

Final Request for Amendment #2 for the Wheatridge Wind Energy Facility

Prepared for



Prepared by



September 2018

This page intentionally left blank

Table of Contents

1.0	Introduction	1
1.1	Existing Site Certificate and Prior Amendments	1
1.2	Review Process under OAR 345-027-0051	1
2.0	Certificate Holder Information – OAR 345-027-0060(1)(a)	2
2.1	Name of the Facility	2
2.2	Name and Mailing Address of the Certificate Holder.....	2
2.3	Current Parent Company of Certificate Holder	2
2.4	Name and Mailing Address of the Individuals Responsible for Submitting the Request.....	2
3.0	Detailed Description of the Proposed Change – OAR 345-027-0060(1)(b)	3
3.1	Effect of Proposed Changes on the Project – OAR 345-027-0060(1)(b)(A)	4
3.2	Applicable Laws and Council Rules – OAR 345-027-0060(1)(b)(B).....	4
3.3	Location of the Proposed Change – OAR 345-027-0060(1)(b)(C).....	5
4.0	Division 21 Requirements - OAR 345-027-0060(1)(c).....	7
4.1	OAR 345-021-0010(1)(a) – Information about the Applicant and Participating Persons....	7
4.2	OAR 345-021-0010(1)(d) – Organizational Expertise.....	7
4.3	OAR 345-021-0010(1)(e) - Required Permits.....	8
4.4	OAR 345-021-0010(1)(f) - Materials Analysis	8
5.0	Site Certificate Revisions – OAR 345-027-0060(1)(d)	10
6.0	Other Standards and Permits – OAR 345-027-0060(1)(e).....	10
6.1	Applicable Division 22 Standards	16
6.1.1	OAR 345-022-0020 Structural Standard	16
6.1.2	OAR 345-022-0022 Soil Protection	17
6.1.3	OAR 345-022-0030 Land Use.....	18
6.1.4	OAR 345-022-0040 Protected Areas.....	20
6.1.5	OAR 345-022-0050 Retirement and Financial Assurance	22
6.1.6	OAR 345-022-0060 Fish and Wildlife Habitat.....	23
6.1.7	OAR 345-022-0070 Threatened and Endangered Species.....	24
6.1.8	OAR 345-022-0080 Scenic Resources	25
6.1.9	OAR 345-022-0090 Historical, Cultural and Archaeological Resources.....	25
6.1.10	OAR 345-022-0100 Recreation	26
6.1.11	OAR 345-022-0110 Public Services.....	27

6.1.12	OAR 345-022-0120 Waste Minimization	29
6.2	Applicable Division 24 Standards	30
6.2.1	OAR 345-024-0010 Public Health and Safety Standards for Wind Energy Facilities ..	30
6.2.2	OAR 345-024-0015 Siting Standards for Wind Energy Facilities.....	31
6.3	Other Standards and Laws.....	31
6.3.1	Noise Control Regulations (OAR 340-035-0035).....	31
6.3.2	Removal-Fill Law	32
6.3.3	Water Rights	32
7.0	Property Owners Located within or Adjacent to the Site of the Facility (OAR 345-027-0060(1)(f))	33
8.0	Conclusion.....	33

List of Tables

Table 1.	Standards and Laws Relevant to Proposed Amendment.....	11
Table 2.	Impacts by Habitat Category and Type Energy Storage.....	23

List of Figures

- Figure 1. Project Facilities Overview
- Figure 2. Energy Storage Schematic
- Figure 3. Energy Storage Site Layout

List of Attachments

Attachment 1. Arlington Landfill Information

Attachment 2. Redlined Site Certificate

Attachment 3. Facility Noise Analysis Memo

Attachment 4. **Confidential** Noise Analysis Results and Information

Attachment 5. Energy Storage Detailed Cost Estimate

Attachment 6. Example Emergency Action Plan

Attachment 7. Fire Department Responses

Attachment 8. Property Owner List

Acronyms and Abbreviations

ADR	Amendment Determination Request
ASC	Application for Site Certificate
dBA	A-weighted decibels
EFSC	Energy Facility Siting Council
FAA	Federal Aviation Administration
MW	megawatt
NEER	NextEra Energy Resources, LLC
OAR	Oregon Administrative Rules
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ORS	Oregon Revised Statutes
Project	Wheatridge Wind Energy Facility
RFA 2	Final Request for Amendment #2
RFA 3	Request for Amendment 3
UCDC	Umatilla County Development Code
Wheatridge	Wheatridge Wind Energy, LLC

1.0 Introduction

Wheatridge Wind Energy, LLC (certificate holder or Wheatridge) is submitting a Final Request for Amendment (RFA 2) for the Wheatridge Wind Energy Facility (Project). The purpose of RFA 2 is to take advantage of technological advances to add energy storage as a related and supporting facility to the wind energy facility.

The Project is a wind energy facility approved by the Energy Facility Siting Council (EFSC) with a capacity to generate up to 500 megawatts (MW) of electricity with up to 292 wind turbines. The Project has not yet been built; consistent with the conditions of the Site Certificate, construction will begin by May 24, 2020, and be completed by May 24, 2023. The Project is divided into two sections, Wheatridge West and Wheatridge East. Wheatridge West is located entirely within Morrow County, bisected by Oregon Highway 207, and is approximately 5 miles northeast of Lexington and approximately 7 miles northwest of Heppner. Wheatridge East is located approximately 16 miles northeast of Heppner, and includes land in both Morrow and Umatilla counties. Wheatridge West and Wheatridge East are connected via a 230-kilovolt transmission line (Intraconnection Line). Additional related and supporting facilities to the Project will include an electrical collection system, collector substations, meteorological towers, communication and supervisory control and data acquisition systems, operations and maintenance buildings, new or improved access roads, and temporary construction areas.

1.1 Existing Site Certificate and Prior Amendments

The Site Certificate for the Project was issued in April 2017 and became effective May 24, 2017. On May 17, 2017, the certificate holder provided notice, pursuant to Oregon Administrative Rules (OAR) 345-027-0100(2), to the Oregon Department of Energy (ODOE) of a transfer of ownership of the certificate holder. On June 14, 2017, the certificate holder filed a request for Transfer of the Wheatridge Wind Energy Facility Site Certificate; this was the first Request for Amendment (RFA 1). The First Amended Site Certificate (Site Certificate) for the Wheatridge Wind Energy Facility was approved in July 2017 and became effective August 11, 2017.

1.2 Review Process under OAR 345-027-0051

Energy storage was included in the Preliminary Request For Amendment 2, which also included amending the range of turbine specifications approved for the Project. However, due to the different amendment review paths for amending turbine specifications (Type B review process) and adding energy storage as a related and supporting facility (Type A review process) as approved by EFSC at the June 2018 Council Meeting, RFA 2 was bifurcated. Therefore, the addition of energy storage remained RFA 2 and the change in turbine specifications became Request for Amendment 3 (RFA 3). As approved by EFSC, RFA 2 will be processed according to the Type A review process, consisting of the rules outlined in OAR 345-027-0051(2).

2.0 Certificate Holder Information – OAR 345-027-0060(1)(a)

OAR 345-027-0060(1) To request an amendment to the site certificate required by OAR 345-027-0050(3) and (4), the certificate holder shall submit a written preliminary request for amendment to the Department of Energy that includes the following:

OAR 345-027-0060(1)(a) The name of the facility, the name and mailing address of the certificate holder, and the name, mailing address, email address and phone number of the individual responsible for submitting the request.

2.1 Name of the Facility

Wheatridge Wind Energy Facility

2.2 Name and Mailing Address of the Certificate Holder

Jesse Marshall

Wheatridge Wind Energy, LLC

FEW/JB

700 Universe Blvd.

Juno Beach, FL 33408

2.3 Current Parent Company of Certificate Holder

Matt Handel

NextEra Energy Resources, LLC

FEW/JB

700 Universe Blvd

Juno Beach, FL 33408

2.4 Name and Mailing Address of the Individuals Responsible for Submitting the Request

Mike Pappalardo

Environmental Manager

NextEra Energy Resources, LLC

3256 Wintercreek Drive

Eugene, OR 97405

Mike.Pappalardo@nexteraenergy.com

(541) 302-1345

3.0 Detailed Description of the Proposed Change – OAR 345-027-0060(1)(b)

OAR 345-027-0060(1)(b) A detailed description of the proposed change, including:

RFA 2 proposes to add energy storage within the site boundary adjacent to project substations. Wheatridge proposes a 20 MW energy storage site in Wheatridge East and 30 MW energy storage site in Wheatridge West. Energy storage allows for energy generated from a wind facility to be stored as available, and later deployed as needed, providing greater consistency of energy supply and the opportunity to respond to market demands. The specific location (footprint) of the energy storage systems relative to each substation has not yet been determined but would be within the approved micro-siting corridor and adjacent to the substation. Figure 1 shows the location of the energy storage systems relative to a substation in both Morrow and Umatilla counties. Figures 2 and 3 provide a site plan and typical arrangement of a 30-megawatt (MW) battery energy storage system, as well as connection into the substation and control house.

Each energy storage site will consist of lithium(Li)-ion batteries in a building (series of modular containers may also be used) as described in more detail below:

- For building enclosure, footprint of approximately 80 feet in length by 100 feet in width (20 MW) and 190 feet in length and 100 in width (30 MW) by 15 feet tall.
- Approximately eighteen inverters with associated step up transformers, each having a combined footprint approximately 8 feet by 4 feet and power rating for 2.7 mega-volt-ampere (MVA).
- Interconnection facilities including a control house, protective device, and power transformer. The actual design of energy storage, inverters and batteries may change, but the estimated project size will not exceed 5 acres. Battery containers and inverter skids will either be placed on an engineered grade or on poured concrete foundations, depending on site conditions and Morrow and Umatilla County Building Department requirements. Battery and inverter equipment will be electrically connected via a combination of above ground cable trays, underground conduit, and covered cable trenches. Site surfacing will remain primarily gravel.
- A typical control house measuring approximately 16 feet by 11 feet, with an external HVAC unit. One control house would be installed for the facility.
- If containers are installed, each container within the battery storage system will have its own skid-mounted power transformer and bi-directional inverter as shown in Figure 3. The bi-directional inverter allows energy to flow in or out of the battery to provide charge and

discharge. Power switches and relays will protect the system. No emergency generator or backup power system will be provided.

- Cooling units will be placed either on top of the building enclosure or containers or along the side.

This amendment request does not seek to modify construction equipment, construction schedule, or estimated construction work force levels. Operations and maintenance activities will remain the same as previously described with the exception of battery energy storage maintenance activities described below.

Site Certificate Conditions imposed on the Project will apply to the energy storage site and no new conditions are needed to comply with the standards.

3.1 Effect of Proposed Changes on the Project – OAR 345-027-0060(1)(b)(A)

OAR 345-027-0060(1)(b)(A) a description of how the proposed change affects the facility,

According to the Project’s Final Order (April 2017), EFSC has previously approved site certificates for wind energy facilities before the final layout has been decided, and before the actual impacts (such as habitat impacts) are known. EFSC has recognized the need for wind energy developers to have flexibility to “microsite” the final location of wind turbines and related infrastructure after issuance of a site certificate. Wind energy is not a steady source of power. It fluctuates depending on factors such as location, weather, and time of day. Whereas the Project substation transforms voltage from low to high values to connect to the Project interconnection transmission line as part of the distribution process, energy storage can smooth out the variability of energy flow, and store excess energy when demand is low in order to release it when demand is high. Therefore, the energy storage system will support the facility’s energy supply to the regional grid by stabilizing the wind energy resource to allow for better control of the Project’s energy distribution in response to market and customer demands.

Overall, the proposed change to the Project are typical to industry micrositing. The Project will be constructed and operated substantially in the same manner as previously approved by EFSC. Ultimately, the proposed changes will maximize the use of current technology to minimize impacts, while supporting renewable energy production in the region.

3.2 Applicable Laws and Council Rules – OAR 345-027-0060(1)(b)(B)

OAR 345-027-0060(1)(b)(B) a description of how the proposed change affects those resources or interests protected by applicable laws and Council standards, and

As demonstrated in Section 6, the proposed changes do not affect the resources or interests protected by applicable laws and EFSC standards in a substantially different way than approved by EFSC. Since the Site Certificate was issued, there has been no change to local, state, or federal law that would prohibit the changes requested in RFA 2. Compliance with applicable laws is integrated into the Site Certificate conditions, including conditions related to pre-construction habitat surveys,

noise analysis, setback verification, the National Pollutant Discharge Elimination System 1200-C permit, consultation with the Oregon Department of Fish and Wildlife (ODFW), the Oregon Department of Geology and Mineral Industries, and the Federal Aviation Administration (FAA) 7460-1 filings, among others.

With the proposed changes, the certificate holder can continue to comply with the Site Certificate conditions for the Project. Sections 4.0 and 6.0 further demonstrate how the proposed changes are consistent with EFSC's previous findings. The Site Boundary and micrositing corridors will not be changed; therefore, there are no new areas or resources that were not previously evaluated. The Project will be constructed and operated in substantially the same manner as already approved by EFSC.

3.3 Location of the Proposed Change – OAR 345-027-0060(1)(b)(C)

OAR 345-027-0060(1)(b)(C) the specific location of the proposed change, and any updated maps and/or geospatial data layers relevant to the proposed change.

A figure showing the location of energy storage sites is included as Figure 1. The two energy storage sites will be constructed adjacent to the Project substations and have a maximum permanent disturbance area within the micrositing corridors of up to 5 acres each. However, because they will be adjacent to the substations where temporary impacts are already anticipated, construction impacts from the energy storage sites will occur within the 5-acre disturbance area already analyzed and there will be no additional temporary impacts. Furthermore, because the proposed change in turbine specifications (see RFA 3) will allow Wheatridge to use fewer turbines to generate the same maximum generating capacity, permanent disturbance associated with the modified facility will be similar to or less than the disturbance presented in the ASC. Accordingly, the certificate holder anticipates that the maximum acres of permanent disturbance will be the same as outlined in the Final Order (171 acres of permanent disturbance) or less.

As noted in previous sections, the certificate holder is continuing to request micrositing flexibility for Project facilities previously identified in the Site Certificate (see Final Order on Amendment 1, p. 4): "The certificate holder requested flexibility to locate components of the energy facility and its related and supporting facilities within a micrositing corridor to allow adjustment of the specific location of components, while establishing outer boundaries of potential construction for purposes of evaluating potential impacts."

Wheatridge seeks to maintain the flexibility to construct and operate up to 269 turbines, with up to 500 MW total generating capacity along with related or supporting facilities, in accordance with the approved Site Certificate. RFA 2 includes a request to add flexibility to construct up to two battery energy storage systems. At this time, it is unlikely that battery systems would be installed if the 2.3 MW rated turbines are used, based on economic analysis. However, the specific turbines or combination of turbines have not yet been selected, and consistent with the flexibility built into the Site Certificate, could consist of a combination of turbines that is different from the specific examples that have been provided. The certificate holder will select among four routing options for the Intraconnection Line, with a maximum length of up to 31.5 miles, as follows:

- Option 1: Two Project Substations to Longhorn (see ASC, Exhibit C, Figure C-9)
 - This option would run from Substation 3 in Wheatridge East to Substation 1 in Wheatridge West and then to the proposed UEC/CB Strawberry substation, just to the west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The Intraconnection Line route would be 31.5 miles (50.5 kilometers) in length.
- Option 2: Three Project Substations to Longhorn
 - This option would run from Substation 3 in Wheatridge East to Substation 2b in Wheatridge West, then on to Substation 2a in Wheatridge West, and then to the proposed UEC/CB Strawberry substation, just west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The Intraconnection Line route would be 31.3 miles (50.3 kilometers) in length. Option 2 would only be selected if energy storage facilities are not constructed.
- Option 3: Two Project Substations to Stanfield (see ASC, Exhibit C, Figure C-10)
 - This option would run from Substation 1 in Wheatridge West to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The Intraconnection Line route would be 24.5 miles (39.4 kilometers) in length.
- Option 4: Three Project Substations to Stanfield
 - This option would run from Substation 2a in Wheatridge West to Substation 2b in Wheatridge West, and then to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The Intraconnection Line route would be 27.8 miles (44.7 kilometers) in length. Option 4 would only be selected if energy storage facilities are not constructed.

The Intraconnection Corridor is approximately 1,000-feet in width and includes all locations where the four transmission line route options would be located. Four transmission line route options range in length from 24.5 to 31.5 miles as described in the Final Order on the ASC (p. 13-14).

Options 2 and 4 would not be selected if energy storage facilities are included in the final design.

4.0 Division 21 Requirements - OAR 345-027-0060(1)(c)

OAR 345-027-0060(1)(c) References to any specific Division 21 information that may be required for the Department to make its findings.

4.1 OAR 345-021-0010(1)(a) – Information about the Applicant and Participating Persons

The certificate holder’s information, including contact information, is included in Section 2. Wheatridge is a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC (NEER). The full name and address of NEER is provided in Section 2.

No other participants are anticipated at this time, with the exception of potential third party permits that will be obtained by the construction firm selected to build the Project. Wheatridge anticipates that these third-party permits may include permits for obtaining aggregate and other construction materials, transporting materials to the site, and other building-related permits that are typically obtained immediately prior to construction activities.

4.2 OAR 345-021-0010(1)(d) – Organizational Expertise

The certificate holder is a wholly-owned, indirect subsidiary of NEER. As noted in RFA 1, NEER is headquartered in Juno Beach, Florida, and is the world’s largest generator of wind and solar renewable energy. NEER is a regionally diversified company with approximately 5,000 employees dedicated to the production of approximately 19,882 MW, from 175 facilities in 29 states and Canada. With more than 9,365 wind turbines in its fleet, NEER’s wind generation capacity totals more than 13,851 MW. NEER is also capable of generating more than 420 net MW of electricity from natural gas facilities, operates three nuclear power plants with a capacity of more than 2,700 MW, and operates more than 2,100 MW of solar energy. It is estimated that nearly 95 percent of the electricity produced by NEER comes from clean or renewable sources.

Along with its rate-regulated sister company, Florida Power and Light, NEER is a wholly owned subsidiary of NextEra Energy, Inc. (NYSE NEE). NEER Energy, Inc. is a Fortune 150 Company with a market capitalization of approximately 66 billion dollars. The financial strength of NEER and its parent company provides the company with the financial capital to self-finance and build up to 4 billion dollars of projects per year on its own balance sheet.

NEER’s energy storage team is leading the growth of the storage market with more than 106 MW of operating energy storage assets, with over 100 MW contracted for future delivery. Further, it is integrating another 100 MW of energy storage systems that are under late stage development or construction today. NEER has also signed Power Purchase Agreements (PPAs) for several of the largest solar plus storage projects in the United States: 10 MW/40 megawatt-hours (MWh) energy storage paired with 20 MW of solar under long-term contract with Salt River Project and currently operating in Arizona; 30 MW/120 MWh storage project paired with 100 MW of solar under long-term contract with Tucson Electric Power and scheduled for construction in 2019; 50 MW/200

MWh energy storage paired with 200 MW of solar under long-term contract with NV Energy and scheduled for construction in 2020; and 25 MW/100 MWh energy storage paired with 100 MW of solar under long-term contract with NV Energy and scheduled for construction in 2021. There have been no citations for the operating facility.

Within Oregon, NEER subsidiaries (FPL Vansycle, LLC and FPL Energy Stateline II) constructed, and now own and operate, 186 turbines, with a total peak generating capacity of 123 MW at the Stateline 1 and 2 wind energy facilities, and 43 turbines with a total peak generating capacity of 99 MW at the Stateline 3 Wind Energy Facility. FPL Vansycle, LLC and FPL Energy Stateline II were permitted through the EFSC process, and were issued a site certificate with amendments under the name Stateline Wind Project.

Through this relationship, the certificate holder's management team and the NEER family of companies have deep regional expertise, derived over years of successfully permitting and operating hundreds of MWs of wind energy projects in the Oregon. NEER employees have deep local ties to the communities we operate in, and a solid history of understanding local economic development, permitting, environmental concerns and compliance with the various conditions stipulated within an EFSC site certificate.

This said, based on its team's vast experience and the parent company's portfolio as the largest provider of renewable energy in the world, the certificate holder will select qualified contractors, engineers, and manufacturers with experience in the wind industry. These contractors, engineers, and manufacturers will comply with the Site Certificate conditions adopted by EFSC.

At this point in time, the certificate holder has not selected a turbine manufacturer for the Project's wind turbines, or a specific contractor to construct the Project. The certificate holder will comply with the Organizational Expertise conditions of the Site Certificate, which require notification to ODOE of the identify and qualifications of the major design, engineering and construction contractor(s) for the facility.

4.3 OAR 345-021-0010(1)(e) - Required Permits

Exhibit E of the ASC identified the federal, state, and local government permits related to the siting of the Project, which were incorporated into Site Certificate conditions as necessary. The proposed changes do not require any new permits or any new Site Certificate conditions for permits that were not previously considered by EFSC.

4.4 OAR 345-021-0010(1)(f) - Materials Analysis

The energy storage sites (a 30MW site and a 20MW site) will use materials previously identified in the ASC and typical to construction (i.e., steel, concrete, gravel). Quantities of these materials will be small in comparison to the quantities previously estimated for the entire facility. The energy storage sites also will use new materials consisting of the lithium-ion batteries. The following materials are anticipated depending on what type of enclosure is used for the batteries (either a building or containers):

- **Steel Containers** - The amount of steel will vary depending on the type and configuration of the energy storage system.
- **Concrete** - Foundations are assumed to require approximately 500 cubic yards of concrete.
- **Water** – Constructing the energy storage facility will require approximately 12,500 gallons of water. The water source will remain the same as previously described.
- **Gravel** - A maximum of 10 acres of the energy storage area will be graveled to a depth of 6 inches, using 5,200 tons of gravel. The gravel source will remain the same as previously described.
- **Batteries** - Lithium-ion system will require regular change out of batteries as they degrade over time at a rate depending on usage. For example, a battery that is cycled or used more often will degrade faster than one that is used less often. It is assumed that conservatively the battery will need to be replaced every 10-15 years, or 2-3 times over the life of the Facility (30 years).

For the replacement of batteries during operation, the certificate holder will follow the handling guidelines of 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration related to the shipment of lithium-ion batteries. The regulations, among other thing, include requirements for the:

- Prevention of a dangerous evolution of heat;
- Prevention of short circuits;
- Prevention of damage to the terminals; and
- Prevention of contact with other batteries or conductive materials.

Licensed third party battery suppliers will be responsible for transporting batteries to and from the Project in accordance with applicable regulations, as required through their licensure. Spent batteries will be disposed at a facility permitted to handle them in compliance with applicable Resource Conservation and Recovery Act and Toxic Substances Control Act regulations administered by the U.S. Environmental Protection Agency or the Oregon Department of Environmental Quality. Adherence to the requirements and regulations (including personnel training, safe interim storage, and segregation from other potential waste streams) minimizes the potential for safety hazards related to the transport, use, or disposal of batteries. The Chemical Waste Management facility in Arlington, Oregon (“Arlington Landfill”) holds a permit under the Resource Conservation and Recovery Act (RCRA) Part B as well as the Toxic Substances Control Act (TSCA). The landfill, which is regulated by EPA Region X and the Oregon Department of Environmental Quality, is licensed to handle hazardous materials, including transportation and disposal of hazardous wastes. See Attachment 1 for a fact sheet describing the Arlington Landfill’s chemical waste disposal capabilities.

5.0 Site Certificate Revisions – OAR 345-027-0060(1)(d)

OAR 345-027-0060(1)(d) The specific language of the site certificate, including conditions, that the certificate holder proposes to change, add or delete through the amendment.

A red-lined Site Certificate is included as Attachment 2. Although no changes to conditions are required, with the addition of the energy storage facility, the Council may determine that clarification of certain existing conditions is helpful as referenced in RFA 2. The applicant proposes two changes to the Site Certificate:

- In Section 3.2 of the Site Certificate, energy storage will be added as a related or supporting facility.
- In Section 3.2 of the Site Certificate, Intraconnection Line and substation Options 2 and 4 will not be selected if energy storage is included in the final facility design.

6.0 Other Standards and Permits – OAR 345-027-0060(1)(e)

OAR 345-027-0060(1)(e) A list of the Council standards and all other laws - including statutes, rules and ordinances - applicable to the proposed change, and an analysis of whether the facility, with the proposed change, would comply with those applicable laws and Council standards. For the purpose of this rule, a law or Council standard is “applicable” if the Council would apply or consider the law or Council standard under OAR 345-027-0075(2).

A list of statutes, administrative rules, and local government ordinances relevant to Site Certificate issuance for the facility was provided in Exhibit CC of the Application for Site Certificate. No additional statutes, rules, or ordinances need to be added based on inclusion of the energy storage facility. Specifically as requested by ODOE, the Oregon Community Right to Know Act was previously addressed (ORS 453; OAR Chapter 837, Divisions 85 and 95). The Oregon Fire Code division of Chapter 837 was inadvertently omitted from Exhibit CC but should have been included (OAR Chapter 837, Division 40) as it is applicable to the facility as a whole, including energy storage. Oregon Public Utility Commission requirements are addressed in Site Certificate condition OPR-TL-01 (OAR Chapter 860, Division 024). These requirements address safety standards for the transmission line as well as related or supporting facilities including the energy storage component. No new requirements are triggered by the inclusion of energy storage.

EFSC standards relevant to RFA 2 include Division 22 (General Standards for Siting Facilities) and Division 24 (Specific Standards for Siting Facilities). Division 23, which applies to non-generating facilities, does not apply to wind power generating facilities. Similarly, inapplicable provisions of Division 24 (e.g., standards applicable to gas plants, gas storage, non-generating facilities) are not discussed. The modifications proposed to the Project do not alter the certificate holder’s ability to comply with EFSC’s earlier findings in the Site Certificate. The primary purpose of RFA 2 is to take advantage of technological advances in energy storage technology. The Site Boundary (also referred

to as micro siting corridor) will not be changed; therefore, there are no new areas or resources (such as different habitat types) to consider that were not previously evaluated by EFSC. Ultimately, the Project will be constructed and operated in the same manner as previously approved by EFSC which imposed conditions, as necessary, that take into consideration micro siting needs and public and reviewing agencies comments. Table 2 identifies EFSC Standards and laws reviewed as part of RFA 2, their applicability, and the Site Certificate conditions that govern Project compliance for each standard.

Table 1. Standards and Laws Relevant to Proposed Amendment

Standard	Applicability & Compliance	Related Site Certificate Condition(s)
OAR 345-022-0010 Organizational Expertise	Applicable and complies. There is no proposed change to organizational expertise. The Wheatridge management team and the NEER family of companies have deep regional expertise, derived over years of successfully permitting and operating hundreds of MWs of wind energy projects in the Oregon and hundreds of MWs of energy storage projects across the US. See section 4.1 for accompanying analysis.	GEN-OE-01: Responsibility of non-compliance GEN-OE-02: Report of site certificate violations GEN-OE-03: Report of change in corporate structure PRE-OE-01: Notification of contractor identities PRE-OE-02: Notification of construction manager PRE-OE-03: Compliance of construction workers PRE-OE-04: Notification of non-surveying activities PRE-OE-05: Proof of aggregate source and county permits PRE-OE-06: Proof of third party approvals and permits GEN-GS-01: Commencement of construction GEN-GS-02: Completion of construction GEN-GS-03: Compliance during all phases GEN-GS-04: Permission to construct GEN-GS-05: Notification of environmental impacts GEN-GS-06: Inclusion of all representations GEN-GS-07: Vegetation restoration GEN-GS-08: Construct to prioritize human safety GEN-GS-09: Notification of foundation changes GEN-GS-10: Notification of other geological observations GEN-GS-11: Notification of new owners OPR-GS-01: Submission of legal description
OAR 345-022-0020 Structural Standard	Applicable and complies. See Section 6.1.1, which includes updated facility information regarding climate change.	GEN-SS-01: Compliance with building codes PRE-SS-01: Geological investigation reporting PRE-SS-02: Investigation of active faults PRE-SS-03: Investigation of slope instability PRE-SS-04: Investigation of loess soil
OAR 345-022-0022 Soil Protection	Applicable and complies. See Section 6.1.2. There will be two energy storage sites, but total maximum permanent disturbance will be similar to or less than analyzed in ASC.	PRE-SP-01: SPCC construction plans PRE-SP-02: Restoration of agricultural soils PRE-SP-03: Septic system permitting OPR-SP-01: Prevention of erosion, soil disturbance CON-SP-01: Erosion and Sediment Control Plan (ESCP)

Table 1. Standards and Laws Relevant to Proposed Amendment

Standard	Applicability & Compliance	Related Site Certificate Condition(s)
		<p>CON-SP-02: Best management practices to be included in ESCP</p> <p>PRO-SP-01: Submission of operational SPCC</p>
<p>OAR 345-022-0030 Land Use</p>	<p>Applicable and complies. See Section 6.1.3. Energy storage is a related and supporting facility as part of the wind energy facility which is a conditional use in the Exclusive Farm Use zone.</p>	<p>GEN-LU-01: Compliance with county setbacks</p> <p>GEN-LU-02: County road permits and standards</p> <p>GEN-LU-03: Meteorological tower requirements</p> <p>GEN-LU-04: Usage of minimum land area</p> <p>GEN-LU-05: Blending with natural surroundings</p> <p>GEN-LU-06: Micro siting to minimum road/highway setbacks</p> <p>GEN-LU-07: Blending of O&M building</p> <p>GEN-LU-08: Best management of access roads</p> <p>GEN-LU-09: Notification of project infrastructure locations</p> <p>GEN-LU-10: Delivery of annual report</p> <p>PRE-LU-01: Obtain local permitting</p> <p>PRE-LU-02: Obtain CUP</p> <p>PRE-LU-03: Preparation of Weed Control Plan</p> <p>PRE-LU-04: Recording of a Covenant Not to Sue for Morrow County</p> <p>PRE-LU-05: Consultation with landowners</p> <p>PRE-LU-06: Identification of construction traffic concerns</p> <p>PRE-LU-07: Obtaining county zoning permits</p> <p>PRE-LU-08: Installation of gates and signs to private access roads</p> <p>PRE-LU-09: Recording of a Covenant Not to Sue for Umatilla County</p> <p>OPR-LU-01: Submission of as-built surveys for construction phases</p> <p>OPR-LU-02: Restoration of disturbed areas</p> <p>OPR-LU-03: Completion of final retirement plan</p> <p>OPR-LU-04: Preparation of Operating and Facility Maintenance Plan</p> <p>OPR-LU-05: Submission of as-built changes</p> <p>OPR-LU-06: Retirement restoration activities</p> <p>CON-LU-01: Minimization of footprint</p> <p>CON-LU-02: Installation of bird deterring devices</p> <p>CON-LU-03: Installation of underground cable system</p>
<p>OAR 345-022-0040 Protected Areas</p>	<p>Applicable and complies. See Section 6.1.4. The proposed changes do not modify EFSC's</p>	<p>N/A</p>

Table 1. Standards and Laws Relevant to Proposed Amendment

Standard	Applicability & Compliance	Related Site Certificate Condition(s)
	previous finding for protected areas.	
OAR 345-022-0050 Retirement and Financial Assurance	Applicable and complies. See Section 6.1.5. With the proposed changes, the Certificate Holder is still able to restore the site to a useful, nonhazardous condition following permanent cessation of construction or operation of the Project.	GEN-RF-01: Prevention of non-restorable site PRE-RF-01: Letter of credit to restore site to non-hazardous condition PRE-RF-02: Letter of credit naming State as payee RET-RF-01: Compliance with retirement plan RET-RF-02: Retirement of facility upon cessation of activities
OAR 345-022-0060 Fish and Wildlife Habitat	Applicable and complies. See Section 6.1.6. Proposed changes will be within existing site boundary in areas surveyed for fish and wildlife habitat as documented in Exhibit P of the ASC. The Habitat Mitigation Plan will be finalized after final design per Condition PRG-FW-04.	GEN-FW-01: Speed limit requirement GEN-FW-02: Compliance with Avian Power Line Interaction Committee designs PRE-FW-01: Confirmation of habitat categories, nests via habitat survey PRE-FW-02: Implementation of Wildlife Monitoring and Mitigation Plan PRE-FW-03: Flagging of environmentally sensitive areas PRE-FW-04: Approval of Habitat Mitigation Plan PRE-FW-05: Approval of Revegetation Plan CON-FW-01: Cease of construction during mule deer winter range CON-FW-02: Buffer zones for nest sites CON-FW-03: Environmental training by professional CON-FW-04: Appointment of on-site environmental inspector
OAR 345-022-0070 Threatened and Endangered Species	Applicable and complies. See Section 6.1.7. The Project will be constructed within the approved site boundary where impacts to T&E species have already been reviewed.	PRE-TE-01: Determination of WAGS boundaries PRE-TE-02: Implementation of Wildlife Monitoring and Mitigation Plan for WAGS PRE-TE-03: Avoidance of Laurent's milkvetch impacts
OAR 345-022-0080 Scenic Resources	Applicable and complies. See Section 6.1.8. The proposed changes do not modify EFSC's previous finding for Scenic areas.	GEN-SR-01: Reduction of lighting facility visual impacts GEN-SR-02: Minimization of visual impacts
OAR 345-022-0090 Historic, Cultural and Archaeological Resources	Applicable and complies. See Section 6.1.9. Surveys were conducted for the site boundary and identified	PRE-HC-01: Submission of final design PRE-HC-02: Marking of buffer areas PRE_HC-03: Training by qualified archeologist CON-HC-01: Flagging of 200ft avoidance buffer

Table 1. Standards and Laws Relevant to Proposed Amendment

Standard	Applicability & Compliance	Related Site Certificate Condition(s)
	resources will be protected per conditions.	CON-HC-02: Work cease due to historical find
OAR 345-022-0100 Recreation	Applicable and complies. See Section 6.1.10. The proposed changes do not modify EFSC's previous finding for recreation areas.	N/A
OAR 345-022-0110 Public Services	Applicable and complies. See Section 6.1.11. Existing conditions apply to the Project which will include the energy storage sites.	<p>GEN-PS-01: Coordination with solid waste handler</p> <p>GEN-PS-02: Installation of security measures</p> <p>GEN-PS-03: Fire prevention and response training</p> <p>PRE-PS-01: Preparation of Traffic Management Plan</p> <p>PRE-PS-02: Road Use Agreements with counties</p> <p>PRE-PS-03: Access road and private road modification approvals</p> <p>PRE-PS-04: Submission of Notice of Proposed Construction of Alteration</p> <p>PRE-PS-05: Preparation of Emergency Management Plan</p> <p>PRE-PS-06: Development of health and safety plan</p> <p>PRE-PS-07: Assurance of first aid/CPR/AED personnel</p> <p>CON-PS-01: Waste management plan protocols</p> <p>CON-PS-02: Establish on-site security</p> <p>CON-PS-03: Assurance of fall, high angle, confined space trained personnel</p> <p>CON-PS-04: Usage of concrete pads, nonflammable ground cover</p> <p>CON-PS-05: Maintenance of non-vegetated area</p> <p>PRO-PS-01: Fall protection/tower rescue training</p> <p>PRO-PS-02: Submission of site plan to fire protection officials</p> <p>PRO-PS-03: Assurance of current first aid/CPR/AED personnel</p> <p>OPR-PS-01: Discharge of wastewater</p> <p>OPR-PS-02: On-site well water usage</p> <p>OPR-PS-03: Implementation of waste management plan</p> <p>OPR-PS-04: Current contact information for personnel</p>
OAR 345-022-0120 Waste Minimization	Applicable and complies. See Section 6.1.12. The proposed changes are not anticipated to substantially increase the amount of solid waste and wastewater generated by the Project.	<p>PRE-WM-01: Minimum waste management plan requirements</p> <p>PRE-WM-02: Confirmation of no surface/ground/drinking water impacts</p> <p>CON-WM-01: Requirements of off-site soil disposal</p> <p>CON-PS-01: Construction Waste Management Plan</p>

Table 1. Standards and Laws Relevant to Proposed Amendment

Standard	Applicability & Compliance	Related Site Certificate Condition(s)
OAR 345-024-0010 Public Health and Safety Standards for Wind Energy Facilities	Applicable and complies. See Section 6.2.1. NEER family of companies has expertise, derived over years of successfully operating hundreds of MWs of wind energy projects as well as energy storage.	GEN-WF-01: Following handling instructions GEN-WF-02: Notification of accidents/failures CON-WF-01: Installation of step-up transformers CON-WF-02: Maintenance of self-monitoring devices OPR-WF-01: Assurance of operation security fencing and gates PRE-PS-04: FAA and ODA aeronautical studies and determinations.
OAR 345-024-0015 Siting Standards for Wind Energy Facilities	Applicable and complies. See Section 6.2.2. The Project is being designed to reduce cumulative adverse environmental effects.	N/A
OAR 345-024-0090 Transmission Lines	Not Applicable. There will be no changes to the transmission line as part of RFA 2.	GEN-GS-12: Specification of corridor
OAR 340-035-0035 Noise	Applicable. See section 6.3.1 and Attachments 3 and 4. Noise levels generated by the Project are anticipated to be similar to previously modeled levels.	PRE-NC-01: Final facility design noise analysis and noise waiver if applicable. CON-NC-01: Measure to reduce noise impacts during construction OPR-NC-01: NRO mode turbines operating noise level documentation. OPR-NC-02: Certificate Holder to maintain a noise complaint response system. OPR-NC-03: Certificate holder will provide a monitoring plan for noise levels in response to a noise complaint.
Removal-Fill Law	Applicable. See section 6.3.2. A removal-fill permit is not needed for the Project because the Project will not temporarily or permanently impact waters of the state.	N/A
Water Rights	Applicable. See section 6.3.3. There will be the same water volumes and sources as in the ASC.	N/A

6.1 Applicable Division 22 Standards

6.1.1 OAR 345-022-0020 Structural Standard

EFSC previously found that the Project complies with the Structural Standard. The Structural Standard generally requires EFSC to evaluate whether the applicant has adequately characterized the potential seismic, geological and soil hazards within the Site Boundary, and that the certificate holder can design, engineer and construct the Project to avoid dangers to human safety from these hazards. The certificate holder provided information regarding the seismic characteristics within the Site Boundary, as well as an assessment of seismic and geologic hazards and other requirements of the Structural Standard in Exhibit H of the ASC. In addition, as required under OAR 345-021-0010(1)(h)(B), the certificate holder has committed to conducting a site-specific pre-construction geotechnical investigation to review and assess potential seismic, geologic, and soil hazards associated with construction of the Project. Site-specific geotechnical work will include information sufficient to support design and construction of the energy storage system locations in addition to the tower foundations, substations and O&M building sites. The certificate holder has also committed to modifying the Project layout and construction requirements as needed, based on the results of the site-specific geotechnical investigation.

The energy storage sites will be in the approved micro-siting corridors (the Site Boundary); therefore, areas that were assessed in Exhibit H of the ASC still remain valid. The most up-to-date building and structural codes, reflecting the most up to date methodologies and definitions of the ground motions used for seismic design, will be used during the final design and construction of the Project. Land disturbing activities associated with Project construction will be mitigated through reseeded and restoration, as per the conditions stipulated in the Site Certificate. Additionally, best management practices will be implemented through the National Pollutant Discharge Elimination System 1200-C permit.

From a structural perspective, the Project is also being designed to withstand non-seismic geologic hazards. As such, the Project should be able to withstand the potential for changes in climatic conditions (e.g., increased rainfall or temperature changes that could cause geological changes). Structurally, the basalt bedrock present over most of the Project Area is generally competent and free of existing landslides. No significant landslides were observed during geotechnical investigations conducted to-date, as documented in Exhibit H of the ASC. It is highly unlikely that the Project's underlying structural geology will change during the foreseeable future, and therefore, it is also unlikely that increased rainfall or temperature changes will cause significant geological changes that could impact the Project. Consequently, the risks to the environment and human safety by non-seismic geologic hazards that could be caused by potential changes in climatic conditions are generally considered to be small. In addition, Wheatridge (an indirect subsidiary of NEER who has experience in operating wind facilities in Oregon) will have an Emergency Action Plan for the Project, which will be updated annually in case an emergency event does occur.

The proposed changes do not affect the certificate holder's ability to design, engineer, and construct the Project to avoid dangers to human safety and the environment that are presented by seismic hazards affecting the Project Area. EFSC adopted Site Certificate conditions to address the potential for seismic and non-seismic geologic hazards at the Project, as listed in Table 2. The proposed changes do not change the Project's compliance with OAR 345-022-0020 or any conditions in the Site Certificate. Therefore, EFSC may rely on its previous findings that this amendment request also complies with OAR 345-022-0020.

6.1.2 OAR 345-022-0022 Soil Protection

EFSC previously found that the Project complies with the Soil Protection Standard. The Soil Protection Standard requires EFSC to find that, after taking mitigation into account, the design, construction, and operation of a facility will not likely result in a significant adverse impact to soils. The certificate holder's assessment of potential soil impacts and compliance with the Soil Protection Standard were included in Exhibit I of the ASC. RFA 2 makes no changes that alter the basis for EFSC's earlier findings.

The energy storage sites will add, at maximum, a total of 10 acres of permanent disturbance. However, use of fewer, larger turbines (RFA 3) may result in a reduction in the permanent disturbance area associated with the turbines. Therefore, the permanent disturbance area for the Project is anticipated to remain similar to or less than the impacts identified in Exhibit C of the ASC. Additionally, the certificate holder does not expect there to be additional temporary impacts caused by RFA 2, because the energy storage sites are anticipated to be adjacent to the substation, and their temporary impacts will be contained within the temporary disturbance area for the substation.

Lithium-ion battery systems are modular systems. Each module contains multiple smaller battery cells, each measuring up to 3.2 centimeters by 7 cm. The cells are the primary containment for the gel or liquid electrolyte materials. The module containing the cells is relatively small, generally about the size of a desktop computer processor, and serves as leak-proof secondary containment. Modules are placed in anchored racks within the steel containers; typically, each rack houses 12 battery modules along with a switchgear assembly. Although leaks from the modules are very unlikely because any leak would require failure of the individual cell(s) as well as the sealed module, any material that might leak from the cell into the module and then to the floor of the container would easily be contained within the 11-foot by 40-foot container. During operations and maintenance of the facility, maintenance staff will regularly check the battery systems to confirm that no unusual conditions have developed, and will take immediate action to remove and replace any battery modules that might malfunction. Any battery malfunctions would generally be detected as a reduction in battery function well before an actual leak developed. Each battery module and battery rack are individually protected by overcurrent fuses that operate independently of the control system to avoid out of specification voltage. The potential for site contamination by the lithium-ion battery modules is remote. Inspections of the facility combined with electronic monitoring of battery performance are sufficient to detect a leak in the unlikely case one were to

occur. If a module (secondary containment) were to leak, any spill would be necessarily small given the size of the module and small quantities of fluid or gel electrolyte involved. Such a leak would easily be contained inside the storage facility (tertiary containment) and would be cleaned up as soon as it was discovered. There is virtually no possibility of such contamination reaching the ground without being discovered and therefore no monitoring plan or a condition for monitoring plan is warranted.

