BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of Request for Amendment 1 for the Boardman Solar Energy Facility Site Certificate	))))	**PROPOSED ORDER ON REQUEST FOR AMENDMENT 1 TO THE SITE CERTIFICATE**

September 10, 2021

RED underline and ~~strikethrough~~ represent recommended changes from DPO to Proposed Order
BLACK underline and ~~strikethrough~~ represent condition changes as presented in the DPO

TABLE OF CONTENTS

TABLE OF TABLES

LIST OF FIGURES

Attachments:

Attachment A: Draft Amended Site Certificate
Attachment B: ~~Reviewing Agency~~ Comments received on preliminary RFA1 and DPO
Attachment C: Draft Amended Habitat Mitigation Plan
Attachment D: Draft Amended Revegetation and Weed Control Plan
Attachment E: Wildlife Monitoring and Adaptive Management Plan
Attachment F: Draft Monitoring Plan for Cultural Resources
Attachment G: Amended Inadvertent Discovery Plan for Cultural Resources

I. INTRODUCTION

The Oregon Department of Energy (Department or ODOE) issues this ~~draft~~ proposed order, in accordance with Oregon Revised Statute (ORS) 469.405(1) and Oregon Administrative Rule (OAR) 345-027-037265, based on its review of Request for Amendment 1 (amendment request or RFA1) to the Boardman Solar Energy Facility site certificate, ~~as well as~~ comments and recommendations received by reviewing agencies, including local, state and Tribal Governments during review of the preliminary amendment request (pASC) and comments received on the record of the Draft Proposed Order (DPO).

The certificate holder is Boardman Solar Energy LLC, a wholly-owned subsidiary of Invenergy Solar Development LLC. Invenergy Solar Development LLC is a wholly-owned subsidiary of Invenergy LLC (certificate holder owner, parent company). The certificate holder requests ~~that~~ the Energy Facility Siting Council (EFSC or Council) approve changes to the site certificate to extend the construction commencement and completion deadlines. In accordance with the existing site certificate, construction must commence by February 23, 2021 and be completed within three years of the date of construction commencement.[1] Because the existing condition language establishing the construction completion deadline is not date specific but states "three years from the start of construction", this language is not requested to be amended. There are no other changes proposed by the certificate holder. For amendments requesting to extend construction deadlines, the Department and Council must evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether the certificate holder and facility continue to satisfy requirements of the standards.[2] Based on the Department's review of changes in fact or law, there are several other recommended changes to site certificate conditions.

Based upon review of this amendment request, in conjunction with comments and recommendations received by reviewing agencies, the Department recommends that the Council issue an amended site certificate for the Boardman Solar Energy Facility, subject to the existing and recommended amended conditions set forth in this ~~draft~~ proposed order.

I.A. Certificate Holder and Certificate Holder Owner

The certificate holder is Boardman Solar Energy LLC (certificate holder), which is a wholly-owned subsidiary of Invenergy Solar Development LLC. Invenergy Solar Development LLC is a wholly-owned subsidiary of Invenergy LLC (certificate holder owner, parent company).

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[1] The certificate holder submitted the request to extend the construction commencement and completion deadlines before the applicable construction deadlines and therefore satisfies the requirements of OAR 345-027-0385(1), and suspends the deadlines until Council decides on the amendment request.

[2] OAR 345-027-0375(2)(b)

I.B. Description of Approved Facility

The Boardman Solar Energy Facility Site Certificate was issued on February 23, 2018, through the Council's approval of the Final Order on the Application for Site Certificate (ASC). The facility has not been constructed. The approved facility includes solar photovoltaic power generation components and related or supporting facilities, with a peak generating capacity of approximately 75 megawatts (MW). The energy facility would be comprised of 30 module blocks. Each module block would consist of multiple components including; the solar modules themselves, trackers, racks, posts, cabling, inverters, and transformers. Solar modules would be manufactured with antireflective coating.

