dumping episode. It also lacks association with any features, structures, or buildings. The site does not appear to be eligible for the NRHP.

**S.3.13 Site 1692-201**

Site 1692-201 is a historic agricultural artifact scatter situated between two agricultural fields on the northern slope and bottom of a drainage. The site consists of primarily agricultural equipment and vehicles dating from 1910 through the 1940s. There are approximately 20 artifacts on-site, including seven trucks, one car, nine pieces of agricultural equipment, an animal coop, various pieces of sheet metal, and several bottle and glass fragments. The trucks all appear to date from the 1930s and 1940s, while the farm equipment dates from approximately 1910 to the 1930s. The site is not associated with any features, structures, or buildings and has little potential to yield additional important information relating to the history of the area. The site does not appear to be eligible for the NRHP.

**S.3.14 Site 1692-203**

Site 1692-203 is a historic agricultural artifact scatter located at the bottom of a drainage between two agricultural fields. The site consists of a dozen trucks and pieces of agricultural equipment from the 1930s. Although it is in good condition, the site is limited to agricultural equipment and work vehicles that are not associated with any features, structures, or buildings. It has little potential to yield additional important information relating to the history of the area. The site does not appear to be eligible for the NRHP.

**S.3.15 Site 1692-204 (Potentially Eligible)**

Site 1692-204 is a historic domestic artifact scatter and single prehistoric lithic flake situated in an active agricultural field. The historic portion of the site dates from the late-nineteenth to early twentieth century and consists of more than 100 artifacts. Artifacts include colorless, solarized, aqua, brown bottle, and unidentifiable glass fragments, as well as ceramics such as ironstone, porcelain, and crockery. Although the site is not currently known to be associated with any features, structures, or buildings, given the historic parcel configuration, it is situated in a prime location for a house. Additional buried archaeological materials may be present that could not be fully assessed during the field survey. Although it has not yet been formally evaluated, the site appears to be potentially eligible for the NRHP. The prehistoric isolated find identified at the site, however, does not appear to contribute to the site's eligibility.

**S.3.16 Site 1692-206 (Potentially Eligible)**

Site 1692-206 is a historic domestic artifact scatter situated in an active agricultural field. The site dates from the late 1870s to the early 1890s. It consists of over 200 artifacts representing a wide range of domestic class items. Artifacts include applied, standard, and improved-tooled finish bottles; glass tableware fragments; and colorless, solarized, aqua, brown, green, and yellow glass fragments; ceramics such as plain and molded ironstone, hand-painted porcelain, and crockery fragments; a ground-rim milk glass fragment, likely from the chimney of an oil lamp; the sole of a shoe; and several metal fragments. The Hale Homestead Tree once grew at the location (Startz, 1987b), but it was found to no longer

exist at the time of the field survey. The site appears to be associated with this important feature, and the survey could not confidently assess the significance of the site. Thus, although it has not yet been formally evaluated, the site appears to be potentially eligible for the NRHP.

### **S.3.17 Site 1692-207**

Site 1692-207 is a historic domestic artifact scatter located in an active agricultural field. The site dates from the late 1870s to the early 1890s and consists of over 50 historic artifacts. The artifacts include ceramics, such as porcelain, ironstone, crockery, and unidentified whitewares, as well as a wide variety of unidentifiable glass and bottle fragments, including colorless, aqua, brown, and decorative and utilitarian solarized glass. The site appears to be a limited use dump and is not associated with any features, structures, or buildings. The site does not appear to be eligible for the NRHP.

### **S.3.18 Site 1692-208 (Potentially Eligible)**

Site 1692-208 is a historic domestic artifact scatter situated on a slight, north-facing slope in an active agricultural field. The site dates from the late 1870s to the early 1890s and consists of over 80 historic artifacts. The artifacts include hand-painted porcelain, crockery, and unidentified whitewares, as well as a variety of glass and bottle fragments, including colorless, aqua, brown, and decorative solarized glass. Although not currently associated with any features, the historic map research indicates that a structure could have been located in the vicinity. Additional buried archaeological materials may be present that could not be fully assessed during the field survey. Thus, although it has not yet been formally evaluated, the site appears to be potentially eligible for the NRHP.

### **S.3.19 Site 1692-211 (Potentially Eligible)**

Site 1692-211 is a historic domestic artifact scatter situated on a slight southeast-facing slope within an active agricultural field. The site dates from the late nineteenth to the early twentieth centuries and includes at least 10 artifacts within the Facility site boundary, as well as a handful noted outside the Facility site boundary in the adjacent field. Artifacts include unidentified whiteware and ironstone ceramics and a variety of glass and bottle fragments, including colorless, aqua, and solarized glass. Although the site as currently recorded is quite sparse, it could represent the outer remnants of a larger, denser resource situated outside the Facility site boundary. The site also appears to be associated with a no-longer-extant structure that was once situated just outside the Facility site boundary. Additional buried archaeological materials may be present that could not be fully assessed during the field survey. Although it has not yet been formally evaluated, the site appears to be potentially eligible for the NRHP. However, the portion of the site within the Facility site boundary is not significant.