For the energy storage sites, the certificate holder will follow the handling guidelines of 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration related to the shipment of lithium-ion batteries. The regulations include the following requirements, among others:

- Prevention of a dangerous evolution of heat;
- Prevention of short circuits;
- Prevention of damage to the terminals; and
- Prevention of contact with other batteries or conductive materials.

Third party energy suppliers will be responsible for transporting batteries to and from the Project in accordance with applicable regulations, as required through their licensure. In general, adherence to the requirements and regulations will minimize the potential for impacts to soil related to transport, use, or disposal of batteries.

The certificate holder will implement erosion control measures presented in Exhibit I of the ASC. In addition, the certificate holder will comply with the existing conditions for soil protection, as identified in Table 2. The proposed changes do not change the Project's compliance with OAR 345-022-0020 or any conditions in the Site Certificate. Therefore, EFSC may rely on its prior findings, and conclude that RFA 2 also complies with OAR 345-022-0022.

6.1.3 OAR 345-022-0030 Land Use

EFSC previously concluded that the Project complied with the Land Use Standard. Under OAR 345-021-0010(1)(k), an applicant must elect to address EFSC's Land Use standard by obtaining local land use approvals under Oregon Revised Statutes (ORS) 469.504(1)(a), or by obtaining an EFSC determination under ORS 469.504(1)(b). As stated in the ASC, the certificate holder elected to have EFSC make the land use determination under ORS 469.504(1)(b) and OAR 345-022-0030(2)(b) for the Project.

The energy storage system is a related or supporting facility under OAR 345-001-0010(51) because it "...would not be built but for the construction and operation of the Facility." Similarly, under OAR 660-033-0130(37), it is an "other necessary appurtenance" to the wind power generation facility. Morrow County Zoning Code (MCZO) 3.010(K)(2) has the same definition of a what a wind power generation facility includes as OAR 660-033-0130(37) does. Energy storage supports the Project by providing an energy distribution function, like a substation provides an energy wattage conversion

for distribution function. Therefore, the energy storage system is a necessary appurtenance to the Project.

In the Final Order of the ASC, EFSC found that the Project is a commercial utility facility for the purpose of generating power for public use by sale, pursuant to the MCZO, that is subject to the conditional use requirements of MCZO Article 6. EFSC further found that the Project is a wind power generation facility pursuant to OAR 660-033-0120, and that the conditional use standards at OAR 660-033-0130(37) apply instead of the acreage limitations in MCZO 3.010(15)(D), which would have required a Goal 3 exception for the Project. Similarly, in Umatilla County, all components of the Project and its related or supporting facilities (including energy storage) qualify as a “wind power generation facility,” which is a type of “commercial utility facility for the purpose of generating power for public use by sale” allowed as a conditional use under Umatilla County Development Code (UCDC) 152.060(F).

The Exclusive Farm Use Dimensional Standards relate to parcel size, the creation of new parcels, and the siting of dwellings within big game habitat, none of which apply to the Project. As noted in the Final Order of the ASC, Morrow County requested setback requirements for the Project. With the proposed changes for RFA 2, the certificate holder can still meet all conditions requested by Morrow County that are included in the Site Certificate.

In Umatilla County, UCDC 152.616(HHH)(6) provides the standards of approval for a wind power generation facility. The standards were addressed in Exhibit K of the ASC. Land Use Conditions were recommended in Exhibit K and incorporated into the Site Certificate. With the proposed changes from RFA 2, the certificate holder can still meet all conditions that implement the UCDC.

In Exhibit K of the ASC, the certificate holder identified and described surrounding lands devoted to farm use. The certificate holder explained in Attachment K-1 and the associated figures that the majority of the land within the analysis area is devoted to dryland winter wheat farming or irrigated agriculture. The certificate holder also explained that some cattle grazing occurs in limited areas in and around the analysis area.

The certificate holder provided a detailed description of the accepted farming practices that occur on the surrounding lands that are devoted to farm use in Attachment K-1. Specifically, Attachment K-1 describes the planting cycles for winter wheat, the field preparation techniques, common farming equipment, aerial spraying by aircraft, irrigation techniques in the small areas of irrigated agriculture, and access issues. The certificate holder demonstrated that the Project will not force a significant change in accepted farm practices, nor will it significantly increase the cost of farm practices. To support that position, the certificate holder provided the following:

- Facility components and temporary construction laydown and staging areas will be sited to minimize disturbance to farming operations. Land permanently lost to farm use due to siting of permanent Project improvements is a *de minimis* percentage of the total farm use land in Morrow County; therefore the inability to use the land for farm purposes is not significant.

- Project Site Access Roads and other facilities will be constructed and maintained by Wheatridge, such that the cost burden for maintenance does not fall upon the farm or ranch owners.
- Private access roads improved or developed for the Project will benefit agricultural users of the land through improved access to farm fields and resulting lower fuel costs.
- As part of the lease agreements, each landowner must approve the site plan for facilities located on his lands; this mechanism assures that Project facilities would not be considered disruptive to the practices of each landowner.
- Wheatridge will implement a weed control plan consistent with the Morrow and Umatilla County Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control.
- Wheatridge will record a covenant not to sue against its Project leasehold interests with regard to generally accepted farming practices on adjacent farmland.
- Wheatridge will consult with area landowners during construction and operation of the facility to determine further measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.
- To avoid or reduce adverse impacts to soil quality, Wheatridge will implement dust control and erosion-control measures during construction and operation of the facility (see Exhibit I). To the extent practicable, Wheatridge proposes to reduce impact to soils by using areas that are already disturbed and limiting the area of new disturbance.

Although the energy storage sites will be a new permanent impact, they will be sited adjacent to the substations, not in the middle of agricultural fields and will not cause agricultural field fragmentation or impacts on farm equipment maneuverability. Disruption to farming practices and operations will be minimized by following the measures described above, those included as conditions in the Site Certificate (Table 2), and through continuing coordination of Project construction and operation with each landowner. Ultimately, the Project supports continued agricultural operations while simultaneously using the land for renewable energy generation. For these reasons, EFSC may rely on its earlier findings that the Project will not force a significant change in accepted farming practices and that RFA 2 still complies with the Land Use Standard.

6.1.4 OAR 345-022-0040 Protected Areas

The Protected Areas Standard requires EFSC to find that, taking into account mitigation, that the design, construction and operation of a facility are not likely to result in significant adverse impacts to any protected area as defined by OAR 345-022-0040. There are 16 defined protected areas within the analysis area.

The Lindsay Prairie Preserve, a site managed to protect native grassland and wildlife habitat, is the closest protected area within the analysis area to Project construction activities. The protected area

is fenced, the access road is gated, and it is not known for public use. The closest portion of the Project to the Lindsay Prairie Preserve is less than 1 mile west of the Site Boundary. All other protected areas are located 2 miles or more from the Site Boundary.

As noted in Exhibit L of the ASC, during construction, the applicant estimates that the Lindsay Prairie Preserve could experience peak noise levels of approximately 55 A-weighted decibels (dBA). The peak noise levels will be short-term and temporary and will not exceed a period of four weeks. Construction noises as for the proposed changes are anticipated to be the same as reviewed in the ASC. Also, as explained in Exhibit L, during operation of the Project, the worst-case modeled noise level at the Lindsay Prairie Preserve will be approximately 36 to 54 dBA. The certificate holder has conducted noise modeling for energy storage (see Confidential Attachment 4). The worst-case modeled noise level is the same as previously asserted in the ASC. Although audible the noise levels of 36 to 54 dBA, would not be expected to interfere with the primary purpose (native grassland and wildlife habitat preservation) of the Lindsay Prairie Preserve. Based upon the information provided, EFSC can find that, due to noise attenuation, all other protected areas, which are located at distances of more than 2 miles from the Site Boundary, would not be expected to experience noise impacts greater than existing background noise levels. Therefore, protected areas will not experience significant, adverse noise impacts from Project operation.

For the proposed changes, potential traffic impacts during facility construction and operation of the Project will be similar to what was assessed as part of the ASC. EFSC previously found that potential traffic impacts during facility construction will be intermittent and temporary, and traffic levels will return to normal following construction. EFSC also found that based on the minimal number of operational trips, the increase in traffic from operations will not be likely to have any impact on protected areas, including access points to protected areas.

There are no substantial changes to water use and wastewater disposal as part of the proposed changes. Therefore, EFSC can find that water use and disposal during construction and operation of the Project will not likely result in a significant adverse impact to water quality or quantity within any protected area.

The energy storage structures will be only 20 feet high, co-located with the substations, and finished with neutral colors to blend with the surrounding landscape. Therefore, the ZVI completed for the ASC and reviewed by ODOE, covers the energy storage sites.

In addition, many of the protected areas currently have views of other wind farms, transmission lines, and urban and industrial development; therefore, the Project will not introduce a new or unusual feature to the view. Potential views of the Project from some of the protected areas will be partially to fully screened by vegetation.

EFSC previously found that while Project components will result in a change to the existing viewshed of the protected areas, due to the low impact to users, no specified management of scenic or visual qualities (or designated views or viewsheds), and presence of similar structures within the existing viewshed, the visual impacts of construction and operation of the Project will not likely result in a significant adverse impact to any protected area. The proposed modifications do not

alter the basis for the Council's prior findings that the Project is in compliance with the Protected Areas Standard.

6.1.5 OAR 345-022-0050 Retirement and Financial Assurance

EFSC previously found that the certificate holder is able to restore the site to a useful, nonhazardous condition following permanent cessation of construction or operation of the Project, and that they have demonstrated a reasonable likelihood of obtaining a bond or letter of credit as part of RFA 1. The energy storage site will be restored by utilizing the following procedures:

- Batteries shall be removed, packaged and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Remaining system components and structures shall be dismantled using industry standard methods, and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Concrete pads / foundations shall be broken to a maximum of 3' below grade, excavated and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Underground utilities shall be removed to a maximum of 3' below grade and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Topsoil shall be imported and placed to restore the area to pre-construction grade. The area will then be seeded with native vegetation.

As a supplement to RFA 1, the certificate holder submitted a letter dated June 8, 2017, from Wells Fargo Bank, N.A. (the Bank), which stated that the Bank "has an ongoing relationship with NEER and there is a reasonable likelihood that we [Wells Fargo] will provide a letter of credit for this project should it be required." The Bank letter also indicates their "understanding that the potential liability of the letter of credit could total an amount of up to eighteen million one hundred thousand dollars (18,100,000)." The cost to decommission and restore the energy storage site is very small in comparison to the cost to decommission the entire facility. Attachment 5 provides a detailed cost estimate for decommissioning of the 20MW and 30MW energy storage sites. The detailed estimate of \$279,000 is only approximately 1.5% of the estimated cost to decommission the entire facility.

The Project is still in the design phase, and EFSC previously imposed two conditions to ensure the certificate holder could meet its financial assurance obligations and ensure the adequacy of the bond or letter once design has been finalized and prior to construction. To comply with Condition PRE-RF-02, before beginning construction the certificate holder will provide an updated financial retirement analysis as part of pre-construction compliance. To comply with Condition PRE-RF-01, the certificate holder will also submit a bond or letter of credit sufficient to ensure restoration of the site to a useful, nonhazardous condition. Therefore, it is expected that when retirement cost is

estimated based on final design data, the total retirement cost will be similar to or less than the amount previously identified.

Because there are existing conditions requiring recalculation of the retirement cost and confirmation of adequate bonding after final design, and the amount is anticipated to be similar to or less than the previously identified amount, there is no reason to submit an updated letter regarding the retirement amount or an updated letter from the Bank. Accordingly, RFA 2 makes no changes that alter the basis for EFSC’s earlier findings; therefore, EFSC may find that OAR 345-022-0050 is met.

6.1.6 OAR 345-022-0060 Fish and Wildlife Habitat

As noted in the Final Order on the Site Certificate, EFSC’s Fish and Wildlife Habitat Standard requires EFSC to find that the design, construction, and operation of a facility is consistent with ODFW’s habitat mitigation goals and standards, as set forth in OAR 635-415-0025. This rule creates requirements for mitigating impacts to fish and wildlife habitat, based on the functional quantity and quality of the habitat impacted, as well as the nature, extent, and duration of the impact. The proposed changes in RFA 2 are all within the Site Boundary where habitat has been previously characterized.

The two energy storage sites will be located within the micrositing corridors outside of Class 1 habits, most likely in Class 6 habitat. Table 3 provides estimated habitat impacts by category resulting from construction of the two energy storage sites.

Table 2. Impacts by Habitat Category and Type Energy Storage

Category and Habitat Description	Impacts (acres) Maximum Layout	
	Temporary	Permanent
Category 2		
Developed – Revegetated/Other Planted Grassland	0.0	0.0
Grassland – Exotic Annual	0.0	0.0
Grassland – Native Perennial	0.0	0.0
Shrub-steppe – Basin Big Sagebrush	0.0	0.0
Total	0.0	0.0
Category 3		
Developed – Revegetated/Other Planted Grassland	0.0	0.0
Grassland – Native Perennial	0.0	0.0
Shrub-steppe – Rabbitbrush/Snakeweed	0.0	0.0
Total	0.0	0.0
Category 4		
Grassland – Exotic Annual	0.0	0.0

Category and Habitat Description	Impacts (acres) Maximum Layout	
	Temporary	Permanent
Total	0.0	0.0
Subtotal for Cat. 2, 3, 4	0.0	0.0
Category 6		
Developed – Dryland Wheat	0.0	10.0
Developed – Other	0.0	0.0
Total	0.0¹	10.0
Total for all Categories	0.0	10.0
1. Assumes contractor will permanently disturb the entire energy storage system area, and that temporary disturbance areas will overlap with substation temporary disturbance areas. Therefore, no temporary impacts will occur.		

In order to mitigate for impacts to wildlife habitat, the certificate holder will implement a Habitat Mitigation Plan after final design and final habitat impacts can be calculated. The pre-construction survey results will inform the Habitat Mitigation Plan and confirm that appropriate mitigation is provided (Table 2). The finalization of the Habitat Mitigation Plan prior to construction will include confirmation of habitat categories in consultation with ODFW (and subject to approval by ODOE), and a final mathematical calculation of impact acreages to determine the habitat mitigation acreage based upon an approved calculation methodology (see Table 2 for associated conditions).

Therefore, the proposed changes do not affect the certificate holder’s ability to comply with any of the other previously imposed site conditions for fish and wildlife habitat, as identified in Table 2, and EFSC can find the Fish and Wildlife Habitat Standard is met.

6.1.7 OAR 345-022-0070 Threatened and Endangered Species

The two energy storage sites will be located in the micrositing corridors (Site Boundary), most likely Class 6 habitat, but not in Class 1 habitat.

The certificate holders’ assessment of the Project’s compliance with the Threatened and Endangered Species Standard was included as Exhibit Q of the ASC and included surveys for threatened and endangered species in the site boundary. As described in Exhibit Q, the certificate holder proposed a number of mitigation measures to reduce the potential impact to the Washington ground squirrel and its habitat. These measures include siting the Project on developed habitat when possible, particularly dryland wheat fields, conducting pre-construction surveys to confirm and avoid Category 1 habitat during micrositing and construction (Condition PRE-FW-01), and implementing a Wildlife Monitoring and Mitigation Plan (Condition PRE-FW-02). Additionally, the certificate holder committed to avoiding known populations of Laurent’s milkvetch. Because the proposed changes will be in the site boundary and subject to compliance with the applicable Site

Certificate conditions as identified in Table 2, EFSC can find that the Project, with the proposed changes from RFA 2, complies with EFSC's Threatened and Endangered Species Standard.

6.1.8 OAR 345-022-0080 Scenic Resources

OAR 345-022-0080 requires EFSC to determine that the design, construction, and operation of the proposed Project will not have a "significant adverse impact" to any significant or important scenic resources and values in the analysis area. The applicant provided evidence regarding potential impacts to scenic resources in Exhibit R of the ASC.

Based on the certificate holder's review of applicable land use plans, there are no significant or important scenic resources within the analysis area. However, the certificate holder completed a visual impact assessment within the analysis area to evaluate potential visual impacts related to the change in existing visual character that would result from operation of the Project. In Exhibit R of the ASC, the certificate holder described four key observation points (KOPs) selected for the evaluation of visual impacts, and completed visual simulations of proposed Project components for the KOPs. The certificate holder also conducted a ZVI analysis for turbines up to 525 feet tall using Environmental Systems Research Institute ArcGIS software to identify jurisdictions where the Project will be visible. The results of the visual impact analysis identified that Project components will have low to moderate visibility at the selected KOP locations. Because the energy storage site will not include features more than 20 feet tall, this same finding can be applied. However, as previously determined, because there is no management direction for preservation of views or scenic quality at any of the KOP locations, taking into account the previously imposed Site Certificate conditions, EFSC can find that the Project complies with EFSC's Scenic Resources Standard.

6.1.9 OAR 345-022-0090 Historical, Cultural and Archaeological Resources

The certificate holder provided information regarding historic, cultural, and archaeological resources for the analysis area (all areas within the Site Boundary) in Exhibit S of the ASC. The certificate holder contracted with the Cultural Resources Protection Program of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR-CRPP) to conduct archaeological field and desktop surveys for the entire 13,097 acres within the Site Boundary. Archaeological field investigations were conducted in accordance with SHPO's Guidelines for Conducting Field Archaeology in Oregon (SHPO 2007). The desktop survey revealed four previously recorded archeological sites within 1 mile of the Site Boundary, but none actually within the Site Boundary. However, the pedestrian field surveys recorded 21 archeological sites and isolated finds within the Site Boundary. Of these archaeological sites and isolated finds, eight were historic, seven were pre-contact, and six were other isolated finds. CTUIR-CRPP recommended that seven of the 21 historic sites and isolated finds could be potentially eligible for inclusion on the National Register of Historic Places (NRHP). Based on the findings, and in accordance with OAR 345-022-0090(2), EFSC imposed five conditions (see Table 2) in the Site Certificate to address the protection of historic, cultural, and archaeological resources at the Project during micro-siting. The energy storage sites, have been

designed to avoid impacts to all known archeological, historic, and cultural resources deemed eligible or potentially eligible for NRHP listing. In a comment letter for the ASC, SHPO confirmed receipt of the Project's archeological investigation report, concurred with the eligibility recommendations provided in the report, and confirmed that the Project, with implementation of appropriate avoidance measures, will not likely have an effect on any significant archeological objects or sites. The modifications proposed in RFA 2 do not alter the basis for EFSC's prior finding that the standard for historic, cultural, and archaeological resources has been met.

6.1.10 OAR 345-022-0100 Recreation

The Recreation Standard requires EFSC to find that the design, construction, and operation of a facility will not likely result in significant, adverse impacts to important recreational opportunities. Therefore, EFSC's Recreation Standard applies to only those recreation areas that EFSC deems important. The certificate holder provided evidence about potential impacts to recreation opportunities that they determined to be important in Exhibit T of the ASC. The certificate holder identified recreation opportunities within the analysis area, and concluded, based on its evaluation of the criteria outlined in OAR 345-022-0100, that six recreation opportunities should be considered important. The Project, which is located entirely on private property, will not be located on or within any of the identified important recreational opportunities. Therefore, EFSC previously found that the Project will not result in direct loss of any of the recreational opportunities identified as important. The changes proposed in RFA 2 do not alter the basis of this finding.

The recreational opportunities closest to the Site Boundary are not designated noise-sensitive receptors. Therefore, there are no applicable noise requirements contained in the Oregon Department of Environmental Quality noise regulations addressed at OAR Chapter 340, Division 25. The closest recreational opportunity identified as important is the Oregon Trail Well Spring Interpretive Site, located approximately 1.2 miles from the Site Boundary. Noise generated during construction of the Project will be short-term and intermittent. Operational noise levels at the closest recreation opportunities will be similar to or less than the levels described in Exhibit L of the ASC.

The proposed changes will not alter traffic impacts from what was reviewed as part of the ASC. The certificate holder concluded that the volume of construction traffic on roads also used to access the Oregon Trail Well Spring Interpretive Site and Echo Meadows/Oregon Trail Area of Critical Environmental Concern will be unlikely to materially affect the operation of this intersection because of low volume. The certificate holder will work with ODOT and the counties to provide any necessary traffic controls (see Table 2 for associated conditions). In addition, as presented in Exhibit U, construction of the Project will not cause an appreciable reduction in Level of Service on any roads in the area. During operation of the Project, 10 to 20 staff will be employed thus generating a small number of vehicle trips on a roadway system with low traffic volumes. There is no expected change in the number of employees as part of the proposed changes. Therefore, expected traffic impacts to important recreation opportunities in the analysis area during operation of the Project will be minimal.

The certificate holder determined that some portions of the Project will be visible from four of the six important recreation opportunities: Oregon National Historic Trail, Well Spring Interpretive Site, Echo Meadows/Oregon Trail Area of Critical Environmental Concern, and Blue Mountain Scenic Byway. The potential visual impacts from the Project for features up to 525 feet at the four recreational opportunities have already been evaluated by EFSC. The energy storage site will be only 20 feet high and located in the center of the Project, which is more than 1.2 miles from the recreational areas. Therefore, there won't be any visual impacts from the energy storage sites on important recreational sites.

EFSC can find that the design, construction, and operation of the Project with the proposed changes is not likely to result in a significant, adverse impact to any important recreational opportunities in the analysis area, and therefore the Project complies with EFSC's Recreation Standard.

6.1.11 OAR 345-022-0110 Public Services

EFSC's Public Services Standard requires the identification of likely, significant, adverse impacts caused by the Project on the ability of public and private service providers to supply sewer and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care, and schools. The certificate holder addressed the impacts to public services in Exhibit U of the ASC, and EFSC imposed 22 conditions (see Table 2). The modification to turbine size does not affect any aspect of the analysis conducted to support issuance of the Site Certificate. The addition of an energy storage system adds an additional aspect to the analysis for fire protection, but existing Site Certificate conditions are sufficient to meet the Public Services standard as described below. In addition, the batteries at the energy storage site will be restricted from the public via a fenced and secured sited, have a gas pressured deluge fire suppression system, an emergency action plan if an emergency should occur (see Attachment 6), and be operated and maintained by trained and skilled operations personnel.

Water has been shown to be the most effective fire suppressant for lithium ion batteries due to its ability to both extinguish the fire and remove excess heat. The gas pressured deluge system is designed to simultaneously discharge water from all sprinkler heads as soon as the system is activated. An independent detector system (such as a heat detector or smoke detector) controls system activation. In cold climates where pipes could freeze, a dry pipe system may be installed, in which the installation pipe work is permanently charged with gas under pressure above the alarm valve. When a sprinkler head opens, the gas pressure drops, allowing the dry pipe valve to open and admit water to the system.

The proposed on-site fire protection measures are consistent with battery manufacturer recommendations and are consistent with fire codes. Virgil Morgan of the Ione Rural Fire stated that they would be able to provide service to the facility including the energy storage facility, and that the presence of this system would not impact their ability to provide fire protection services (see Attachment 7). Delbert Gehrke, Fire Chief of the Echo Rural Fire Department, was also contacted regarding service to the facility and the Echo Rural Fire Department requests a 100 foot vegetation free zone be maintained around the battery storage area in the event of a wildland fire

(see Attachment 7). Per Condition PRE-PS-05, prior to construction the certificate holder shall prepare an Emergency Management Plan that includes the procedures and actions described in this order and in ASC Exhibit U in consultation with the appropriate local fire protection districts.

The lithium-ion battery system will be kept in a temperature-controlled facility with individual battery modules isolated to prevent the spread of fire if it were to occur. The energy storage system will incorporate a gas pressured deluge fire suppression system, as designed by the battery manufacturer. In addition, the following measures will be implemented for lithium-ion battery systems to minimize fire and safety risks:

- The battery systems will be stored in completely contained, leak-proof modules.
- O&M staff will conduct frequent (monthly) inspections of the battery systems according to the manufacturer's recommendations.
- Battery storage and fire protection systems will comply with applicable standards specified by Morrow and Umatilla County building departments through the permitting process which will include the 2014 Oregon Structural Specialty Code et. seq., as documented through the facility's building permit application(s).
- An emergency management plan will also be developed with response procedures in the event of an emergency, such as a fire (see Condition PRE-PS-05 and PRO-PS-02).

Transportation of lithium-ion batteries is subject to 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. The regulations include requirements for prevention of a dangerous evolution of heat, prevention of short circuits, prevention of damage to the terminals, and require that no battery come in contact with other batteries or conductive materials.

Impacts on public services from construction of the energy storage systems will not directly affect public services during construction and operation of the Project. The energy storage systems will be constructed within the Site Boundary. In addition, construction, operation and maintenance, and retirement of energy storage does not alter the need for public services, as identified in Exhibit U of the ASC. Arlington Landfill routinely handles such materials and there would be no adverse impact to public or private providers of hazardous waste disposal. See Attachment 1. According to their website, Arlington Landfill has more than 100 years of capacity remaining and is able to coordinate transport of materials. Therefore, construction, operation, and retirement of the energy storage systems is not likely to result in significant, adverse impacts within the analysis area for public service providers.

The proposed changes do not affect EFSC's previous findings on public services and the certificate holder can comply with all Site Certificate conditions previously adopted by the Council for the Project.

6.1.12 OAR 345-022-0120 Waste Minimization

The applicant provided information about waste minimization in Exhibits G and V of the ASC. Exhibit V includes the applicant's plans for solid waste and wastewater management during construction and operation of the Project. Exhibit G includes additional information about management of potentially hazardous materials. Construction of the modified turbine types and quantities will generally be the same as previously reviewed by EFSC. Construction of the energy storage system will generate similar types of waste as the turbines and substation components: concrete waste from construction of concrete pads for container and inverter support, erosion control materials, and packaging materials. Therefore, no new types of solid waste will be generated from the construction of additional Facility components proposed under RFA 3. However, during operations, the energy storage system may generate incidental waste from repair or replacement of electrical equipment and periodic replacement of the batteries. Lithium-ion batteries are expected to last between 10 and 15 years. The certificate holder anticipates a 10-year replacement cycle to be conservative.

Self-contained battery components (modules) will be removed and disposed of or recycled by a qualified vendor as needed to keep the facility operational. Battery modules will be transported intact. The modules will be transported to their final destination either for recycling or disposal as appropriate within the approved destination facility. No routine storage of spent batteries is anticipated.

No hazardous materials will be extracted or handled on-site. The only potentially hazardous materials associated with the energy storage system are the battery cells themselves, which contain lithium-ion electrolyte gel or liquid. Non-hazardous materials associated with the energy storage system include the battery module cases; storage racks; electrical wiring to connect the battery modules to the switchgear; up to 13 metal 11-foot x 40-foot containers; one transformer and one bi-directional inverter for each container; one cooling system for each container; and electrical cabling to connect the container systems to the transformers/inverters and into the substation. A fire water tank will be placed to provide water to each of the containers in case of fire. Existing measures are sufficient to prevent and contain spills. The SPCC Plan that will be developed to comply with Condition PRO-SP-01 will contain any measures needed to prevent and contain spills from the energy storage system. The SPCC Plan also will contain plans and procedures for handling batteries should any require replacement off-cycle.

The proposed changes do not affect EFSC findings on waste minimization because the Conditions (see Table 2) imposed are written broadly enough to address the proposed inclusion of an energy storage facility. Specifically, Condition PRE-WM-01 requires segregating all hazardous and universal, non-recyclable wastes for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes. Therefore, the proposed changes do not affect EFSC's previous findings on waste minimization.

6.2 Applicable Division 24 Standards

6.2.1 *OAR 345-024-0010 Public Health and Safety Standards for Wind Energy Facilities*

EFSC previously found that the Project complies with the Public Health and Safety Standards for Wind Energy Facilities. The proposed changes will be within the existing site boundary. The facility will be located entirely on private property, which will restrict public access to turbine and other facility component locations including energy storage.

The addition of an energy storage system adds an additional aspect to the analysis for fire protection but existing Site Certificate conditions are sufficient to meet the Public Services standard and Public Health and Safety Standards. For example, Condition Pre-PS-05 requires submittal of the Emergency Management Plan to the Oregon Department of Energy (ODOE) prior to construction. Preparation of this plan is not required for evaluation of compliance with standards, but in accordance with the Site Certificate condition ODOE must review and approve the plan prior to construction. An example of an Emergency Action Plan prepared for a New York energy storage center owned and operated by the certificate holder is provided as Attachment 5.

Training related to emergency management and handling of hazardous materials is governed by several Site Certificate Conditions. Conditions GEN-PS-03, PRE-PS-06, and PRE-PS-07 address site safety training. In accordance with Conditions GEN-PS-03 and PRE-PS-06, pre-construction and annual training on the safety plan will be conducted in coordination with local agencies.

Storage of hazardous materials, including any temporary storage of spent batteries, would be governed by the Spill Prevention, Containment, and Countermeasures (SPCC) Plan, which will be developed in accordance with conditions PRE-SP-01 and PRO-SP-01. Among other items included in the SPCC Plan, in accordance with statute and condition language, will be procedures for oil and hazardous material emergency response, and procedures demonstrating compliance with all applicable local, state, and federal environmental laws and regulations for handling hazardous materials.

In addition, to comply with Conditions CON-PS-01 and OPR-PS-03, during construction and operations all hazardous and universal, non-recyclable wastes including batteries will be segregated for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes. Lithium-ion batteries are considered “universal wastes” under U.S. Environmental Protection Agency (EPA) rules.

Therefore, the changes described in RFA 2 will not alter the basis for EFSC’s earlier findings, nor change the certificate holder’s ability to comply with any requirements and conditions issued by EFSC regarding public health and safety (See Table 2). Therefore, EFSC may find that OAR 345-024-0010 is satisfied.

6.2.2 OAR 345-024-0015 Siting Standards for Wind Energy Facilities

As described above, the proposed changes will not significantly affect wetlands or other waters of the state because the Project construction will avoid impacts to wetlands through boring or rerouting facilities around these features. The proposed changes will result in no new impact to fish and wildlife habitat because there will be no net increase in permanent or temporary disturbance area for the Project, and other construction methodologies and commitments will be met as approved. RFA 2 makes no changes that would alter the basis for EFSC's earlier findings that OAR 345-024-0015 is met.

6.3 Other Standards and Laws

6.3.1 Noise Control Regulations (OAR 340-035-0035)

The certificate holder addressed compliance with the DEQ noise regulations in Exhibit X of the ASC. The requirements of OAR 340-035-0035(1)(b)(B)(iii) apply to noise levels generated by a "wind energy facility." Therefore, the Project is reviewed under OAR 340-035-0035(1)(b)(B)(iii). Under the regulation, the noise generated by a new wind energy facility located on a previously unused site must comply with two tests: the "ambient noise degradation test" and the "maximum allowable noise test."

OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities. As reviewed by EFSC in the ASC, construction of the Project will produce localized, short-duration noise levels similar to those produced by any large construction project with heavy construction equipment. The certificate holder proposed mitigation measures in the ASC to minimize temporary noise levels generated during construction of the Project. Therefore, EFSC considered the proposed mitigation as binding commitments and adopted the Condition CON-NC-01 for facility construction (see also Table 2).

Site Certificate condition PRE-NC-01 requires that the certificate holder provide final design locations, sound power levels, noise analysis, and noise easements, once the final battery systems and combination of turbines has been selected and final locations for turbines and related or supporting facilities have been determined. In compliance with this condition, Wheatridge will submit a noise analysis of the final facility design prior to construction performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The analysis will demonstrate to the satisfaction of the Department that the total noise generated by the facility (including turbines, transformers, substations, and battery systems) will meet the ambient noise degradation test and maximum allowable noise test at the appropriate measurement point for all potentially affected noise sensitive properties, or that the Certificate Holder has obtained the legally effective easement or real covenant for expected exceedances of the ambient noise degradation test.

RFA 2 proposes to include energy (battery) storage to the Facility. Therefore, the certificate holder has conducted noise modeling for a preliminary modified layout, including substations and battery

storage. The layout provided for noise analysis demonstrates a configuration of turbines (at the larger size described in RFA 3) and related or supporting facilities, including battery energy storage, that would meet Site Certificate conditions, but it does not represent the final layout. Currently, noise levels associated with the representative turbine used for analysis are such that the optimized layout would not use more than 165 turbines rated at 2.5 MW along with energy storage. However, should the final selected turbine and final design of energy storage have improved technology with lower noise emissions, Wheatridge reserves the right, consistent with the terms and conditions of the Site Certificate, to construct additional turbines up to the maximum total number of turbines and maximum total generating capacity for the facility, subject to compliance with the noise rule along with the other restrictions (e.g. turbine height) that are identified in the Site Certificate.

The results of the noise modeling for an optimized preliminary modified layout and battery storage are provided in Attachment 3 and Confidential Attachment 4. The results of the noise modeling analysis indicate that there are 19 NSRs (noise sensitive receivers), which are predicted to exceed the ODOE 36 dBA noise criterion; all of those NSRs are participating landowners. Exhibit X in the ASC identified up to 19 exceedances at participating NSRs. Therefore, noise impacts will be similar to what was previously approved by the EFSC. Consequently, EFSC may rely on its prior findings and Condition PRE-NC-01 to conclude that the Project, as modified, complies with OAR 340-035-0035.

6.3.2 *Removal-Fill Law*

The Oregon Removal-Fill Law (ORS 196.795 through ORS 196.990) and Oregon Department of State Lands regulations (OAR 141-085- 0500 through OAR 141-085-0785) require a removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”

The certificate holder provided information regarding wetlands and other waters of the state in Exhibit J of the ASC, including a wetland delineation report included as Attachment J-3. A removal-fill permit is not needed for the Project because the Project, as modified, will not temporarily or permanently impact waters of the state. The modifications proposed under RFA 2 do not alter the prior analysis.

6.3.3 *Water Rights*

Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources Department administers the appropriation of water rights and regulates the use of the water resources of the state. The certificate holder stated in Exhibit O of the ASC that all water for construction activities will be procured from municipal sources near the Site Boundary, including Hermiston Public Works, Stanfield Public Works, Boardman Public Works, and the Port of Morrow. The certificate holder also provided evidence of correspondence with those four municipal water suppliers, confirming that the suppliers expect to be able to provide the requested quantity of water. The Port of Morrow also stated that it expects to be able to provide up to 6.5 million gallons per month, more

than the certificate holder expects to need during the anticipated worst-case scenario. The modifications proposed under RFA 2 do not alter the amount of water or procurement sources from what was described in Exhibit O.

7.0 Property Owners Located within or Adjacent to the Site of the Facility (OAR 345-027-0060(1)(f))

A revised property owner list is included as Attachment 8.

8.0 Conclusion

For the reasons stated above, Wheatridge respectfully requests approval of RFA2.

This page intentionally left blank

Figures

This page intentionally left blank

Wheatridge Wind Energy



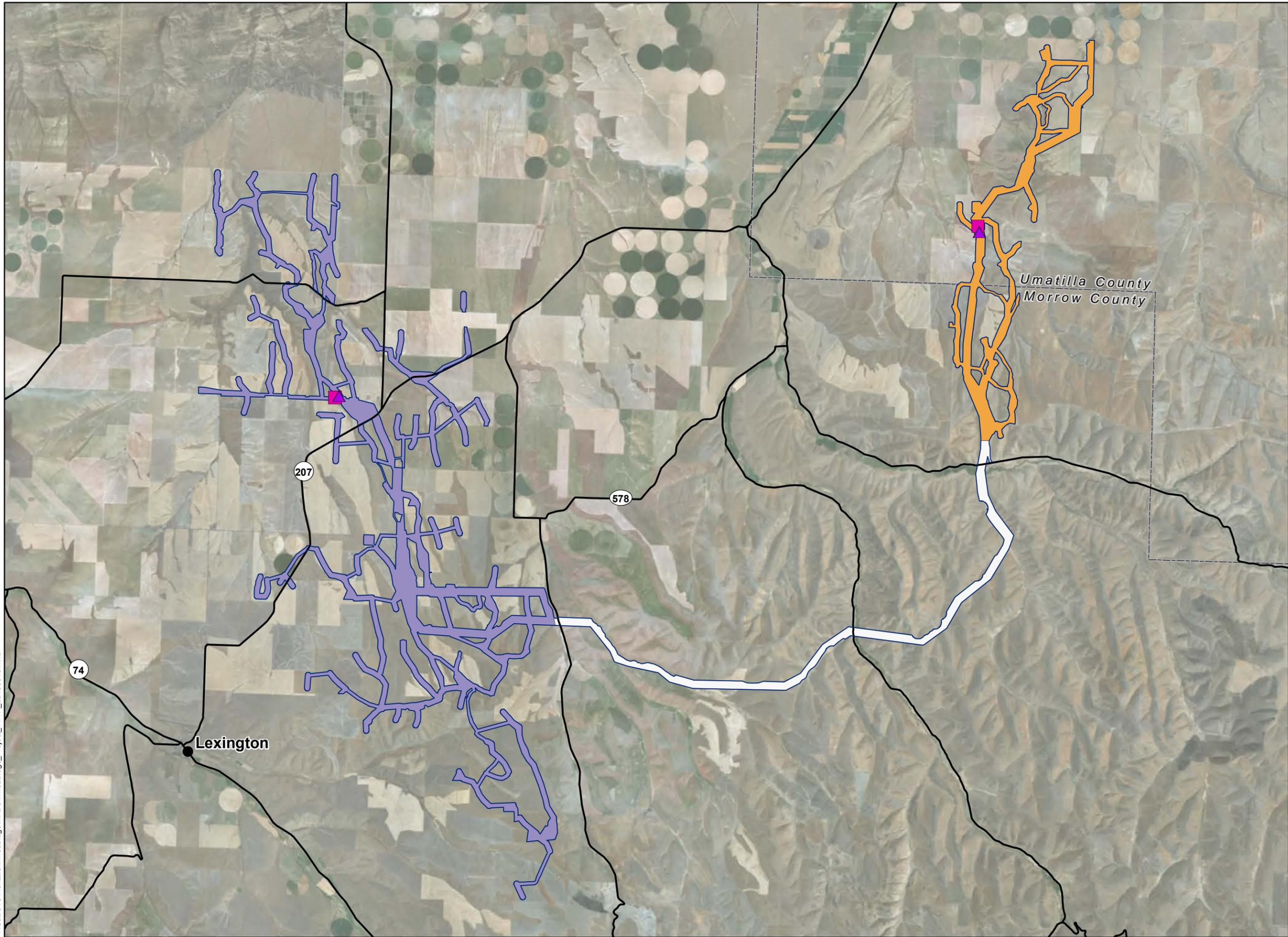
Figure 1 Site Boundary and Energy Storage Sites

MORROW AND UMATILLA COUNTIES, OR

- EFSC Site Boundary
- Wheatridge East
- Intraconnection Line Corridor
- Wheatridge West
- Substation
- Proposed Energy Storage
- City/Town
- County Boundary
- Secondary Road



Reference Map

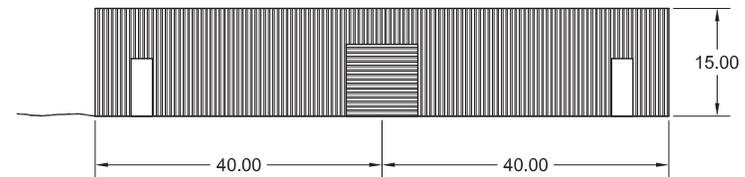
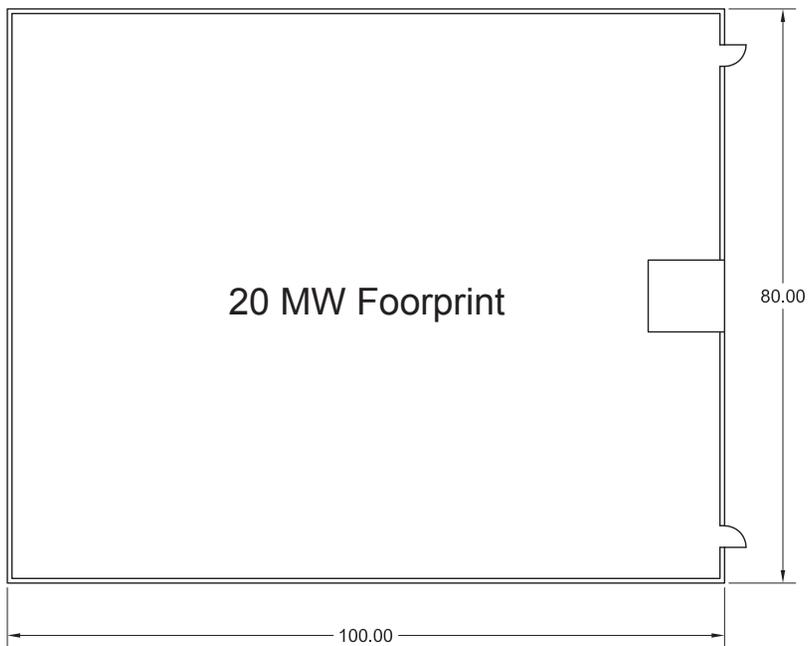
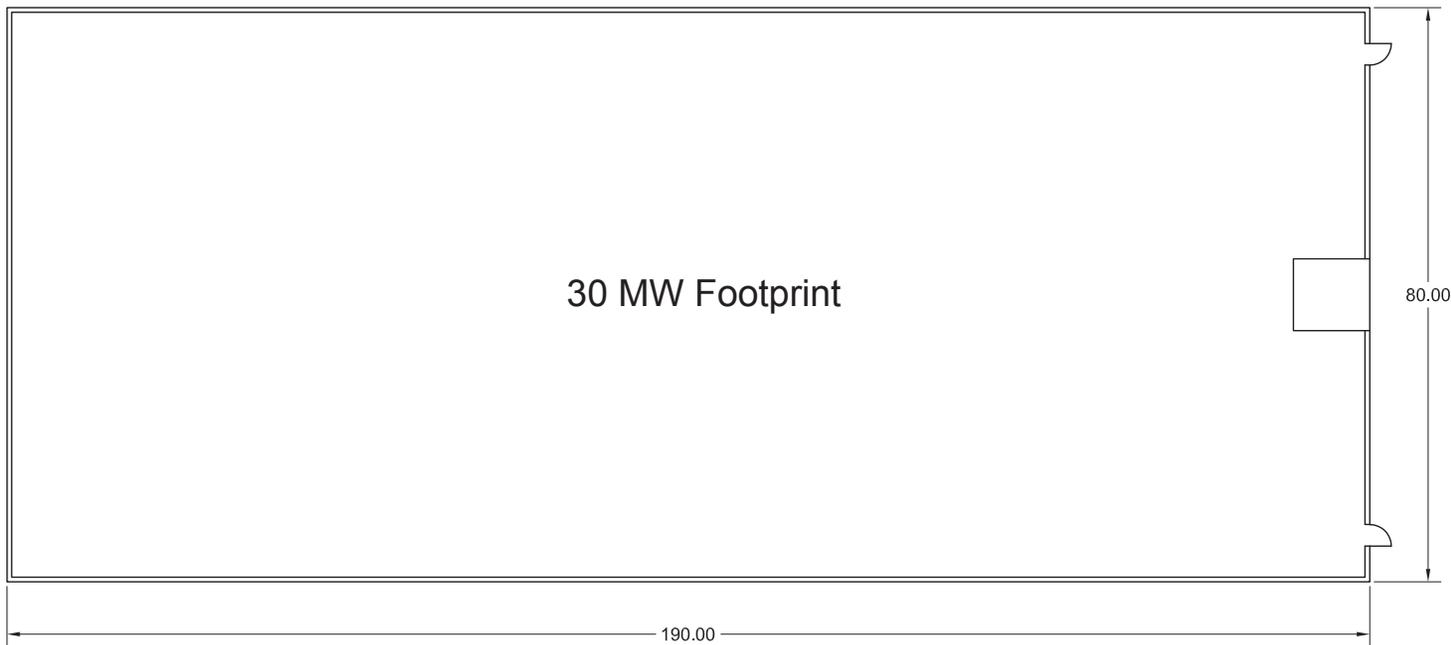


P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\Wheatridge_Project_11171_20180518.mxd

1:130,000 WGS 1984 UTM Zone 11N

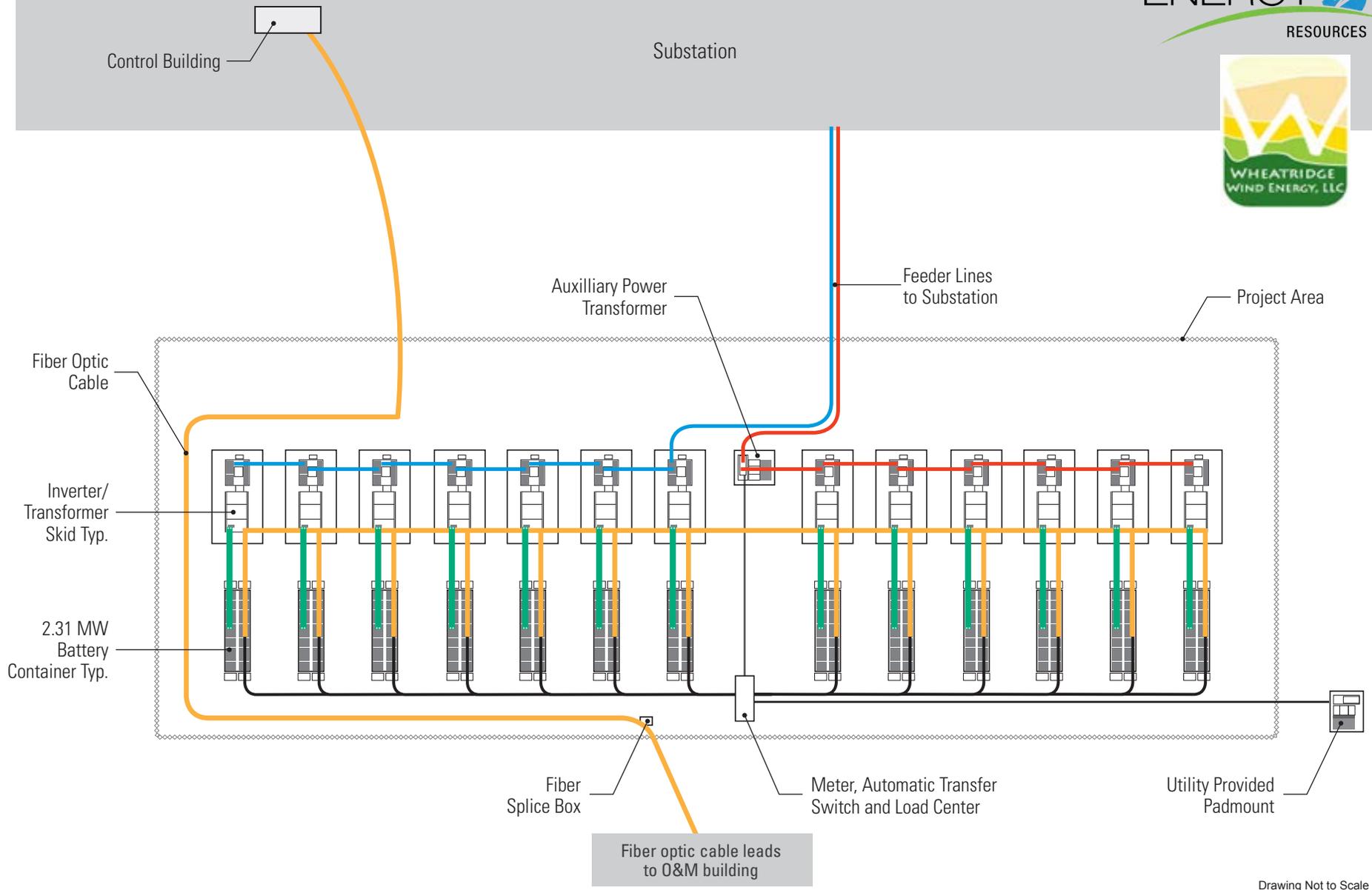
0 0.5 1 2 3 4 Miles

This page intentionally left blank



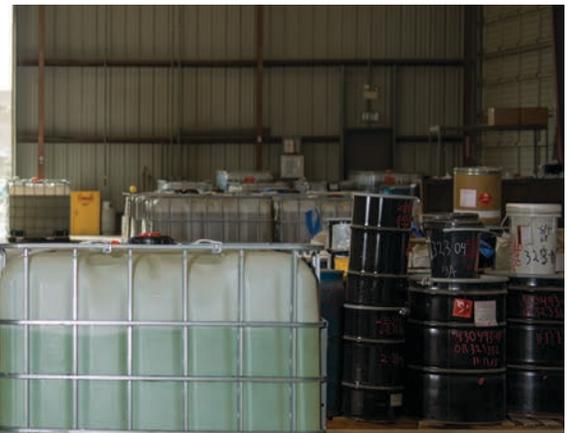
20/30 MW Front Elevation

Figure 2 Energy Storage Approximate Structure Footprint And Elevation



Attachment 1. Attachment 1. Arlington Landfill Information

This page intentionally left blank



Chemical Waste Management of the Northwest



Chemical Waste Management, Inc. (CWM) Arlington provides area communities, businesses and industries with professional, safe, and efficient industrial and hazardous waste services.