Related or Supporting Facilities

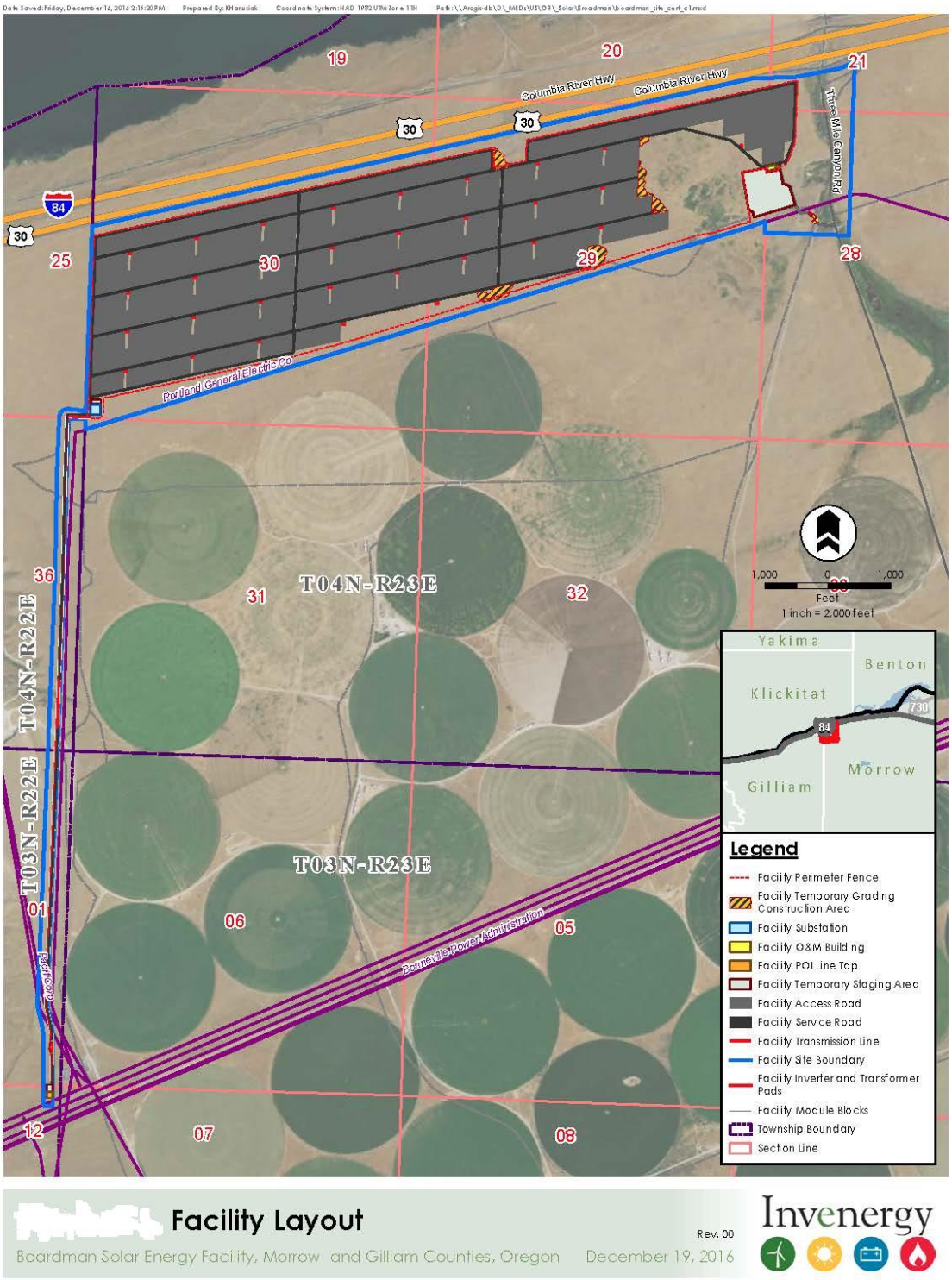
The facility includes the following related or supporting facilities:[3]

- Underground Electrical Collection System
- Substation, Control House and Generator Step-up Transformer
- 115 kilovolt (kV) Transmission Line (approximately 2.1 miles long) and Private Service Road
- Point of Interconnection (POI)
- Operations and Maintenance (O&M) Building
- Private Access Road
- Service Roads, Gates and Security Fence
- Additional Temporary Construction Areas

The layout of facility components described in this section are presented on Figure 1: *Facility Layout* below.

[3] BSEAPPDoc71. The description of the related and supporting facilities included here is based on the information in ASC Exhibits B, C, M, and K. 2017-09-01.

Figure 1: Facility Layout



Electrical Collection System

The electrical collection system would be installed underground, buried at a minimum of 3-feet below ground, and would connect the electrical output of the facility to the facility substation. Underground alternating current (AC) electrical cables would be arranged in several branch circuits, each consisting of three 34.5 kV single conductor cables with jackets, connecting the solar module blocks at each inverter and transformer to a switch in the substation. Cable lengths would vary given how far the module blocks are from the facility substation.

Substation, Control House and Generator Step-up Transformer

The facility substation and control house would be located in the southwest corner of the site boundary, within the perimeter fence of the energy facility, on an approximately 0.60-acre area. The substation yard would have a gate opening to provide access to the 115 kV transmission line.

The facility substation would include: generator step-up (GSU) transformer, protective relay and metering equipment, utility and customer revenue metering, and a station service transformer which would provide power to the substation and control house. The substation would include three open-air isolation switches that would connect the collection cables to the main 34.5 kV bus, a 34.5 kV main bus open-air isolation switch, the 34.5 to 115 kV GSU, and a 115 kV circuit breaker. The control house would be a custom-designed, weatherproof structure, equipped with a heating, ventilation, and air conditioning system and would be used to store fire and safety equipment such as smoke detectors, fire extinguishers, and an eyewash station.

The GSU transformer would be located within the facility substation, would require 10,000 gallons of transformer oil for operation, and would increase the output voltage from the module blocks (34.5 kV) to the voltage of the 115 kV transmission line.

115 kV Transmission Line and Private Service Road

The 115 kV transmission line would initiate in the southwest corner of the site boundary at the facility substation and would extend approximately 2.1 miles south to a POI to interconnect the energy facility to the grid. The 115 kV transmission line would be supported by approximately 27 steel monopoles ranging from 70 to 135 feet in height, spaced approximately 400 feet apart.

A new, permanent 2.1-mile long, 10-foot wide unimproved private service road would be constructed within the existing 100-foot wide transmission line easement to provide access from the energy facility to the 115 kV transmission line during construction and operation.[4]

[4] BSEAPPDoc71. ASC Exhibit K, p. K-31. 2017-09-01.

Point of Interconnection

The POI would consist of a line tap where the 115 kV transmission line would intersect with the existing Bonneville Power Administration (BPA) Boardman-Alkali 115 kV transmission line. The line tap would include three 115 kV disconnect switches on poles in approximately 10,000 square feet of unfenced land, just north of the Boardman-Alkali line.

Operations and Maintenance Building

The O&M building would be located in the southeastern side of the site boundary and would be within a 10,000 square foot area just inside the main access gate. The O&M building would consist of a single story, approximately 3,000 square foot structure, which would include an office space, a high bay warehouse area, storage, bathroom, and a breakroom. Water would be supplied either by an on-site well (providing no more than 5,000 gallons per day), or aboveground water tanks if the water supply is brought in from offsite. The bathroom, kitchen and utility sink would drain into an on-site septic system. An equipment storage area and a gravel parking lot providing parking for employees, visitors, and emergency response vehicles would be located adjacent to the building.