## **S.4 Archaeological Isolates Sites Found within the Field Survey Area**

A total of 23 archaeological isolates were recorded during the cultural resources survey. No previously identified isolates are known to be within the field survey area. Archaeological isolates cannot be considered for eligibility to the NRHP because, by definition, they are not associated with any sites, buildings, structures, objects, or districts, and so they do not meet the minimum NRHP criteria. However, isolates meet the definition of an archaeological

object as defined in ORS 358.905(1)(a), and therefore they must be considered under OAR 345-022-0090(B).

**Table S2: Archaeological Isolates Identified within the Facility Site Boundary.**

Isolate Number	Era	Resource Description
1692-01i	Prehistoric	1 utilized obsidian flake
1692-02i	Historic	1 solarized glass fragment
1692-03i	Prehistoric	1 CCS flake
1692-06i	Historic	2 solarized glass fragments
1692-11i	Prehistoric	1 obsidian biface fragment and 1 CCS flake
1692-13i	Prehistoric	1 CCS core, 2 CCS flake fragments, and 1 hammerstone
1692-14i	Prehistoric	1 utilized CCS flake fragment
1692-15i	Prehistoric	1 CCS flake and 1 CCS flake fragment
1692-16i	Historic	3 fragments of aqua and brown vessel glass, 1 stoneware fragment, and 1 agricultural equipment tooth
1692-17i	Historic	1 cultivator
1692-18i	Historic	1 enamelware pail
1692-19i	Historic	1 horseshoe
1692-20i	Prehistoric	1 utilized CCS flake fragment
1692-24i	Historic	3 ceramic fragments, 4 glass fragments, and 1 spike
1692-25i	Historic	1 mule shoe
1692-32i	Historic	1 blade grader and 1 wooden wagon
1692-35i	Prehistoric	1 CCS flake fragment
1692-37i	Prehistoric	1 CCS flake fragment
1692-205i	Prehistoric	1 edge modified CCS flake
1692-209i	Historic	2 solarized glass jug base fragments
1692-210i	Historic	1 solarized glass bottle fragment
1692-212i-a	Historic	1 wire nail and 1 machine cut square nail
1692-212i-b	Historic	1 machine cut square nail

## S.5 Archaeological Sites on Public Lands within the Field Survey Area

*(C) For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis areas:*

### **RESPONSE:**

There are no public lands within the field survey area.

## S.6 Significant Potential Impacts of Facility Construction and Operation on Historic, Cultural, and Archaeological Resources

*(D) The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following:*

## **S.7 Methodology**

*(i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in paragraphs (A), (B), and (C).*

### **RESPONSE:**

The sections that follow describe discovery measures for the resources identified in Sections S.3, S.4, and S.5. Discovery methods for resources identified for the Montague Wind Power Facility are described in Exhibit S (Section 5.1) of the Montague Wind Power Facility ASC.

## **S.8 Background Research/Desktop Analysis**

The Applicant's consultant, HRA conducted archival research at the Oregon SHPO in order to identify previously recorded cultural resources and cultural resource studies in and within 1 mile of the Facility site boundary. Using this information, as well as other documents and reports from the HRA library, the Oregon Historical Society, and the Gilliam County Historical Society, HRA developed an environmental, historic, and prehistoric context in order to determine what types of cultural resources might be located in the site boundary and where they might be situated. HRA also reviewed five historic map and data sets to identify the historic locations of structures, roads, rails, and trails in order to determine which areas have a higher probability for containing certain types of cultural resources.

## **S.9 Tribal Consultation**

On behalf of the Applicant, HRA contacted the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Confederated Tribes of the Warm Springs Reservation (CTWSR) by letter on August 12, 2011 to determine if they have concerns or information about cultural resources in the project vicinity. The letters were followed up by emails on August 22, 2011 to ensure the letter was received. Ms. Farrow Ferman of the CTUIR responded that same day that she had received the letter and was assigning the project to archaeologist Shawn Steinmetz for review. Ms. Bird of the CTWSR did not respond. On October 5, 2011, Mr. Steinmetz emailed HRA, stating that there are historic properties of religious and cultural significance identified by the CTUIR within the project area. HRA then telephoned and left a phone message for Mr. Steinmetz on October 28, 2011, asking for information about the properties. HRA also telephoned and left a phone message for Ms. Bird that same day. Neither phone call was returned. HRA again emailed Ms. Bird and Mr. Steinmetz on October 28 and November 3, 2011, and provided an updated Facility site boundary map and asked for information about significant resources. At the time this ASC was submitted, no additional responses have been received. However, HRA and the Applicant are in contact with the Tribes and continue to provide project information and updates on a regular basis.