Located in Arlington, Oregon, this facility provides cost-effective services to customers in the states of Washington, Oregon, Montana, Idaho, Utah, Wyoming, Hawaii, Alaska and provinces of Western Canada. CWM Arlington also offers services nationally through Waste Management's (WM) extensive rail transportation network. In operation since 1976, this award-winning, environmentally safe hazardous waste facility boasts a stellar safety record and an unmatched technical service team with more than 20 years experience per representative. CWM Arlington adheres to strict regulations administered and overseen by the Environmental Protection Agency (EPA) Region X and the Oregon Department of Environmental Quality (ODEQ). This facility is positioned on a 1288-acre site (with 320 acres permitted for disposal operations). The site is buffered by over 11,000 acres of undeveloped property owned by Waste Management.

One of the most secure treatment and disposal facilities in the world, this remote operation is built on top of layers of basalt from various formations. The disposal cells meet very strict EPA and state guidelines, and are constructed of 60 mil High Density Polyethylene (HDPE). Additional security measures include a sophisticated leachate collection system, monitoring wells, and a state-of-the-art leak detection system.

TREATMENT AND SERVICE OPTIONS

- Asbestos disposal
- Drum collection, treatment and transshipment
- Fuels blending
- Hazardous waste transportation
- Macroencapsulation
- Microencapsulation
- Non-hazardous disposal
- RCRA landfill disposal
- Rail transportation
- Stabilization
- Solidification
- Storage and transfer for recycling and thermal treatment
- Thermal desorption



Waste Management's Industrial and Hazardous Waste Services include:

Stabilization

Hazardous waste requiring stabilization is treated using cement and/or cement byproducts, along with other reagents to reduce the hazardous metals leachability. Process recipes are developed for each waste stream and post treatment analysis (TCLP) is run to confirm that the recipe will treat the waste stream to levels below Land Disposal Restriction (LDR) standards.

Macroencapsulation

Macroencapsulation entails placing hazardous debris into a WM-patented, macroencapsulation unit made from high-strength HDPE, specially designed as a hazardous waste debris management container to reduce or eliminate leachability of the waste. Trained personnel fill any remaining void space with an inert material and then seal the container. The secure container is then transferred to an appropriate cell within the footprint of the RCRA Subtitle C landfill for safe, permanent disposal. Macroencapsulation is appropriate for virtually any hazardous debris that fits in a 20-cubic-yard roll-off box. Common examples include concrete, piping, filters, rags, hoses, crushed containers and motors.

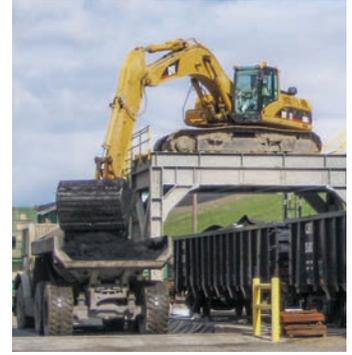
Microencapsulation

Microencapsulation involves coating Inorganic Hazardous debris with a custom-tailored mixture of proprietary reagents that significantly reduce the leachability of hazardous constituents from the debris into the surrounding landfill environment. It is the preferred treatment method for debris that can be fully coated on all surfaces – both exterior and interior. Most hazardous debris qualifies for this treatment process. Common examples include refractory brick, rocks and concrete.

PCB Disposal

Polychlorinated biphenyls (PCBs) are chemical compounds once widely used in a variety of manufactured products including paints, adhesives, machinery lubricants and heat transfer fluids. Our Arlington facility is able to provide the infrastructure, equipment and technical expertise to transport, treat and/or dispose of manufactured materials, soil, sediment and debris contaminated with PCBs in a manner that is both cost-effective and in compliance with all local, state and federal environmental regulations. CWM Arlington offers draining and flushing operations for PCB transformers.

- Transformers are decommissioned and landfilled or recycled
- Transformer fluid and flush material is transshipped to an approved incinerator for destruction
- PCB capacitors (depending on their size) are landfilled or transshipped to an approved incinerator for destruction
- PCB-contaminated equipment and debris is landfilled



Drum Management Services

CWM Arlington offers safe, reliable and cost-effective drum management services for LTL (Less-Than-Truckload) and full truckload quantities. Whether special, industrial or hazardous waste, we will arrange for the proper treatment and/or disposal of drums and their contents while maintaining compliance with all local, state and federal regulations. CWM Arlington serves as a regional disposal and transfer facility managing liquid and solids drums. Once received, drums are then tested, consolidated, treated or transhipped for further treatment using other treatment technologies.

Thermal Desorption-Organic Recovery Unit

The Organic Recovery Unit (ORU) uses intense levels of heat to drive hazardous organic material, water and solids from soil or other media without allowing the heat source to come in direct contact with the waste. The organic vapors and water that is liberated from the soil or other media are condensed in a multi-stage condenser system and the resulting liquids can be recycled as fuel or sent off-site for further treatment. No contaminants are released into the atmosphere by the ORU process, and many former chemical constituents of concern are recycled into their primary components that can be later recovered for their fuel value.

Transportation Services

Whatever the quantity or the size of your shipment, our transportation specialists are on hand and ready to assist you with the secure transport of your RCRA, TSCA or non-hazardous waste shipments. CWM Arlington has extensive experience in moving material by truck, rail or barge. The Arlington location has one of the largest private rail yards in the Western United States, currently receiving 6 full trains per week. We have over 4,000 containers of various sizes dedicated to this location and over 100 rail gondolas. Our Transportation Specialists have experience in moving hazardous materials for remote locations such as North Slope and Dutch Harbor, Alaska, Johnson Atoll, Hawaii, as well as locations all across North America. CWM Arlington's standard of care includes providing pre-populated manifests and/or drum labels. We will work around your schedule to coordinate and implement an economical solution to your transportation challenges.

Customer Service

Excellence in customer service is defined by our ability to find the best solution even if the solution is not immediately available. We're there to help you find the answers:

- Is it more cost effective to ship your material by drum, rail or bulk?
- How do the treatment codes apply to this waste type?
- Can you get your material approved and processed for shipment this week?
- Could Land Disposal Restrictions (LDR) apply to this waste stream?

If you have questions or challenges, we're here to help you find the solutions so that you can focus on your facility, your manufacturing activities or your remediation and land redevelopment projects. Our experienced Technical Service Representatives and Waste Approvals team are up to the challenge.



Commonly Accepted Waste Types*

- Asbestos
- Auto shredder residue
- CAMU-eligible waste as approved by the ODEQ
- Contaminated soils - hazardous (RCRA), non-hazardous and PCB (TSCA)
- CERCLA wastes
- Contaminated debris and equipment
- Debris for treatment or disposal (including empty tanks and vessels)
- Drummed wastes (liquid and solids)
- E&P wastes
- Industrial & special waste
- Lab packs
- Off-spec or out-of-date chemicals
- Palletized waste
- PCBs including capacitors and transformers
- Plating wastes
- Refinery wastes

YEAR OPENED

1976

PROJECTED LIFE REMAINING

100+ years

FACILITY ACREAGE

1,288 acres

PERMITTED FOOTPRINT

320 acres

REMAINING PERMITTED CAPACITY

3.7 million yd³ in landfill 14

OWNERSHIP

Chemical Waste Management, Inc.

PERMIT TYPE & PERMIT #

RCRA and TSCA EPA ID Permit
ORD089452353

REGULATORY AGENCIES

EPA Region X and the Oregon
Department of Environmental Quality
(ODEQ)

OF EMPLOYEES

55

* Approvals are required for all waste types. Waste is accepted on a case-by-case basis.



**CONTACT CHEMICAL WASTE
MANAGEMENT OF THE NORTHWEST**

Technical Support

Technical Service Center Portland
800 963 4776
TSCPortland@wm.com

ADDRESS

17629 Cedar Springs Lane
Arlington, OR 97812

COMMUNITY RELATIONS

Jackie Lang

503 493 7848
jjlang@wm.com

HOURS OF OPERATION

8:00am – 4:30pm PST
Monday – Friday
Special hours available upon request

Questions about industrial and hazardous waste services?

Contact a Waste Management representative:



Call 800 963 4776



Visit WMSolutions.com



Send an email to TSCPortland@wm.com

©2017 Waste Management, Inc.



THINK GREEN®

Attachment 2. Redlined Site Certificate

This page intentionally left blank

**ENERGY FACILITY SITING COUNCIL
OF THE
STATE OF OREGON**

**~~First~~ Second
Amended Site
Certificate for the
Wheatridge Wind Energy Facility**

ISSUE DATE

~~July 2017~~ September 2018

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

1.0	Introduction and Site Certification	1
2.0	Facility Location	3
2.1	Site Boundary	3
2.2	Micrositing Corridor	4
2.3	Intraconnection Transmission Line Corridor	4
3.0	Facility Description	5
3.1	Energy Facility.....	5
3.2	Related or Supporting Facilities.....	5
4.0	Site Certificate Conditions	10
4.1	Condition Format	10
4.2	General Conditions (GEN): Design, Construction and Operations.....	11
4.3	Pre-Construction (PRE) Conditions	18
4.4	Construction (CON) Conditions	31
4.5	Pre-Operational (PRO) Conditions.....	37
4.6	Operational (OPR) Conditions	39
4.7	Retirement Conditions (RET)	44
5.0	Successors and Assigns	45
6.0	Severability and Construction	45
7.0	Execution.....	46

WHEATRIDGE WIND ENERGY FACILITY SITE CERTIFICATE

Attachments

Attachment A Facility Site Boundary Map

Acronyms and Abbreviations

ASC	Application for Site Certificate
Council	Oregon Energy Facility Siting Council
Department	Oregon Department of Energy
DOGAMI	Oregon Department of Geology and Mineral Industries
ESCP	Erosion and Sediment Control Plan
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
ORS	Oregon Revised Statute
NRHP	National Register of Historic Places
WGS	Washington Ground Squirrel

1.0 Introduction and Site Certification

This site certificate is a binding agreement between the State of Oregon (State), acting through the Energy Facility Siting Council (Council), and Wheatridge Wind Energy, LLC (certificate holder), which is a wholly-owned subsidiary of NextEra Energy Resources, LLC (NextEra or parent company). As authorized under Oregon Revised Statute (ORS) Chapter 469, the Council issues this site certificate authorizing certificate holder to construct, operate and retire the Wheatridge Wind Energy Facility (facility) at the below described site within Morrow and Umatilla counties, subject to the conditions set forth herein.

Both the State and certificate holder must abide by local ordinances, state law and the rules of the Council in effect on the date this site certificate is executed. However, upon a clear showing of a significant threat to public health, safety, or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules (ORS 469.401(2)).

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: (a) the *Final Order on the Application for Site Certificate for the Wheatridge Wind Energy Facility* issued on April 28, 2017 (hereafter, *Final Order on the Application*); and (b) the *Final Order on Request for Transfer* issued on July 27, 2017. In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) [this Second Amended Site Certificate](#), (2) [the Final Order on Amendment #2](#), (3) [the First Amended Site Certificate](#), (4) [the Final Order on Amendment #1](#), (5) [the Final Order on the Application](#), and (6) the record of the proceedings that led to the *Final Order on the Application*. This site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation, and retirement of the facility as to matters that are addressed in and governed by this site certificate (ORS 469.401(3)). This site certificate does not address, and is not binding with respect to, matters that are not included in and governed by this site certificate, and such matters include, but are not limited to: employee health and safety; building code compliance; wage and hour or other labor regulations; local government fees and charges; other design or operational issues that do not relate to siting the facility (ORS 469.401(4)); and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council (ORS 469.503(3)).

The definitions in ORS 469.300 and OAR 345-001-0010 apply to the terms used in this site certificate, except where otherwise stated, or where the context clearly indicates otherwise.

Each affected state agency, county, city, and political subdivision in Oregon with authority to issue a permit, license, or other approval addressed in or governed by this site certificate, shall upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. In addition, each state agency or local government agency that issues a permit, license or other approval for this facility shall continue to exercise enforcement authority over such permit, license or other approval (ORS 469.401(3)). For those permits, licenses, or other approvals addressed in and governed by this site certificate, the certificate holder shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules (ORS

469.401(2)).

The certificate holder must construct, operate and retire the facility in accordance with all applicable rules as provided for in Oregon Administrative Rule (OAR) Chapter 345, Division 26. After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate (ORS 469.430).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate is subject to the provisions of ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the Council will not publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site certificate.

The duration of this site certificate shall be the life of the facility, subject to termination pursuant to OAR 345-027-0010 or the rules in effect on the date that termination is sought, or revocation under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. The Council shall not change the conditions of this site certificate except as provided for in OAR Chapter 345, Division 27.

2.0 Facility Location

The energy facility and its related and supporting facilities are located within Morrow and Umatilla counties. The site boundary, as defined in OAR 345-001-0010, encompasses approximately 13,097 acres of private land and includes the perimeter of the energy facility site, its related and supporting facilities, all temporary laydown and staging areas and all transmission corridors and micro-siting corridors proposed by the certificate holder, as approved by the Council.

The energy facility is divided into two groups, Wheatridge West and Wheatridge East. Wheatridge West is located entirely within Morrow County, bisected by Oregon Highway 207, approximately 5 miles northeast of Lexington and approximately 7 miles northwest of Heppner. Wheatridge East is located approximately 16 miles northeast of Heppner and includes land in both Morrow and Umatilla counties. Wheatridge West and Wheatridge East are connected via a 230 kV transmission line or “intraconnection” transmission line (see facility site boundary map provided in Attachment A).

2.1 Site Boundary

The site boundary encompasses a total of 13,097 acres of privately owned land: 2,956 acres in Wheatridge East, 8,515 acres in Wheatridge West, and 1,626 acres in the intraconnection transmission line corridor. Table 1 identifies the Public Land Survey System sections in which the site boundary is located.

Table 1. Location of Site Boundary by Township, Range and Section

Township	Range	Section(s)
Wheatridge East		
1N	28E	4, 5, 8, 9, 16, 17, 21
2N	28E	2, 3, 9, 10, 11, 14, 15, 16, 21, 22, 27, 28, 29, 32, 33
Wheatridge West		
2N	25E	25, 26, 27, 34, 35, 36
1N	25E	1, 2, 11, 12, 13, 14, 15, 22, 23, 24
1N	26E	4, 6, 7, 8, 9, 15, 16, 17, 18, 19, 20, 21, 22, 28, 29, 30, 32, 33
1S	25E	1, 12
1S	26E	2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 34, 35, 36
2S	26E	1, 12
Intraconnection Corridor		
1S	27E	7, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24
1S	28E	3, 4, 7, 8, 9, 16, 17, 18
1N	28E	28, 33

For this facility, the certificate holder requested that the site boundary represent the “micrositing corridor” for the placement of facility components to allow some flexibility in specific component locations and design in response to site-specific conditions and engineering requirements to be determined prior to construction. The Council permits final siting flexibility within a micrositing corridor when the certificate holder demonstrates that requirements of all applicable standards have been satisfied by adequately evaluating the entire corridor and location of facility components anywhere within the corridor.

2.2 Micrositing Corridor

The certificate holder requested flexibility to locate components of the energy facility and its related and supporting facilities within a micrositing corridor to allow adjustment of the specific location of components, while establishing outer boundaries of potential construction for purposes of evaluating potential impacts. As described above, for this facility, the site boundary represents the micrositing corridor, and is a minimum of approximately 660 feet in width around turbines, and wider in some locations. The site boundary width around site access roads and electrical collection lines (collector lines) is narrower, between 200 feet and 500 feet in width. The micrositing corridor is wider for the area surrounding the substations, meteorological towers (met towers), the operation and maintenance (O&M) buildings, and construction yards.

2.3 Intraconnection Transmission Line Corridor

The certificate holder obtained approval of four routing options for the 230 kV intraconnection transmission line that interconnects Wheatridge West and Wheatridge East for the transmission of generated power. The intraconnection transmission line corridor is approximately 1,000-feet in width and ranges in length from 24.5 to 31.5 miles, based upon the four approved transmission line route options.

The four approved transmission line route options range in length from 24.5 to 31.5 miles and would follow the same alignment for approximately 18 miles from the Wheatridge East substation to the crossing at Sand Hollow Road. For the remainder of the route, Options 1 and 3 traverse the same alignment, with Option 1 extending 7 miles longer than Option 3; Option 2 and 4 traverse the same alignment, with Option 2 extending 3.5 miles longer than Option 4. Option 1 and 2 differ for an approximately 4 mile segment located between Sand Hollow Road and the Wheatridge West substation (primary), with Option 2 traversing from Sand Hollow Road through the alternative (2b) Wheatridge West substation to the primary (1) Wheatridge West substation. The four approved routing options and associated transmission line corridors are presented in Attachment A of the site certificate (and are clearly delineated in figures provided in ASC Exhibit C). Options 2 and 4 would not be selected if energy storage facilities are included in the final design.

3.0 Facility Description

3.1 Energy Facility

The energy facility includes individual wind turbines, each consisting of a nacelle, a three-bladed rotor, turbine tower and foundation. The nacelle houses the equipment such as the gearbox, generator, brakes, and control systems for the turbine. The total height of the turbine tower and blades (tip-height) ranges between 431 and 476 feet, depending on the turbine model selected. The total generating capacity of the facility will not exceed 500 MW, and the total number of turbines will not exceed 292.

The base of each tower foundation requires a cleared area (typically a gravel pad) up to 80 feet in diameter. The turbines are grouped in linear “strings” within the micrositing corridor and interconnect with a 34.5 kV electrical collection system (described below). Most turbine types include a generator step-up (GSU) transformer installed at the base of the tower that would be used to increase the voltage of the turbine to that of the electrical collection system. Table 2 shows the range of turbine specifications approved for use at the facility site.

Table 2: Turbine Specifications used for Impact Evaluations

Specification	Maximum
Turbine Generating Capacity (Individual)	2.5 MW
Blade Length	197 ft.
Hub Height	278 ft.
Rotor Diameter (Rotor Swept Height)	393 ft.
Total Height (tower height plus blade length)	476 ft.

3.2 Related or Supporting Facilities

The facility includes the following related or supporting facilities described below and in greater detail in the *Final Order on the Application*, and *Final Order on Request for Transfer*:

- Electrical collection system (includes up to 88 miles of mostly underground 34.5 kV collector lines)
- Up to three collector substations
- Up to 32 miles of up to two overhead, parallel 230 kV transmission lines
- Up to 12 permanent meteorological (met) towers
- Communication and Supervisory Control and Data Acquisition (SCADA) System
- Up to two operations and maintenance (O&M) buildings
- Up to 73 miles of new or improved access roads
- Additional temporary construction areas (including staging areas and one or more temporary concrete batch plant areas)
- [Energy storage sites](#)

Electrical Collection System

The electrical collection system includes up to 88 miles of mostly underground 34.5 kV collector lines. Electrical connections are located underground or in enclosed junction boxes between the turbine and the pad-mounted GSU transformer. From the GSU transformer to the collector lines the connections are installed along and between the turbine strings to collect power generated by each wind turbine and to route the power to one of three collector substations, which step up the power from 34.5 kV to 230 kV.

The collector lines are underground, to the extent practicable, in trenches approximately three-feet wide and not less than two- to three-feet deep, generally alongside access roads, to minimize ground disturbance. Where land use and soil conditions make a buried depth of three-feet infeasible, collector lines may be buried at a depth of less than three feet, while still adhering to National Electrical Safety Code (NESC) standards.

Collector lines may be run overhead in situations where a buried cable would be infeasible or would create unnecessary impacts, such as at stream or canyon crossings. Overhead collector lines are supported by a wooden or steel pole structure. Each support pole has been buried approximately 6 feet in the ground and extends to a height of approximately 60 feet above ground, spaced 100 to 200 feet apart. Overhead collector lines are only anticipated in Wheatridge West. The facility includes up to 10.8 miles of overhead collector lines; however, the specific locations of overhead collector lines will not be known until site geotechnical work has been completed during pre-construction activities.

No more than 88 miles of collector lines would be needed for the facility.

Collector Substations

The facility includes up to two substations within Wheatridge West and one substation within Wheatridge East. The proposed substation locations are presented in ASC Exhibit C. However, Wheatridge has requested, and Council grants, the ability to microsite the final location and number (up to three) of substations within the microsite corridor.

Prior to construction, substation sites will be cleared and graded, with a bed of crushed rock applied for a durable surface. Each collector substation is located on a two- to five-acre site, enclosed by a locked eight-foot tall wire mesh fence. Each substation consists of transformers, transmission line termination structures, a bus bar, circuit breakers and fuses, control systems, meters, and other equipment.

230 kV Intraconnection Transmission Line

The facility includes one or two parallel overhead 230 kV intraconnection transmission lines supported by H-frame or monopole structures constructed of either wood or steel that extends 24.5 to 31.5 miles in length, depending on the route option selected. The 230 kV overhead transmission line structures are approximately 60 to 150 feet tall and spaced approximately 400 to 800 feet apart depending on the terrain. Each transmission line route requires acquisition of an approximately 150-

foot wide right-of-way from private landowners.

The four approved transmission line routing options and associated corridors for the intraconnection transmission line are described below (see Attachment A figure and figures contained in ASC Exhibit C):

- Option 1: Two Project Substations to Longhorn
 - This option runs from Substation 3 in Wheatridge East to Substation 1 in Wheatridge West and then to the proposed UEC/CB Strawberry substation, just to the west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route is 31.5 miles (50.5 kilometers) in length.

- Option 2: Three Project Substations to Longhorn
 - This option runs from Substation 3 in Wheatridge East to Substation 2b in Wheatridge West, then on to Substation 2a in Wheatridge West, and then to the proposed UEC/CB Strawberry substation, just west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route is 31.3 miles (50.3 kilometers) in length. Option 2 would only be selected if energy storage facilities are not constructed.

- Option 3: Two Project Substations to Stanfield
 - This option runs from Substation 1 in Wheatridge West to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route is 24.5 miles (39.4 kilometers) in length.

- Option 4: Three Project Substations to Stanfield
 - This option runs from Substation 2a in Wheatridge West to Substation 2b in Wheatridge West, and then to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route is 27.8 miles (44.7 kilometers) in length. Option 4 would only be selected if energy storage facilities are not constructed.

Meteorological Towers

The facility includes up to 12 permanent met towers. Up to five met towers are sited in Wheatridge East and up to seven met towers are sited in Wheatridge West for the collection of wind speed and direction data. Each met tower has a free-standing, non-guyed design and is approximately 328 feet (100 meters) in height. Installation of permanent met towers results in approximately 98-feet (30-meters) in diameter of temporary land disturbance per tower and approximately 32-feet (10-meter) in diameter of permanent land disturbance per tower. Permanent met towers are fitted with safety lighting and paint as required by the Federal Aviation Administration (FAA).

Communication and SCADA System

The facility includes a communication system, consisting of fiber optic and copper communication lines that connect the turbines, met towers, and substations to the O&M buildings. A SCADA system is installed in the O&M buildings to enable remote operation to collect operating data for each wind turbine, and to archive wind and performance data. SCADA system wires are collocated with the collector lines both in the underground trenches and overhead, if necessary.

O&M Buildings

The facility includes up to two O&M buildings, each located on up to 1.1 acres, one within Wheatridge East and one within Wheatridge West. Each O&M building consists of a single-story, prefabricated structure approximately 6,000 to 9,000 square feet in size, and includes an office, break room, kitchen, lavatory with shower, utility room, covered vehicle parking, storage for maintenance supplies and equipment, and SCADA system. A permanent, fenced, graveled parking and storage area for employees, visitors, and equipment is located adjacent to each O&M building. Each building is served by an on-site well and septic system and power supplied by a local service provider using overhead and/or underground lines.

Access Roads

Primary access to the facility site is from Interstate 84 (I-84) via Bombing Range Road or Oregon Route 207 (OR-207). The certificate holder completed improvements to existing public roads to accommodate construction activities, including flattening crests or filling dips, widening sharp corners, or adding road base material; the certificate holder is required to consult with the appropriate county road master on specific improvements prior to construction. The certificate holder committed to completing upgrade to existing roads according to applicable state and county road standards and after consultation with Morrow and Umatilla County staff. The certificate holder is required to implement a road use agreement with each county to specify requirements, including that all existing public roads used to access the site would be left in as good or better condition than that which existed prior to the start of construction.

Access to the turbines, construction yards, substations, and O&M buildings is from a network of private access roads constructed or improved by the certificate holder. The certificate holder will grade and gravel all newly constructed and improved site access roads to meet load requirements for heavy construction equipment, as necessary. Following turbine construction, the certificate holder will narrow the site access roads for use during operations and maintenance. The additional disturbed width required during construction will be restored following the completion of construction by removing gravel surfacing, restoring appropriate contours with erosion and stormwater control best management practices (BMPs), decompacting as needed, and revegetating the area appropriately.

In the maximum impact scenario, the facility will require up to 73 miles of access roads.

Temporary access roads were needed for the construction of the intraconnection transmission line(s). The intraconnection transmission line(s) can be constructed and maintained using only large trucks rather than heavy construction cranes, and construction will occur during the dry time of year when the ground surface is hard enough to support those vehicles. Therefore, the interconnection

transmission lines do not include permanent access roads. The total mileage of the temporary access roads needed for constructing the intraconnection transmission line(s) depends on the intraconnection line route option chosen. The shortest route would require approximately 22.8 miles of access roads, while the longest would require approximately 25.5 miles.

Additional Construction Yards

The facility includes up to four temporary construction yards located within the site boundary to facilitate the delivery and assembly of material and equipment. The construction yards are used for temporary storage of diesel and gasoline fuels, which are located in an above-ground 1,000-gallon diesel and 500-gallon gasoline tank, within designated secondary containments areas.

Each construction yard occupies between 15 and 20 acres, and was graded and gravel surfaced. The certificate holder is required to restore all construction yards to pre-construction conditions unless an agreement with the landowner leads to some or all of the construction yard being retained after construction.

In addition, the certificate holder may utilize one or more temporary concrete batch plant areas, located within the construction yard area. The temporary concrete batch plants are permitted and operated by the selected contractor.

Energy storage sites

The facility will include up to two energy storage sites within the site boundary not to exceed 5 acres each. Energy storage allows for energy generated from an energy facility to be stored as available, and later deployed as needed, providing greater consistency of energy supply and the opportunity to respond to market demands. The energy storage sites will be sited as close to the facility substations as practicable.

4.0 Site Certificate Conditions

4.1 Condition Format

The conditions in Sections 4.2 through 4.7 of this Site Certificate are organized and coded to indicate the phase of implementation, the standard the condition is required to satisfy, and an identification number (1, 2, 3, etc.)¹. The table below presents a “key” for phase of implementation:

Key	Type of Conditions/Phase of Implementation
GEN	General Conditions: Design, Construction and Operation
PRE	Pre-Construction Conditions
CON	Construction Conditions
PRO	Pre-Operational Conditions
OPR	Operational Conditions
RET	Retirement Conditions

The standards are presented using an acronym; for example, the General Standard of Review is represented in the condition numbering as “GS”; the Soil Protection standard is represented in the condition numbering as “SP” and so forth.

For example, the coding of Condition GEN-GS-01 represents that the condition is a general condition (GEN) to be implemented during design, construction and operation of the facility, is required to satisfy the Council’s General Standard of Review, and is condition number 1.

¹ The identification number is not representative of an order that conditions must be implemented; it is intended only to represent a numerical value for identifying the condition.

4.2 General Conditions (GEN): Design, Construction and Operations

Condition Number	General (GEN) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
GEN-GS-01	<p>The certificate holder shall begin construction of the facility within three years after the effective date of the site certificate. Under OAR 345-015-0085(9), the site certificate is effective upon execution by the Council chair and the applicant.</p> <p>[Final Order on ASC, General Standard Condition 1]</p>
GEN-GS-02	<p>The certificate holder shall complete construction of the facility within six years after the effective date of the site certificate.</p> <p>[Final Order on ASC, General Standard Condition 2]</p>
GEN-GS-03	<p>The certificate holder shall design, construct, operate, and retire the facility:</p> <ol style="list-style-type: none"> a. Substantially as described in the site certificate; b. In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and c. In compliance with all applicable permit requirements of other state agencies. <p>[Final Order on ASC, Mandatory Condition 2] [OAR 345-027-0020(3)]</p>
GEN-GS-04	<p>Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under this section, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, “construction rights” means the legal right to engage in construction activities. For wind energy facilities, transmission lines or pipelines, if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of a transmission line or pipeline occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site.</p> <p>[Final Order on ASC, Mandatory Condition 3] [OAR 345-027-0020(5)]</p>
GEN-GS-05	<p>If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the department describing the impact on the facility and any affected site certificate conditions.</p> <p>[Final Order on ASC, Mandatory Condition 4] [OAR 345-027-0020(6)]</p>
GEN-GS-06	<p>The Council shall include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant.</p> <p>[Final Order on ASC, Mandatory Condition 5] [OAR 345-027-0020(10)]</p>

GEN-GS-07	<p>Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility.</p> <p>[Final Order on ASC, Mandatory Condition 6] [OAR 345-027-0020(11)]</p>
GEN-GS-08	<p>The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule “seismic hazard” includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence.</p> <p>[Final Order on ASC, Mandatory Condition 7] [OAR 345-027-0020(12)]</p>
GEN-GS-09	<p>The certificate holder shall notify the department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division and to propose mitigation actions.</p> <p>[Final Order on ASC, Mandatory Condition 8] [OAR 345-027-0020(13)]</p>
GEN-GS-10	<p>The certificate holder shall notify the department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site.</p> <p>[Final Order on ASC, Mandatory Condition 9] [OAR 345-027-0020(14)]</p>
GEN-GS-11	<p>Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the department of the proposed new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that requires a transfer of the site certificate.</p> <p>[Final Order on ASC, Mandatory Condition 10] [OAR 345-027-0020(15)]</p>
GEN-GS-12	<p>The Council shall specify an approved corridor in the site certificate and shall allow the certificate holder to construct the pipeline or transmission line anywhere within the corridor, subject to the conditions of the site certificate. If the applicant has analyzed more than one corridor in its application for a site certificate, the Council may, subject to the Council’s standards, approve more than one corridor.</p> <p><i>[The transmission line corridors approved by EFSC pursuant to this condition is described in Section 2.3 of the site certificate, and presented in the facility site map (see Attachment A of the site certificate).</i></p> <p><i>[Final Order on ASC, Site Specific Condition 1] [OAR 345-027-0023(5)]</i></p>
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
GEN-OE-01	<p>Any matter of non-compliance under the site certificate is the responsibility of the certificate holder. Any notice of violation issued under the site certificate will be issued to the certificate holder. Any civil penalties under the site certificate will be levied on the certificate holder.</p> <p>[Final Order on ASC, Organizational Expertise Condition 5]</p>

GEN-OE-02	<p>In addition to the requirements of OAR 345-026-0170, within 72 hours after discovery of incidents or circumstances that violate the terms or conditions of the site certificate, the certificate holder must report the conditions or circumstances to the department.</p> <p>[Final Order on ASC, Organizational Expertise Condition 6]</p>
GEN-OE-03	<p>During facility construction and operation, the certificate holder shall report to the Department, within 7 days, any change in the corporate structure of the parent company, NextEra Energy Resources, LLC. The certificate holder shall report promptly to the Department any change in its access to the resources, expertise, and personnel of NextEra Energy Resources, LLC.</p> <p>[Amendment #1 , Organizational Expertise Condition 9]</p>
STANDARD: STRUCTURAL (SS) [OAR 345-022-0020]	
GEN-SS-01	<p>The certificate holder shall design, engineer, and construct the facility in accordance with the current versions of the latest International Building Code, Oregon Structural Specialty Code, and building codes as adopted by the State of Oregon at the time of construction.</p> <p>[Final Order on ASC, Structural Standard Condition 2]</p>

STANDARD: LAND USE (LU) [OAR 345-022-0030]

GEN-LU-01	<p>The certificate holder shall design the facility to comply with the following wind turbine setback distances in Morrow County:</p> <ul style="list-style-type: none">a. Wind turbines shall be setback from the property line of any abutting property of any non-participant property owners a minimum of 110 percent of maximum blade tip height of the wind turbine tower.b. Wind turbines shall be setback 100 feet from all property boundaries, including participant property boundaries within the site boundary, if practicable.c. Wind turbine foundations shall not be located on any property boundary, including participant property boundaries within the site boundary. <p>[Final Order on ASC, Land Use Condition 1]</p>
GEN-LU-02	<p>During design and construction of the facility, the certificate holder shall:</p> <ul style="list-style-type: none">a. Obtain an access permit for changes in access on Morrow County roads; andb. Improve or develop private access roads impacting intersections with Morrow County roads in compliance with Morrow County access standards. <p>[Final Order on ASC, Land Use Condition 4]</p>
GEN-LU-03	<p>During design and construction, the certificate holder shall implement the following actions on all meteorological towers approved through the site certificate:</p> <ul style="list-style-type: none">a. Paint the towers in alternating bands of white and red or aviation orange; andb. Install aviation lighting as recommended by the Federal Aviation Administration. <p>[Final Order on ASC, Land Use Condition 9]</p>
GEN-LU-04	<p>The certificate holder shall design and construct the facility using the minimum land area necessary for safe construction and operation. The certificate holder shall locate access roads and temporary construction laydown and staging areas to minimize disturbance of farming practices and, wherever feasible, shall place turbines and transmission interconnection lines along the margins of cultivated areas to reduce the potential for conflict with farm operations. Where possible, underground communication and electrical lines shall be buried within the area disturbed by temporary road widening.</p> <p>[Final Order on ASC, Land Use Condition 11]</p>
GEN-LU-05	<p>During design and construction of the facility, the certificate holder shall ensure that fencing and landscaping selected and used for the O&M building and similar facility components sited within Morrow County blend with the nature of the surrounding area.</p> <p>[Final Order on ASC, Land Use Condition 14]</p>
GEN-LU-06	<p>During micrositing of the facility, the certificate holder shall ensure that wind turbines are sited based on a minimum setback of 110% of the overall tower-to-blade tip height from the boundary right-of-way of county roads and state and interstate highways in Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 16]</p>
GEN-LU-07	<p>During design and construction, the certificate holder must ensure that the O&M building in Umatilla County is consistent with the character of similar agricultural buildings used by commercial farmers or ranchers in Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 20]</p>

GEN-LU-08	<p>During facility design and construction of new access roads and road improvements, the certificate holder shall implement best management practices after consultation with the Umatilla County Soil Water Conservation district. The new and improved road designs must be reviewed and certified by a civil engineer.</p> <p>[Final Order on ASC, Land Use Condition 22]</p>
GEN-LU-09	<p>Before beginning electrical production, the certificate hold shall provide the location of each turbine tower, electrical collecting lines, the O&M building, the substation, project access roads, and portion of the intraconnection transmission line located in Umatilla County to the department and Umatilla County in a format suitable for GPS mapping.</p> <p>[Final Order on ASC, Land Use Condition 24]</p>
GEN-LU-10	<p>During construction and operation of the facility, the certificate holder shall deliver a copy of the annual report required under OAR 345-026-0080 to the Umatilla County Planning Commission on an annual basis.</p> <p>[Final Order on ASC, Land Use Condition 28]</p>
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
GEN-RF-01	<p>The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.</p> <p>[Final Order on ASC, Retirement and Financial Assurance Condition 1] [Mandatory Condition OAR 345-027-0020(7)]</p>
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
GEN-FW-01	<p>During construction and operation, the certificate holder shall impose a 20 mile per hour speed limit on new and improved private access roads, which have been approved as a related and supporting facility to the energy facility.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 2]</p>
GEN-FW-02	<p>The certificate holder shall construct all overhead collector and transmission intraconnection lines in accordance with the latest Avian Power Line Interaction Committee design standards, and shall only install permanent meteorological towers that are unguyed.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 6]</p>
STANDARD: SCENIC RESOURCES (SR) [OAR 345-022-0080]	
GEN-SR-01	<p>To reduce visual impacts associated with lighting facility structures, other than lighting on structures subject to the requirements of the Federal Aviation Administration or the Oregon Department of Aviation, the certificate holder shall implement the following measures:</p> <ol style="list-style-type: none"> a. Outdoor night lighting at the collector substations and Operations and Maintenance Buildings must be <ol style="list-style-type: none"> i. The minimum number and intensity required for safety and security; ii. Directed downward and inward within the facility to minimize backscatter and offsite light trespass; and iii. Have motion sensors and switches to keep lights turned off when not needed. <p>[Final Order on ASC, Scenic Resources Condition 1]</p>