Private Access Road

Private access roads include approximately 1,500 feet of upgraded or newly constructed road to provide access to the facility. Approximately 600 feet of an existing 8-foot-wide dirt road, extending off of existing Threemile Canyon Road, would be upgraded and approximately 900 feet, extending from the upgraded dirt road section to the facility main access gate, would be newly constructed.

Service Roads, Gates and Security Fence

Service roads would generally be 20 feet wide, with an internal turning radius of 28 feet and less than 10 percent grade. The service roads would be located throughout areas within the site boundary to provide vehicle and equipment access during construction and operation. A perimeter service road would be constructed around the perimeter of the facility and would be 50-feet wide.

The perimeter service road would be bordered by a 7-foot high chain-link security fence. There would be two locked security entrance gates in the fence – one where the access road meets the energy facility in the southeast corner, and one where the 115 kV transmission line meets the substation in the southwest corner.

Additional Temporary Construction Yards

Additional temporary construction yards would be located south of the O&M building and along the access road, within an approximately 10-acre main area. The temporary construction yards would be graded with a gravel surface, with temporary fencing. The temporary construction yards would be used to store supplies and equipment.

There would also be a 10,000 square foot temporary staging area for the facility substation and a 10,000 square foot temporary staging area for the POI line tap.

I.B.1. Facility Construction Activities and Schedule

Facility construction is anticipated to take 15-months. Construction activities would employ an average of 100 people and a maximum of 250 people during peak summer months. The certificate holder represents that construction would occur in phases including: clearing, excavation, foundation, erection and finishing. In accordance with ORS 469.300(6), preconstruction conditions, if specified, may be satisfied for the applicable phase, facility component or for the facility, as applicable, based on final design and configuration.

Construction water use is anticipated to use up to 9.7 million gallons under worst-case conditions for dust suppression, concrete production from a temporary batch plant and drinking and sanitation.[5]

I.B.2. Facility Operational Activities and Schedule

Facility operation would include two full-time operations and maintenance (O&M) staff. O&M activities may include washing of solar modules. It is conservatively assumed that solar modules would be washed twice a year, which would require approximately 250,000 gallons of water per year. A third-party contractor would obtain water for panel cleaning from an offsite source. Water would then be applied via a tanker truck and would not have any cleaning solvents in it, unless otherwise approved by the Department (recommended Organizational Expertise Condition 4). Washwater would be discharged by evaporation and seepage into the ground.

I.B.3. Facility Retirement Activities

Facility retirement would include disconnecting facility components from the transmission system and disconnecting site equipment from aboveground and underground cables. Aboveground equipment, including the solar modules, solar module steel racking system, and

[5] ASC Exhibits E, O and U. The use of a temporary concrete batch plant is represented as a use under a third-party permit by a construction contractor and therefore is not represented as a related or supporting facility.

electrical and electronic devices (such as the medium voltage step-up transformers, solar inverters, and the disconnect switches) would be removed and transported offsite. Concrete foundations and cables up to three feet below ground would be removed and recycled or transported to a landfill. Cables located three feet or more below ground would be rendered inert and left in place.[6] The O&M building and O&M fence would be removed and the surrounding graveled area would be removed, regraded, and reseeded. Internal service roads, access road, perimeter fencing, and the transmission line would be left in place and maintained if the planned next use of the land would benefit from these components remaining in place. Upon completion of the other facility retirement activities, bare ground portions of the site would be seeded.[7]

I.C. Description of Approved Facility Site Location

Site Boundary

A site boundary, by definition, includes the perimeter of the site of an energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors.[8] The facility is approved to be located within Morrow and Gilliam counties. The site boundary, as defined in OAR 345-001-0010, encompasses approximately 798 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 the transmission line corridor.

As presented in Figure 2: *Facility Regional Location*, all facility components (with the exception of the transmission line, transmission line service road, and POI) will be located in Morrow County, Oregon, in the following sections according to the Public Land Survey System:

- Township 4 North, Range 23E, Sections 20, 21, 28, 29, 30, 31

An overhead 115-kV transmission line will connect the facility substation to the POI with the existing electrical grid. The approved transmission line is 2.1 miles long. The transmission line, transmission line service road, and POI will be located in Gilliam County, Oregon, in the following sections according to the Public Land Survey System:

- Township 4 North, Range 22E, Sections 25, 36
- Township 3 North, Range 22E, Sections 1, 12