## **S.10 Field Investigation**

Figure S1 shows the field survey area. At the request of the Applicant, HRA conducted field investigations of 15,719.2 acres of land where Facility components may be located to identify

cultural resources that could be affected by the project and to assess the project's potential to significantly impact them. The field survey was conducted over three sessions between August 31 and October 12, 2010. The crew consisted of 7 to 13 archaeologists and included two archaeologists from the CTUIR. In addition, approximately 3,179 acres within the Facility site boundary were previously surveyed for cultural resources in 2009 for the Montague Wind Project Facility (Sharpe et al., 2010).

The Facility field survey was designed to ensure compliance with Oregon State law pertaining to cultural resources (ORS 97 and 358) and to follow guidelines for identification of cultural resources provided by the Oregon SHPO (2007, 2008b). Transects were spaced 20 to 30 m (66 to 98 ft) apart. The standard interval was 30 m (98 ft), but a 20- or 25-m (66- or 82-ft) interval was also used in areas deemed to have a higher probability for cultural resources, based on the background research, historic map research, and conditions noted in the field. Shovel probes were also excavated in areas with low ground surface visibility but deemed to have a higher probability for cultural resources. All shovel probes were dug at 20-m (66-ft) intervals. When possible and warranted, radial shovel probes were dug at a distance of 5 m (16 ft) from positive shovel probes. In addition, as per Oregon SHPO guidelines (2007), two to four shovel probes were excavated up to 5 m (16 ft) from all prehistoric isolates identified on the ground surface. All soils were passed through 1/8th-inch mesh hardware screen. A total of 282 probes were excavated.

Survey and resource data was collected in several ways. All data was recorded using a Trimble® GeoXT™ GPS with a minimum horizontal accuracy of 1 m (3.3 ft). Survey and resource data was also marked on a set of project maps that showed all the field survey blocks on both a topographic map and a modern aerial. Survey data was also recorded on a standardized field survey block summary form, while resources were recorded on appropriate cultural resource forms. A hand-drawn scaled map was drawn for all archaeological sites. Finally, digital photographs were taken at each field survey block and resource location, and photograph numbers were recorded in a log book.

### **S.11 Survey and Inventory Results**

*(ii) The results of the discovery measures described in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.*

#### **RESPONSE:**

The results of the measures described in Section S.5 are discussed in the cultural resources survey report, which is included as Attachment S1 (confidential and not for public distribution). All methods followed standard practice, and there were no variations on the recommendations made by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying, and assessing the significance of resources.

The Applicant proposes a site certificate condition in the event that the Facility is changed or expanded beyond the areas surveyed for cultural resources (see Section S.15 for proposed site certificate conditions). If the project layout should change so that certain project elements are situated outside the cultural resources survey blocks, the Applicant will complete additional cultural resource surveys and submit appropriate information to the EFSC before construction begins.

### **S.12 Measures Designed to Prevent Destruction of Historic, Cultural, and Archaeological Resources**

*(iii) A list of measures to prevent destruction of the resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction.*

#### **RESPONSE:**

The background research and cultural resources survey resulted in the identification of three eligible or potentially eligible historic resources, 23 archaeological sites (21 found as part of the Facility specific field surveys and 2 previously recorded), and 23 archaeological isolates within the field survey area.

Facility components will be located within areas where a field survey has occurred and will avoid eligible and potentially eligible resources identified. Should Facility components need to be located outside these areas where field survey has been completed, additional field surveys will occur. The Applicant intends to avoid eligible or potentially eligible cultural resources. In addition, the Applicant will make reasonable attempts during micrositeing to avoid noneligible resources. The Applicant will implement the following protective measures prior to construction of the Facility to avoid impacts to cultural resources:

- No construction activities will occur within 98 ft of resources eligible or potentially eligible for the NRHP.
- NRHP-eligible and potential resources (with the 98-ft buffer) will be labeled on construction maps and drawings as “No Entry” areas. All construction contractors will be trained to avoid No Entry areas.
- If construction will occur within 200 ft of a NRHP-eligible or potentially eligible resource (102 ft from the buffer), a trained environmental monitor will be on hand to ensure the resource is not disturbed;
- Baseline Wind, LLC will develop an environmental awareness training for construction contractors. Construction workers will be required to be trained on the need to avoid No Entry areas and on procedures to follow if previously unidentified cultural properties, including Indian graves, are encountered during construction.
- If any previously unidentified cultural resource properties are encountered during construction, construction activities will cease in the immediate vicinity of the site pending evaluation by a qualified archeologist. The Applicant will notify the Department and SHPO of the find. If SHPO finds the resources to be significant, the Applicant will provide recommendations for mitigation measures such as avoidance or scientific data recovery.