GEN-SR-02	<p>The certificate holder shall:</p> <ol style="list-style-type: none"> a. Design and construct the O&M buildings generally consistent with the character of agricultural buildings used by farmers or ranchers in the area, and the buildings shall be finished in a neutral color to blend with the surrounding landscape; b. Paint or otherwise finish turbine structures in a grey, white, or off-white, low reflectivity coating to minimize reflection and contrast with the sky, unless required otherwise by the local code applicable to the structure location. c. Design and construct support towers for the intraconnection transmission lines using either wood or steel structures and utilize finish with a low reflectivity coating; d. Finish substation structures utilizing neutral colors to blend with the surrounding landscape; e. Minimize use of lighting and design lighting to prevent offsite glare; f. Not display advertising or commercial signage on any part of the proposed facility; g. Limit vegetation clearing and ground disturbance to the minimum area necessary to safely and efficiently install the facility equipment; h. Water access roads and other areas of ground disturbance during construction, as needed, to avoid the generation of airborne dust; and i. Restore and revegetate temporary impact areas as soon as practicable following completion of construction. <p>[Final Order on ASC, Scenic Resources Condition 2]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
GEN-PS-01	<p>During construction and operation, the certificate holder shall coordinate with its solid waste handler to provide the information solicited through the Oregon Department of Environmental Quality's Recycling Collector Survey to the Morrow County waste shed representative on an annual basis.</p> <p>[Final Order on ASC, Public Services Condition 5]</p>
GEN-PS-02	<p>The certificate holder shall construct turbine towers with no exterior ladders or access to the turbine blades and shall install locked tower access doors. The O&M buildings shall be fenced. The certificate holder shall keep tower access doors and O&M buildings locked at all times, except when authorized personnel are present.</p> <p>[Final Order on ASC, Public Services Condition 11]</p>

GEN-PS-03	<p>Prior to construction and operation of the facility, , the certificate holder must provide employee fire prevention and response training that includes instruction on facility fire hazards, fire safety, emergency notification procedures, use of fire safety equipment, and fire safety rules and regulations. The certificate holder shall notify the department and the first-response agencies listed in the Emergency Management Plan developed to comply with Public Services Condition 13 at least 30 days prior to the annual training to provide an opportunity to participate in the training. Equivalent training shall be provided to new employees or subcontractors working on site that are hired during the fire season. The certificate holder must retain records of the training and provide them to the department upon request.</p> <p>[Final Order on ASC, Public Services Condition 18]</p>
STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]	
GEN-WF-01	<p>During construction and operation, the certificate holder shall follow manufacturers' recommended handling instructions and procedures to prevent damage to turbine or turbine tower components.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 3]</p>
GEN-WF-02	<p>The certificate holder shall notify the department, the Morrow County Planning Department and the Umatilla County Planning Department within 72 hours of any accidents including mechanical failures on the site associated with construction or operation of the facility that may result in public health or safety concerns.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 5]</p>

4.3 Pre-Construction (PRE) Conditions

Condition Number	Pre-Construction (PRE) Conditions
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
PRE-OE-01	<p>Before beginning construction, the certificate holder shall notify the department of the identity and qualifications of the major design, engineering and construction contractor(s) for the facility. The certificate holder shall select contractors that have substantial experience in the design, engineering and construction of similar facilities. The certificate holder shall report to the department any changes of major contractors.</p> <p>[Final Order on ASC, Organizational Expertise Condition 1]</p>
PRE-OE-02	<p>Before beginning construction, the certificate holder shall notify the department of the identity and qualifications of the construction manager to demonstrate that the construction manager is qualified in environmental compliance and has the capability to ensure compliance with all site certificate conditions.</p> <p>[Final Order on ASC, Organizational Expertise Condition 2]</p>
PRE-OE-03	<p>Prior to construction, the certificate holder shall contractually require all construction contractors and subcontractors involved in the construction of the facility to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. Such contractual provisions shall not operate to relieve the certificate holder of responsibility under the site certificate.</p> <p>[Final Order on ASC, Organizational Expertise Condition 3]</p>
PRE-OE-04	<p>Before beginning construction, the certificate holder shall notify the department before conducting any work on the site that does not qualify as surveying, exploration, or other activities to define or characterize the site. The notice must include a description of the work and evidence that its value is less than \$250,000 or evidence that the certificate holder has satisfied all conditions that are required prior to beginning construction.</p> <p>[Final Order on ASC, Organizational Expertise Condition 4]</p>
PRE-OE-05	<p>Prior to construction, the certificate holder must provide the department and Umatilla and Morrow Counties with the name(s) and location(s) of the aggregate source and evidence of the source’s county permit(s).</p> <p>[Final Order on ASC, Organizational Expertise Condition 7]</p>
PRE-OE-06	<p>Before beginning construction on any phase of the facility, the certificate holder must provide evidence to the department and Morrow and Umatilla counties that the third party that will construct, own and operate the interconnection transmission line has obtained all necessary approvals and permits for that interconnection transmission line and that the certificate holder has a contract with the third party for use of the transmission line.</p> <p>[Final Order on ASC, Organizational Expertise Condition 8]</p>

STANDARD: STRUCTURAL (SS) [OAR 345-022-0020]

PRE-SS-01	<p>Before beginning construction, the certificate holder must conduct a site-specific geological and geotechnical investigation, and shall report its findings to DOGAMI and the department. The report shall be used by the certificate holder in final facility layout and design. The department shall review, in consultation with DOGAMI, and confirm that the investigation report includes an adequate assessment of the following information:</p> <ul style="list-style-type: none">• Subsurface soil and geologic conditions of the site boundary• Define and delineate geological and geotechnical hazards, and means to mitigate these hazards• Geotechnical design criteria and data for the turbine foundations, foundations of substations, O&M buildings, roads, and other related and supporting facilities• Design data for installation of underground and overhead collector lines, and overhead transmission lines• Investigation of specific areas with potential for slope instability and landslide hazards. Landslide hazard evaluation shall be conducted by LIDAR and field work, as recommended by DOGAMI• Investigations of the swell and collapse potential of loess soils within the site boundary. <p>[Final Order on ASC, Structural Standard Condition 1]</p>
PRE-SS-02	<p>Prior to construction, the certificate holder shall include as part of the geotechnical investigation required per Structural Standard Condition 1, an investigation of all potentially active faults within the site boundary, including the fault labeled as 2438 on Figures H-1 and H-2 of ASC Exhibit H. The investigation shall include a description of the potentially active faults, their potential risk to the facility, and any additional mitigation that will be undertaken by the certificate holder to ensure safe design, construction, and operation of the facility.</p> <p>[Final Order on ASC, Structural Standard Condition 3]</p>
PRE-SS-03	<p>Prior to construction, the certificate holder shall include as part of the geotechnical investigation required per Structural Standard Condition 1 an investigation of specific areas with potential for slope instability and shall site turbine strings appropriate to avoid potential hazards. The landslide hazards shall be investigated and mapped before final facility layout and design. The landslide hazard evaluation shall be conducted by a combination of LIDAR and field work.</p> <p>[Final Order on ASC, Structural Standard Condition 4]</p>
PRE-SS-04	<p>Prior to construction, the certificate holder shall include as part of the geotechnical investigation required per Structural Standard Condition 1, an investigation of the swell and collapse potential of loess soil in the site boundary. Based on the results of the investigation, the certificate holder shall include mitigation measures including, as necessary, over-excavating and replacing loess soil with structural fill, wetting and compacting, deep foundations, or avoidance of specific areas.</p> <p>[Final Order on ASC, Structural Standard Condition 5]</p>

STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]

PRE-SP-01	<p>Prior to beginning construction, the certificate holder shall provide a copy of a DEQ-approved construction Spill Prevention Control and Countermeasures (SPCC) plan, to be implemented during facility construction. The SPCC plan shall include the measures described in Exhibit I of ASC and in the final order approving the site certificate.</p> <p>[Final Order on ASC, Soil Protection Condition 3]</p>
-----------	---

PRE-SP-02	<p>Prior to construction, the certificate holder shall ensure that the final Revegetation Plan includes a program to protect and restore agricultural soils temporarily disturbed during facility construction. As described in the final order, agriculture soils shall be properly excavated, stored, and replaced by soil horizon. Topsoil shall be preserved and replaced. The Revegetation Plan shall be finalized pursuant to Fish and Wildlife Condition 11.</p> <p>[Final Order on ASC, Soil Protection Condition 4]</p>
PRE-SP-03	<p>Prior to beginning construction of the O&M buildings, the certificate holder shall secure any necessary septic system permits from DEQ. Copies of the necessary permits must be provided to the department prior to beginning construction of the O&M buildings.</p> <p>[Final Order on ASC, Soil Protection Condition 7]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
PRE-LU-01	<p>Before beginning construction, the certificate holder shall complete the following:</p> <ol style="list-style-type: none"> a. Pay the requisite fee and obtain a Zoning Permit from Morrow County for all facility components sited in Morrow County; and b. Obtain all other necessary local permits, including building permits. <p>[Final Order on ASC, Land Use Condition 3]</p>
PRE-LU-02	<p>Before beginning construction, the certificate holder shall pay the requisite fee and obtain a Conditional Use Permit as required under Morrow County Zoning Ordinance Article 6 Section 6.015.</p> <p>[Final Order on ASC, Land Use Condition 5]</p>
PRE-LU-03	<p>Before beginning construction, the certificate holder shall prepare a Weed Control Plan that is consistent with Morrow and Umatilla County weed control requirements to be approved by the department. The department shall consult with Morrow and Umatilla counties and ODFW. The final plan must be submitted to the department no less than 30 days prior to the beginning of construction. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility.</p> <p>[Final Order on ASC, Land Use Condition 6]</p>
PRE-LU-04	<p>Before beginning construction, the certificate holder shall record in the real property records of Morrow County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland.</p> <p>[Final Order on ASC, Land Use Condition 7]</p>
PRE-LU-05	<p>Prior to beginning construction, the certificate holder shall consult with surrounding landowners and lessees and shall consider proposed measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs during construction and operation of the facility. Prior to beginning construction, the certificate holder shall provide evidence of this consultation to the department, Morrow County, and Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 12]</p>
PRE-LU-06	<p>Before beginning construction, the certificate holder shall work with the Morrow County Road Department to identify specific construction traffic related concerns, and develop a traffic management plan that specifies necessary traffic control measures to mitigate the effects of the temporary increase in traffic. The certificate holder must provide a copy of the traffic management plan to the department and Morrow County, and must implement the traffic management plan during construction.</p> <p>[Final Order on ASC, Land Use Condition 13]</p>

PRE-LU-07	Before beginning construction, the certificate holder must pay the requisite fee(s) and obtain a Zoning Permit(s) from Umatilla County for facility components sited within Umatilla County, including, but not limited to, turbines, substation, O&M building, and the intraconnection line. [Final Order on ASC, Land Use Condition 15]
PRE-LU-08	Prior to facility construction, the certificate holder shall install gates and no trespassing signs at all private access roads established or improved for the purpose of facility construction and operation. [Final Order on ASC, Land Use Condition 18]
PRE-LU-09	Before beginning construction, the certificate holder shall record in the real property records of Umatilla County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland. [Final Order on ASC, Land Use Condition 21]
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
PRE-RF-01	Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility. [Final Order on ASC, Retirement and Financial Assurance Condition 4] [Mandatory Condition OAR 345-027-0020(8)]

PRE-RF-02

Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount for the facility is \$18.1 million dollars (Q1 2015 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) of this condition:

- (a) The certificate holder may adjust the amount of the initial bond or letter of credit based on the final design configuration of the facility. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b) and subject to review and approval by the Council.
- (b) The certificate holder shall adjust the amount of the bond or letter of credit using the following calculation:
 - (1) Adjust the amount of the bond or letter of credit (expressed in Q1 2015 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency and using the first quarter 2015 index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust first quarter 2015 dollars to present value.
 - (2) Round the result total to the nearest \$1,000 to determine the financial assurance amount.
- (c) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.
- (d) The certificate holder shall use a form of bond or letter of credit approved by the Council. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under OAR 345-026-0080. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.

[Final Order on ASC, Retirement and Financial Assurance Condition 5]

STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]

PRE-FW-01	<p>Prior to final site design and facility layout, the certificate holder shall conduct a field-based habitat survey to confirm the habitat categories of all areas that will be affected by facility components, as well as the locations of any sensitive resources such as active raptor and other bird nests. The survey shall be planned in consultation with the department and ODFW, and survey protocols shall be confirmed with the department and ODFW. Following completion of the field survey, and final layout design and engineering, the certificate holder shall provide the department and ODFW a report containing the results of the survey, showing expected final location of all facility components, the habitat categories of all areas that will be affected by facility components, and the locations of any sensitive resources.</p> <p>The report shall also include an updated version of Table FW-1 Potential Temporary and Permanent Impacts by Habitat Category and Type of the final order, showing the acres of expected temporary and permanent impacts to each habitat category, type, and sub-type. The pre-construction survey shall be used to complete final design, facility layout, and micro-siting of facility components. As part of the report, the certificate holder shall include its impact assessment methodology and calculations, including assumed temporary and permanent impact acreage for each transmission structure, wind turbine, access road, and all other facility components. If construction laydown yards are to be retained post construction, due to a landowner request or otherwise, the construction laydown yards must be calculated as permanent impacts, not temporary.</p> <p>In classifying the affected habitat into habitat categories, the certificate holder shall consult with the department and ODFW. The certificate holder shall not begin construction of the facility until the habitat assessment, categorization, and impact assessment has been approved by the department, in consultation with ODFW. The certificate holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.</p> <p>[Final Order on ASC, Fish and Wildlife Condition 1]</p>
PRE-FW-02	<p>Prior to construction, the certificate holder shall finalize and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this order, based on the final facility design, as approved by the department in consultation with ODFW.</p> <ol style="list-style-type: none">a. The final WMMP must be submitted and ODOE's concurrence received prior to the beginning of construction. ODOE shall consult with ODFW on the final WMMP. The certificate holder shall implement the requirements of the approved WMMP during all phases of construction and operation of the facility.b. The WMMP may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of the WMMP agreed to by the Department. <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 4]</p>
PRE-FW-03	<p>Prior to construction, the certificate holder shall flag all environmentally sensitive areas as restricted work zones. Restricted work zones shall include but not be limited to areas with sensitive or protected plant species, including candidate species, wetlands and waterways that are not authorized for construction impacts, areas with seasonal restrictions, and active state sensitive species bird nests.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 8]</p>

PRE-FW-04	<p>Before beginning construction the certificate holder shall prepare and receive approval from the department of a final Habitat Mitigation Plan. The final Habitat Mitigation Plan shall be based on the final facility design and shall be approved by the department in consultation with ODFW. The Council retains the authority to approve, reject or modify the final HMP.</p> <ol style="list-style-type: none"> a. The final Habitat Mitigation Plan and the department’s approval must be received prior to beginning construction. The department shall consult with ODFW on the final plan. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility. b. The certificate holder shall calculate the size of the habitat mitigation area according to the final design configuration of the facility and the estimated areas of habitat affected in each habitat category, in consultation with the department, as per the pre-construction survey results and impact assessment calculations called for in Fish and Wildlife Condition 1. c. The certificate holder shall acquire the legal right to create, enhance, maintain, and protect the habitat mitigation area, as long as the site certificate is in effect, by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the department prior to the start of construction. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the final Habitat Mitigation Plan. d. The final HMP shall include an implementation schedule for all mitigation actions, including securing the conservation easement, conducting the ecological uplift actions at the habitat mitigation area, revegetation and restoration of temporarily impacted areas, and monitoring. The mitigation actions shall be implemented according to the following schedule, as included in the HMP: <ol style="list-style-type: none"> i. Restoration and revegetation of temporary construction-related impact area shall be conducted as soon as possible following construction. ii. The certificate holder shall obtain legal authority to conduct the required mitigation work at the compensatory habitat mitigation site before commencing construction. The habitat enhancement actions at the compensatory habitat mitigation site shall be implemented concurrent with construction. e. The final HMP shall include a monitoring and reporting program for evaluating the effectiveness of all mitigation actions, including restoration of temporarily impacted areas and ecological uplift actions at the habitat mitigation area. f. The final HMP shall include mitigation in compliance with the Council’s Fish and Wildlife Habitat standard, including mitigation for temporary impacts to Category 4 habitat (shrub-steppe habitat); and, mitigation for all Category 2 habitat impacts that meet the mitigation goal of no net loss of habitat quality or quantity, plus a net benefit of habitat quality or quantity. g. The final HMP may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council (“Council”). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of this plan agreed to by the Department. <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 10]</p>
PRE-FW-05	<p>Before beginning construction, the certificate holder shall prepare and receive approval of a final Revegetation Plan, provided as Attachment C to this order, from the department, in consultation with Umatilla and Morrow counties and ODFW. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 11]</p>

STANDARD: THREATENED AND ENDANGERED SPECIES (TE) [OAR 345-022-0070]

PRE-TE-01	<p>Prior to construction, the certificate holder shall determine the boundaries of Category 1 Washington ground squirrel habitat. The certificate holder shall hire a qualified professional biologist who has experience in detection of Washington ground squirrel to conduct pre-construction surveys using a survey protocol approved by the department in consultation with ODFW. The biologist shall survey all areas of suitable habitat within 1,000 feet of any ground disturbing activity. Ground disturbing activity refers to any potential impact, whether permanent or temporary. The protocol surveys shall be conducted in the active squirrel season (March 1 to May 31) prior to construction commencement. The protocol survey is valid for three years. If construction begins within three years of conducting the protocol survey, but not within one year of the protocol survey, the certificate holder shall conduct a pre-construction survey only within areas of suitable Washington ground squirrel habitat where ground disturbing activity would occur.</p> <p>The certificate holder shall provide written reports of the surveys to the department and to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel (WGS) habitat. The certificate holder shall not begin construction within suitable habitat until the identified boundaries of Category 1 WGS habitat have been approved by the department, in consultation with ODFW.</p> <p>The certificate holder shall avoid any permanent or temporary disturbance in all Category 1 WGS habitat. The certificate holder shall ensure that these sensitive areas are correctly marked with exclusion flagging and avoided during construction.</p> <p>[Final Order on ASC, Threatened and Endangered Species Condition 1]</p>
PRE-TE-02	<p>In accordance with Fish and Wildlife Condition 3, prior to construction, the certificate holder shall finalize and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this order, based on the final facility design, as approved by the department in consultation with ODFW. The final WMMP shall include a program to monitor potential impacts from facility operation on Washington ground squirrel. Monitoring shall be of any known colonies and shall be completed on the same schedule as the raptor nest monitoring for the facility. The monitoring surveys shall include returning to the known colonies to determine occupancy and the extent of the colony as well as a general explanation of the amount of use at the colony. If the colony is not found within the known boundary of the historic location a survey 500 feet out from the known colony will be conducted to determine if the colony has shifted over time. Any new colonies that are located during other monitoring activities, such as raptor nest monitoring surveys, shall be documented and the extent of those colonies should be delineated as well. These newly discovered colonies shall also be included in any future WGS monitoring activities.</p> <p>[Final Order on ASC, Threatened and Endangered Species Condition 2]</p>
PRE-TE-03	<p>To avoid potential impacts to Laurent’s milkvetch, the certificate holder must:</p> <ol style="list-style-type: none">i. Conduct preconstruction plant surveys for Laurent’s milkvetch. If the species is found to occur, the certificate holder must install protection flagging around the plant population and avoid any ground disturbance within this zone.ii. Ensure that any plant protection zone established under (a) above is included on construction plans showing the final design locations.iii. If herbicides are used to control weeds, the certificate holder shall follow the manufacturer’s guidelines in establishing a buffer area around confirmed populations of Laurent’s milkvetch. Herbicides must not be used within the established buffers. <p>[Final Order on ASC, Threatened and Endangered Species Condition 3]</p>

STANDARD: HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]

PRE-HC-01	<p>Before beginning 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 will be temporarily disturbed during construction and the areas that were surveyed in 2013-14 for historic, cultural, and archaeological resources.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 1]</p>
PRE-HC-02	<p>Before beginning construction, the certificate holder shall mark the buffer areas established under Historic, Cultural, and Archeological Resources Condition 3 for all identified historic, cultural, or archaeological resource sites (including those of unknown age) on construction maps and drawings as “no entry” areas. A copy of current maps and drawings must be maintained onsite during construction and made available to the department upon request.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 2]</p>
PRE-HC-03	<p>Before beginning construction, the certificate holder shall ensure that a qualified archeologist, as defined in OAR 736-051-0070, trains construction contractors on how to identify sensitive historic, cultural, and archaeological resources present onsite and on measures to avoid accidental damage to identified resource sites. Records of such training must be maintained onsite during construction, and made available to the department upon request.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 4]</p>

STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]

PRE-PS-01	<p>Prior to construction, the certificate holder shall prepare a Traffic Management Plan that includes the procedures and actions described in this order and the mitigation measures identified in ASC Exhibit U, Section 3.5.4. The plan shall be approved by the department in consultation with the appropriate transportation service providers. The plan shall be maintained onsite and implemented throughout construction of the facility.</p> <p>In addition, the certificate holder shall include the following information in the plan:</p> <ul style="list-style-type: none">a. Procedures to provide advance notice to all affected local jurisdictions and adjacent landowners of construction deliveries and the potential for heavy traffic on local roads;b. A policy of including traffic control procedures in contract specifications for construction of the facility;c. Procedures to maintain at least one travel lane at all times to the extent reasonably possible so that roads will not be closed to traffic because of construction vehicles;d. A policy of ensuring that no equipment or machinery is parked or stored on any county road whether inside or outside the site boundary. The certificate holder may temporarily park equipment off the road but within county rights-of-way with the approval of the Morrow County and Umatilla County Public Works Departments;e. A policy to encourage and promote carpooling for the construction workforce; andf. Procedures to keep state highways and county roads free of gravel that may be tracked out on intersecting roads at facility access points. <p>[Final Order on ASC, Public Services Condition 6]</p>
-----------	--

PRE-PS-02	<p>Before beginning construction, the certificate holder must enter into Road Use Agreements with the Morrow County and Umatilla County Public Works Departments. The Agreements must include, at a minimum, a pre-construction assessment of road surfaces under Morrow County and Umatilla County jurisdiction, construction monitoring, and post-construction inspection and repair. A copy of the Road Use Agreements with Morrow County and Umatilla County must be submitted to the department before beginning construction. If required by Morrow County or Umatilla County, the certificate holder shall post bonds to ensure funds are available to repair and maintain roads affected by the facility.</p> <p>[Final Order on ASC, Public Services Condition 7]</p>
PRE-PS-03	<p>The certificate holder shall design and construct new access roads and private road improvements to standards approved by Umatilla County or Morrow County. Where modifications of county roads are necessary, the certificate holder shall construct the modifications entirely within the county road rights-of-way and in conformance with county road design standards subject to the approval of the Umatilla County and Morrow County Public Works Departments.</p> <p>[Final Order on ASC, Public Services Condition 8]</p>
PRE-PS-04	<p>Before beginning construction, the certificate holder shall submit to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation an FAA Form 7460-1 Notice of Proposed Construction or Alteration for each turbine. Before beginning construction, the certificate holder shall submit to the department the results of the Oregon Department of Aviation aeronautical study and determination. If the department, in consultation with the Oregon Department of Aviation, determines that any turbine would adversely impact an airport's ability to provide service by obstructing the airport's primary or horizontal surface, the department, in consultation with the Oregon Department of Aviation and the certificate holder, shall determine appropriate mitigation, if any, prior to construction.</p> <p>[Final Order on ASC, Public Services Condition 9]</p>

<p>PRE-PS-05</p>	<p>Prior to construction, the certificate holder shall prepare an Emergency Management Plan that includes the procedures and actions described in this order and in ASC Exhibit U. The certificate holder shall submit the plan to ODOE for review and approval in consultation with the appropriate local fire protection districts (including the City of Heppner Volunteer Fire Department, Lone Rural Fire Protection District, and Echo Rural Fire Protection District) prior to construction. The plan shall be maintained onsite and implemented throughout construction and operation of the facility. Any updates to the plan shall be provided to the department within 30 days. All onsite workers shall be trained on the fire prevention and safety procedures contained in the plan prior to working on the facility.</p> <p>Additional information that shall be included in the plan:</p> <ul style="list-style-type: none"> a. Current contact information of at least two facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site. The contact information must include name, telephone number(s), physical location, and email address for the listed contact(s). An updated list must be provided to the fire protection agencies immediately upon any change of contact information. A copy of the contact list, and any updates as they occur, must also be provided to the Department, along with a list of the agencies that received the contact information. b. Identification of agencies that participated in developing the plan; c. Identification of agencies that are designated as first response agencies or are included in any mutual aid agreements with the facility; d. A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility; e. Contact information for each agency listed above; f. Communication protocols for both routine and emergency events and the incident command system to be used in the event a fire response by multiple agencies is needed at the facility; g. Access and fire response at the facility site during construction and operations. Fire response plans during construction should address regular and frequent communication amongst the agencies regarding the number and location of construction sites within the site boundary, access roads that are completed and those still under construction, and a temporary signage system until permanent addresses and signs are in place; h. The designated meeting location in case of evacuation; i. Staff training requirements; and <p>Copies of mutual aid, fire protection association, or other agreements entered into concerning fire protection at the facility site.</p> <p>[Final Order on ASC, Public Services Condition 13]</p>
<p>PRE-PS-06</p>	<p>Before beginning construction, the certificate holder shall develop and implement, or require its contractors to develop and implement, a site health and safety plan that informs workers and others onsite about first aid techniques and what to do in case of an emergency. The health and safety plan will include preventative measures, important telephone numbers, the locations of onsite fire extinguishers, and the names, locations and contact information of nearby hospitals. All onsite workers shall be trained in safety and emergency response, as per the site health and safety plan. The site health and safety plan must be updated on an annual basis, maintained throughout the construction and operations and maintenance phases of the facility, and available upon request by the department.</p> <p>[Final Order on ASC, Public Services Condition 20]</p>

PRE-PS-07	<p>Before beginning construction, the certificate holder shall ensure that all construction workers are certified in first aid, cardio pulmonary resuscitation (CPR), and the use of an automated external defibrillator (AED). The certificate holder must retain records of the certifications and provide them to the department upon request. The certificate holder shall also ensure that an AED is available onsite at all times that construction activities are occurring.</p> <p>[Final Order on ASC, Public Services Condition 21]</p>
STANDARD: WASTE MINIMIZATION (WM,) [OAR 345-022-0120]	
PRE-WM-01	<p>Prior to construction, the certificate holder shall develop a construction waste management plan, to be implemented during all phases of facility construction, which includes at a minimum the following details:</p> <ol style="list-style-type: none"> a. Specification of the number and types of waste containers to be maintained at construction sites and construction yards b. Description of waste segregation methods for recycling or disposal. c. Names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements to be used during construction. <p>The certificate holder shall maintain a copy of the construction waste management plan onsite and shall provide to the department a report on plan implementation in the 6-month construction report required pursuant to OAR 345-026-0080(1)(a).</p> <p>[Final Order on ASC, Waste Minimization Condition 2]</p>
PRE-WM-02	<p>Prior to construction, the certificate holder shall investigate and confirm that no surface waters, shallow groundwater, or drinking water sources will be adversely impacted by the usage of concrete washout water in the foundations of facility components, and shall submit an investigation report to the department. Prior to construction, the department, in consultation with DEQ, shall review the results of the investigation report and shall verify that the plan to dispose of concrete washout water in the foundations of facility components is unlikely to adversely impact surface waters, shallow groundwater, or drinking water sources. The applicant's investigation shall be based on the anticipated final facility layout and design. If the results of the investigation show that the proposed concrete washout water disposal method would cause adverse impacts to surface water, shallow groundwater, or drinking water sources, the applicant shall propose mitigation measures to reduce potential impacts, for review and approval by the department in consultation with DEQ, prior to construction.</p> <p>[Final Order on ASC, Waste Minimization Condition 3]</p>
STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]	
PRE-TL-01	<p>Prior to construction, the certificate holder shall schedule a time to brief the OPUC Safety, Reliability, and Security Division (Safety) Staff as to how it will comply with OAR Chapter 860, Division 024 during design, construction, operations, and maintenance of the facilities.</p> <p>[Final Order on ASC, Siting Standard Condition 2]</p>

STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]

PRE-NC-01

Prior to construction, the certificate holder shall provide to the department:

- a. Information that identifies the final design locations of all facility components to be built at the facility;
- b. The maximum sound power level for the facility components and the maximum sound power level and octave band data for the turbine type(s) and transformers selected for the facility based on manufacturers' warranties or confirmed by other means acceptable to the department;
- c. The results of the noise analysis of the final facility design performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The analysis must demonstrate to the satisfaction of the department that the total noise generated by the facility (including turbines and transformers) would meet the ambient noise degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise sensitive properties, or that the certificate holder has obtained the legally effective easement or real covenant for expected exceedances of the ambient noise degradation test described (d) below. The analysis must also identify the noise reduction operation (NRO) mode approach that will be used during facility operation and include a figure that depicts the turbines that will be operating in NRO mode and the associated dBA reduction level; and,
- d. For each noise-sensitive property where the certificate holder relies on a noise waiver to demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy of the legally effective easement or real covenant pursuant to which the owner of the property authorizes the certificate holder's operation of the facility to increase ambient statistical noise levels L_{10} and L_{50} by more than 10 dBA at the appropriate measurement point. The legally effective easement or real covenant must: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the property on which the wind energy facility is located; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval.

[Final Order on ASC, Noise Control Condition 2]

4.4 Construction (CON) Conditions

Condition Number	Construction (CON) Conditions
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
CON-SP-01	<p>During construction, the certificate holder shall conduct all work in compliance with a final Erosion and Sediment Control Plan (ESCP) that is satisfactory to the Oregon Department of Environmental Quality as required under the National Pollutant Discharge Elimination System Construction Stormwater Discharge General Permit 1200-C.</p> <p>[Final Order on ASC, Soil Protection Condition 1]</p>
CON-SP-02	<p>During construction, the erosion and sediment control best management practices and measures as described in ASC Exhibit I, Section 5.2 and listed in the final order approving the site certificate shall be included and implemented as part of the final ESCP.</p> <p>[Final Order on ASC, Soil Protection Condition 2]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
CON-LU-01	<p>During construction, the certificate holder shall comply with the following requirements:</p> <ol style="list-style-type: none"> a. Construction vehicles shall use previously disturbed areas including existing roadways and tracks. b. Temporary construction yards and laydown areas shall be located within the future footprint of permanent structures to the extent practicable. c. New, permanent roadways will be the minimum width allowed while still being consistent with safe use and satisfying county road and safety standards. d. Underground communication and electrical lines will be buried within the area disturbed by temporary road widening to the extent practicable. <p>[Final Order on ASC, Land Use Condition 8]</p>
CON-LU-02	<p>During construction, the certificate holder shall install smooth turbine tower structures and turbine nacelles that lack perching or nesting opportunities for birds.</p> <p>[Final Order on ASC, Land Use Condition 17]</p>
CON-LU-03	<p>During construction, the certificate holder shall install the electrical cable collector system underground, where practicable. In agricultural areas, the collector system lines must be installed at a depth of 3 feet or deeper as necessary to prevent adverse impacts on agriculture operations. In all other areas, the collector system lines must be installed a minimum of 3 feet where practicable.</p> <p>[Final Order on ASC, Land Use Condition 19]</p>
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
CON-FW-01	<p>No construction shall occur in mule deer winter range during winter, defined as December 1 to March 31. Mule deer winter range is based on data to be provided by ODFW at the time of construction.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 3]</p>

CON-FW-02	<p>During construction within the time periods listed below, the certificate holder shall implement buffer zones around nest sites of the species listed below. No ground-disturbing activities within the buffer zone shall occur during the seasonal restrictions. The construction workforce and facility employees must be provided maps with the locations of the buffer zones and be instructed to avoid ground-disturbing activity within the buffer zone during construction activities.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 5]</p>
CON-FW-03	<p>During construction, the certificate holder shall employ a qualified environmental professional to provide environmental training to all personnel prior to working onsite, related to sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. All personnel shall be given clear maps showing areas that are off-limits for construction, and shall be prohibited from working outside of the areas in the site boundary that have been surveyed and approved for construction. The certificate holder shall instruct construction personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager. Records of completed training shall be maintained onsite and made available to the department upon request.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 7]</p>
CON-FW-04	<p>During construction, the certificate holder shall employ at a minimum one environmental inspector to be onsite daily. The environmental inspector shall oversee permit compliance and construction, and ensure that known sensitive environmental resources are protected. The environmental inspector shall prepare a weekly report during construction, documenting permit compliance and documenting any corrective actions taken. Reports shall be kept on file and available for inspection by the department upon request.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 9]</p>
STANDARD: HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
CON-HC-01	<p>Immediately prior to construction activities, the certificate holder must flag or otherwise mark a 200-foot avoidance buffer around historic archaeological sites, as identified by the maps and drawings prepared in accordance with Historic, Cultural, and Archeological Resources Conditions 1 and 2. No disturbance is allowed within the buffer zones. For historic archaeological sites, an archeological monitor must be present if construction activities are required within 200-feet of sites identified as potentially eligible for listing on the National Register of Historic Places (NRHP). The certificate holder may use existing private roads within the buffer areas but may not widen or improve private roads within the buffer areas. The no-entry restriction does not apply to public road rights-of-way within buffer areas. Flagging or marking should be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 3]</p>

CON-HC-02	<p>During construction, the certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archeological or cultural resources are found during construction of the facility until a qualified archeologist can evaluate the significance of the find. The certificate holder shall notify the department and the Oregon State Historic Preservation Office (SHPO) of the find. If ODOE, in consultation with SHPO, determines that the resource meets the definition of an archaeological object, archaeological site, or is eligible or likely to be eligible for listing on the (NRHP), the certificate holder shall, in consultation with the department, SHPO, interested Tribes and other appropriate parties, make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery. The certificate holder shall not restart work in the affected area until the department, in consultation with SHPO, agree that the certificate holder has demonstrated that it has complied with archeological resources protection regulations.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 5]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
CON-PS-01	<p>During construction, the certificate holder shall include the following additional measures in the construction waste management plan required by Waste Minimization Condition 2:</p> <ol style="list-style-type: none"> a. Recycling steel and other metal scrap. b. Recycling wood waste. c. Recycling packaging wastes such as paper and cardboard. d. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler or by using facility equipment and personnel to haul the waste. Waste hauling by facility personnel within Morrow County shall be performed in compliance with the Morrow County Solid Waste Management Ordinance, which requires that all loads be covered and secured. e. Segregating all hazardous and universal wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes. f. Discharging concrete truck rinse-out within foundation holes, completing truck wash-down off-site, and burying other concrete waste as fill on-site whenever possible. <p>[Final Order on ASC, Public Services Condition 3]</p>
CON-PS-02	<p>During construction of the facility, the certificate holder shall provide for 24-hour on-site security, and shall establish effective communications between on-site security personnel and the Morrow County Sheriff's Office and Umatilla County Sheriff's Office.</p> <p>[Final Order on ASC, Public Services Condition 10]</p>
CON-PS-03	<p>During construction of the facility, the certificate holder shall ensure that turbine construction personnel are trained and equipped for fall protection, high angle, and confined space rescue. The certificate holder must retain records of the training and provide them to the department upon request.</p> <p>[Final Order on ASC, Public Services Condition 14]</p>
CON-PS-04	<p>During construction, the certificate holder shall design turbines to be constructed on concrete pads with a minimum of 10 feet of nonflammable and non-erosive ground cover on all sides. The certificate holder shall cover turbine pad areas with nonflammable, non-erosive material immediately following exposure during construction and shall maintain the pad area covering during facility operation.</p> <p>[Final Order on ASC, Public Services Condition 16]</p>

CON-PS-05	<p>During construction the certificate holder must maintain an area clear of vegetation for fire prevention around construction sites, including turbines and towers and any areas where work includes welding, cutting, grinding, or other flame- or spark-producing operations. [Final Order on ASC, Public Services Condition 17]</p>
STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]	
CON-WM-01	<p>During construction, the certificate holder shall require construction contractors to complete the following for any off-site disposal of excess soil during construction activities:</p> <ol style="list-style-type: none"> a. Obtain and provide the certificate holder with a signed consent agreement between contractor and the party receiving the earth materials authorizing the acceptance and disposal of the excess soil; and, b. Confirm that all disposal sites have been inspected and approved by the certificate holder’s environmental personnel to ensure that sensitive environmental resources, such as wetlands or high quality habitats, would not be impacted. <p>The certificate holder shall maintain copies of all signed consent agreements and disposal site inspection and approvals onsite and shall provide to the department in the 6-month construction report required pursuant to OAR 345-026-0080(1)(a). [Final Order on ASC, Waste Minimization Condition 1]</p>
STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]	
CON-WF-01	<p>During construction, the certificate holder shall install pad-mounted step-up transformers at the base of each tower in steel boxes designed to protect the public from electrical hazards. [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 1]</p>
CON-WF-02	<p>During construction, the certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, connected to a fault annunciation panel or supervisory control and data acquisition (SCADA) system to alert operators to potentially dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire. The certificate holder shall immediately remedy any dangerous conditions. [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 4]</p>

STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]

CON-TL-01	<p>During construction, the certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including:</p> <ul style="list-style-type: none">a. Constructing all aboveground collector and transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.b. Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of 25 feet from the ground.c. Constructing all aboveground 230-kV transmission lines with a minimum clearance of 30 feet from the ground.d. Developing and implementing a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, irrigation systems, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line (OAR 345-027-0023(4)).e. Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health and safety risks from induced currents caused by electric and magnetic fields.f. Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public.g. Increasing the intraconnection transmission line height, shielding the electric field, or installing access barriers, if needed, to prevent induced current and nuisance shock of mobile vehicles.h. Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.i. Designing, constructing and operating the transmission line in accordance with the requirements of the 2012 Edition of the National Electrical Safety Code approved on June 3, 2011 by the American National Standards Institute (OAR 345-027-0023(4)).j. Implement a safety protocol to ensure adherence to NESC grounding requirements <p>[Final Order on ASC, Siting Standard Condition 1]</p>
-----------	--

STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]

CON-NC-01

During construction, to reduce construction noise impacts at nearby residences, the certificate holder shall:

- a. Establish and enforce construction site and access road speed limits;
- b. Utilize electrically-powered equipment instead of pneumatic or internal combustion powered equipment, where feasible;
- c. Locate material stockpiles and mobile equipment staging, parking, and maintenance areas as far as practicable away from noise sensitive properties;
- d. Utilize noise-producing signals, including horns, whistles, alarms, and bells for safety warning purposes only;
- e. Equip all noise-producing construction equipment and vehicles using internal combustion engines with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment; and,
- f. Establish a noise complaint response system. All construction noise complaints will be logged within 48 hours of issuance. The construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the owner shall be established prior to the start of construction that will allow for resolution of noise problems that cannot be resolved by the site supervisor in a reasonable period of time. Records of noise complaints during construction must be made available to authorized representatives of the department upon request.