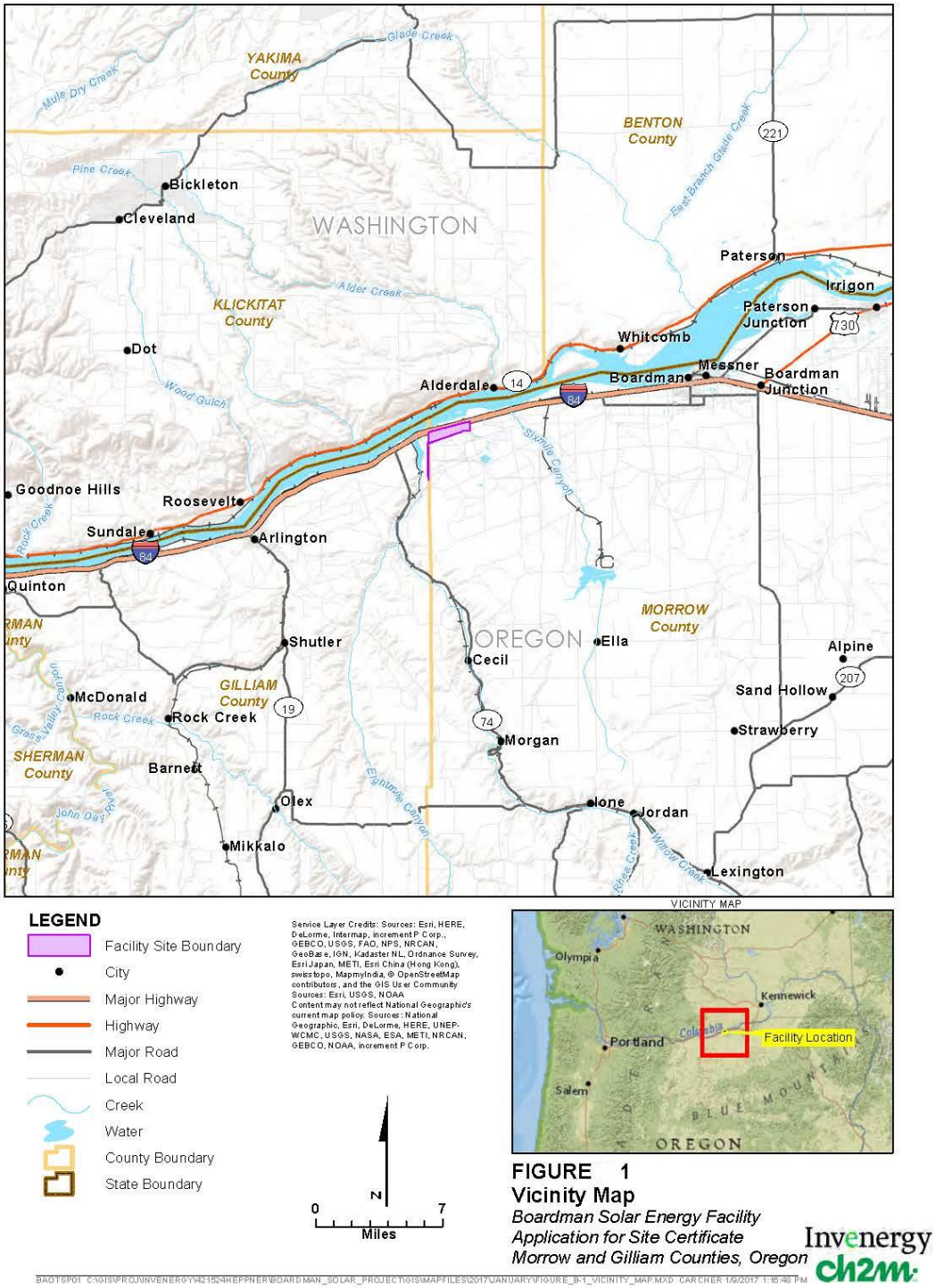
[6] *Id.*

[7] BSEAPPDoc71. ASC Exhibit W, p. W-1 and W-2, and Attachment W-1. 2017-09-01.

[8] OAR 345-001-0010(55)

The transmission line will run parallel to and immediately west of an existing Portland General Electric transmission line.

Figure 2: Facility Vicinity Map



I.D. Site Certificate Procedural History

The Council issued its Final Order on the ASC and granted a site certificate for the Boardman Solar Energy Facility on February 23, 2018.

II. AMENDMENT PROCESS

II.A. Requested Amendment

The certificate holder seeks approval of a site certificate amendment to extend the deadlines for beginning and completing construction of the facility by three years. The proposed change would extend the construction commencement deadline from February 23, 2021 to February 23, 2024; the existing condition language for the construction completion deadline is, "three years from the start of construction" and, because it is not date specific, is not proposed to be amended.

OAR 345-027-0360(1)(d) requires that the certificate holder provide the specific language for changes in the site certificate, including affected conditions. The certificate holder requests approval to amend General Standard Condition 1 (GEN-GS-01) to reflect its proposed construction deadline extension. The certificate holder's proposed condition changes are evaluated and presented in Section III.A. *General Standard of Review* of this order.

II.B. Amendment Review Process

Council rules describe the differences in review processes for the Type A and Type B review paths at OAR 345-027-0351. The Type A review is the standard or "default" amendment review process for changes that require an amendment. A key procedural difference between the Type A and Type B review process is that the Type A review requires a public hearing on the draft proposed order, and provides an opportunity to request a contested case proceeding on the Department's proposed order. Another difference between the Type A and Type B review process relates to the time afforded to the Department in its determination of completeness of the amendment and issuance of the draft proposed order. It is important to note that Council rules authorize the Department to adjust the timelines for these specific procedural requirements, if necessary.

A certificate holder may submit an amendment determination request to the Department for a written determination of whether a request for amendment justifies review under the Type B review process. The certificate holder has the burden of justifying the appropriateness of the Type B review process as described in OAR 345-027-0351(3). The Department may consider, but is not limited to, the factors identified in OAR 345-027-0357(8) when determining whether to process an amendment request under Type B review.

The Department received pRFA1, inclusive of a Type B Review Amendment Determination Request (Type B Review ADR), on January 7, 2021.[9] The Type B Review ADR requests that the Department review and determine whether, based on evaluation of the factors contained within OAR 345-027-0357(8), the amendment request should be reviewed under the Type B review process. On August 12, 2021, the Department issued its Type B Review ADR Determination concurring with the certificate holder's analysis, which was posted to the Department's project webpage for the facility. The Department also provided a courtesy notification through its email distribution list via ClickDimensions.

On January 19, 2021, the Department determined pRFA1 to be incomplete and requested additional information to complete its evaluation and prepare the draft proposed order, in accordance with OAR 345-027-0363(2)(A) and (B). The Department requested that the certificate holder provide supplemental information on April 16 and May 25, 2021. Certificate holder responses to the Department's information request were received on March 8 and June 10, 2021.