### **S.13 Permit Application**

*(iv) A completed copy of any permit applications submitted pursuant to ORS 358.920.*

#### **RESPONSE:**

The Applicant has not submitted any permit applications to the Oregon SHPO, because subsurface testing has not occurred at any of the archaeological sites. Under OAR 736-051-0090(1)(a), permits are not required on private lands for exploratory excavation to

determine the presence of an archaeological site. Should the need arise to determine the NRHP eligibility of the unevaluated sites, or any newly identified, unevaluated sites, the archaeologist will apply for the necessary excavation permits from the SHPO.

#### **S.14 Proposed Monitoring Program**

*(E) The applicant's proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction and operation of the proposed facility.*

##### **RESPONSE:**

As proposed in Section S.12, the Applicant proposes to have monitors on-site during any construction activities occurring in areas within 200 ft of the cultural resources that are potentially eligible for the NRHP. The monitor will ensure that these resources are not affected by construction activities. It should be noted that the Oregon SHPO has not yet concurred with the eligibility recommendations listed in this document or discussed in the cultural resources report (Attachment S1). However, the eligibility status of the resources will be determined prior to construction, and the proposed monitoring plan will apply to all resources that are found eligible or potentially eligible for the NRHP.

#### **S.15 Proposed Site Certificate Conditions**

Similar to the conditions proposed by previously-approved wind energy facilities in the vicinity of the Facility, the Applicant proposes the following conditions:

##### **Condition 71**

*Prior to construction, historic, cultural, or archaeological eligible resources will be flagged and construction exclusion areas will be established and marked as "no entry areas." If construction activities occur within 200 feet of an eligible or potentially eligible resource a buffer areas of 30 meters will be established and marked in the field. A trained environmental monitor will be on hand to ensure the resource is not disturbed. The buffer will not extend into public road rights-of-way.*

##### **Condition 72**

*Prior to construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the Facility, the areas that would be disturbed during construction, and the areas that were surveyed to support the application. The certificate holder shall hire qualified personnel to conduct field investigations of all areas to be disturbed during construction that lie outside the previously-surveyed areas. The certificate holder shall provide a written report of the field investigations to the Department and SHPO for review and approval. If any potentially significant historic, cultural, or archaeological resources are found during the this additional field investigation, the certificate holder shall instruct all construction personnel to avoid the identified sites and implement appropriate measures to protect the sites, until such time the Certificate Holder has consulted with SHPO to determine their eligibility for listing on the NRHP. If SHPO determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance or data recovery, in consultation with the Department, SHPO, and other appropriate parties. The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department and SHPO that it has complied with archaeological resource protection requirements.*

**Condition 73**

*Prior to construction the Applicant shall ensure that a qualified archaeologist will develop instructional materials and the construction manager will ensure the training is given to all construction staff. The training will instruct construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource sites*

**Condition 74**

*The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the Facility until a qualified archaeologist (as defined in ORS 390.235) evaluates the significance of the find. The certificate holder shall notify the Department and SHPO of the find. If SHPO determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance or data recovery, in consultation with the Department, SHPO, and other appropriate parties. The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department and SHPO that it has complied with archaeological resource protection requirements.*

**S.16 Conclusion**

The information presented in this Exhibit demonstrates that no historic, cultural, or archaeological properties in the Facility site boundary have been listed on the NRHP, and consequently, the Facility will have no significant adverse impacts to historic, cultural or archaeological resources under OAR 345-022-0090(1)(a).

By implementing the measures described in the previous sections the Applicant has shown that the Facility will not result in significant adverse impacts to archaeological sites under OAR 345-022-0090(1)(b). The Facility will not result in significant adverse impacts to archaeological sites under OAR 345-022-0090 (1)(2) because there are no public lands within the Facility site boundary.

## S.17 References

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- Startz, Kathleen. 1987b. Oregon Inventory of Historic Properties: Historic Resources Survey Form for Hale Homestead/The Tree. On file at Oregon SHPO, Salem.



## Figures

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**Figure S1:** Historical, Cultural, and Archaeological Resources Survey Area

**Figure S2:** Historical, Cultural, and Archaeological Resources Survey Results  
*(Confidential and Not for Public Distribution)*



## **ATTACHMENTS**

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**Attachment S1: Cultural Resource Investigations for the Baseline Wind Energy Project, Gilliam County, Oregon** *(Confidential and Not for Public Distribution)*