[Final Order on ASC, Noise Control Condition 1]

4.5 Pre-Operational (PRO) Conditions

Condition Number	Pre-Operational (PRO) Conditions
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
PRO-SP-01	<p>Prior to beginning facility operation, the certificate holder shall provide the department a copy of a DEQ-approved operational SPCC plan, if determined to be required by DEQ. If an SPCC plan is not required by DEQ, the certificate holder shall prepare and submit to the department for review and approval an operational Spill Prevention and Management plan. The Spill Prevention and Management Plan shall include at a minimum the following procedures and BMPs:</p> <ul style="list-style-type: none"> • Procedures for oil and hazardous material emergency response consistent with OAR 340, Division 142 • Procedures demonstrating compliance with all applicable local, state, and federal environmental laws and regulations for handling hazardous materials used onsite in a manner that protects public health, safety, and the environment • Current inventory (type and quantity) of all hazardous materials stored onsite, specifying the amounts at each O&M building • Restriction limiting onsite storage of diesel fuel or gasoline • Requirement to store lubricating and dielectric oils in quantities equal to or greater than 55-gallons in qualified oil-filled equipment • Preventative measures and procedures to avoid spills <ul style="list-style-type: none"> ○ Procedures for chemical storage ○ Procedures for chemical transfer ○ Procedures for chemical transportation ○ Procedures for fueling and maintenance of equipment and vehicles ○ Employee training and education • Clean-up and response procedures, in case of an accidental spill or release • Proper storage procedures <p>Reporting procedures in case of an accidental spill or release [Final Order on ASC, Soil Protection Condition 5]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
PRO-PS-01	<p>Prior to operation of the facility, the certificate holder shall ensure that operations personnel are trained and equipped for fall protection and tower rescue, including high angle and confined space rescue. Refresher training in high angle and confined space rescue must be provided to operations personnel on an annual basis throughout the operational life of the facility. The certificate holder must retain records of the training and provide them to the department upon request. [Final Order on ASC, Public Services Condition 15]</p>
PRO-PS-02	<p>Before beginning operation of the facility, the certificate holder must provide a final site plan to the identified fire protection districts and first-responders included in the Emergency Management Plan. The certificate holder must indicate on the site plan the identification number assigned to each turbine and the actual location of all facility structures. The certificate holder shall provide an updated site plan if additional turbines or other structures are later added to the facility. [Final Order on ASC, Public Services Condition 19]</p>

PRO-PS-03	Prior to operation, the certificate holder must ensure that operations personnel remain current in their first aid/CPR/AED certifications throughout the operational life of the facility. The certificate holder must retain records of the certifications and provide them to the department upon request. The certificate holder shall also ensure that an AED is available onsite at all times that operations and maintenance personnel are at the facility. [Final Order on ASC, Public Services Condition 22
-----------	--

4.6 Operational (OPR) Conditions

Condition Number	Operational (OPR) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
OPR-GS-01	<p>The certificate holder shall submit a legal description of the site to the Oregon Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identify the outer boundaries that contain all parts of the facility.</p> <p>[Final Order on ASC, Mandatory Condition 1 [OAR 345-027-0020(2)]]</p>
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
OPR-SP-01	<p>During facility operation, the certificate holder shall:</p> <ol style="list-style-type: none"> a. Routinely inspect and maintain all facility components including roads, pads, and other facility components and, as necessary, maintain or repair erosion and sediment control measures and reduce potential facility contribution to erosion. b. Restrict vehicles to constructed access roads, and ensure material laydown or other maintenance activities occur within graveled areas or within the maintenance area of the O&M buildings to avoid unnecessary compaction, erosion, or spill risk to the area surrounding the facility. c. If in order to serve the operational needs of the energy facility, or related and supporting facilities, the certificate holder intends to substantially modify an existing road or construct a new road, the certificate holder must submit and receive Council approval of an amendment to the site certificate prior to the modification or construction. <p>[Final Order on ASC, Soil Protection Condition 6]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
OPR-LU-01	<p>Within one month of commencement of commercial operation, the certificate holder shall submit an as-built survey for each construction phase that demonstrates compliance with the setback requirements in Land Use Condition 1 to the department and Morrow County.</p> <p>[Final Order on ASC, Land Use Condition 2]</p>
OPR-LU-02	<p>During operation of the facility, the certificate holder shall restore areas that are temporarily disturbed during facility maintenance or repair activities using the same methods and monitoring procedures described in the final Revegetation Plan referenced in Fish and Wildlife Condition 11.</p> <p>[Final Order on ASC, Land Use Condition 10]</p>
OPR-LU-03	<p>Before beginning decommissioning activities, the certificate holder must provide a copy of the final retirement plan to Morrow County and Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 23]</p>
OPR-LU-04	<p>Before beginning electrical production, the certificate holder shall prepare an Operating and Facility Maintenance Plan (Plan) and submit the Plan to the department for approval in consultation with Umatilla and Morrow Counties.</p> <p>[Final Order on ASC, Land Use Condition 25]</p>

OPR-LU-05	<p>Within 90 days of the commencement of electrical service from Wheatridge East, the certificate holder shall provide a summary of as-built changes to the department and Umatilla County. [Final Order on ASC, Land Use Condition 26]</p>
OPR-LU-06	<p>Prior to facility retirement, the certificate holder must include the following minimum restoration activities in the proposed final retirement plan it submits to the Council pursuant to OAR 345-027-0110 or its equivalent:</p> <ol style="list-style-type: none"> 1. Dismantle turbines, towers, pad mounted transformers, meteorological towers and related aboveground equipment, and remove concrete pads to a depth of at least three feet below the surface grade. 2. Remove underground collection and communication cables that are buried less than three feet in depth and are deemed by Council to be a hazard or a source of interference with surface resource uses. 3. Remove gravel from areas surrounding turbine pads. 4. Remove and restore private access roads unless the landowners directs otherwise. 5. Following removal of facility components, grade disturbed areas as close as reasonably possible to the original contours and restore soils to a condition compatible with farm uses or other resources uses. 6. Revegetate disturbed areas in consultation with the land owner and in a manner consistent with the final Revegetation Plan referenced in Fish and Wildlife Condition 11. 7. If the landowner wishes to retain certain facilities, provide a letter from the land owner that identifies the roads, cleared pads, fences, gates and other improvements to be retained and a commitment from the land owner to maintain the identified facilities for farm or other purposes permitted under the applicable zone. <p>[Final Order on ASC, Land Use Condition 27]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
OPR-PS-01	<p>During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to licensed on-site septic systems in compliance with State permit requirements. The certificate holder shall design each septic system for a discharge capacity of less than 2,500 gallons per day. [Final Order on ASC, Public Services Condition 1]</p>
OPR-PS-02	<p>Except as provided in this condition, during facility operation, the certificate holder shall obtain water for on-site uses from on-site wells located near the O&M buildings. The certificate holder shall construct on-site wells subject to compliance with the provisions of ORS 537.765 relating to keeping a well log. The certificate holder shall not use more than 5,000 gallons of water per day from each of the two on-site wells. The certificate holder may obtain water from other sources for on-site uses subject to prior approval by the Department. [Final Order on ASC, Public Services Condition 2]</p>

<p>OPR-PS-03</p>	<p>During operation, the certificate holder shall implement a waste management plan that includes but is not limited to the following measures:</p> <ul style="list-style-type: none"> a. Training employees to minimize and recycle solid waste. b. Recycling paper products, metals, glass, and plastics. c. Recycling used oil and hydraulic fluid. d. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler or by using facility equipment and personnel to haul the waste. Waste hauling by facility personnel within Morrow County shall be performed in compliance with the Morrow County Solid Waste Management Ordinance, which requires that all loads be covered and secured. e. Segregating all hazardous and universal, non-recyclable wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes. <p>[Final Order on ASC, Public Services Condition 4]</p>
<p>OPR-PS-04</p>	<p>During operation, the certificate holder shall ensure that appropriate law enforcement agency personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency at the facility site.</p> <p>[Final Order on ASC, Public Services Condition 12]</p>
<p>STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]</p>	
<p>OPR-WF-01</p>	<p>During operation, the certificate holder shall ensure each facility substation is enclosed with appropriate fencing and locked gates to protect the public from electrical hazards.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 2]</p>

STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]

OPR-TL-01	<p>During operation, the certificate holder shall:</p> <ol style="list-style-type: none">(1) Update the OPUC Safety Staff as to how the operator will comply with OAR Chapter 860, Division 024 on an ongoing basis considering future operations, maintenance, emergency response, and alterations until facility retirement.(2) File the following required information with the Commission:<ol style="list-style-type: none">a. 758.013 Operator of electric power line to provide Public Utility Commission with safety information; availability of information to public utilities. (1) Each person who is subject to the Public Utility Commission’s authority under ORS 757.035 and who engages in the operation of an electric power line as described in ORS 757.35 must provide the commission with the following information before January 2 of each even-numbered year:<ol style="list-style-type: none">i. The name and contact information of the person that is responsible for the operation and maintenance of the electric power line, and for ensuring that the electric power line is safe, on an ongoing basis; andii. The name and contact information of the person who is responsible for responding to conditions that present an imminent threat to the safety of employees, customers and the public.iii. In the event that the contact information described in subsection (1) of this section changes or that ownership of the electric power line changes, the person who engages in the operation of the electric power line must notify the commission of the change as soon as practicable, but no later than within 90 days.iv. If the person described in subsection (1) of this section is not the public utility, as defined in ORS 757.005, in whose service territory the electric power line is located, the commission shall make the information provided to the commission under subsection (1) of this section available to the public utility in whose service territory the electric power line is located. [2013 c.235 §3](3) Provide OPUC Safety Staff with:<ol style="list-style-type: none">a. Maps and Drawings of routes and installation of electrical supply lines showing:<ul style="list-style-type: none">• Transmission lines and structures (over 50,000 Volts)• Distribution lines and structures - differentiating underground and overhead lines (over 600 Volts to 50,000 Volts)• Substations, roads and highways• Plan and profile drawings of the transmission lines (and name and contact information of responsible professional engineer). <p>[Final Order on ASC, Siting Standard Condition 3]</p>
-----------	---

STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]

OPR-NC-01	<p>During operation of the facility, the certificate holder shall only operate the facility in the NRO mode that is identified prior to construction pursuant to Noise Control Condition 2. After beginning operation of the facility, the certificate holder shall include a certification in its annual Compliance Report that the NRO mode turbines identified in the preconstruction analysis required by Noise Control Condition 2 are operating at or below the identified dBA reduction level.</p> <p>[Final Order on ASC, Noise Control Condition 3]</p>
-----------	--

<p>OPR-NC-02</p>	<p>During operation, the certificate holder shall maintain a complaint response system to address noise complaints. The certificate holder shall notify the department within two working days of receiving a noise complaint related to the facility. The notification should include, but is not limited to, the date the certificate holder received the complaint, the nature of the complaint, the complainant’s contact information, the location of the affected property, and any actions taken, or planned to be taken, by the certificate holder to address the complaint.</p> <p>[Final Order on ASC, Noise Control Condition 4]</p>
<p>OPR-NC-03</p>	<p>During operation, in response to a complaint from the owner of a noise sensitive property regarding noise levels from the facility, the Council may require the certificate holder to monitor and record the statistical noise levels to verify that the certificate holder is operating in compliance with the noise control regulations. The monitoring plan must be reviewed and approved by the department prior to implementation. The cost of such monitoring, if required, shall be borne by the certificate holder.</p> <p>[Final Order Noise Control Condition 5]</p>

4.7 Retirement Conditions (RET)

Condition Number	Retirement (RET) Conditions
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
RET-RF-01	<p>The certificate holder must retire the facility in accordance with a retirement plan approved by the Council if the certificate holder permanently ceases construction or operation of the facility. The retirement plan must describe the activities necessary to restore the site to a useful, nonhazardous condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the certificate holder must obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration of the site.</p> <p>[Final Order Retirement and Financial Assurance Condition 2] [Mandatory Condition OAR 345-027-0020(9)]</p>
RET-RF-02	<p>The certificate holder is obligated to retire the facility upon permanent cessation of construction or operation. If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council must notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the department to prepare a proposed final retirement plan for the Council’s approval.</p> <p>Upon the Council’s approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder must pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council must issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.</p> <p>[Final Order Retirement and Financial Assurance Condition 3] [Mandatory Condition OAR 345-027-0020(16)]</p>

5.0 Successors and Assigns

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0100.

6.0 Severability and Construction

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

7.0 Execution

This site certificate may be executed in counterparts and will become effective upon signature by the Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder

IN WITNESS THEREOF, this site certificate has been executed by the State of Oregon, acting by and through the Energy Facility Siting Council, and by Wheatridge Wind Energy, LLC.

ENERGY FACILITY SITING COUNCIL

WHEATRIDGE WIND ENERGY FACILITY

BY: _____

BY: _____

Oregon Energy Facility Siting
Council

Date:

Date:

Attachment A
Facility Site Boundary Map
(ASC Exhibit C, Figure C-2)

This page intentionally left blank

Figure C-2

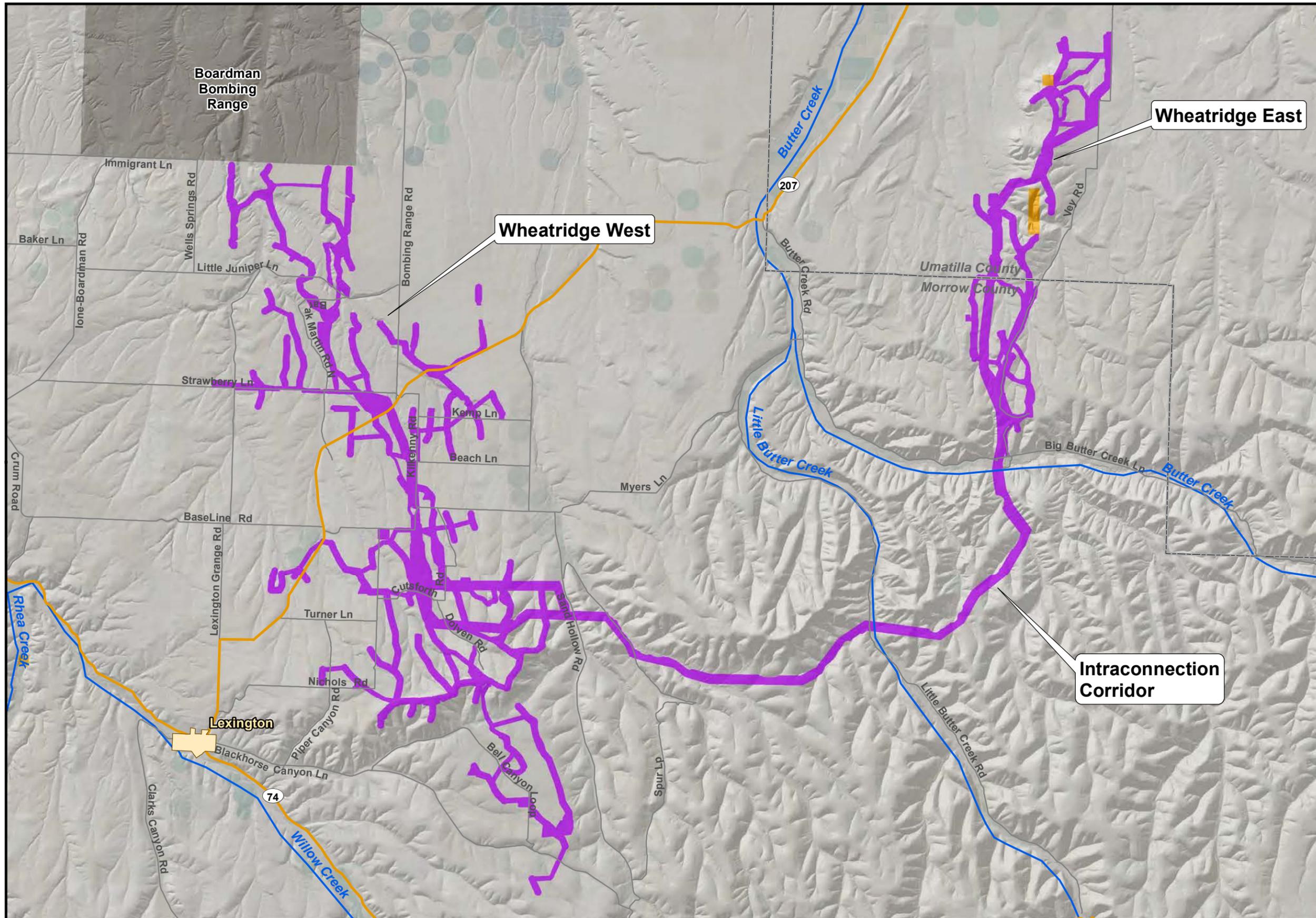
Wheatridge Wind Energy Facility

Facility Location



Morrow and Umatilla Counties, OR
December 2014

-  Site Boundary
-  County Boundary
-  City/Town
-  State Highway
-  Local Road
-  River/Stream
- Land Ownership**
-  Bureau of Land Management
-  Private
-  Dept. of Defense



Data Sources Wheatridge Wind Energy: site boundary / ESRI: roads, cities, political boundaries, hydrography / Oregon BLM: land ownership / USDA NAIP: aerial imagery

P:\GIS_PROJECTS\Wheatridge_Wind_Energy_LLC\Wheatridge\IMXD\SPAS\ex\C\WWE_Wheatridge_PASC_Fig_C02_Facility_Location_111171_20141110.mxd - Last Saved 11/10/2014

This page intentionally left blank

Attachment 3. Facility Noise Analysis Memo

This page intentionally left blank

MEMO

To: Oregon Department of Energy

From: Wheatridge Wind Energy, LLC and Tetra Tech

Date: September 17, 2018

Correspondence # TTCES-PTLD-2018-154

Subject: Wheatridge Wind Energy Facility: Predicted worst-case operational noise level from the Facility and Compliance with DEQ Noise Regulation

As described in the Final Order on the Application for Site Certificate (ASC), the Energy Facility Siting Council (EFSC) recognized the requested need for the certificate holder and wind energy developers to have flexibility to “microsite” the final location of wind turbines and related infrastructure after issuance of a Site Certificate, based on final turbine selection, geotechnical constraints, site-specific wind resource factors, avoidance of high-value wildlife habitat, and the desire to reduce conflict with farming practices. The Site Certificate conditions were developed in consideration of micrositing, which allows for flexibility in turbine selection and turbine placement. EFSC previously imposed Site Certificate Condition PRE-NC-01, which requires that the final design locations, sound power levels, noise analysis, and noise easements be provided to the Oregon Department of Energy (ODOE) to demonstrate that the Facility complies with the Department of Environmental Quality’s (DEQ) noise control standards in OAR 340-035-0035. At this time, Project design, including turbine selection, has not been finalized. However, Request for Amendment (RFA) 3 proposes to modify the range of turbine specifications analyzed for the Project. Therefore, Wheatridge Wind Energy, LLC (Wheatridge) has conducted noise modeling for a preliminary modified layout, including substations and potential battery storage, although it may not be the final design. The layout used to develop noise modeling represents Wheatridge’s current optimized preliminary modified layout and is therefore the best layout to predict the noise levels that are likely to result from operation of the Facility. Depending on final turbine type selection and further optimization of turbine locations along with related or supporting facilities, turbines could be shifted within the micrositing corridors. For that reason, final design locations will be represented along with noise characteristics of the selected turbine when Wheatridge provides pre-construction documentation in compliance with Site Certificate Condition PRE-NC-01. This analysis will demonstrate that the total noise generated by the facility will meet the ambient noise degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise sensitive properties, or that the Certificate Holder has obtained the legally effective easement

or real covenant for expected exceedances of the ambient noise degradation test. The results of the noise modeling for the modified layout are provided below (also see RFA 2 Attachment 4).

The preliminary, modified layout for the Project (Wheatridge East and Wheatridge West) consists of 165 proposed wind turbine locations:

- 149 GE 2.5-127 primary turbines, which are each individually rated at 2.5 megawatts (MW) with hub height of 89 meters and a rotor diameter of 127 meters; and
- 16 GE 2.3-116 “safe harbor” turbines, which are individually rated at 2.3 MW with a hub height of 80 meters and a rotor diameter of 116 meters.

The layout provided for noise analysis demonstrates a configuration of turbines and related or supporting facilities, including battery energy storage, that would meet Site Certificate conditions, but it does not represent the final layout. Currently, noise levels associated with the representative turbine used for analysis are such that the optimized layout would not use more than 165 turbines rated at 2.5 MW along with energy storage. However, should the final selected turbine and final design of energy storage have improved technology with lower noise emissions, Wheatridge reserves the right, consistent with the terms and conditions of the Site Certificate, to construct additional turbines up to the maximum total number of turbines and maximum total generating capacity for the facility, subject to compliance with the noise rule along with the other restrictions (e.g. turbine height) that are identified in the Site Certificate.

Acoustic modeling analysis of the modified layout, assuming wind turbine operation at maximum rotation under moderate downwind propagation conditions, demonstrated compliance with the applicable 36 A-weighted decibels (dBA) ODOE criterion at all non-participating noise sensitive receptors (NSRs). Please refer to RFA 2 Attachment 4 (submitted under a confidential cover), which includes the manufacturer sound specifications for the two wind turbine models included in the Project acoustic modeling analysis; the GE 2.3-116 and the GE 2.5-127. The 127-meter rotor option is available for turbines rated 2.2 MW to 2.5 MW. Sound power levels for all turbines in this range are the same because the primary source of sound from wind turbines is due to the aerodynamic blade noise which is fixed based on rotor dimensions and not to the rated generator capacity. This range of available energy generator capacity ratings is represented by ‘2.x’ in the specifications.

In addition to wind turbines, the acoustic modeling analysis for Wheatridge East and Wheatridge West included a potential 30 MW battery storage system collocated with each substation; however, it is expected that the battery storage system proposed at Wheatridge East will only have a capacity of 20 MW. Therefore, the results of the acoustic modeling analysis should be considered conservative and, assuming the Wheatridge East battery storage system would be rated at 20 MW, associated sound emissions would be less than those predicted in the acoustic modeling analysis. The design of the Wheatridge East and West substations has been refined since the ASC Exhibit X. The Wheatridge East Substation will include one 160 MVA transformer with a National Electrical Manufacturers Association (NEMA) rating of 75 dBA. The transformer sound power level for the Wheatridge East transformer in Table 1 represents the expected sound emissions given those specifications as well as the transformer dimensions. The Wheatridge West Substation will include

two 225 MVA transformers, each with a NEMA rating of 71 dBA. The transformer sound power level for the Wheatridge West transformers in Table 1 represents the expected sound emissions given those specifications as well as the transformer dimensions.

Using CadnaA (2018 MR1) and the same modeling methodology as described in Exhibit X of the ASC, cumulative modeling was completed, incorporating sound contributions from the wind turbines, substations, and battery storage systems. However, Project wind turbines were not modeled in noise reduced operational mode; both wind turbine models (GE 2.3-116 and GE 2.5-127) were assumed to be equipped with Low Noise Trailing Edge (LNTE) technology. The manufacturer sound specifications for both wind turbine models equipped with LNTE are provided in RFA 2 Attachment 4. A wind turbine model equipped with LNTE technology generally has a lower total sound power level than an equivalent wind turbine model that is not equipped with LNTE technology.

Sound sources and site design information were developed from information obtained through discussions with the Project engineers at NextEra Energy Resources, Inc., representative equipment sound power data from within Tetra Tech's internal database, and publicly available data for similar equipment, so that the acoustic modeling analysis could be completed. The potential sources of noise from the Project were identified as the following:

1. Wind turbines;
2. Battery storage container ground level cooling equipment (rated at 15 to 20 tons cooling capacity each);
3. Distribution transformers (three phase 60 Hertz, rated at 2500 kilovolt-amperes);
4. Power inverters; and
5. Substation Transformers (225 megawatt-amperes (MVA) and 160 MVA).

The apparent sound power levels utilized in the noise analysis for the two GE turbine types inclusive of the manufacturer 2 dB uncertainty (k) factor are provided in the table below.

Table 1. Wind Turbine Sound Power Levels (LW)

Turbine Type	Octave Band Sound Power Level (dBA)									Broadband (dBA)
	31	63	125	250	500	1000	2000	4000	8000	
GE 2.5-127 LNTE	84.8	94.6	99.2	100.2	102.4	105.8	104.7	97	78.9	110.5
GE 2.3-116 LNTE	81.1	91.3	97.9	100.9	101.3	101.9	100.9	93.4	73.6	108.0

The battery systems will be housed in retrofitted trailer containers constructed of corrugated metal. The battery storage containers will be cooled by ground mounted heating, ventilation, and air conditioning (HVAC) systems rated at 15 to 20 tons of cooling capacity each. There will be two HVAC modules located on the southeastern side of each of the battery storage system/inverter structures. The reference sound source data for the equipment, as input to CadnaA, are provided in

Table 1. The control house HVAC unit was not included in the acoustic modeling analysis; however, one additional HVAC module would not materially change the predicted received sound levels associated with operation of the Project battery storage systems at nearby NSRs.

In addition, the quantity of HVAC modules at each battery storage system was conservatively assumed to be 28, when realistically the number of HVAC modules is expected to be less than 28; therefore, the acoustic modeling analysis results as presented should provide a sufficient and conservative evaluation of expected noise impacts.

Table 2 – Modeled Octave Band Sound Power Levels for Major Components of Project Equipment

Sound Sources and Quantities	Sound Emission Level by Octave Band Frequency dBL ¹									Broadband Level dBA
	31.5	63	125	250	500	1k	2k	4k	8k	
Storage Battery HVAC Module (QTY 56)	111	108	105	103	101	97	94	89	83	103
Power Inverter (QTY 28)	84	90	94	81	80	77	74	91	84	93
Distribution Transformer (QTY 28)	69	75	77	72	72	66	61	56	49	72
East Facility Transformer 160 MVA (QTY 1)	95	101	103	98	98	92	87	82	75	98
West Facility Transformer 225 MVA (QTY 2)	91	97	99	94	94	88	83	78	71	94

1. Unweighted Decibels (dB/dBL): sound levels that are linear are presented as dBL in this report.

Received sound levels at NSRs were calculated using a conservative acoustic modeling approach. It was assumed that all wind turbines are operating continuously and concurrently at the maximum manufacturer-rated sound level. In addition, the model assumed that the onsite substations were operating at full load, and that the HVAC units, power inverters, and distribution transformers associated with the battery storage systems were operating at their maximum expected sound emission levels. Table 2 presents the acoustic modeling results for this cumulative assessment of Project sound sources. RFA 2 Attachment 4 provides an associated contour map and a list of names and addresses for the NSRs.

Table 2 – Acoustic Modeling Results Summary – All Sound Sources

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
1	303253	5031452	40	Participant
2	301003	5032290	38	Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
3	299133	5032883	34	Participant
5	298421	5034226	35	Non-Participant
6	300061	5031207	35	Non-Participant
7	304990	5029032	24	Non-Participant
8	304884	5028414	23	Non-Participant
9	293947	5035044	28	Non-Participant
10	293816	5036415	29	Non-Participant
11	291779	5035462	25	Non-Participant
12	291446	5035701	24	Non-Participant
13	299986	5036000	44	Participant
14	303901	5035521	36	Participant
15	303562	5036615	36	Non-Participant
16	303482	5038732	37	Participant
17	306254	5036244	28	Participant
18	306402	5033671	28	Non-Participant
19	306524	5033781	28	Non-Participant
20	306568	5033815	28	Non-Participant
21	308030	5036986	26	Participant
22	302820	5043011	36	Non-Participant
23	302809	5043078	36	Non-Participant
24	302689	5043007	36	Non-Participant
25	304980	5027253	21	Non-Participant
26	304962	5026875	21	Non-Participant
27	305449	5027111	21	Non-Participant
28	290868	5037067	23	Non-Participant
29	290016	5036248	21	Non-Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
30	290012	5036168	21	Non-Participant
31	290002	5036280	22	Non-Participant
32	289961	5036252	21	Non-Participant
33	289822	5036168	21	Non-Participant
34	289761	5036052	21	Non-Participant
35	289714	5036208	21	Non-Participant
36	289756	5036207	21	Non-Participant
37	289833	5036053	21	Non-Participant
38	289895	5036069	21	Non-Participant
39	289909	5036047	21	Non-Participant
40	289628	5036174	21	Non-Participant
41	289762	5036147	21	Non-Participant
42	290154	5035982	22	Non-Participant
43	290068	5035918	21	Non-Participant
44	290019	5035885	20	Non-Participant
45	290053	5035861	21	Non-Participant
46	289999	5035848	20	Non-Participant
47	290029	5035795	20	Non-Participant
48	290088	5035894	21	Non-Participant
49	290104	5035874	21	Non-Participant
50	289974	5036138	21	Non-Participant
51	289343	5036327	20	Non-Participant
52	288778	5036613	18	Non-Participant
53	289400	5036121	20	Non-Participant
54	289317	5036196	20	Non-Participant
55	289127	5036303	20	Non-Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
56	287760	5037317	16	Non-Participant
57	288033	5036792	16	Participant
58	287990	5036888	16	Participant
59	287463	5037765	16	Non-Participant
60	285411	5039884	8	Non-Participant
61	287567	5041401	19	Non-Participant
62	288305	5041536	26	Non-Participant
63	289191	5041482	27	Non-Participant
65	290737	5039749	27	Participant
67	300224	5040833	44	Participant
68	298337	5041034	48	Participant
69	294816	5039468	35	Non-Participant
70	293062	5040168	34	Non-Participant
71	290800	5042272	31	Non-Participant
72	290723	5042251	31	Non-Participant
73	291042	5043923	32	Non-Participant
74	292684	5045355	34	Non-Participant
75	292736	5042935	33	Participant
76	294084	5044869	35	Non-Participant
77	295775	5044495	40	Participant
78	297528	5044360	47	Participant
79	294320	5048580	45	Participant
80	296528	5048527	45	Participant
81	296868	5048381	43	Participant
82	297532	5046144	45	Participant
83	297175	5052531	36	Non-Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
84	297487	5052484	35	Non-Participant
85	295461	5052090	39	Participant
86	297199	5056532	33	Non-Participant
87	298387	5056399	31	Non-Participant
88	307984	5032000	24	Non-Participant
89	299553	5039546	45	Participant
90	301647	5051318	28	Non-Participant
91	301243	5044356	37	Participant
92	302114	5045761	32	Participant
93	304663	5032233	35	Non-Participant
94	289968	5036346	22	Non-Participant
95	290111	5036319	22	Non-Participant
96	289107	5043909	27	Non-Participant
97	289216	5043822	26	Non-Participant
98	299898	5036002	44	Participant
99	296917	5048540	43	Participant
100	297166	5048598	43	Participant
119	324986	5057859	31	Non-Participant
120	325002	5057896	31	Non-Participant
121	325018	5057911	31	Non-Participant
122	312594	5058147	23	Non-Participant
123	312620	5058176	23	Non-Participant
124	313223	5058954	23	Non-Participant
125	314198	5059938	24	Non-Participant
126	314065	5060248	23	Non-Participant
127	314228	5060748	23	Non-Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
128	315528	5062558	28	Non-Participant
129	315258	5063171	27	Non-Participant
130	320097	5064678	29	Non-Participant
131	316327	5064704	26	Non-Participant
132	316219	5064734	26	Non-Participant
133	320175	5064743	29	Non-Participant
134	318563	5064828	28	Non-Participant
135	316651	5065564	25	Non-Participant
136	323499	5065702	26	Non-Participant
138	331193	5041399	<1	Non-Participant
139	331223	5041375	<1	Non-Participant
140	328730	5042353	<1	Non-Participant
142	327222	5043788	12	Non-Participant
143	318866	5046094	32	Participant
144	318826	5046049	33	Participant
145	318949	5046126	33	Participant
146	318941	5046038	32	Participant
147	321437	5029988	<1	Non-Participant
149	321200	5031044	<1	Non-Participant
150	321189	5031222	<1	Non-Participant
151	320668	5031448	<1	Non-Participant
152	320733	5031606	<1	Non-Participant
153	318524	5032806	<1	Non-Participant
154	316801	5036058	<1	Non-Participant
155	316869	5035961	<1	Non-Participant
156	313942	5041130	16	Non-Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
157	313967	5042083	18	Non-Participant
158	311845	5045513	20	Non-Participant
159	313397	5044701	21	Non-Participant
160	310498	5045472	19	Non-Participant
161	309765	5046389	18	Non-Participant
162	309768	5046370	18	Non-Participant
163	309323	5048569	18	Non-Participant
164	309343	5048667	18	Non-Participant
165	311436	5050316	22	Non-Participant
166	311216	5050279	22	Non-Participant
167	311084	5050293	22	Non-Participant
168	311350	5051167	22	Non-Participant
169	311291	5052161	23	Non-Participant
170	311239	5052151	22	Non-Participant
171	311492	5052570	23	Non-Participant
172	311576	5052691	23	Non-Participant
173	311676	5052791	23	Non-Participant
174	308172	5053800	17	Non-Participant
175	308092	5053758	17	Non-Participant
176	310629	5053675	21	Non-Participant
177	309906	5054654	19	Non-Participant
178	309935	5054424	19	Non-Participant
179	310209	5054921	19	Non-Participant
180	310324	5055392	20	Non-Participant
181	310066	5055250	19	Non-Participant
182	309958	5055310	17	Non-Participant

NSR ID	Easting	Northing	Predicted Received Sound Levels (dBA)	Participation Status
183	310027	5055298	18	Non-Participant
184	310366	5057446	22	Non-Participant
185	306846	5054660	11	Non-Participant
186	306873	5054718	11	Non-Participant
187	306881	5054752	11	Non-Participant
188	311859	5048186	23	Non-Participant
189	311829	5048203	23	Non-Participant
190	313022	5047091	23	Non-Participant
191	313436	5046453	24	Non-Participant
192	313268	5046550	24	Non-Participant
193	294127	5044772	35	Non-Participant
194	294115	5044834	35	Non-Participant
195	321193	5059845	46	Participant

The results of the Project acoustic modeling analysis including Project wind turbines, substations, and potential 30 MW battery storage systems are provided herein and in RFA 2 Attachment 4. Results given in Table 2 indicate that there are 19 NSRs that are predicted to exceed the ODOE 36 dBA noise criterion; all of those NSRs are considered participating landowners. Project participants are those properties that have signed a lease with Wheatridge, and for the purposes of this noise analysis, have indicated verbally that they are willing to sign a noise waiver, if needed. Therefore, the Project is in compliance with DEQ noise control regulations, and no additional mitigation of operational noise is required and the following Site Certificate conditions should be modified as shown below:

Site Certificate Condition PRE-NC-01(c) states the following:

The results of the noise analysis of the final facility design performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The analysis must demonstrate to the satisfaction of the department that the total noise generated by the facility (including turbines and transformers) would meet the ambient noise degradation test and maximum allowable test at the appropriate measurement point for all potentially affected noise sensitive properties, or that the certificate holder has obtained the legally effective easement or real covenant for expected exceedances of the ambient noise degradation test described (d) below. The analysis must also identify the noise reduction operation (NRO) mode

approach that will be used during facility operation and include a figure that depicts the turbines that will be operating in NRO mode and the associated dBA reduction level; and

Based on the updated acoustic modeling analysis the last sentence in Site Certificate Condition PRE-NC-01(c) could be eliminated. Site Certificate Condition OPR-NC-01 states the following:

During operation of the facility, the certificate holder shall only operate the facility in the NRO mode that is identified prior to construction pursuant to Noise Control Condition 2. After beginning operation of the facility, the certificate holder shall include a certification in its annual Compliance Report that the NRO mode turbines identified in the preconstruction analysis required by Noise Control Condition 2 are operating at or below the identified dBA reduction level.

Site Certificate Condition OPR-NC-01 should be amended to remove all references to NRO mode.

Attachment 4. **Confidential** Noise Analysis Results and Information

This page intentionally left blank

Provided under separate cover

This page intentionally left blank

Attachment 5. Energy Storage Detailed Cost Estimate

This page intentionally left blank

Estimate Summary

TETRA TECH EC, INC.

Job Code: Decommissioning ROM
Description: Misc. Decommissioning Estimates

Cost Item								
CBS Position Code	Quantity UM	Description	Days	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1	1.00 Lump Sum	WHEATRIDGE ENERGY STORAGE DECOMMISSIONING	90.00	0.01	Detail	U.S. Dollar	279,022.14	279,022.14
1.1	30.00 MW	30 MW Energy Storage System	54.00	0.56	Detail	U.S. Dollar	5,580.44	167,413.31
1.1.1	15.00 Day	Field Management	15.00	1.00	Detail	U.S. Dollar	1,340.98	20,114.73
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
L90FX02	Field - Proj Superintendent	150.00	1.00 Each (hourly)	U.S. Dollar	83.18	12,477.30		
RPUTRK05	F-250 4X4 3/4 TON PICKUP	150.00	1.00 Each (hourly)	U.S. Dollar	11.34	1,701.33		
L90FEL00	Field - Engr. Tech	150.00	1.00 Each (hourly)	U.S. Dollar	39.57	5,936.10		
1.1.2	30.00 MW	Battery Removal & Disposal	13.00	2.31	Detail	U.S. Dollar	1,862.78	55,883.41
1.1.2.1	13.00 Day	Remove Batteries, Load For Transport	13.00	1.00	Detail	U.S. Dollar	1,482.68	19,274.85
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
L060100	GENERAL LABORER	520.00	4.00 Each (hourly)	U.S. Dollar	31.49	16,374.42		
RLIFTS05	JCB 508C, 8,000lbs FRKLFT	130.00	1.00 Each (hourly)	U.S. Dollar	22.31	2,900.43		
1.1.2.2	7.00 Each	Transport Batteries	0.00	0.00	Detail	U.S. Dollar	1,486.94	10,408.55
1.1.2.2.1	7.00 Each	Roll Off Liners	0.00	0.00	Detail	U.S. Dollar	111.94	783.55
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
UODCLINER	Rolloff Liner		7.00 Each	U.S. Dollar	111.94	783.55		
1.1.2.2.2	7.00 Each	Trucking - Per Load	0.00	0.00	Detail	U.S. Dollar	1,375.00	9,625.00
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USTRUCKING	Trucking Sub		9,625.00 Each	U.S. Dollar	1.00	9,625.00		
1.1.2.3	131.00 Ton	Disposal Fee's	0.00	0.00	Detail	U.S. Dollar	200.00	26,200.00
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USPAINTEDESERT	Disposal Fee's		26,200.00 Each	U.S. Dollar	1.00	26,200.00		
Notes: *****								
12 modules per 163.7 KW, for a total of 2199 modules.								
Each module is 119 lbs, for a total of 131 tons of modules.								

1.1.3	30.00 MW	Structure & Components Removal	3.00	10.00	Detail	U.S. Dollar	926.10	27,782.95
1.1.3.1	130.00 Ton	Structure Demo	3.00	43.33	Detail	U.S. Dollar	109.68	14,257.95
1.1.3.2	7.00 Each	Transport C&D Debris	0.00	0.00	Detail	U.S. Dollar	1,375.00	9,625.00
1.1.3.2.1	7.00 Each	Trucking - Per Load	0.00	0.00	Detail	U.S. Dollar	1,375.00	9,625.00
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USTRUCKING	Trucking Sub		9,625.00 Each	U.S. Dollar	1.00	9,625.00		
1.1.3.3	130.00 Ton	Disposal Cost	0.00	0.00	Detail	U.S. Dollar	30.00	3,900.00
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USPAINTEDESERT	Disposal Fee's		3,900.00 Each	U.S. Dollar	1.00	3,900.00		
1.1.4	260.00 Cubic Yard	Concrete Breaking & Excavation	3.00	86.67	Detail	U.S. Dollar	46.24	12,023.01
1.1.5	260.00 Cubic Yard	Concrete Transport Offsite	15.00	17.33	Detail	U.S. Dollar	63.41	16,487.08

Cost Item								
CBS Position Code	Quantity UM	Description	Days	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
RDUTRK06	CAT D350D, 18CY-24CY	150.00	1.00	Each (hourly)	U.S. Dollar		77.38	11,607.27
L080940	TEAMSTER	150.00	1.00	Each (hourly)	U.S. Dollar		32.53	4,879.81
1.1.6	3.00 Day	UG Utility Removal	3.00	1.00	Detail	U.S. Dollar	1,101.24	3,303.71
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
L010101	OPERATOR	30.00	1.00	Each (hourly)	U.S. Dollar		44.48	1,334.55
L060100	GENERAL LABORER	30.00	1.00	Each (hourly)	U.S. Dollar		31.49	944.68
RBACKH09	Deere 710J BACKHOE, 1.62CY	30.00	1.00	Each (hourly)	U.S. Dollar		34.15	1,024.48
1.1.7	300.00 Cubic Yard	Restoration	2.00	150.00	Detail	U.S. Dollar	33.27	9,981.88
1.1.7.1	300.00 Cubic Yard	Vegetative Cover	2.00	150.00	Detail	U.S. Dollar	28.27	8,481.88
1.1.7.1.1	300.00 Cubic Yard	Topsoil, Delivered	0.00	0.00	Detail	U.S. Dollar	21.20	6,360.00
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
IMSOIL	Topsoil		300.00	Cubic Yard	U.S. Dollar		21.20	6,360.00
1.1.7.1.2	300.00 Cubic Yard	Placement	2.00	150.00	Detail	U.S. Dollar	7.07	2,121.88
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
L010101	OPERATOR	20.00	1.00	Each (hourly)	U.S. Dollar		44.48	889.70
RDOZER08	CAT D6N XL	20.00	1.00	Each (hourly)	U.S. Dollar		61.61	1,232.18
1.1.7.2	1.00 Acre	Re-Seed With Native Vegetation	0.00	0.00	Detail	U.S. Dollar	1,500.00	1,500.00
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
USLANDSCAPE	Landscape Sub		1.00	Acre	U.S. Dollar		1,500.00	1,500.00
1.1.8	1.00 Lump Sum	Sub Contractor Markup (15% Combined OH & Fee)	0.00	0.00	Detail	U.S. Dollar	21,836.55	21,836.55
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
USMARKUP	15% Markup		145,577.00	Each	U.S. Dollar		0.15	21,836.55
1.2	20.00 MW	20 MW Energy Storage System	36.00	0.56	Detail	U.S. Dollar	5,580.44	111,608.83
1.2.1	10.00 Day	Field Management	10.00	1.00	Detail	U.S. Dollar	1,340.98	13,409.82
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
L90FXX02	Field - Proj Superintendent	100.00	1.00	Each (hourly)	U.S. Dollar		83.18	8,318.20
RPUTRK05	F-250 4X4 3/4 TON PICKUP	100.00	1.00	Each (hourly)	U.S. Dollar		11.34	1,134.22
L90FEL00	Field - Engr. Tech	100.00	1.00	Each (hourly)	U.S. Dollar		39.57	3,957.40
1.2.2	20.00 MW	Battery Removal & Disposal	8.67	2.31	Detail	U.S. Dollar	1,862.78	37,255.60
1.2.2.1	8.67 Day	Remove Batteries, Load For Transport	8.67	1.00	Detail	U.S. Dollar	1,482.68	12,849.90
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
L060100	GENERAL LABORER	346.67	4.00	Each (hourly)	U.S. Dollar		31.49	10,916.28
RLIFTS05	JCB 508C, 8,000lbs FRKLFT	86.67	1.00	Each (hourly)	U.S. Dollar		22.31	1,933.62
1.2.2.2	4.67 Each	Transport Batteries	0.00	0.00	Detail	U.S. Dollar	1,486.94	6,939.03
1.2.2.2.1	4.67 Each	Roll Off Liners	0.00	0.00	Detail	U.S. Dollar	111.94	522.37
Resource Code	Description	Hours	Quantity UM		Currency		Unit Cost	Total Cost
UODCLINER	Rolloff Liner		4.67	Each	U.S. Dollar		111.94	522.37
1.2.2.2.2	4.67 Each	Trucking - Per Load	0.00	0.00	Detail	U.S. Dollar	1,375.00	6,416.67

Cost Item								
CBS Position Code	Quantity UM	Description	Days	Cost UM/Day	Source	Currency	Unit Cost	Total Cost
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USTRUCKING	Trucking Sub		6,416.67 Each	U.S. Dollar	1.00	6,416.67		
1.2.2.3	87.33 Ton	Disposal Fee's	0.00	0.00 Detail	U.S. Dollar	200.00	17,466.67	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USPAINTEDESERT	Disposal Fee's		17,466.67 Each	U.S. Dollar	1.00	17,466.67		
Notes: *****								
12 modules per 163.7 KW, for a total of 2199 modules.								
Each module is 119 lbs, for a total of 131 tons of modules.								

1.2.3	20.00 MW	Structure & Components Removal	2.00	10.00 Detail	U.S. Dollar	926.10	18,521.96	
1.2.3.1	86.67 Ton	Structure Demo	2.00	43.33 Detail	U.S. Dollar	109.68	9,505.30	
1.2.3.2	4.67 Each	Transport C&D Debris	0.00	0.00 Detail	U.S. Dollar	1,375.00	6,416.67	
1.2.3.2.1	4.67 Each	Trucking - Per Load	0.00	0.00 Detail	U.S. Dollar	1,375.00	6,416.67	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USTRUCKING	Trucking Sub		6,416.67 Each	U.S. Dollar	1.00	6,416.67		
1.2.3.3	86.67 Ton	Disposal Cost	0.00	0.00 Detail	U.S. Dollar	30.00	2,600.00	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USPAINTEDESERT	Disposal Fee's		2,600.00 Each	U.S. Dollar	1.00	2,600.00		
1.2.4	173.33 Cubic Yard	Concrete Breaking & Excavation	2.00	86.67 Detail	U.S. Dollar	46.24	8,015.34	
1.2.5	173.33 Cubic Yard	Concrete Transport Offsite	10.00	17.33 Detail	U.S. Dollar	63.41	10,991.39	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
RDUTRK06	CAT D350D, 18CY-24CY	100.00	1.00 Each (hourly)	U.S. Dollar	77.38	7,738.18		
L080940	TEAMSTER	100.00	1.00 Each (hourly)	U.S. Dollar	32.53	3,253.21		
1.2.6	2.00 Day	UG Utility Removal	2.00	1.00 Detail	U.S. Dollar	1,101.24	2,202.47	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
L010101	OPERATOR	20.00	1.00 Each (hourly)	U.S. Dollar	44.48	889.70		
L060100	GENERAL LABORER	20.00	1.00 Each (hourly)	U.S. Dollar	31.49	629.79		
RBACKH09	Deere 710J BACKHOE, 1.62CY	20.00	1.00 Each (hourly)	U.S. Dollar	34.15	682.99		
1.2.7	200.00 Cubic Yard	Restoration	1.33	150.00 Detail	U.S. Dollar	33.27	6,654.58	
1.2.7.1	200.00 Cubic Yard	Vegetative Cover	1.33	150.00 Detail	U.S. Dollar	28.27	5,654.58	
1.2.7.1.1	200.00 Cubic Yard	Topsoil, Delivered	0.00	0.00 Detail	U.S. Dollar	21.20	4,240.00	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
IMSOIL	Topsoil		200.00 Cubic Yard	U.S. Dollar	21.20	4,240.00		
1.2.7.1.2	200.00 Cubic Yard	Placement	1.33	150.00 Detail	U.S. Dollar	7.07	1,414.58	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
L010101	OPERATOR	13.33	1.00 Each (hourly)	U.S. Dollar	44.48	593.13		
RDOZER08	CAT D6N XL	13.33	1.00 Each (hourly)	U.S. Dollar	61.61	821.45		
1.2.7.2	0.67 Acre	Re-Seed With Native Vegetation	0.00	0.00 Detail	U.S. Dollar	1,500.00	1,000.00	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USLANDSCAPE	Landscape Sub		0.67 Acre	U.S. Dollar	1,500.00	1,000.00		

Cost Item									
CBS Position Code	Quantity	UM	Description	Days	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1.2.8	1.00	Lump Sum	Sub Contractor Markup (15% Combined OH & Fee)	0.00	0.00	Detail	U.S. Dollar	14,557.65	14,557.65
Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost		
USMARKUP	15% Markup		97,051.00	Each	U.S. Dollar	0.15	14,557.65		
Report Total:			90.00				279,022.14		

Category	Total
Labor	86,589.12
Rented Equipment	57,090.42
Supplies	1,232.00
Materials	10,000.00
Subcontract	70,977.53
Taxes-Bond-Fees	2,966.40
Travel-Risk-Adj	50,166.67

CBS Outline Report
TETRA TECH EC, INC.