After reviewing the responses to its information request, the Department determined the RFA to be complete and on August 2, 2021 issued a completeness determination. Under OAR 345-027-0063(5), an RFA is complete when the Department determines that a certificate holder has submitted information adequate for the Council to make findings or impose conditions for all applicable laws and Council standards. On August 12, 2021, the Department posted an announcement on its project website notifying the public that the complete RFA had been received. The Department issued its DPO on RFA1, under the Type B process, on August 12, 2021, and opened a public comment period extending from August 12, 2021 to September 6, 2021. ~~All written comments must be submitted prior to the close of the comment period.~~

Reviewing Agency Comments on Preliminary Request for Amendment 1

As presented in Attachment B of ~~the draft~~ this proposed order, the Department received comments on the pRFA from the following reviewing agencies:

- Oregon Department of Fish and Wildlife
- ~~Oregon Department of Geology and Mineral Industries~~
- Morrow County Board of Commissioners (Special Advisory Group)
- Gilliam County Planning Department
- Confederated Tribes of the Umatilla Indian ~~Warm Springs~~ Reservation of Oregon

[9] Electronic copies of pRFA1 were received on December 15, 2020; hard copies were received on December 28, 2020. Upon review of these materials, the Department requested that the certificate holder provide property owner and mapping information pursuant to OAR 345-021-0010(1)(f)(A) to ensure accurate noticing of pRFA1. Therefore, pRFA1 receipt date is based on receipt of the updated property owner information.

II.C. Council Review Process

The Department issued the draft proposed order, and a notice of a comment period on RFA1 and the draft proposed order (notice) on August 12, 2021, under the Type B review process. The notice was distributed to all persons on the Council's general mailing list, to the special mailing list established for the facility, to an updated list of property owners supplied by the certificate holder, and to a list of reviewing agencies as defined in OAR 345-001-0010(52). The comment period ~~extends~~ extended from August 12 through September 6, 2021. The Department received three comments on the record of the DPO, from a reviewing agency, Special Advisory Group and a member of the public. All comments are provided in Attachment B of this order and are summarized below.

- Morrow County Board of Commissioners (as a Special Advisory Group for this facility) commented that an amended Conditional Use Permit would be required; a zoning permit for each individual tax lot within the site boundary would be required; and, requested that the certificate holder secure a Road Use Agreement prior to facility construction.
- Oregon Department of Aviation provided comments encouraging the certificate holder to mitigate the impacts of glare caused by the facility to prevent interference with aircraft or aircraft operations at the Boardman Airport and Arlington Municipal Airport.
- A public comment was received expressing opposition to the request for a construction deadline extension based on its impact that would delay the State's ability to meet the greenhouse gas reduction goals under House Bill 2021.

Based on review of the above referenced comments, the Department recommends Council rely on the certificate holder's proposed facility design (which includes modules manufactured with antireflective coating) and previously imposed conditions (Land Use Condition 3; Public Services Condition 4, see Attachment A of this order) that already address the issues raised.

Following review of comments received, the Department issued both the proposed order and notice of the proposed order on September 10, 2021. ~~To raise an issue on the record of the draft proposed order, a person must raise the issue in a written comment submitted on or after the date of the notice of the draft proposed order, received by the Department before the written comment deadline. The Council will not accept or consider public comments on RFA1 or on the draft proposed order after the written comment deadline, listed above, that closes the record on the draft proposed order. After the Department considers all comments received before the comment deadline for the draft proposed order, but not more than 21 days after the comment deadline, the Department will issue a proposed order. The proposed order shall recommend approval, modification, or denial of RFA1. Upon issuance of the proposed order, the Department will issue a notice of the proposed order.~~ Council will receive a presentation on the proposed order from the Department at the September 24, 2021 meeting. Following review of the Proposed Order, the Council, may adopt, modify or reject the proposed order based on the considerations described in OAR 345-027-0375. If the proposed order is adopted

or adopted, with modifications, the Council shall issue a written final order granting issuance of an amended site certificate. If the proposed order is denied, the Council shall issue a written final order denying issuance of an amended site certificate. In making a decision to grant or deny issuance of an amended site certificate, the Council shall apply the applicable laws and Council standards required under OAR 345-027-0375 and in effect on the dates described in OAR 345-027-0375(3). The Council's final order is subject to judicial review by the Oregon Supreme Court as provided in ORS 469.403.

II.D. Applicable Division 27 Rule Requirements

A site certificate amendment is necessary under OAR 345-027-0350(3) because the certificate holder requests to extend the construction beginning and completion deadlines. Additionally, OAR 345-027-0385 imposes specific requirements relating to a request for amendment to extend construction deadlines and OAR 345-027-0375 sets the scope of Council's review. OAR 345-027-0375(2)(b) provides that an amendment, which requests a timeline extension request, must be evaluated "after considering any changes in facts or law since the date the current site certificate was executed." The Council interprets OAR 345-027-0375(2)(b) as requiring the review of changes to the existing environment, baseline information and changes in law.

The Type B amendment review process (consisting of OARs 345-027-0359, -0360, -0363, -0365, -0368, -0372 and -0375) shall apply to the Council's review of a request for amendment that the Department or the Council approves for Type B review under OAR 345-027-0357.

III. REVIEW OF THE REQUESTED AMENDMENT

Under ORS 469.310, the Council is charged with ensuring that the "siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety." ORS 469.401(2) further provides that the Council must include in the amended site certificate "conditions for the protection of the public health and safety, for the time for completion of construction, and to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS 469.503."[10] The Council implements this statutory framework by adopting findings of fact, conclusions of law, and conditions of approval concerning the ability of the certificate holder and facility to continue to demonstrate compliance with EFSC standards set forth in OAR Chapter 345, Divisions 22 and 24 as well as all other applicable statutes, rules and standards (including those of other state or local agencies).

This ~~draft~~ proposed order includes the Department's ~~initial~~ analysis of whether the certificate holder and facility, with proposed construction deadline extension, would continue to meet each applicable Council Standard (with mitigation and subject to compliance with existing and recommended amended conditions, as applicable), based on the information in the record

[10] ORS 469.401(2).

including the Department's consideration of the comments received on the record of the draft proposed order. ~~Following the combined comment period on RFA1 and draft proposed order, the Department will issue its proposed order, which will include the Department's consideration of the comments and any additional evidence received on the record of the draft proposed order.~~

III.A. General Standard of Review: OAR 345-022-0000

(1) To issue a site certificate for a proposed facility or to amend a site certificate, the Council shall determine that the preponderance of evidence on the record supports the following conclusions:

(a) The facility complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the facility outweigh the damage to the resources protected by the standards the facility does not meet as described in section (2);

(b) Except as provided in OAR 345-022-0030 for land use compliance and except for those statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council, the facility complies with all other Oregon statutes and administrative rules identified in the project order, as amended, as applicable to the issuance of a site certificate for the proposed facility. If the Council finds that applicable Oregon statutes and rules, other than those involving federally delegated programs, would impose conflicting requirements, the Council shall resolve the conflict consistent with the public interest. In resolving the conflict, the Council cannot waive any applicable state statute.

** * **

(4) In making determinations regarding compliance with statutes, rules and ordinances normally administered by other agencies or compliance with requirement of the Council statutes if other agencies have special expertise, the Department of Energy shall consult such other agencies during the notice of intent, site certificate application and site certificate amendment processes. Nothing in these rules is intended to interfere with the state's implementation of programs delegated to it by the federal government.

Findings of Fact

OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council to find that a preponderance of evidence on the record supports the conclusion that the facility, with proposed construction deadline extension, would continue to comply with the requirements of EFSC statutes, siting standards adopted by the Council, all other Oregon statutes and administrative rules applicable to the issuance of an amended site certificate for the facility.

The requirements of OAR 345-022-0000 are discussed in the sections that follow. The Department consulted other state agencies as well as the Gilliam and Morrow County Planning Departments (reviewing on behalf of the Special Advisory Group – Gilliam and Morrow County Boards of County Commissioners) during its review of pRFA1 to aid in the evaluation of whether the facility, with proposed construction deadline extension, would continue to satisfy the requirements of applicable statutes, rules and ordinances otherwise administered by other agencies. Additionally, in many circumstances the Department relies upon these reviewing agencies' special expertise in evaluating compliance with the requirements of Council standards.

OAR 345-022-0000(2) and (3) apply to RFAs where a certificate holder has shown that the proposed amendment cannot meet Council standards or has shown that there is no reasonable way to meet the Council standards through mitigation or avoidance of the damage to protected resources; and, for those instances, establish criteria for the Council to evaluate in making a balancing determination. In RFA1, the certificate holder represents that the facility would continue to meet, with conditions, all applicable Council standards. Therefore, OAR 345-022-0000(2) and (3) would not apply to this review.

OAR 345-027-0385: Request for Amendment to Extend Construction Deadlines

Council's rules and statutes require that a site certificate establish dates for commencement and completion of construction, which can be modified through the site certificate amendment process.[11] A site certificate amendment request seeking Council approval to extend construction commencement or completion deadlines must include an explanation of the need for the extension. In RFA1, the certificate holder requests its first deadline extension and provides three reasons for the necessity of the additional time – lack of a power purchase agreement (PPA), lack of financing, and the need to secure a PPA and financing while maintaining sufficient time for the anticipated duration of facility construction. The certificate holder describes that facility construction cannot commence until a PPA has been executed, which then allows for financing necessary for construction. The Department acknowledges that it is not possible to commence construction without contracts to deliver the energy generated by a constructed facility and financing for which to hire qualified contractors to complete facility construction. Therefore, because construction without financing is not feasible and Council rules only require that an explanation of the need for the extension be provided

[11] ORS 469.401(2) states, "The site certificate or amended site certificate shall contain conditions..for the time for completion of construction.." OAR 345-025-0006(4) requires that Council impose a mandatory condition in every site certificate establishing dates that a certificate holder must begin and complete construction of the facility.

without any specific evaluative criteria, the Department recommends that Council consider the reasons provided by the certificate holder to be acceptable.

OAR 345-027-0385(4) limits the number of site certificate amendments extending construction deadlines that may be approved by Council to two, for facilities approved for construction after October 24, 2017. Therefore, because the site certificate for this facility was issued in February 2018, this limitation applies. If the construction deadline extension under RFA1 is approved, Council may only approve one additional construction deadline extension in the future.

Site Certificate Expiration [OAR 345-027-0313]

Under OAR 345-027-0313, in order to avoid expiration of the site certificate, the certificate holder must begin construction of the facility no later than the construction beginning date specified in the site certificate, unless expiration of the site certificate is suspended pending final action by the Council on a request for amendment to a site certificate pursuant to OAR 345-027-0385(2). The beginning construction deadline established in condition GEN-GS-01 was February 23, 2021. The certificate holder submitted the request to extend the construction commencement and completion deadlines on January 19, 2021, before the applicable construction deadlines and therefore satisfies the requirements of OAR 345-027-0385(1).

OAR 345-027-0385(5) authorizes Council to grant construction commencement and completion deadline extensions of up to three years from the deadlines in effect prior to the Council's decision on the amendment. In RFA1, the certificate holder requests to amend General Standard Condition 1 (GEN-GS-01) to extend its construction commencement and completion deadlines by three years, consistent with the rule. Therefore, because the request is consistent with and allowed by Council rules, the Department recommends Council amend General Standard Condition 1 (GEN-GS-01), as requested by the certificate holder, as follows:

> **Recommended Amended General Standard Condition 1 [OAR 345-025-0006(4)]:** The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate.
>
> (a) Facility construction shall commence ~~within three years after the site certificate is executed by the Council Chair.~~ by February 23, 2024. Within 7 days of construction commencement, the certificate holder shall provide the Department written verification that it has met the construction commencement deadline. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor.
>
> (b) Construction of all facility components shall be completed within three years after construction commencement. Within 7 days of construction completion, the

certificate holder shall provide the Department written verification that it has met the construction completion deadline.