Job Code: Decommissioning ROM
Description: Misc. Decommissioning Estimates

From Cost Item: .	To Cost Item: .			
Code Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)
1 WHEATRIDGE ENERGY STORAGE DECOMMISSIONING				
1.1 30 MW Energy Storage System	30.00	MW	5,580.44	167,413.31
1.1.1 Field Management	15.00	Day	1,340.98	20,114.73
1.1.2 Battery Removal & Disposal	30.00	MW	1,862.78	55,883.41
1.1.2.1 Remove Batteries, Load For Transport	13.00	Day	1,482.68	19,274.85
1.1.2.2 Transport Batteries	7.00	Each	1,486.94	10,408.55
1.1.2.2.1 Roll Off Liners	7.00	Each	111.94	783.55
1.1.2.2.2 Trucking - Per Load	7.00	Each	1,375.00	9,625.00
1.1.2.3 Disposal Fee's	131.00	Ton	200.00	26,200.00
1.1.3 Structure & Components Removal	30.00	MW	926.10	27,782.95
1.1.3.1 Structure Demo	130.00	Ton	109.68	14,257.95
1.1.3.2 Transport C&D Debris	7.00	Each	1,375.00	9,625.00
1.1.3.2.1 Trucking - Per Load	7.00	Each	1,375.00	9,625.00
1.1.3.3 Disposal Cost	130.00	Ton	30.00	3,900.00
1.1.4 Concrete Breaking & Excavation	260.00	Cubic Yard	46.24	12,023.01
1.1.5 Concrete Transport Offsite	260.00	Cubic Yard	63.41	16,487.08
1.1.6 UG Utility Removal	3.00	Day	1,101.24	3,303.71
1.1.7 Restoration	300.00	Cubic Yard	33.27	9,981.88
1.1.7.1 Vegetative Cover	300.00	Cubic Yard	28.27	8,481.88
1.1.7.1.1 Topsoil, Delivered	300.00	Cubic Yard	21.20	6,360.00
1.1.7.1.2 Placement	300.00	Cubic Yard	7.07	2,121.88
1.1.7.2 Re-Seed With Native Vegetation	1.00	Acre	1,500.00	1,500.00
1.1.8 Sub Contractor Markup (15% Combined OH & Fee)	1.00	Lump Sum	21,836.55	21,836.55
1.2 20 MW Energy Storage System	20.00	MW	5,580.44	111,608.83
1.2.1 Field Management	10.00	Day	1,340.98	13,409.82
1.2.2 Battery Removal & Disposal	20.00	MW	1,862.78	37,255.60
1.2.2.1 Remove Batteries, Load For Transport	8.67	Day	1,482.68	12,849.90
1.2.2.2 Transport Batteries	4.67	Each	1,486.94	6,939.03
1.2.2.2.1 Roll Off Liners	4.67	Each	111.94	522.37
1.2.2.2.2 Trucking - Per Load	4.67	Each	1,375.00	6,416.67
1.2.2.3 Disposal Fee's	87.33	Ton	200.00	17,466.67
1.2.3 Structure & Components Removal	20.00	MW	926.10	18,521.96
1.2.3.1 Structure Demo	86.67	Ton	109.68	9,505.30
1.2.3.2 Transport C&D Debris	4.67	Each	1,375.00	6,416.67
1.2.3.2.1 Trucking - Per Load	4.67	Each	1,375.00	6,416.67
1.2.3.3 Disposal Cost	86.67	Ton	30.00	2,600.00
1.2.4 Concrete Breaking & Excavation	173.33	Cubic Yard	46.24	8,015.34
1.2.5 Concrete Transport Offsite	173.33	Cubic Yard	63.41	10,991.39
1.2.6 UG Utility Removal	2.00	Day	1,101.24	2,202.47
1.2.7 Restoration	200.00	Cubic Yard	33.27	6,654.58
1.2.7.1 Vegetative Cover	200.00	Cubic Yard	28.27	5,654.58
1.2.7.1.1 Topsoil, Delivered	200.00	Cubic Yard	21.20	4,240.00
1.2.7.1.2 Placement	200.00	Cubic Yard	7.07	1,414.58
1.2.7.2 Re-Seed With Native Vegetation	0.67	Acre	1,500.00	1,000.00
1.2.8 Sub Contractor Markup (15% Combined OH & Fee)	1.00	Lump Sum	14,557.65	14,557.65

Code Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)
Total: WHEATRIDGE ENERGY STORAGE DECOMMISSIONING				279,022.14
Grand Total:				279,022.14

Attachment 6. Example Emergency Action Plan

This page intentionally left blank



1200 Wall Street West
5th Floor
Lyndhurst, NJ 07071

201.933.5541 PHONE
201.933.5601 FAX

www.trcsolutions.com

April 6, 2018

Town of East Hampton Planning Board
300 Pantigo Place, Suite 103
East Hampton, New York 11937

Subject: Site Plan/Special Permit Application for the
Montauk Energy Storage Center, LLC
SCTM #300-27-4-8.8
10 N Shore Road
Montauk, New York

Dear Planning Board:

TRC Environmental Corporation, on behalf of Montauk Energy Storage Center, LLC, is submitting six copies of the final Emergency Action and Safety Plan for the Montauk Energy Storage Project. This is being submitted to fulfill condition 3.4 of the site plan/special permit approval issued for the project.

Please review the attached submittal. If you have any questions or desire clarification on any aspect of this request, please feel free to call me at 201.508.6956.

Sincerely,
TRC

Marc Lawlor
Senior Project Manager
Planning, Permitting & Licensing

Enclosures

Cc: J. Pahwul, E. Schantz
TRC Project #263750

POWER GENERATION DIVISION	Process Category: Production Process: Safety Management System	DOC #: SMS 237		
	Montauk Energy Storage Project - Emergency Action Plan	EFFECTIVE: Commercial Operation	REV #: 0	PAGE 1 of 13

TABLE OF CONTENTS

1.0 DOCUMENT STORAGE AND INFORMATION 2

2.0 REVISION HISTORY 2

3.0 PURPOSE AND SCOPE..... 2

4.0 DEFINITIONS 3

5.0 ORGANIZATIONAL CHART 3

6.0 PERSONAL PROTECTIVE EQUIPMENT 3

7.0 RECORDS 3

8.0 PROCEDURE 4

APPENDIX 1 SEVERE WEATHER EVENT PLAN..... 6

APPENDIX 2 FIRE PREVENTION AND RESPONSE..... 10

APPENDIX 3 ENIRONMENTAL RELEASE 13

1.0 DOCUMENT STORAGE AND INFORMATION

This Emergency Action Plan is stored in the Power Generation Division Operational Model (“OpModel”).

2.0 REVISION HISTORY

Rev #	Revision Description	Approved By Position / Title	Effective Date
0	Emergency Action Plan for the Montauk Energy Storage Project	Ryan McMorrow Engineering & Technical Services Staff Engineer	Commercial Operation

3.0 PURPOSE AND SCOPE

The purpose of this Emergency Action Plan is to establish the planned response actions that will be taken by remote Control Room Operators that oversee the 24/7 operation of the Montauk Energy Storage Project and other emergency personnel. These actions are intended to provide for the safe and reliable operation of the facility.

This procedure serves as guidance and is intended to be a “living” document such that revisions over time, based on experiences, will continue to increase the speed of identification of threats and decrease response time. When applicable, this plan applies to all employees, contractors, vendors and visitors, performing work at the site.

This facility will not be manned on a daily basis and will be remotely operated by the 24/7 manned Fleet and Performance Diagnostic Center (Control Room) located in Juno Beach, Florida. In addition, a communication link is established between the Control Room Operator and first responders.

The Control Room will be provided with a remote monitoring system, as well as, a video surveillance monitoring system that is both internal and external to the buildings.

Site Postings: The following will be posted conspicuously on-site:

- Emergency phone numbers:
 - Control Room
 - On-Island Manager
 - Local Fire Department
- A diagram indicating location of fire extinguishers, standpipes and fire hydrants will be posted at entrances of the facility.
- Instructions on-site personnel need to follow during emergencies, as a result of injury or in response to environmental releases or security issues.

4.0 DEFINITIONS

PGD – Power Generation Division

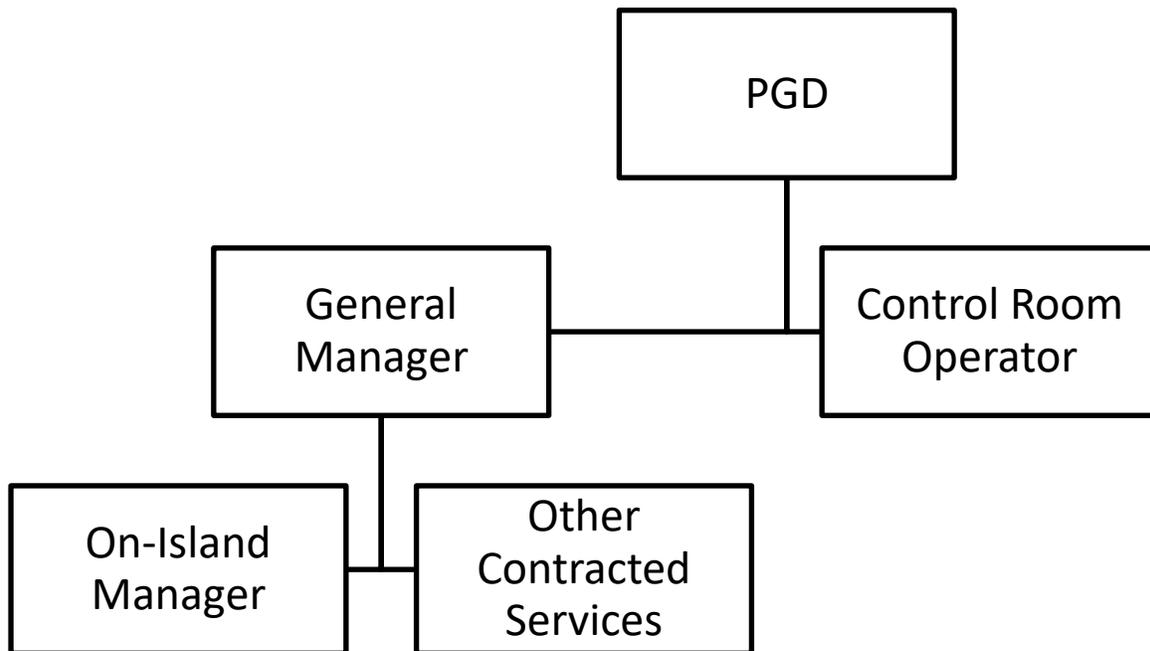
FPDC – Fleet Performance and Diagnostic Center (“Control Room”)

O&M – Operations and Maintenance

OSHA – Occupational Safety and Health Administration

PPE – Personal Protective Equipment

5.0 ORGANIZATIONAL CHART



General Manager - will have overall responsibility for the Montauk Energy Storage Project.

On-Island Manager – will have delegated decision authority in emergency situations.

Control Room Operator – will have delegated decision authority in emergency situations.

6.0 PERSONAL PROTECTIVE EQUIPMENT

The appropriate Personal Protective Equipment (PPE) shall be used by O&M workers and contractors according to the task. The requirements for PPE are dictated based upon the expected hazards of the task. These may include hard hats, safety shoes, safety glasses and work gloves.

7.0 RECORDS

An electronic copy of this plan will also be accessible online.

This plan will be reviewed upon implementation, whenever revisions are made, and at least annually by the On-Island Manager.

Copies of this plan will also be kept on-site and at the offices of the On-Island Manager.

8.0 PROCEDURE

TRAINING

1. All O&M personnel that may work at the site that will have access to the facility shall receive training on this Emergency Action Plan initially and whenever it is modified.
 - A listing of personnel with current training on this plan will be maintained by the On-Island Manager and in Juno Beach, Florida for reference purposes.
2. Postings will be placed at the site near telephones and at exits clearly indicating the telephone number of the Control Room and any instructions to follow during emergencies or as a result of injury to people on-site.

FACILITY LOCATION INFORMATION FOR OUTSIDE EMERGENCY RESPONDERS

1. The Montauk Energy Storage Project is located at 10 North Shore Road, Hamlet of Montauk, Town of East Hampton, Suffolk County, NY 11954. Outside responders can gain access to the facility by accessing the driveway.

PLANT / SITE GENERAL EMERGENCY PROCEDURE

1. This emergency plan was developed for the following plausible contingencies that could transpire at the facility:
 - Severe Weather Event Plan (APPENDIX 1)
 - Fire Prevention and Response (APPENDIX 2)
 - Environmental Event (APPENDIX 3)
2. It will be the responsibility of the Control Room Operator to assess a developing emergency situation and initiate the appropriate actions in this plan to protect any personnel that may be at the site, the surrounding environment, and plant equipment from adverse impacts.
3. In the event of an on-site emergency, including injury, physical damage, fire, security breach, etc. the on-site personnel, if any, should follow and perform the below actions immediately. For environmental releases, follow the Call Tree in Appendix 3.
 - Contact 911 or Fire Department immediately.
 - Have the Control Room Operator perform an analysis on the requirements for continued safe operation.
 - Initiate site shutdown procedure (if required).
 - Ensure that key personnel are contacted:

Title	Name	Office Phone	Cell Phone
Environmental Response Team	Miller Environmental – Long Island Operations: George Wallace	800-394-8606 (24-Hours)	631-369-4900 (Main)
On-Island Manager	Miller Environmental: George Wallace	N/A	631-369-4900 (Main)
Project General Manager	Lynden McKay	561-691-2344	561-927-8467
Control Room Operator	1) Fleet & Performance Diagnostic Center (FPDC) 2) FPDC Manager: Kevin McWhorter	1) 561-694-3636 (24-Hours) 2) 561-691-2515	1) N/A 2) 402-290-9275
Security Operations	1) Fleet & Performance Diagnostic Center (FPDC) 2) FPDC Manager: Kevin McWhorter	1) 561-694-3636 (24-Hours) 2) 561-691-2515	1) N/A 2) 402-290-9275

4. If emergency event occurs while maintenance personnel are on-site, all sources of ignition, including hot work, burning cigarettes, portable tools and motor vehicles shall be immediately secured/ceased.
5. Based upon the type and extent of the emergency, if there is anyone on-site, the Control Room Operator should assess whether an evacuation should be initiated. If maintenance personnel are on-site, they along with the Control Room Operator would make the decision to evacuate. The following criteria should be considered in rendering a decision to conduct an evacuation of the facility:
 - The affected parts of the facility and severity of the emergency.
 - Restrictions in egress routes caused by the emergency.
 - Weather.
 - People currently working at the facility (visitors/contractors, etc.)
 - a. During the emergency the Control Room Operator will determine the level of system shut down required, if any.

End of Procedure

APPENDIX 1 SEVERE WEATHER EVENT PLAN

Please see following page.

Summary

Storm resistant design features include a pre-engineered, weather tight structure approximately 46' x 90' to house the system components. The structure will consist of a metal construction exterior. The facility is designed to meet extreme environmental conditions and structural loading conditions as noted below:

- **Wind load:** ASCE 7-10, Exposure D, Risk category III (Greater than 130MPH)
- **Seismic Load:** ASCE 7-10, Site Class D
- **Snow Load:** ASCE 7-10 for local conditions
- **Protected** for salt laden air

The facility is designed to remain operational and is controlled remotely by the Control Room even in severe weather events. The Control Room provides world class and state-of-the-art remote operating, monitoring, and diagnostic services. Key responsibility areas include:

- Operations & Operational Assistance
- Prevention through Prediction
- Restoration/Troubleshooting
- Communications

The Control Room provides 24/7 operational monitoring, diagnostics, and management of alarms as established by the Power Generation Division engineering and operation teams. Control Room Operators are specifically trained to interact closely with the On-Island Manager, who, together with an O&M and emergency response team, will be retained to resolve site operational and response issues.

Monitoring, Planning, and Preparation

1. Natural emergencies considered in this procedure are associated with weather disturbances such as flooding, hurricanes, blizzards, high wind conditions, and severe thunderstorms. The Control Room Operator and On-Island Manager have various means to monitor potential weather events. These include:
 - Internet access to weather-related web-sites;
 - PGDAPPS WeatherSentry Online
 - Local news stations
2. When information is received that a severe weather watch has been issued for the facility area the following actions shall be taken:
 - The Control Room Operator should notify the General Manager and the On-Island Manager
3. Severe Weather Preparation
 - In the event of a severe weather event, where advance warning is known, such as floods, hurricanes, blizzards, etc., the Control Room Operator shall closely coordinate with the On-Island Manager, during pre and post event activities. The goal is to enable the facility to continue to operate safely and reliably during a severe weather event.

On-island resources: the On-Island Manager shall contact O&M and emergency response teams to notify them of the event and place them on standby. Emergency response team may be dispatched to the facility prior to the event to ensure the facility is physically prepared for the event by:

- Securing the building
- Securing all equipment
- Securing all critical communication components
- Deploying sandbags, if applicable

It is not anticipated that personnel would need to access the site during the event. Under no circumstances will personnel be dispatched to the facility until local emergency management indicates it is safe to enter the area. In the event that local flooding could impact access to the site, arrangements previously made for alternative transportation will be implemented.

- In the event of a natural disaster / severe weather event where advance warning may not be known, the Control Room Operator and the On-Island Manager will take reasonable action to prepare for the event. However, under no circumstances are personnel to place themselves in harm's way.
4. The Control Room Operator or On-Island Manager will:
 - Monitor the weather radio, TV or other monitoring equipment, and report any changes in the situation that could affect any plant / maintenance personnel on site and / or equipment. Radio

or phone communication is established if a tornado or other similar severe weather warning is issued.

5. Operations:

- Operate the plant consistent with instructions provided from the Transmission Operator. If, the instructions cannot be followed, i.e., safety, environmental, reliability, etc., immediately notify the Transmission Operator to discuss and alternative operating actions. Document discussions in the Operators log.
- When conditions are “forecasted” to have high winds associated with a hurricane, or other related conditions such as floods and / or storm surge, equipment shutdown should be taken into consideration to ensure the continued reliable operation before, during, and after the event.
 - The decision to shut down the facility as a precaution or during the event will be made after consultation with the Transmission Operator or if conditions are such that the facility would be damaged or cause a system interruption.

APPENDIX 2 FIRE PREVENTION AND RESPONSE

Preventative Controls

The facility is designed with a number of features designed to prevent system upsets that could lead to a fire.

Battery Management System

Each Battery Cell is continuously monitored by a "Battery Management System". The Battery Management System will autonomously take action to protect battery cells and prevent over charging, over current or over temperature operation. The supplied Bidirectional Inverters have controls to detect out of specification conditions of the batteries and will autonomously stop operation in the event of overcurrent or out of specification voltage. A site controller continuously monitors all critical parameters and will autonomously disconnect the system in the event of an out of specification condition. The site is continuously monitored by an offsite 24-hour Control Room Operator. In the event of an "off spec" condition, the Control Room Operator has the ability to remotely control the facility.

Circuit Protection

Each Battery Module and Battery Rack are individually protected by overcurrent fuses. These fuses will operate independently of the DC contactor that is opened by the controls discussed above.

Battery Safety Features

Supplied battery cells, modules and racks will be provided with UL testing Certification as documented in UL-Safety Issues for Lithium Ion Batteries-2016.pdf

Fire Fighting Measures

The site will be equipped with an automatic fire suppression system utilizing water. The system will be designed by a licensed engineering firm that specializes in fire protection. Water has been shown to be the most effective fire suppressant for Lithium Ion Batteries due to its ability to both extinguish the fire and remove excess heat. The system will be designed so that the fire suppression activates in any section of the building experiencing a fire.

To facilitate emergency responders the facility is designed with a hydrant located near the entrance driveway.

Response Actions – Automated System Alarm

Should any system monitoring device indicate a fire alarm or the automatic suppression system activate and release, the Control Room Operator will immediately:

- a. Verify control logic operated as required including shutting down equipment or isolating the project from the grid
- b. Contact local emergency response services and provide the following information:
 1. Location
 2. Type of emergency
 3. Current Status
 4. Any other pertinent information
- c. Notify the General Manager and On-Island Manager
- d. Continually monitor and use all means necessary as described above to isolate the situation.
- e. Contact the System Operator or Transmission Operator if appropriate

Response Actions – Personnel On-site

NOTE: The facility will have fire extinguishers located at strategic points. A diagram indicating location of fire extinguishers, standpipes and fire hydrants will be posted at entrances of the facility.

Any person discovering a fire in its incipient stage should take action as quickly as possible to extinguish the fire. In general, a fire should be considered to be in its incipient stage if it meets two primary criteria:

- a. The fire can be extinguished or controlled with a single portable fire extinguisher
- b. The person discovering the fire perceives an adequate level of safety in attempting to extinguish the fire.

As long as the fire is in its incipient stage, as defined above, the person discovering the fire should utilize all appropriate and readily available fire extinguishing equipment to extinguish the fire. Fire-fighting efforts beyond the incipient stage will be performed by trained outside responders only.

On-site Response Instructions:

1. For fires in incipient stage use fire extinguisher following manufacturer's instructions to extinguish.
 - a. If the fire is extinguished immediately, the on-site personnel shall then notify the Control Room Operator to inform them of the incident.
2. If the fire cannot be contained using an extinguisher then evacuate the building, call 911, then the Control Room Operator.

3. If the site fire detection system is activated all personnel must evacuate the battery building immediately call 911, then the Control Room Operator.

APPENDIX 3 ENVIRONMENTAL RELEASE

The release of transformer oil is a regulated event and must be addressed as soon as possible. Releases into containment areas or to the ground must be reported upon discovery to the Control Room Operator. Containment surrounds all oil filled equipment.

Whether the release is the result of an operational action (e.g., maintenance) or is discovered, site personnel should take action if possible to stop the release or contain the oil. Such action may include closing valves, berming areas with absorbents if available or dirt, or laying down spill absorbent pads. Personnel should only respond at their level of training. Clean-up operations will be performed by a professional response team.

Gather the following information and relay it to the Control Room Operator:

- Transformer leaking oil.
- Whether or not the spill is only in the containment.
- If the source of the spill/release has been stopped.
- Boundaries describing the area of the spill if outside the containment.
- Quantity released (if it can be estimated).
- Environmental Impacts (ground, roadways, etc.).

The Control Room Operator shall make the following notifications:

Organization	Contact Number	Time Notified
Environmental Response Team: Miller Environmental – Long Island Operations: George Wallace	Miller Environmental 800-394-8606 (24 hours)	
On-Island Manager: Miller Environmental: George Wallace	Cell: 631-369-4900	
NYS Dept. of Environmental Conservation Spill Hotline	1-800-457-7362	Spill Number assigned:
Suffolk County Dept of Health Services	1-631-854-2501	
National Response Center (only if impacts water resources)	1-800-424-8802	Incident Number:

Attachment 7. Fire Department Responses

This page intentionally left blank

From: Delbert Gehrke
To: Solsby, Anneke
Subject: RE: Wheatridge Wind Energy Facility
Date: Friday, July 06, 2018 6:23:49 AM

Anneke, the only change we would request would be that a 100 foot vegetation free zone be maintained around the battery storage area in the event of a wildland fire.

Sincerely,
Chief Delbert Gehrke
Echo Rural Fire Protection District.

From: Solsby, Anneke [mailto:Anneke.Solsby@tetrattech.com]
Sent: Monday, July 02, 2018 12:56 PM
To: dgehrke000@centurytel.net
Subject: Wheatridge Wind Energy Facility

Hello Delbert,

As discussed on the phone, we are proposing to add energy (battery) storage to the Wheatridge Wind Energy Facility. Wheatridge Wind Energy Facility is an approved wind energy generation facility consisting of up to 292 turbines with a peak generating capacity of up to 500 megawatts, to be located on approximately 13,097 acres both in Morrow and Umatilla counties – see attached map. Previously, Merle Gehrke had provided a letter stating that the Echo Rural Fire District did not have any reservations regarding the project – see attached. We need a similar confirmation stating that the potential fire and hazard risk from the proposed addition of energy (battery) storage systems would not impact Echo Rural Fire District's ability to provide fire protection services to the Facility. An email response to this email will suffice.

Although siting and design isn't final, the proposed energy storage systems (20 MW system in Umatilla County) would consist of lithium-ion batteries contained in a building or series of modular containers and would include approximately 18 inverters and associated step-up transformers, as well as interconnecting facilities (control house, protective device and power transformer). The proposed battery storage systems may include ground-level cooling equipment, power conditioning systems, distribution and auxiliary transformers. The proposed battery storage systems would be located adjacent to the previously approved substation and operation and maintenance building sites and would each result in up to 5 acres of new permanent disturbance.

Please let me know if you need additional information. Thank you in advance for your assistance.

Sincerely,

Anneke Solsby | Environmental Planner

Anneke.Solsby@tetrattech.com

Tetra Tech | Portland

1750 SW Harbor Way, Suite 400 | Portland, OR 97201

Direct: 503.721.7217 | Fax: 503.227.1287 | Cell: 503.860.9076

PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



Think Green - Not every email needs to be printed.

I.R.F.P.D
Ione Rural Fire Protection District
PO Box 6 – 160 West Main Street
Ione, Oregon 97843
541-422-7303

July 2, 2018
Carrie Konkol
Tetra Tech, Inc.
1750 SW Harbor Way, Suite 400
Portland, OR 07201
503-721-7225 ext. 2258

The Ione Rural Fire Protection District is one of five departments that will provide protection to the area where Wheatridge Wind Energy Facility, including energy storage, will be located.

Ione RFPD does not provide high angle or confined space rescue.

We find that this wind facility will not have a significant impact on our ability to fight wildfires.

Sincerely,

Virgil L. Morgan



Ione RFPD Fire Chief

This page intentionally left blank

Attachment 8. Property Owner List

This page intentionally left blank

Map Tax Lot	First Name	Last Name	Name 2	Name 3	Company/Organization	C/O-Attn.	Address	City	State	Zip Code
02N25E000000400				HALE, KELLY	KILKENNY LAND CO		1124 SW MYRTLE DR	PORTLAND	OR	97201
02N25E0000001400				MITCHELLM STEVE	EUGENE A DOHERTY REVOCABLE		1901 W GREENHEAD DR	MERIDAIAN	ID	83642
02N25E0000001600				MITCHELLM STEVE	EUGENE A DOHERTY REVOCABLE		1901 W GREENHEAD DR	MERIDAIAN	ID	83642
02N25E0000001800				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
02N25E0000001700				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
02N25E0000000600	KENNETH MICHAEL	KLINGER					68280 IMMIGRANT LN	IONE	OR	97843
02N25E0000000700	MATTHEW P	DOHERTY	DORIS L				79972 AGNEW RD	HERMISTON	OR	97838
02N25E0000000200				USA (BOMBING RANGE)						0
02N25E0000000500				HALE, KELLY	KILKENNY LAND CO		1124 SW MYRTLE DR	PORTLAND	OR	97201
02N26E0000001700				WOOD, WALT MANAGING PARTNER	MOYER RANCH 25% ETAL		3448 CANOGA PL	CAMARILLO	CA	93010
02N26E0000001600				WOOD, WALT MANAGING PARTNER	MOYER RANCH 25% ETAL		3448 CANOGA PL	CAMARILLO	CA	93010
02N26E0000001200					GRIEB FARMS, INC		PO BOX 308	LEXINGTON	OR	97839
02N26E0000001900			MOYER RANCH	CARMICHAEL, MIRIAM S & WOOD, WALT, TR			3448 CANOGA PL	CAMARILLO	CA	93010
02N26E0000000500					BAKER PRODUCE SOUTH, INC		PO BOX 6812	KENNEWICK	WA	99336
01N25E000002803	LAWRENCE D	LINDSAY	CORRINE A				PO BOX 307	LEXINGTON	OR	97839
01N26E0000004800	MARK T	MILLER	SHANNON E				67775 CUTSFORTH RD	HEPPNER	OR	97836
01N26E0000004600	KATHERINE	MARTIN					PO BOX 336	LEXINGTON	OR	97839
01N26E0000004300	KEVEN	HAGUEWOOD	BUTLER, MICHEL				64396 MCNAB LN	IONE	OR	97843
01N25E0000004000					BILL & RENA MARQUARDT, LLC		67070 MARQUARDT RD	LEXINGTON	OR	97839
01N25E0000003202				MARTIN, THOMAS & SHIRLEY, 72%	MARTIN, THOMAS, 28% &		68700 HWY 207	LEXINGTON	OR	97839
01N26E0000004500	SUEZANNE	DUNCAN	ROBERT				1547 ALPENSEE STRA	LEAVENWORTH	WA	98826
01N26E0000004400	ERIC M	OREM	BRANDI L				72028 BLACKHORSE CYN LN	HEPPNER	OR	97836
01N26E0000003501				HALE, KELLY	KILKENNY, ROBERT J TRUSTEE		1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E0000003200					MUNKERS, SHEILA H ETAL		PO BOX 34	COTTONWOOD	ID	83522
01N26E0000002806	AARON D	HEIDEMAN					33999 RIVER VIEW DR	HERMISTON	OR	97838
01N26E0000002808	AARON D	HEIDEMAN					33999 RIVER VIEW DR	HERMISTON	OR	97838
01N26E0000002803					KARYL SMITH, INC		8825 N ORCHARD PR RD	SPOKANE	WA	99217
01N26E0000002202				KEMP,SHERRY	KEMP LAND LLC		516 NW 4TH	PENDLETON	OR	97801
01N26E0000003700					STATE OF OREGON		417 TRANSPORTATION BLDG	SALEM	OR	97310
01N25E0000003000	GABRIEL E	MARTIN					1912 RHODODENDRON WAY	BELLINGHAM	WA	98229
01N26E0000002801	AARON D	HEIDEMAN					33999 RIVER VIEW DR	HERMISTON	OR	97838
01N26E0000002807	AARON D	HEIDEMAN					33999 RIVER VIEW DR	HERMISTON	OR	97838
01N26E0000002802					KARYL SMITH, INC		8825 N ORCHARD PR RD	SPOKANE	WA	99217
01N26E0000002601					TURNER RANCH, INC		75655 BASELINE RD	HEPPNER	OR	97836
01N26E0000003502				HALE, KELLY	KILKENNY, ROBERT J, TRUSTEE		1124 SW MYRTLE DR	PORTLAND	OR	97201
01N26E0000003500				HALE, KELLY	KILKENNY, ROBERT J, TRUSTEE		1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E0000002600	RANDY	HUGHES					67554 JUNIPER CANYON RD	LEXINGTON	OR	97839
01N25E0000001900				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N25E0000002900	LAWRENCE D	LINDSAY	CORRINE A				PO BOX 307	LEXINGTON	OR	97839
01N26E0000003400				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000003300				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000003301	STEPHEN	HILL	TANA JO				73114 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000003600				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000002800					HEIDEMAN, LOREN A & DELLA K, TR		22948 FAIRVIEW LN	IONE	OR	97843
01N26E0000003800					HEIDEMAN, LOREN A & DELLA K, TR		22948 FAIRVIEW LN	IONE	OR	97843
01N26E0000003000					MORROW COUNTY GRAIN GROWER		PO BOX 367	LEXINGTON	OR	97839
01N26E0000003201	CHRISTIAN	RAUCH	KATHERINE A				72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000002602					HEIDEMAN, LOREN A & DELLA K, TR		22948 FAIRVIEW LN	IONE	OR	97843
01N26E0000003200				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000002900				PSX/JB	WHEATRIDGE WIND ENERGY, LLC		700 UNIVERSE BLVD	JUNO BEACH	FL	33408
01N26E0000002500					MONAGLE, JOHN B & PATRICIA ANN		517 NW 7TH	PENDLETON	OR	97801
01N26E0000002700				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC		72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N25E0000001400	RANDY	HUGHES					67554 JUNIPER CANYON RD	LEXINGTON	OR	97839
01N26E0000003100					PETTYJOHN, KERRY D, TRUSTEE		26675 ICE HARBOR DR	BURBANK	WA	99323
01N26E0000002805					HEIDEMAN, LOREN A & DELLA K, TR		22948 FAIRVIEW LN	IONE	OR	97843
01N25E0000002000				DIAZ, LISA	BERRY, BARBARA NEAL ETAL		2532 SANTIAM HWY SE #155	ALBANY	OR	97322
01N25E0000001800	RANDY	HUGHES					67554 JUNIPER CANYON RD	LEXINGTON	OR	97839
01N26E0000002804					KARYL SMITH, INC		8825 N ORCHARD PR RD	SPOKANE	WA	99217
01N26E0000002400	WILLIAM J	DOHERTY					70644 DOHERTY RD	LEXINGTON	OR	97839
01N25E0000001401	RANDY WILLIAM	HUGHES					67554 JUNIPER CANYON RD	LEXINGTON	OR	97839
01N25E0000001600				PSX/JB	WHEATRIDGE WIND ENERGY, LLC		700 UNIVERSE BLVD	JUNO BEACH	FL	33408

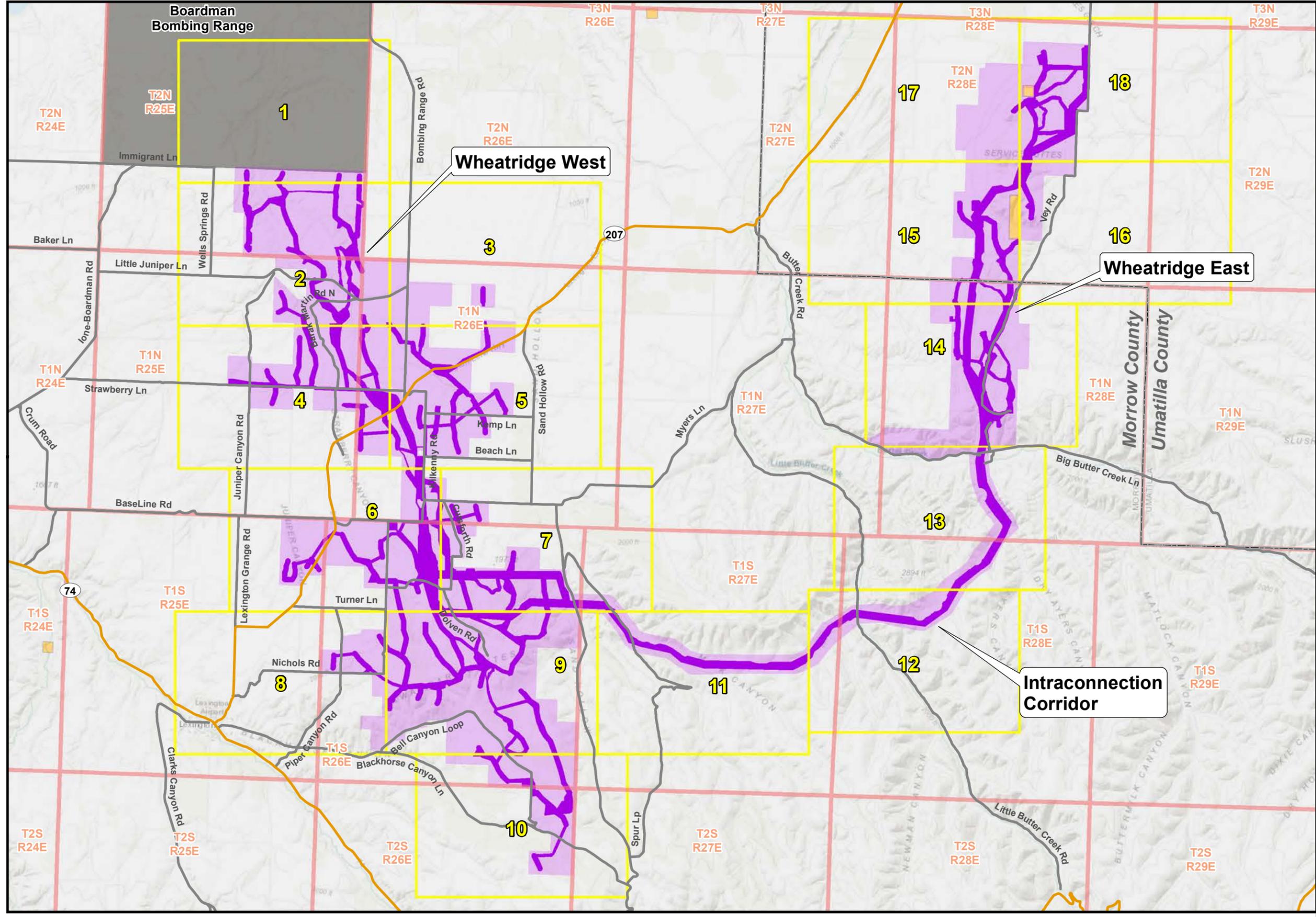
01N25E000001700				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E000001500				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N25E000001500				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N26E000001102				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E000001300	WILLIAM J		DOHERTY			70644 DOHERTY RD	LEXINGTON	OR	97839
01N26E000001700	WILLIAM J		DOHERTY			70644 DOHERTY RD	LEXINGTON	OR	97839
01N26E000001101	STANLEY M		RAUCH	JAMIE ANN		1301 S HAMILTON RD	MOSES LAKE	WA	98837
01N25E000000501				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E000000400					NATURE CONSERVANCY	821 SE 14TH AVE	PORTLAND	OR	97214
01N25E000000301				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E000000100				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N26E000000700	WILLIAM J		DOHERTY			70644 DOHERTY RD	LEXINGTON	OR	97839
01N26E000000800				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N25E000000502					NATURE CONSERVANCY	821 SE 14TH AVE	PORTLAND	OR	97214
01N25E000000300				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E000000700				MITCHELLM STEVE	EUGENE A DOHERTY REVOCABLE	1901 W GREENHEAD DR	MERIDIAN	ID	83642
01N25E000000503				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E000000302				PSX/JB	WHEATRIDGE WIND ENERGY, LLC	700 UNIVERSE BLVD	JUNO BEACH	FL	33408
01N25E000000200				HALE, KELLY	KILKENNY LAND CO	1124 SW MYRTLE DR	PORTLAND	OR	97201
01N25E0000003100				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E0000002600					TURNER-LINDSAY FARMS, LLC	75655 BASELINE RD	HEPPNER	OR	97836
01N26E0000004700	COREY M		MILLER	M JILL		74655 BASELINE LN	HEPPNER	OR	97836
01N26E000000400	WILLIAM J		DOHERTY			70644 DOHERTY RD	LEXINGTON	OR	97839
01N26E000001200				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E000001301				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E000000701				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N26E000000600					GRIEB FARMS, INC	PO BOX 308	LEXINGTON	OR	97839
01N25E000000500				PSX/JB	WHEATRIDGE WIND ENERGY, LLC	700 UNIVERSE BLVD	JUNO BEACH	FL	33408
01N26E000001100				RAUCH, CHRISTIAN K	NORTH LEX POWER AND LAND, LLC	72967 STRAWBERRY LN	LEXINGTON	OR	97839
01N28E000000301				PSX/JB	WHEATRIDGE WIND ENERGY, LLC	700 UNIVERSE BLVD	JUNO BEACH	FL	33408
01N28E000000900	MARILYN		SCHILLER			69958 SCHILLER DR	ECHO	OR	97826
01N28E000000304	MARILYN		SCHILLER			69958 SCHILLER DR	ECHO	OR	97826
01N28E000000303	MARILYN		SCHILLER			69958 SCHILLER DR	ECHO	OR	97826
01N28E000000300	MARILYN		SCHILLER			69958 SCHILLER DR	ECHO	OR	97826
01N28E000000201	MARILYN		SCHILLER			69958 SCHILLER DR	ECHO	OR	97826
01N28E000000600	MARILYN		SCHILLER			69958 SCHILLER DR	ECHO	OR	97826
01N28E000000400					OREGON WINDFARMS, LLC	3145 GEARY BLVD 723	SAN FRANCISCO	CA	94118
01N28E000000200				CAVALLETTO, DONALD O	PINE CANYON RANCH, GP	PO BOX 4965	PASO ROBLES	CA	93447
01S25E0000004000	JEFFREY PATRICK		CUTSFORTH			66790 HWY 207	LEXINGTON	OR	97839
01S25E0000002100				MILLER, MARK		67775 CUTSFORTH RD	HEPPNER	OR	97836
01S25E000000602					BILL & RENA MARQUARDT LLC	67070 MARQUARDT RD	LEXINGTON	OR	97839
01S25E000000400					BILL & RENA MARQUARDT LLC	67070 MARQUARDT RD	LEXINGTON	OR	97839
01S25E000000100					PROUDFOOT, PAUL J ET AL	PO BOX 28	IONE	OR	97843
01S25E0000002000	JEFFREY		CUTSFORTH			66790 HWY 207-ECHO	LEXINGTON	OR	97839
01S26E0000003601	ANTHONY J		DOHERTY			73779 BLACK HORSE CANYON LN	HEPPNER	OR	97836
01S26E0000004000	KEVEN O		HAGUEWOC			64396 MCNAB LN	IONE	OR	97843
01S26E0000004100	JAMES W		CUTSFORTH	DANA M		2604 S HARRISON CT	KENNEWICK	WA	99338
01S26E0000003600	ANTHONY J		DOHERTY			73779 BLACK HORSE CANYON LN	HEPPNER	OR	97836
01S26E0000003800	CARLA J		THORPE			2611 S FILLMORE CT	KENNEWICK	WA	99338
01S26E0000003602	ANTHONY J		DOHERTY			73779 BLACK HORSE CANYON LN	HEPPNER	OR	97836
01S26E0000003900					BELL RANCH PARTNERSHIP	74655 BASELINE LN	HEPPNER	OR	97836
01S26E0000002902	KEVEN O		HAGUEWOC			64396 MCNAB LN	IONE	OR	97843
01S26E0000003400	JAMES W		CUTSFORTH	DANA M		2604 S HARRISON CT	KENNEWICK	WA	99338
01S26E0000003300	DOUGLAS A		DRAKE	CARLEY E		64598 SANDHOLLOW RD	HEPPNER	OR	97836
01S26E0000002500	JEFFREY PATRICK		CUTSFORTH			66790 HWY 207	LEXINGTON	OR	97839
01S26E0000002903	KEVEN O		HAGUEWOC			64396 MCNAB LN	IONE	OR	97843
01S26E0000002600	ANTHONY J		DOHERTY			73779 BLACK HORSE CANYON LN	HEPPNER	OR	97836
01S26E0000003100					TURNER RANCH, INC	75655 BASELINE RD	HEPPNER	OR	97836
01S26E0000003200					ROLLING RANCH LLC	8385 WHEATLAND RD N	SALEM	OR	97303
01S26E000001600	VICKI M		WAGENBLA			65936 DOLVEN RD	LEXINGTON	OR	97839
01S26E0000003000					TURNER RANCH, INC	75655 BASELINE RD	HEPPNER	OR	97836
01S26E0000002101	WILLIAM D		GREENUP	CYNTHIA M		PO BOX 488	LEXINGTON	OR	97839