[Final Order on ASC, AMD1, Condition GEN-GS-01]

Site Specific Conditions [OAR 345-025-0010]

OAR 345-025-0010 establishes "site specific" conditions Council may include in site certificates to address issues specific to certain facility types or proposed features of facilities.[12] Because the facility includes a 115 kV transmission line, the Council adopted Site Specific Condition 1. Site Specific Condition 1 includes a requirement to comply with a 2012 National Electrical Safety Code. Because the code has been updated since 2012, the reference to the 2012 code in OAR 345-025-0010(4) is out of date. The Department recommends Council amend Site Specific Condition 1 to remove reference to the out of date code and replace with a reference to the code requirements in effect at the time RFA1 is approved, as follows:

Recommended Amended Site Specific Condition 1 [OAR 345-025-0010(4)]: Because the facility includes a transmission line as a related or supporting facility under Council jurisdiction, the following conditions apply:

(a) The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the 2017~~2~~ Edition of the National Electrical Safety Code approved ~~on June 3, 2011~~ by the American National Standards Institute; and

(b) The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, 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.

[Final Order on ASC, AMD1, Condition GEN-GS-09]

[12] Site-Specific Conditions at OAR 345-025-0010(1)-(3), and (6)-(7) do not apply to the facility based on facility energy source/type (solar photovoltaic power generation facility with related and supporting facilities including a proposed 115 kV transmission line).

Construction and Operation Rules for Facilities [OAR Chapter 345, Division 26]

The Council has adopted rules at OAR Chapter 345, Division 26 to ensure that construction, operation, and retirement of facilities are accomplished in a manner consistent with the protection of the public health, safety, and welfare and protection of the environment. These rules include requirements for compliance plans, inspections, reporting and notification of incidents. The certificate holder must construct the facility substantially as described in the site certificate and the certificate holder must construct, operate, and retire the facility in accordance with all applicable rules adopted by the Council in OAR Chapter 345, Division 26.[13]

Conclusions of Law

Based on the foregoing findings of fact and conclusions of law, and subject to compliance with the existing and recommended amended general and site-specific site certificate conditions, the Department recommends Council find that the facility, with proposed construction deadline extension, would continue to satisfy the requirements of OAR 345-022-0000.

III.B. Organizational Expertise: OAR 345-022-0010

> *(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.*
>
> *(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.*
>
> *(3) If the applicant does not itself obtain a state or local government permit or approval for which the Council would ordinarily determine compliance but instead relies on a permit or approval issued to a third party, the Council, to issue a site certificate, must*

[13] Applicable rule requirements established in OAR Chapter 345, Division 26 include OAR 345-026-0005 to OAR 345-026-0170.

find that the third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering into, a contractual or other arrangement with the third party for access to the resource or service secured by that permit or approval.

(4) If the applicant relies on a permit or approval issued to a third party and the third party does not have the necessary permit or approval at the time the Council issues the site certificate, the Council may issue the site certificate subject to the condition that the certificate holder shall not commence construction or operation as appropriate until the third party has obtained the necessary permit or approval and the applicant has a contract or other arrangement for access to the resource or service secured by that permit or approval.

Findings of Fact

Subsections (1) and (2) of the Council's Organizational Expertise standard require that the certificate holder demonstrate its ability to design, construct, and operate the facility in compliance with Council standards and all site certificate conditions, as well as its ability to restore the site to a useful, non-hazardous condition. The Council may consider the certificate holder's experience and past performance in constructing, operating and retiring other facilities in determining compliance with the Council's Organizational Expertise standard. Subsections (3) and (4) address the applicant's reliance upon third party permits.

Compliance with Council Standards and Site Certificate Conditions

Boardman Solar Energy LLC is a project-specific LLC and therefore relies upon the organizational expertise and experience of its parent company, Invenergy LLC (Invenergy). [14] In RFA1, the certificate holder identifies that there have been no changes to the organizational expertise of its parent company and asserts that there have been no regulatory citations issued to the certificate holder or certificate holder owner within the last 5 years. [15] Site certificate compliance would be managed by Invenergy LLC's Environmental Compliance Manager and Asset Manager; and the certificate holder's O&M Manager.

[14] Invenergy LLC is an independently owned company that develops, owns, and operates power generation and energy storage facilities across North America and Europe.

[15] OAR 345-021-0010(1)(d)(D)

Council previously evaluated Invenergy's organizational expertise which includes two solar projects in Canada, and five in the United States and over 68 wind projects in North American and Europe, totaling 7,654 MW.[16] Council previously determined that Invenergy had the expertise to construct, operate and retire the facility in compliance with Council standards and that it has a reasonable likelihood of obtaining all third party permits necessary.

To ensure that the design, construction and operation of the facility is conducted in a manner that protects public health and safety in accordance with the Organizational Expertise standard, Council previously imposed Organizational Expertise Conditions 1, 2, and 3 requiring that, prior to construction, the certificate holder provide qualifications of its contractors to the Department for review; contractually require its contractors to comply with site certificate requirements; and provide the Department notification of any changes in the certificate holder owner's corporate structure.

The certificate holder's ability to restore the facility site to a useful, non-hazardous condition is evaluated in Section III.G. *Retirement and Financial Assurance* of this order, in which the Department recommends Council find that the certificate holder would continue to be able to comply with the Retirement and Financial Assurance standard.