01S26E00002100	ELDEN LEE	PADBERG				18407 NE 21ST ST	REDMOND	WA	98052
01S26E000002901					CUTSFORTH, STANLEY ETAL	67509 CUTSFORTH RD	LEXINGTON	OR	97839
01S26E000002401	ELDEN LEE	PADBERG				18407 NE 21ST ST	REDMOND	WA	98052
01S26E000002000					TURNER RANCH, INC	75655 BASELINE RD	HEPPNER	OR	97836
01S26E000001602				PSX/JB	WHEATRIDGE WIND ENERGY, LLC	700 UNIVERSE BLVD	JUNO BEACH	FL	33408
01S26E000001702	MARK T	MILLER	SHANNON E			67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000001801					TURNER RANCH, INC	75655 BASELINE RD	HEPPNER	OR	97836
01S26E000000800	MARK T	MILLER	SHANNON E			67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000001802					FRITZ CUTSFORTH LAND CO	67191 SANDHOLLOW RD	HEPPNER	OR	97836
01S26E000001400					CUTSFORTH, STANLEY ETAL	67509 CUTSFORTH RD	LEXINGTON	OR	97839
01S26E000001100					OREM, ERIC & OREM, BRANDI ETAL	72028 BLACKHORSE CANYON LN	HEPPNER	OR	97836
01S26E000001300					MILLER, MARK T & MILLER, SHANNON	67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000001500					MILLER, MARK T & MILLER, SHANNON	67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000001800	VICKI M	WAGENBLAS				65936 DOLVEN RD	LEXINGTON	OR	97839
01S26E000000400	MARK T	MILLER	SHANNON E			67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000000900					PROUDFOOT, PAUL J, ET AL	PO BOX 28	IONE	OR	97843
01S26E000000700	MARK T	MILLER	SHANNON E			67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000000500	MARK T	MILLER	SHANNON E			67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000000300					MARIAH WIND, LLC	PO BOX 605	VICTOR	ID	83455
01S26E000000200					FRITZ CUTSFORTH LAND CO	67191 SANDHOLLOW RD	HEPPNER	OR	97836
01S26E000000100					FRITZ CUTSFORTH LAND CO	67191 SANDHOLLOW RD	HEPPNER	OR	97836
01S26E000000600	MARK T	MILLER	SHANNON E			67775 CUTSFORTH RD	HEPPNER	OR	97836
01S26E000001000				DERUWE, ZOEE	W W & O FARMS, INC	701 MUSE RD	CONNELL	WA	99326
01S26E000002200				PSX / JB	WHEATRIDGE WIND ENERGY, LLC	700 UNIVERSE BLVD	JUNO BEACH	FL	33408
01S26E000002300				DERUWE, ZOEE	W W & O FARMS, INC	701 MUSE RD	CONNELL	WA	99326
01S26E000003201					TURNER RANCH, INC	75655 BASELINE RD	HEPPNER	OR	97836
01S27E000001500	DOUGLAS A	DRAKE	CARLEY E			64598 SANDHOLLOW RD	HEPPNER	OR	97836
01S27E000001000				GAIL A VOGUE	VOGE, WARREN H, ET AL	16838 NE HOYT ST	PORTLAND	OR	97230
01S27E000000500					DOUGHERTY, PATRICIA, TR, 1/2 ET AL	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000509					DOUGHERTY, PATRICIA, TR, 1/2 ET AL	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000600					TURNER RANCH, INC	75655 BASELINE RD	HEPPNER	OR	97836
01S27E000000510				BEAUCHAMP MIKE, PRESIDENT	COMM TECH INC	PO BOX 6856	KENNEWICK	WA	99336
01S27E000000505					DOUGHERTY, PATRICIA, TRUSTEE	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000200				GAIL A VOGUE	VOGE, WARREN H, ET AL	16838 NE HOYT ST	PORTLAND	OR	97230
01S27E000000507					DOUGHERTY, PATRICIA, TR, 1/2 ET AL	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S28E000000600				GAIL A VOGUE	VOGE, WARREN H, ET AL	16838 NE HOYT ST	PORTLAND	OR	97230
01S28E000000500				CURRIN, STEVE	LAZY K LAND, LLC	60732 LITTLE BUTTER CREEK RD	HEPPNER	OR	97836
01S28E000000400				CURRIN, STEPHEN J	BUTTER CREEK CATTLE COMPANY	60732 LITTLE BUTTER CREEK RD	HEPPNER	OR	97836
01S28E000000200	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826
01S28E000002400	BRYAN E	PADBERG				14015 52ND AVE NW	GIG HARBOR	WA	98332
02S27E000001100				COX, STEVEN D	CX5 LIMITED	3043 N 25 WEST	PROVO	UT	84604
02S27E000001000	COLIN	ANDERSON	ERIN			75257 BLACKHORSE CYN LN	HEPPNER	OR	97836
02S27E000000800					ROLLING RANCH LLC	8385 WHEATLAND RD N	SALEM	OR	97303
01S27E000000515					DOUGHERTY, PATRICIA, TR, 1/2 ET AL	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000512					DOUGHERTY, CLIFFORD ET AL	65450 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000503					DOUGHERTY, PATRICIA, TR ETAL	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000503					DOUGHERTY, PATRICIA, TR ETAL	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000505					DOUGHERTY, PATRICIA, TRUSTEE	66317 SPUR LOOP RD	HEPPNER	OR	97836
01S27E000000505					DOUGHERTY, PATRICIA, TRUSTEE	66317 SPUR LOOP RD	HEPPNER	OR	97836
02S26E000001800				COX, STEVEN D	CX5 LIMITED	3043 N 25 WEST	PROVO	UT	84604
02S26E000000100				PSX/JB	WHEATRIDGE WIND ENERGY, LLC	700 UNIVERSE BLVD	JUNO BEACH	FL	33408
02S26E000000101	KEVEN O	HAGUEWOC				64396 MCNAB LN	IONE	OR	97843
02S26E000000400	COLIN	ANDERSON	ERIN			75257 BLACKHORSE CYN LN	HEPPNER	OR	97836
02S26E000000200	COLIN	ANDERSON	ERIN			75257 BLACKHORSE CYN LN	HEPPNER	OR	97836
02S26E000000304	COLIN	ANDERSON	ERIN			75257 BLACKHORSE CYN LN	HEPPNER	OR	97836
02S26E000000300	KEVEN O	HAGUEWOC				64396 MCNAB LN	IONE	OR	97843
01S26E000002900					WINTER WIND ENERGY LLC	3000 EL CAMINO REAL STE 700	PALO ALTO	CA	94306
01N27E000001600	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826
01N27E000001403					ARCUS, LLC	ONE 100TH AVE NE STE. 102	BELLEVUE	WA	98004
01S26E000003500					BELL RANCH PARTNERSHIP	74655 BASELINE LN	HEPPNER	OR	97836
01S26E000003500					BELL RANCH PARTNERSHIP	74655 BASELINE LN	HEPPNER	OR	97836

Map Tax Lot	First Name	Last Name	Name 2	Company/Organization	C/O-Attn.	Address	City	State	Zip Code
2N2800000100				SNOW H RICHARD 1/2 & (TRS) 1/2		33263 OREGON TRAIL RD	ECHO	OR	
2N2800000300				EAGLE RANCH		32327 OREGON TRAIL RD	ECHO	OR	
2N2800000300				EAGLE RANCH		32327 OREGON TRAIL RD	ECHO	OR	
2N2800000400	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800000500				EAGLE RANCH		32327 OREGON TRAIL RD	ECHO	OR	
2N2800000600				EAGLE RANCH		32327 OREGON TRAIL RD	ECHO	OR	
2N2800000700				EAGLE RANCH		32327 OREGON TRAIL RD	ECHO	OR	
2N2800000800				WESTLAND ENTERPRISES LLC		822 S HIGHWAY 395 #PMB 423	HERMISTON	OR	97838-2621
2N2800001600				FARMLAND RESERVE INC		PO BOX 511196	SALT LAKE CITY	UT	84151-1196
2N2800001700				FARMLAND RESERVE INC		PO BOX 511196	SALT LAKE CITY	UT	84151-1196
2N2800001800	CHESTER J	PRIOR				32327 OREGON TRAIL RD	ECHO	OR	97826-9001
2N2800001900	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800001901	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002000				USA		PO BOX 2965	PORTLAND	OR	
2N2800002100	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002200	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002200A1	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002300	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002400	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002500				EAGLE RANCH		32327 OREGON TRAIL RD	ECHO	OR	97826-9001
2N2800002700	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002800	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800002900	MARILYN	SCHILLER				69958 SCHILLER DR	ECHO	OR	97826-9044
2N2800003000				HAWKINS CO INC		78771 EGGERS RD	PENDLETON	OR	
2N2800003100				HAWKINS CO INC		78771 EGGERS RD	PENDLETON	OR	
2N2800003200	CASEY A	SEEGER	CODY, ROBERT			PO BOX 310	ECHO	OR	
2N2800003300				USA		PO BOX 2965	PORTLAND	OR	
2N2800003400				LUCIANI JOHN H ET AL		27633 BUTTER CREEK RD	ECHO	OR	97826-9047
2N2800003500				PINE CANYON RANCH GP		PO BOX 4965	PASO ROBLES	CA	

Figure 1
Wheatridge Wind Energy

Taxlots
 All Taxlots Within 500 Feet
 of Leased Parcels
Index Map
 Morrow and Umatilla Counties, OR



-  Site Boundary
-  Leased Parcels *
-  Township/Range
-  County Boundary
-  Map Grid
-  State Highway
-  Local Road
- Land Ownership**
-  Private
-  Bureau of Land Management
-  Management
-  Department of Defense



Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

* Owner names and addresses can be found in the attached Excel file



P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IFA_TaxLot\WWE_Wheatridge_RFA_Fig_01_Taxlots_Index_111717_20180917.mxd - Last Saved 6/23/2017

P:\GIS_PROJECTS\NextEra\Wheatridge\IMXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Boardman
Bombing
Range

T2N
R26E

Bombing Range Rd

T2N
R25E

Immigrant Ln

JUNIPER
CANYON

BOARDMAN

Figure 2.1
Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels

Details Map
Morrow and Umatilla Counties, OR

-  Site Boundary
 -  Wheatridge East
 -  Wheatridge West
 -  Intraconnection Corridor
 -  Leased Parcels
 -  Township/Range
 -  County Boundary
 -  Map Grid
 -  State Highway
 -  Local Road
- Taxlots ***
-  Morrow County
 -  Umatilla County
- Land Ownership**
-  Private
 -  Bureau of Land Management
 -  Department of Defense

* Owner names and addresses can be found in the attached Excel file



Figure 2.1
Figure 2.2

02N25E00000600

02N25E00000500

02N25E00000400

02N26E00000500

1:24,000 1 inch = 2,000 feet WGS84 UTM 11

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018



P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

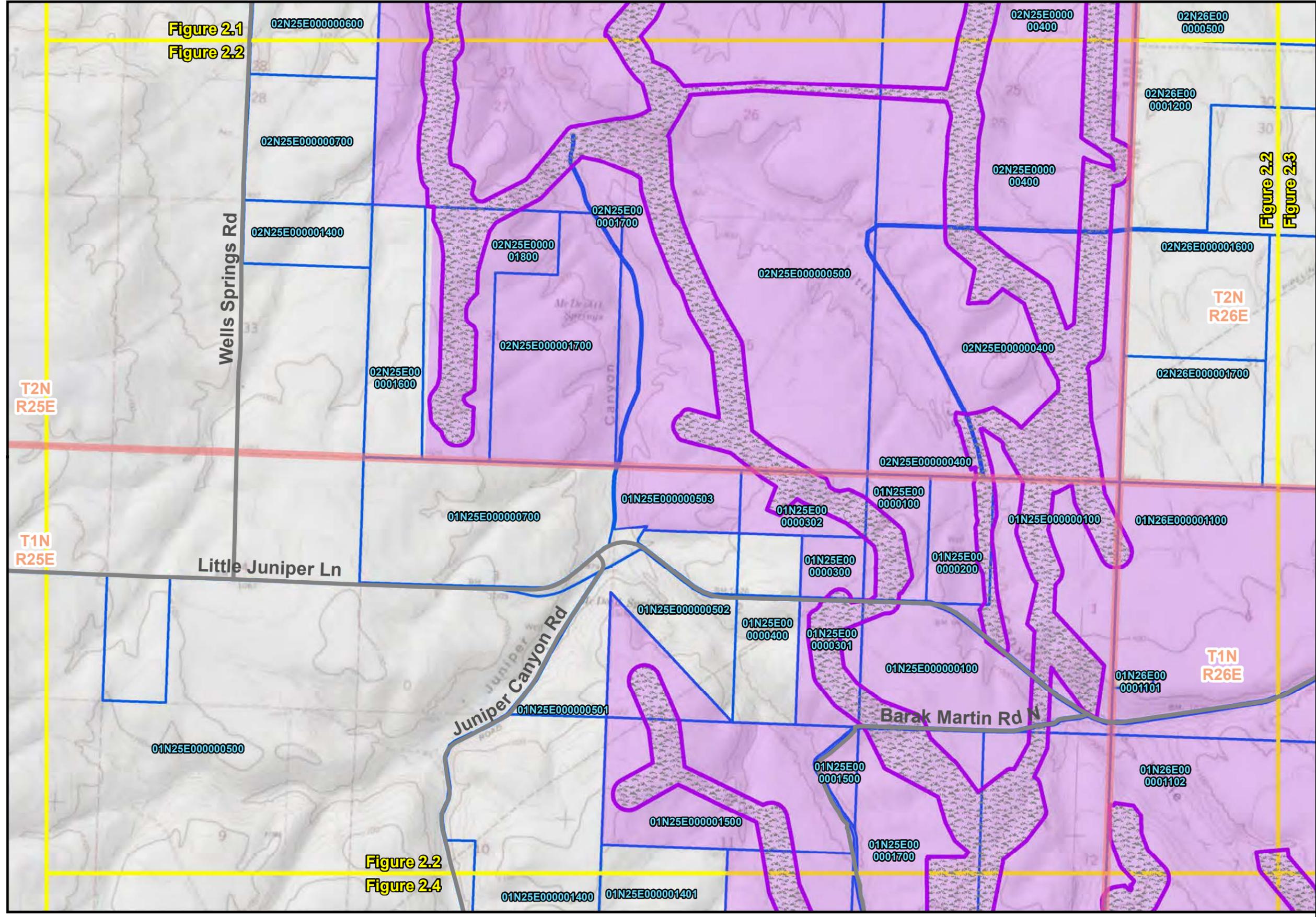


Figure 2.1
Figure 2.2

Figure 2.2
Wheatridge Wind Energy

Taxlots
All Taxlots Within 500 Feet
of Leased Parcels

Details Map
Morrow and Umatilla Counties, OR

- Site Boundary
- Wheatridge East
- Wheatridge West
- Intraconnection Corridor
- Leased Parcels
- Township/Range
- County Boundary
- Map Grid
- State Highway
- Local Road

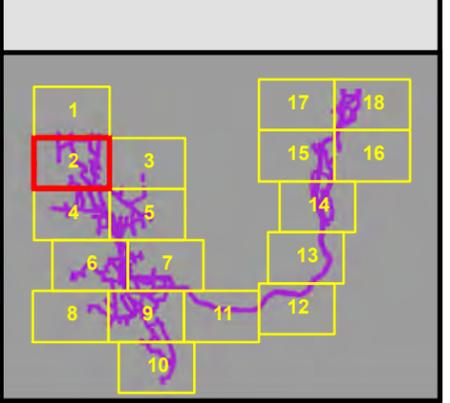
Taxlots *

- Morrow County
- Umatilla County

Land Ownership

- Private
- Bureau of Land Management
- Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11

0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018



Figure 2.3
Wheatridge Wind Energy



Taxlots
 All Taxlots Within 500 Feet
 of Leased Parcels

Details Map
 Morrow and Umatilla Counties, OR

-  Site Boundary
 -  Wheatridge East
 -  Wheatridge West
 -  Intraconnection Corridor
 -  Leased Parcels
 -  Township/Range
 -  County Boundary
 -  Map Grid
 -  State Highway
 -  Local Road
- Taxlots ***
-  Morrow County
 -  Umatilla County
- Land Ownership**
-  Private
 -  Bureau of Land Management
 -  Department of Defense

* Owner names and addresses can be found in the attached Excel file

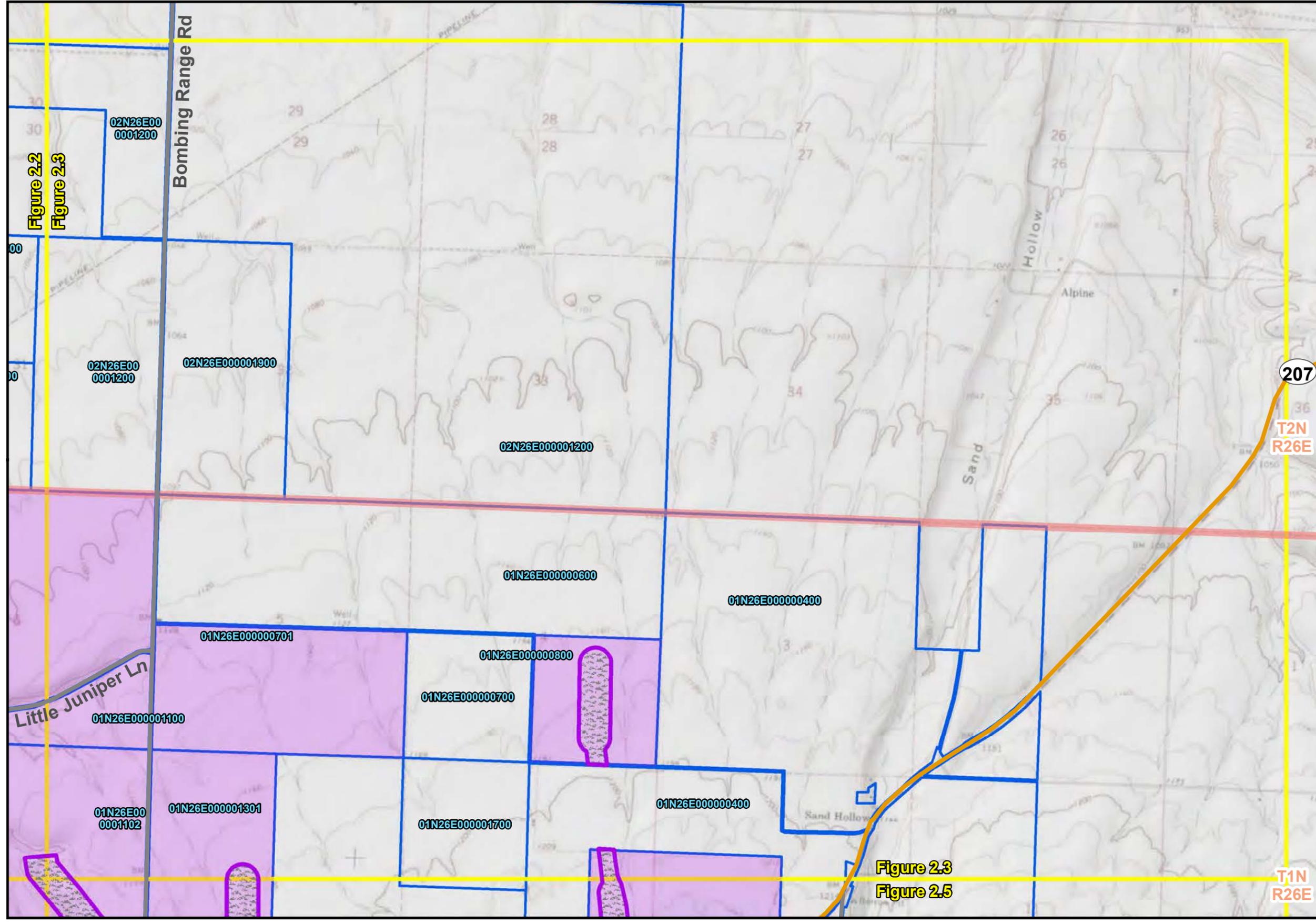
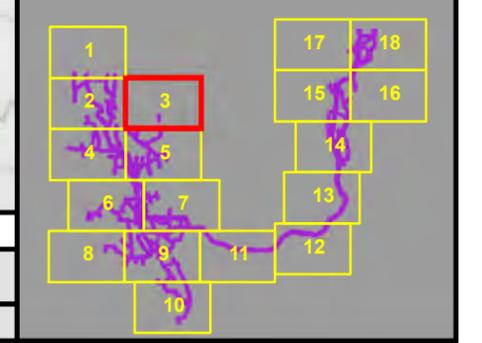


Figure 2-2
 Figure 2-3

Figure 2.3
 Figure 2.5



1:24,000 1 inch = 2,000 feet WGS84 UTM 11

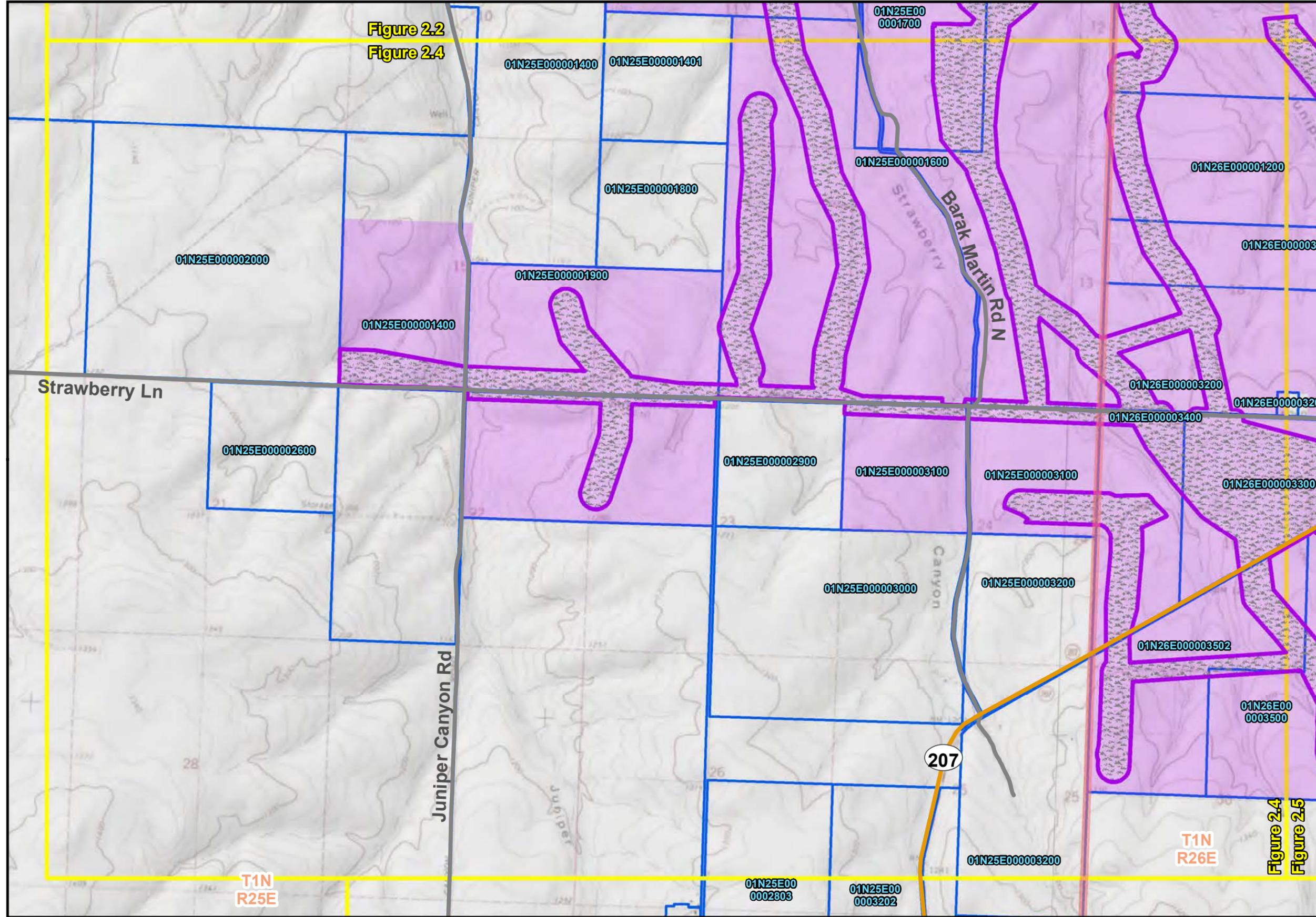
Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

Figure 2.4
Wheatridge Wind Energy



Taxlots
 All Taxlots Within 500 Feet
 of Leased Parcels

Details Map
 Morrow and Umatilla Counties, OR



- Site Boundary
- Wheatridge East
- Wheatridge West
- Intraconnection Corridor
- Leased Parcels
- Township/Range
- County Boundary
- Map Grid
- State Highway
- Local Road

Taxlots *

- Morrow County
- Umatilla County

Land Ownership

- Private
- Bureau of Land Management
- Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11

0 0.25 0.5 1 1.5 2 Miles

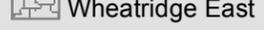
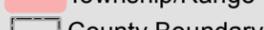
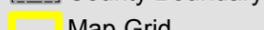
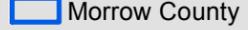
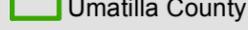
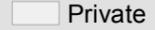
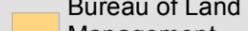
Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\RFAs_TaxLot\WWE_Wheatridge_RFA_Fig_F02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018



Figure 2.5
Wheatridge Wind Energy

Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR

-  Site Boundary
 -  Wheatridge East
 -  Wheatridge West
 -  Intraconnection Corridor
 -  Leased Parcels
 -  Township/Range
 -  County Boundary
 -  Map Grid
 -  State Highway
 -  Local Road
- Taxlots ***
-  Morrow County
 -  Umatilla County
- Land Ownership**
-  Private
 -  Bureau of Land Management
 -  Department of Defense

* Owner names and addresses can be found in the attached Excel file

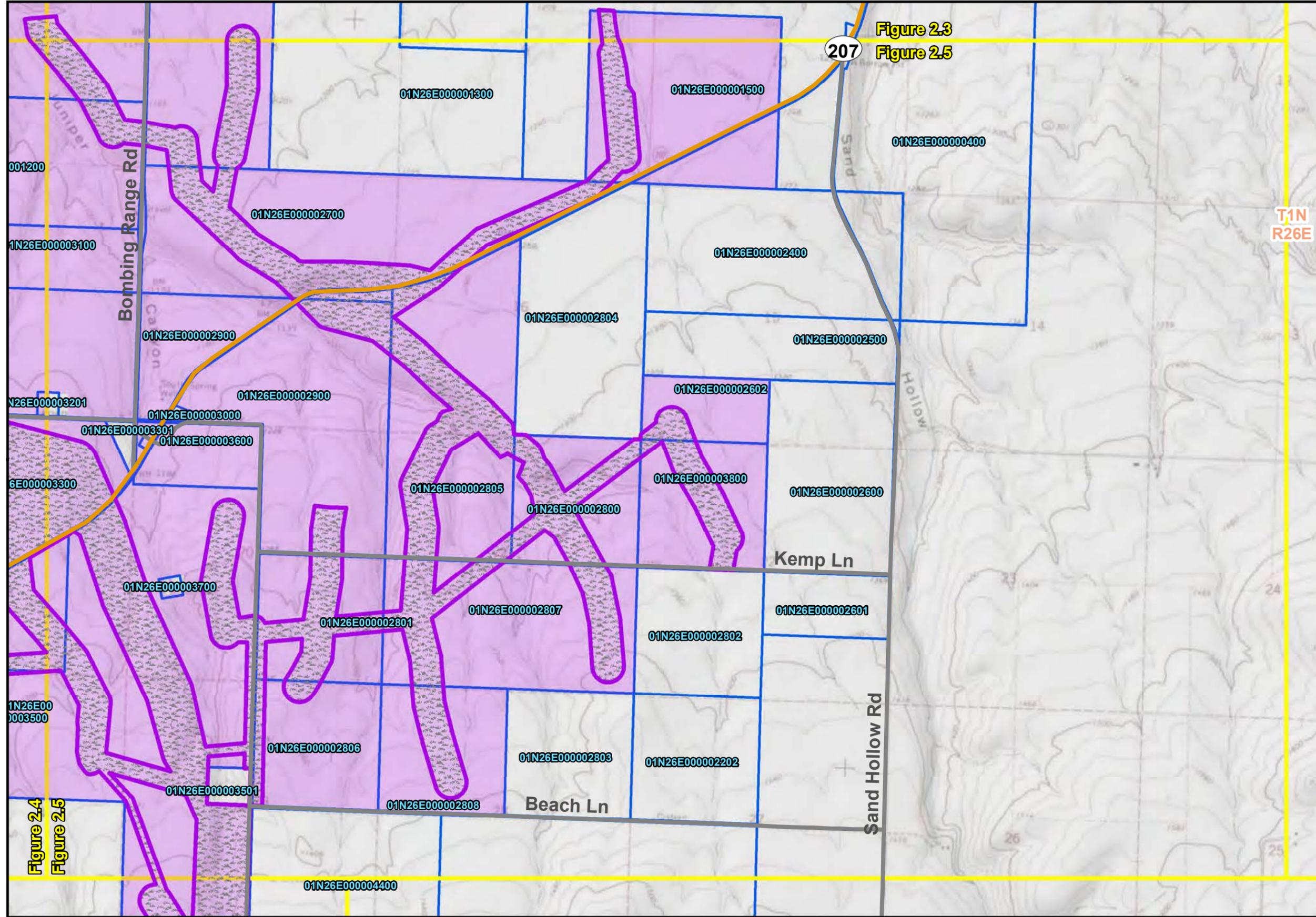


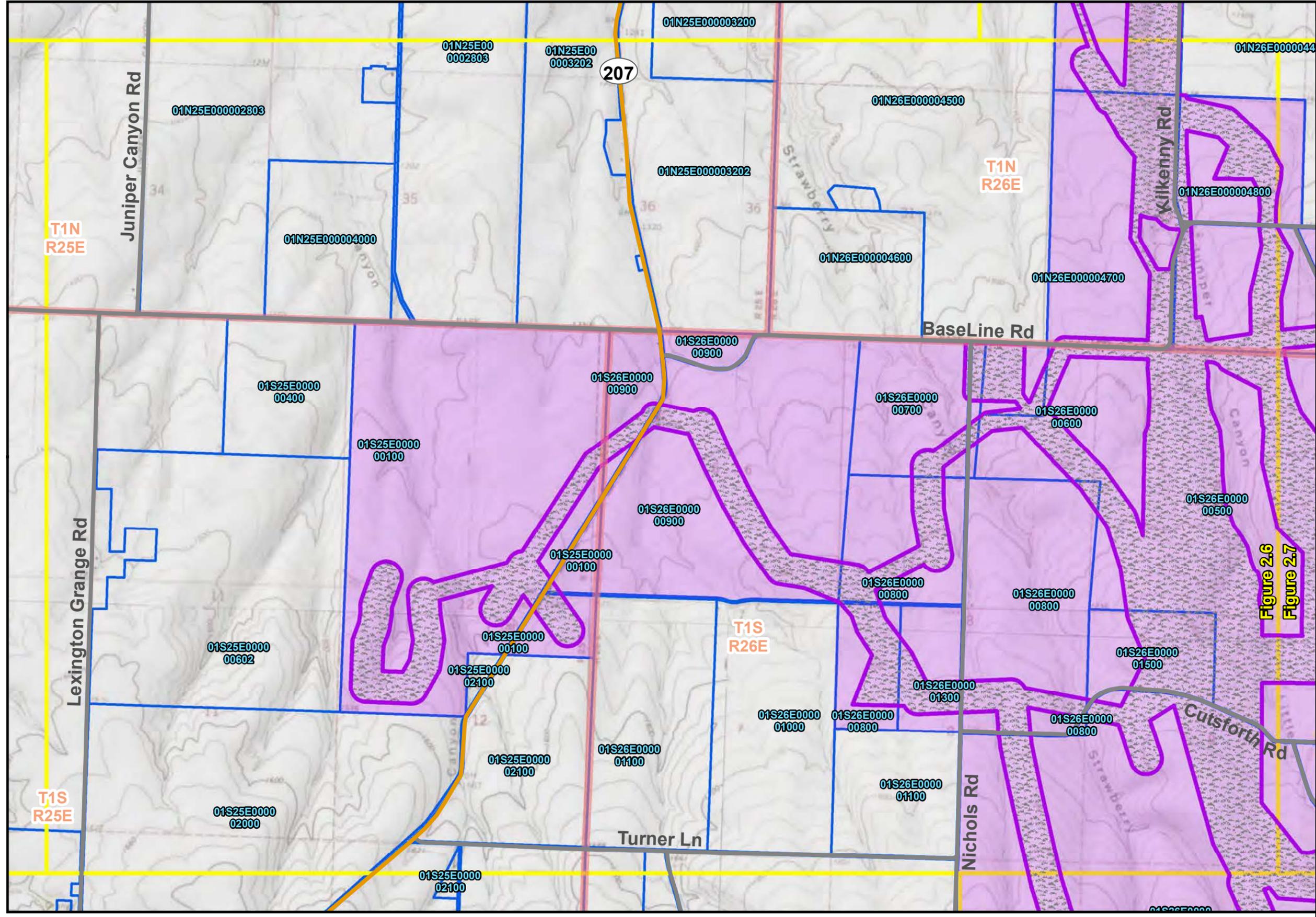
Figure 2.4
Figure 2.5



P:\GIS_PROJECTS\NextEra\Wheatridge\MXDs\RFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Figure 2.6
Wheatridge Wind Energy

Taxlots
 All Taxlots Within 500 Feet
 of Leased Parcels
Details Map
 Morrow and Umatilla Counties, OR



-  Site Boundary
-  Wheatridge East
-  Wheatridge West
-  Intraconnection Corridor
-  Leased Parcels
-  Township/Range
-  County Boundary
-  Map Grid
-  State Highway
-  Local Road

Taxlots *

-  Morrow County
-  Umatilla County

Land Ownership

-  Private
-  Bureau of Land Management
-  Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11

0 0.25 0.5 1 1.5 2 Miles

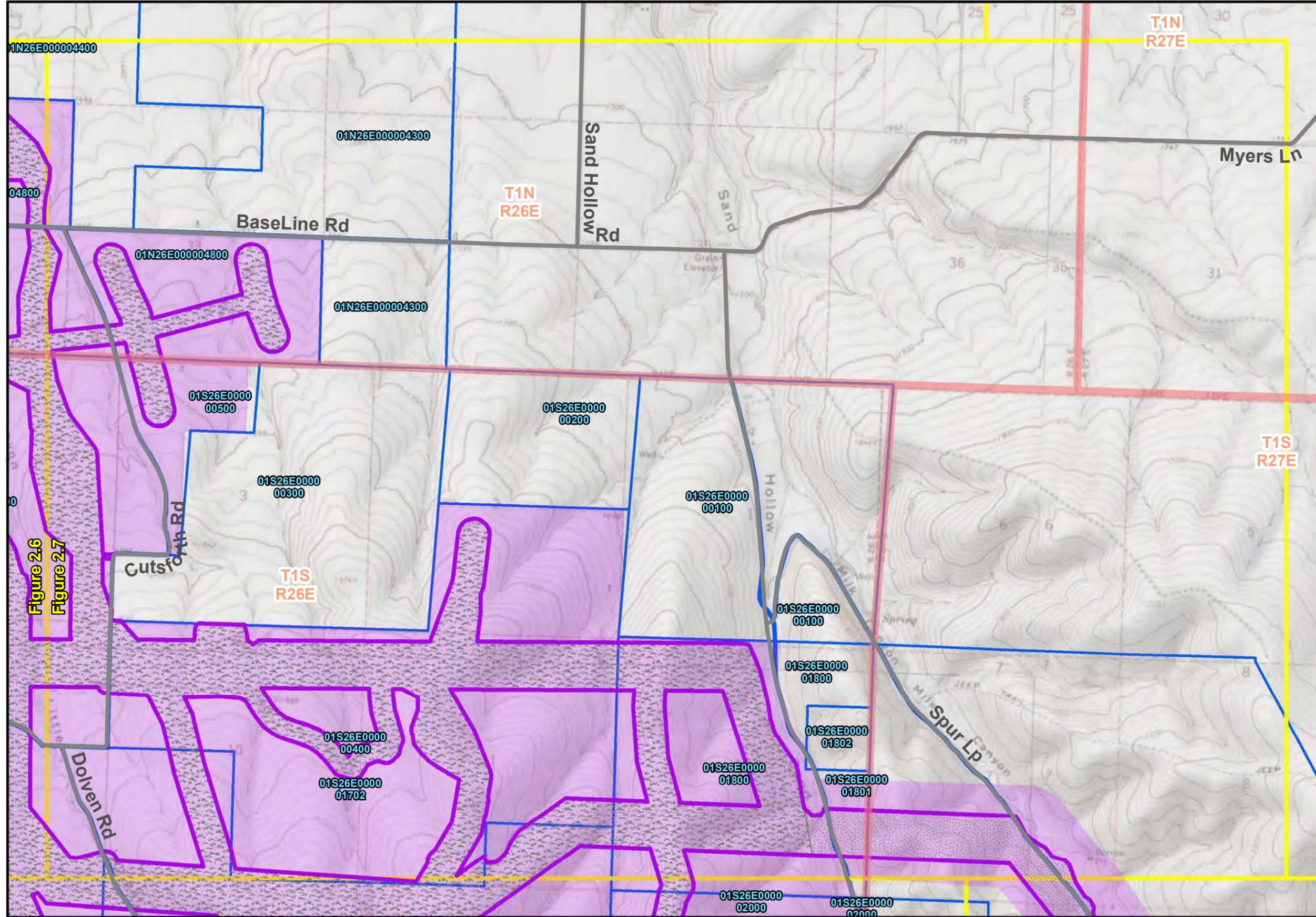
Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXDs\IFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018



Figure 2.7
Wheatridge Wind Energy

Taxlots
 All Taxlots Within 500 Feet
 of Leased Parcels
Details Map
 Morrow and Umatilla Counties, OR



-  Site Boundary
-  Wheatridge East
-  Wheatridge West
-  Intraconnection Corridor
-  Leased Parcels
-  Township/Range
-  County Boundary
-  Map Grid
-  State Highway
-  Local Road

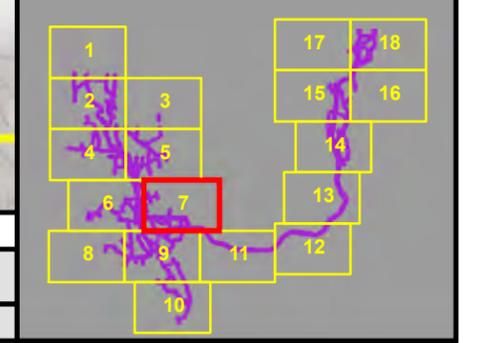
Taxlots *

-  Morrow County
-  Umatilla County

Land Ownership

-  Private
-  Bureau of Land Management
-  Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11

0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018



Figure 2.8

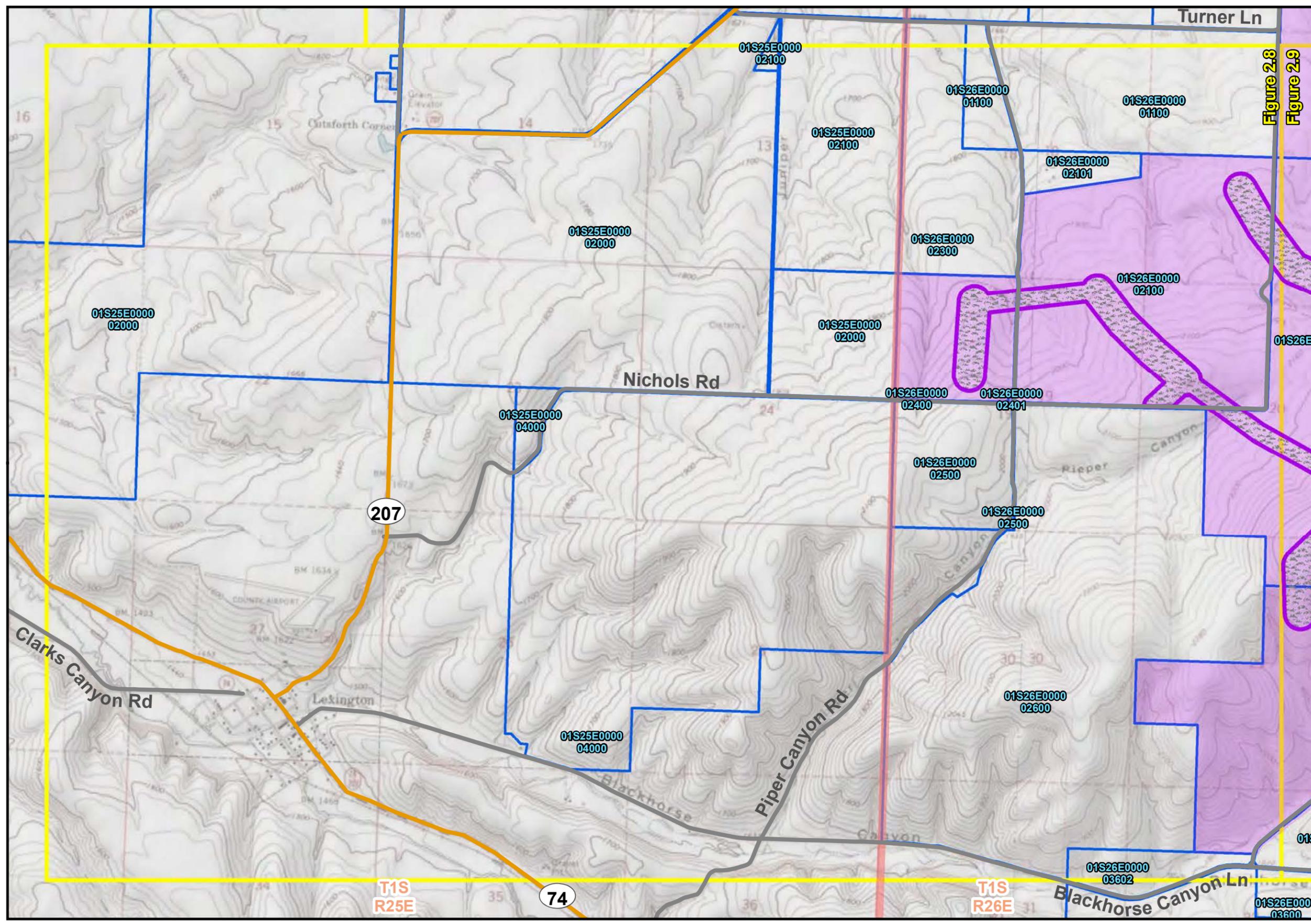
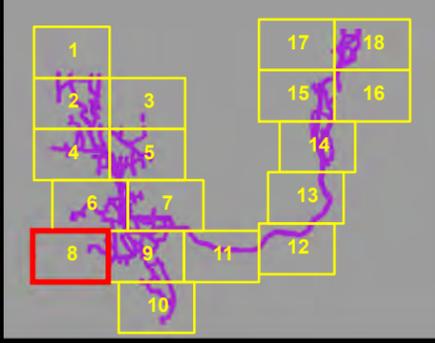
Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR

- Site Boundary
 - Wheatridge East
 - Wheatridge West
 - Intraconnection Corridor
 - Leased Parcels
 - Township/Range
 - County Boundary
 - Map Grid
 - State Highway
 - Local Road
- Taxlots ***
- Morrow County
 - Umatilla County
- Land Ownership**
- Private
 - Bureau of Land Management
 - Department of Defense

* Owner names and addresses can be found in the attached Excel file



Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018



Figure 2.10

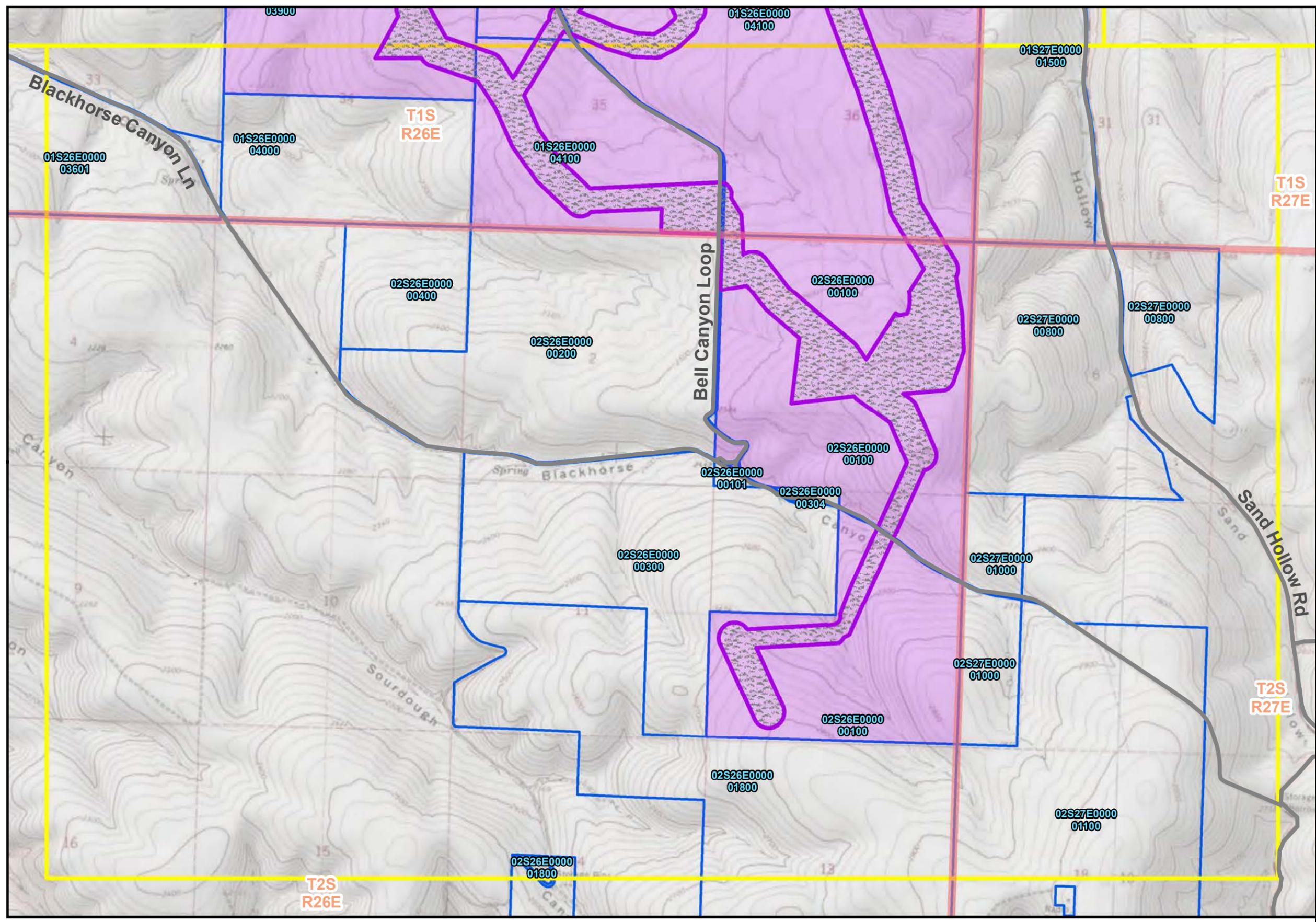
Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR

- Site Boundary
 - Wheatridge East
 - Wheatridge West
 - Intraconnection Corridor
 - Leased Parcels
 - Township/Range
 - County Boundary
 - Map Grid
 - State Highway
 - Local Road
- Taxlots ***
- Morrow County
 - Umatilla County
- Land Ownership**
- Private
 - Bureau of Land Management
 - Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11
0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_F02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018



Figure 2.11

Wheatridge Wind Energy



Taxlots

All Taxlots Within 500 Feet of Leased Parcels

Details Map

Morrow and Umatilla Counties, OR

- Site Boundary
 - Wheatridge East
 - Wheatridge West
 - Intraconnection Corridor
 - Leased Parcels
 - Township/Range
 - County Boundary
 - Map Grid
 - State Highway
 - Local Road
- Taxlots ***
- Morrow County
 - Umatilla County
- Land Ownership
- Private
 - Bureau of Land Management
 - Department of Defense

* Owner names and addresses can be found in the attached Excel file

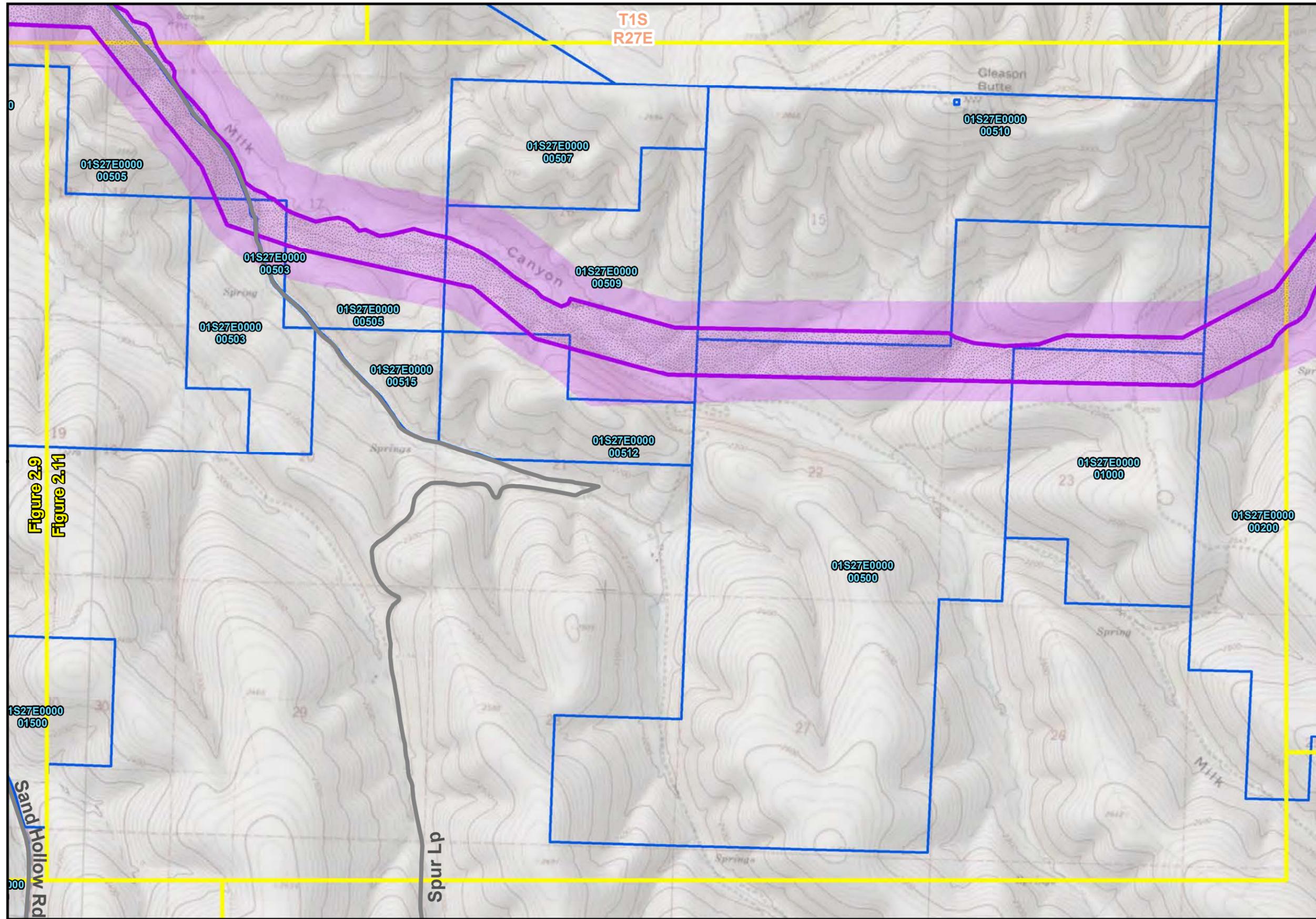


Figure 2.9
Figure 2.11

1:24,000 1 inch = 2,000 feet WGS84 UTM 11
0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018



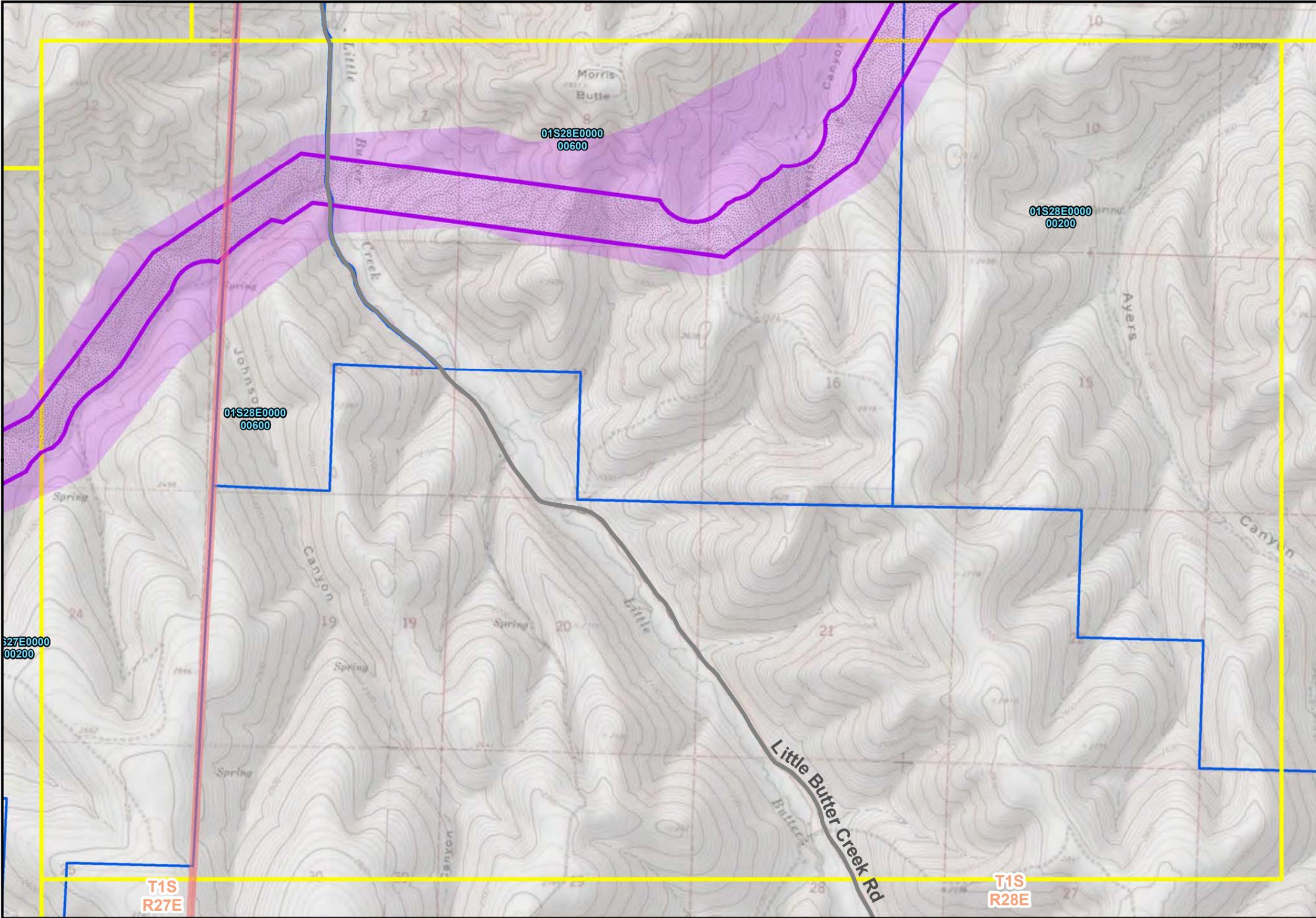
P:\GIS_PROJECTS\NextEra\Wheatridge\MXDs\RFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Figure 2.12

Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR



- Site Boundary
- Wheatridge East
- Wheatridge West
- Intraconnection Corridor
- Leased Parcels
- Township/Range
- County Boundary
- Map Grid
- State Highway
- Local Road
- Taxlots ***
- Morrow County
- Umatilla County
- Land Ownership**
- Private
- Bureau of Land Management
- Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11 0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Figure 2.13

Wheatridge Wind Energy



Taxlots

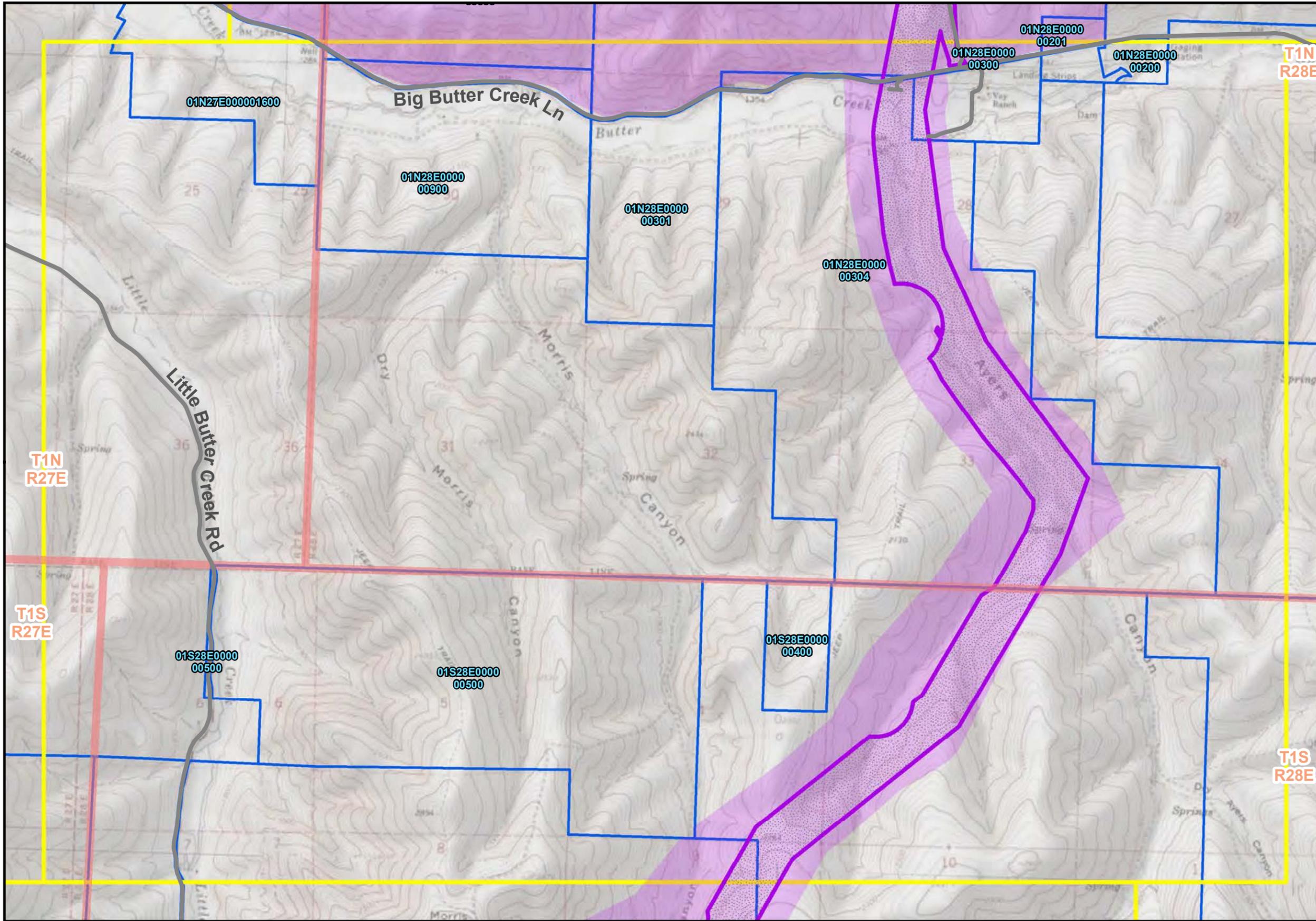
All Taxlots Within 500 Feet of Leased Parcels

Details Map

Morrow and Umatilla Counties, OR

- Site Boundary
 - Wheatridge East
 - Wheatridge West
 - Intraconnection Corridor
 - Leased Parcels
 - Township/Range
 - County Boundary
 - Map Grid
 - State Highway
 - Local Road
- Taxlots ***
- Morrow County
 - Umatilla County
- Land Ownership
- Private
 - Bureau of Land Management
 - Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11



Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

Figure 2.14

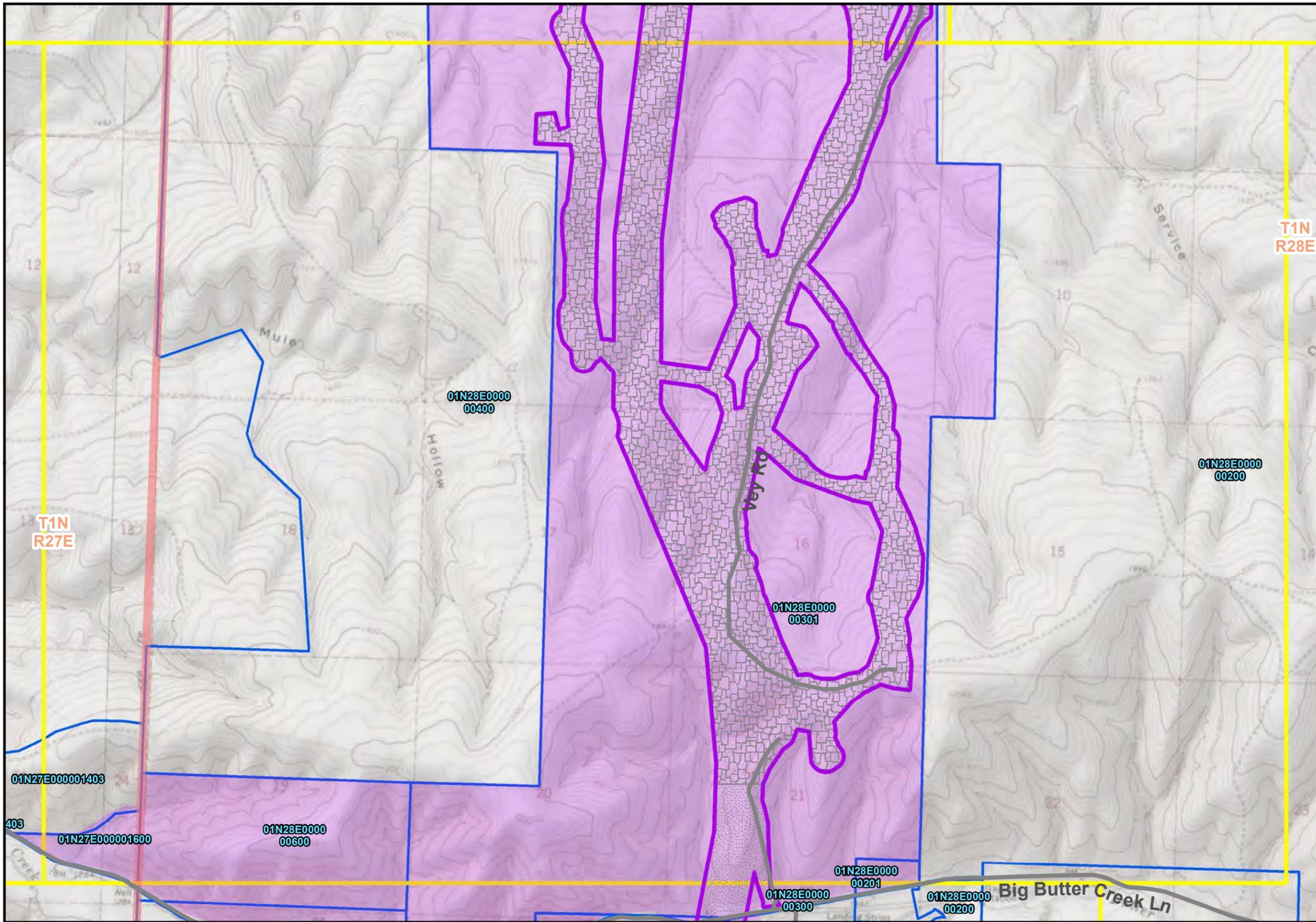
Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR

- Site Boundary
- Wheatridge East
- Wheatridge West
- Intraconnection Corridor
- Leased Parcels
- Township/Range
- County Boundary
- Map Grid
- State Highway
- Local Road
- Taxlots ***
- Morrow County
- Umatilla County
- Land Ownership**
- Private
- Bureau of Land Management
- Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11 0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018



P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

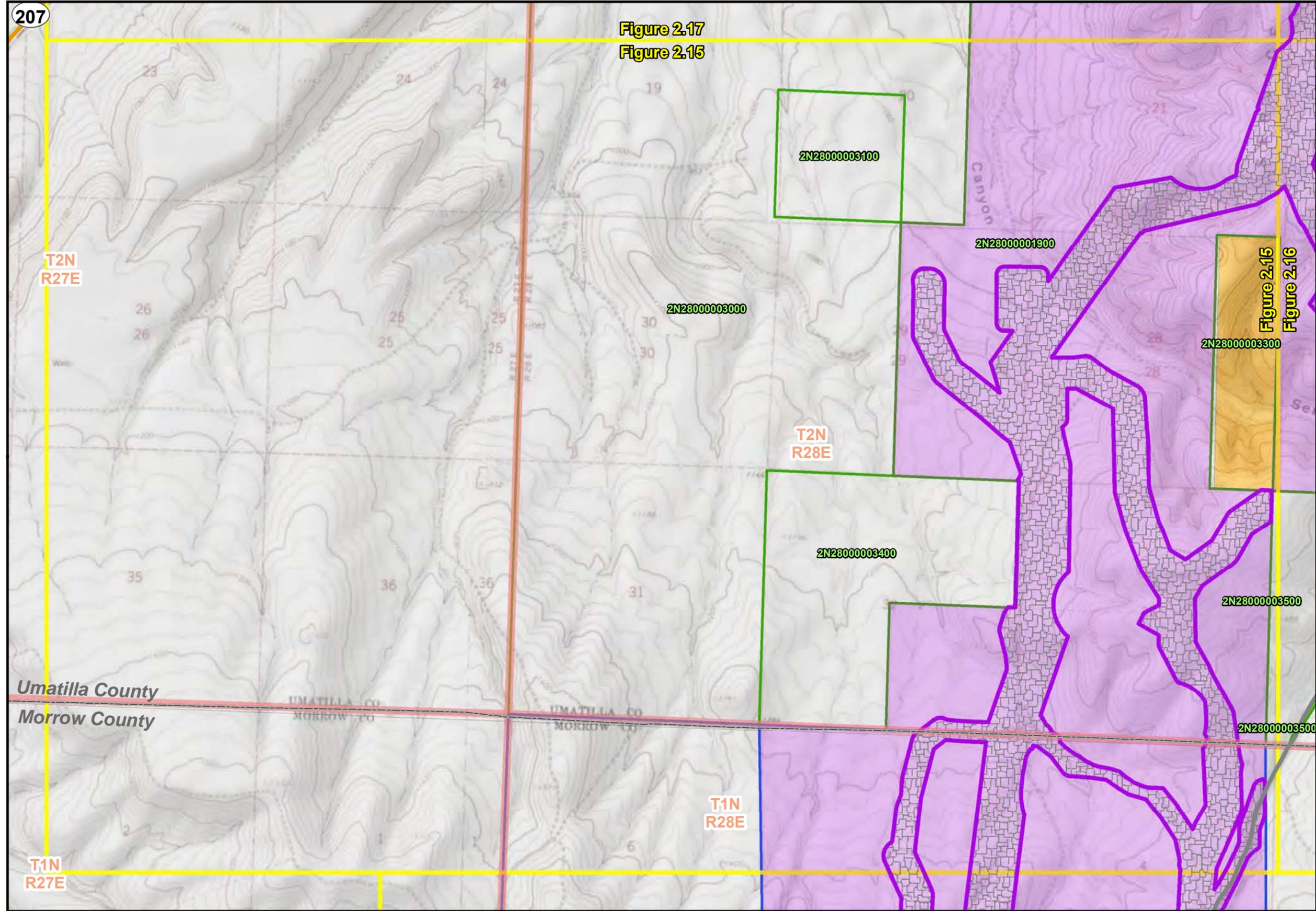
Figure 2.17
Figure 2.15

Figure 2.15
Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels

Details Map
Morrow and Umatilla Counties, OR



- Site Boundary
- Wheatridge East
- Wheatridge West
- Intraconnection Corridor
- Leased Parcels
- Township/Range
- County Boundary
- Map Grid
- State Highway
- Local Road

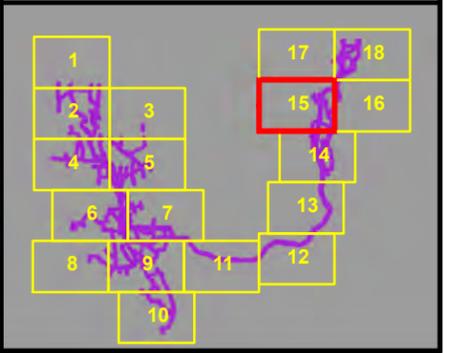
Taxlots *

- Morrow County
- Umatilla County

Land Ownership

- Private
- Bureau of Land Management
- Department of Defense

* Owner names and addresses can be found in the attached Excel file



1:24,000 1 inch = 2,000 feet WGS84 UTM 11

0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXDs\RFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Figure 2.16

Wheatridge Wind Energy



Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR

- Site Boundary
- Wheatridge East
- Wheatridge West
- Intraconnection Corridor
- Leased Parcels
- Township/Range
- County Boundary
- Map Grid
- State Highway
- Local Road
- Taxlots ***
- Morrow County
- Umatilla County
- Land Ownership**
- Private
- Bureau of Land Management
- Department of Defense

* Owner names and addresses can be found in the attached Excel file

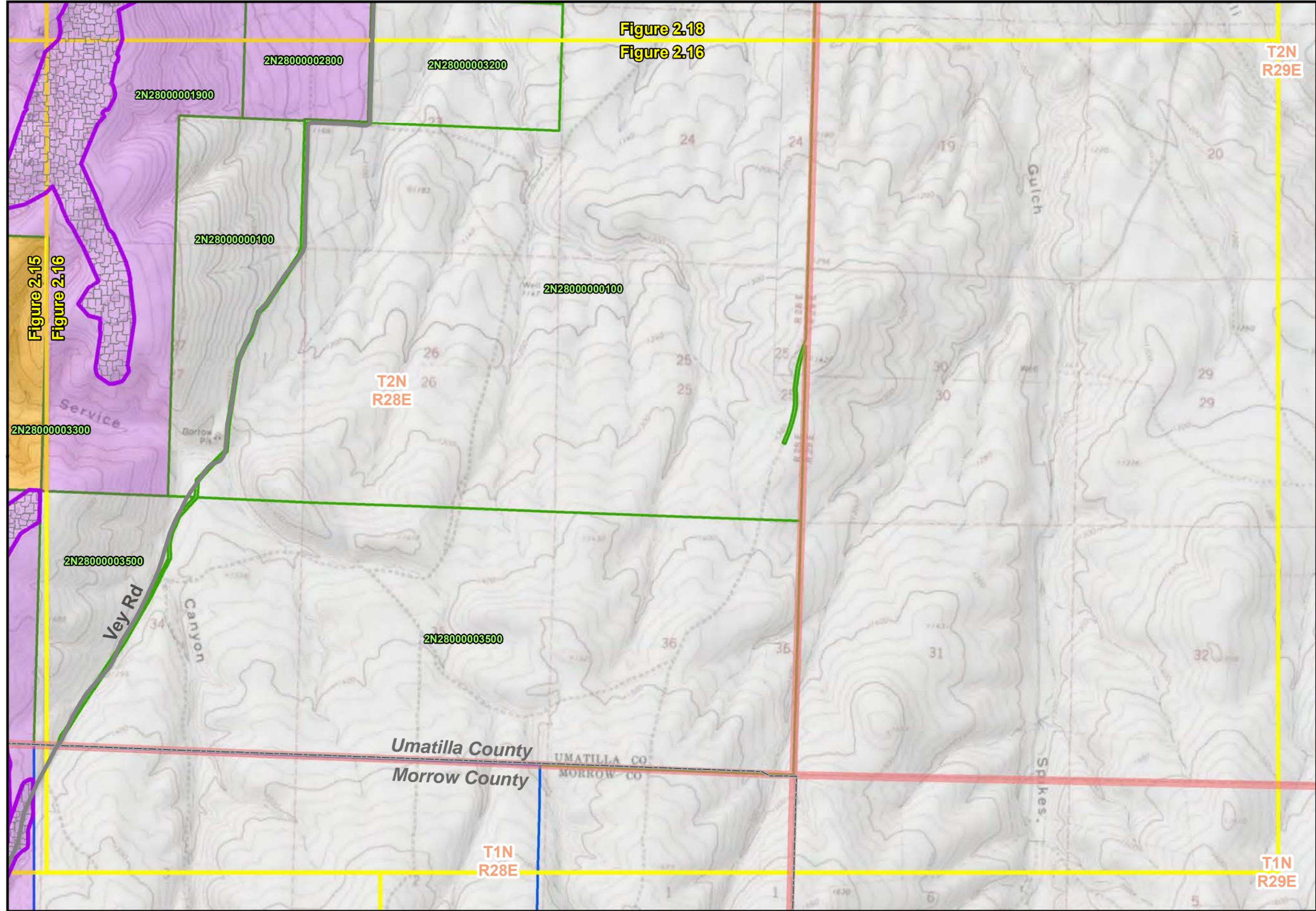
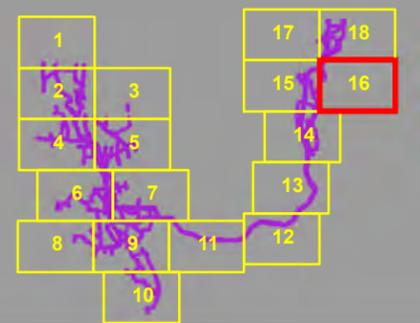


Figure 2.18
Figure 2.16

Figure 2.15
Figure 2.16

1:24,000 1 inch = 2,000 feet WGS84 UTM 11
0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018



P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_F02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Figure 2.17
Wheatridge Wind Energy

Taxlots
All Taxlots Within 500 Feet
of Leased Parcels
Details Map
Morrow and Umatilla Counties, OR

-  Site Boundary
 -  Wheatridge East
 -  Wheatridge West
 -  Intraconnection Corridor
 -  Leased Parcels
 -  Township/Range
 -  County Boundary
 -  Map Grid
 -  State Highway
 -  Local Road
 - Taxlots ***
 -  Morrow County
 -  Umatilla County
 - Land Ownership**
 -  Private
 -  Bureau of Land Management
 -  Department of Defense
- * Owner names and addresses can be found in the attached Excel file

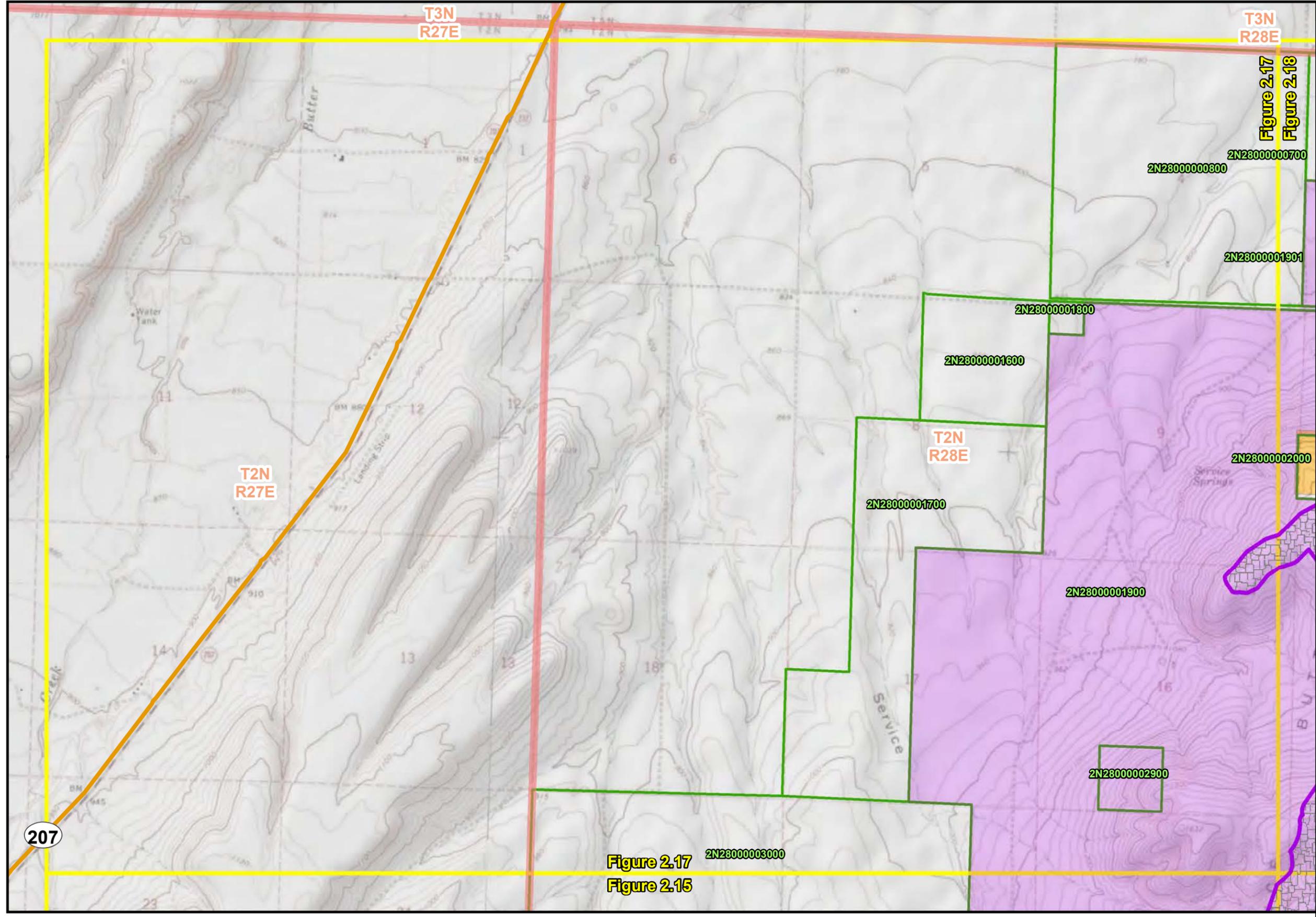
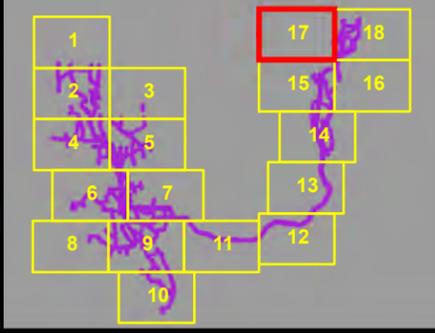


Figure 2.17
Figure 2.15



P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

Figure 2.18
Wheatridge Wind Energy



Taxlots
 All Taxlots Within 500 Feet
 of Leased Parcels

Details Map
 Morrow and Umatilla Counties, OR

-  Site Boundary
 -  Wheatridge East
 -  Wheatridge West
 -  Intraconnection Corridor
 -  Leased Parcels
 -  Township/Range
 -  County Boundary
 -  Map Grid
 -  State Highway
 -  Local Road
- Taxlots ***
-  Morrow County
 -  Umatilla County
- Land Ownership**
-  Private
 -  Bureau of Land Management
 -  Department of Defense
- * Owner names and addresses can be found in the attached Excel file

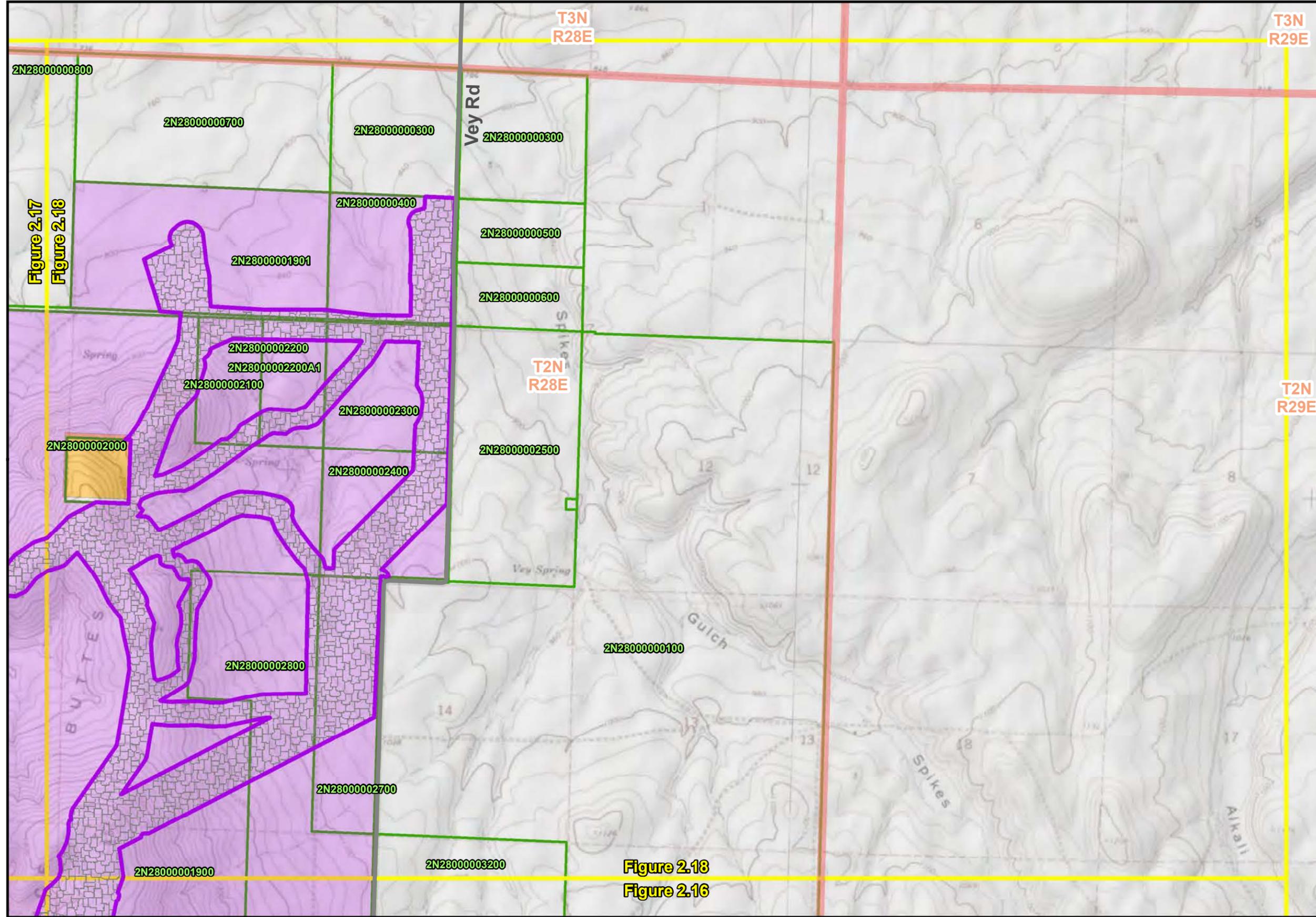
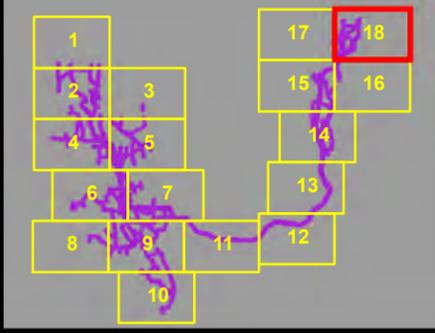


Figure 2.17
 Figure 2.18

Figure 2.18
Figure 2.16



 **1:24,000** 1 inch = 2,000 feet **WGS84 UTM 11**

0 0.25 0.5 1 1.5 2 Miles

Data Sources Wheatridge Wind Energy: project facilities / ESRI: roads, political boundaries / BLM: PLSS data, ownership / Morrow County: taxlots and ownership updated August, 2018, Umatilla County: taxlots and ownership updated August, 2018

P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\IRFA_TaxLot\WWE_Wheatridge_RFA_Fig_02_Taxlots_Details_11171_20180917.mxd - Last Saved 9/17/2018

This page intentionally left blank