Based upon the recommended findings presented here and compliance with existing site certificate conditions, the Department recommends Council continues to find that the certificate holder has the ability to design, construct, operate, and retire the facility in compliance with Council standards and site certificate conditions.

ISO 900 or ISO 14000 Certified Program

OAR 345-022-0010(2) is not applicable because the Applicant did not propose to design, construct or operate the facility according to an ISO 9000 or ISO 14000 certified program.[17]

Third-Party Permits

OAR 345-022-0010(3) addresses the requirements for potential third party permits. Council previously imposed Organizational Expertise Condition 4 (Conditions PRE-OE-01 and OPR-OE-01 in draft amended Site Certificate, see Attachment A of this order), requiring that the certificate holder obtain and provide documentation to the Department that all third-party permits

[16] BSEAPPDoc71. ASC Exhibit D, p. D-1. 2017-09-01.

[17] BSEAPPDoc71. ASC Exhibit D, p. D-3. 2017-09-01.

necessary for facility construction and operation have been obtained.[18] Sub section (b) of the condition requires the certificate holder to provide confirmation that its third-party contractor has obtained a General Water Pollution Control Facilities (WPCF) Permit for wash water discharge (1700-B) from maintenance equipment washdown (as well as from solar module cleaning, if solar panel washing will occur) from Oregon Department of Environmental Quality (DEQ) and proof of an agreement between the certificate holder and the third-party for access to the service secured by the permit.

Since Council issued the site certificate on February 23, 2018, the Department received updated guidance from DEQ about the applicability of WPCF General Permit 1700-B for vehicle and equipment wash water and solar panel wash water. DEQ indicated to the Department that a WPCF General Permit 1700-B is not required for solar array and vehicle/equipment washing activities that would not result in discharge to surface waters, storm sewers, or dry wells, and that would not use acids, bases, metal brighteners, steam, or heated water because these activities are considered to have a de-minimis impact on the environment and are allowed without obtaining a permit.[19] The use of biodegradable, phosphate-free cleaners with cold water is allowed. However, cleaning only with cold water is recommended and chemicals, soaps or detergents must be used sparingly. Therefore, the Department recommends Council amend the condition based on DEQ's guidance and replace with a requirement that would minimize impacts to soils for any contamination by chemical-solvents, as follows:

Recommended Amended Organizational Expertise Condition 4:

a) At least 30 days prior to construction, the certificate holder shall provide to the Department the following:
   1. Written confirmation that its third-party contractors have obtained all necessary local and state permits for the temporary concrete batch plant, if required during facility construction, and wastewater discharge. These permits are expected to include a Conditional Use Permit for Temporary Concrete Batch Plant from Morrow County and a General Water Pollution Control Facilities Permit for Temporary Concrete Batch Plant concrete washout water from Oregon Department of Environmental Quality.
   2. Proof of agreements between the certificate holder and the third-party regarding access to the resources or services secured by the permits or approvals identified prior to construction per sub(a) above.

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[18] BSEAMD1 DPO Comment (Morrow-Mabbott) LETTER 2021-09-01. On the record of the Draft Proposed Order, acting as both the Board of Commissioners and the Special Advisory Group (SAG), Morrow County identified that an amended conditional use permit and zoning permits per tax lot within the site boundary would be needed. Council previously imposed Land Use Condition 3 (PRE-LU-02) requiring that the certificate holder obtain and provide copies to the Department of all applicable local permits. Therefore, based on the existing condition, the Department has not recommended new or amended conditions in response to the SAG's comments.

[19] 1700-B WPCF Permits for Solar Washing - Not Required - DEQ Guidance 2020-12-10.

b. ~~During operation, provide written confirmation that its third-party contractors have obtained a General Water Pollution Control Facilities Permit for washwater discharge from maintenance equipment washdown (as well as from solar module cleaning, if solar panel washing will occur) from Oregon Department of Environmental Quality and proof of an agreement between the certificate holder and the third-party for access to the service secured by the permit.~~ During facility operation, the certificate holder may discharge solar panel wash water through evaporation or infiltration into the ground at the point of application. The use of chemicals, soaps, detergents and heated water is prohibited, unless Chemical Safety Data Sheets for low volatile organic compound/biodegradable cleaning chemicals and solvents are submitted to the Department for review and approval. Pressure washing is allowed, so long as it does not remove paint or other finishes. [Final Order on ASC, AMD1, Organizational Expertise Condition 4]

Conclusions of Law

Based on the recommended findings and conclusions presented in the above section, and subject to compliance with the existing and amended conditions of approval, the Department recommends that the Council find that the certificate holder would continue to satisfy the requirements of the Council's Organizational Expertise standard.

III.C. Structural Standard: OAR 345-022-0020

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that:

(a) The applicant, through appropriate site-specific study, has adequately characterized the seismic hazard risk of the site;

(b) The applicant can design, engineer, and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site, as identified in subsection (1)(a);

(c) The applicant, through appropriate site-specific study, has adequately characterized the potential geological and soils hazards of the site and its vicinity that could, in the absence of a seismic event, adversely affect, or be aggravated by, the construction and operation of the proposed facility; and

(d) The applicant can design, engineer and construct the facility to avoid dangers to human safety and the environment presented by the hazards identified in subsection

(c).

(2) The Council may not impose the Structural Standard in section (1) to approve or deny an application for an energy facility that would produce power from wind, solar or geothermal energy. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

(3) The Council may not impose the Structural Standard in section (1) to deny an application for a special criteria facility under OAR 345-015-0310. However, the Council may, to the extent it determines appropriate, apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

Findings of Fact

As provided in section (1) above, the Structural Standard generally requires the Council to evaluate whether the applicant (certificate holder) has adequately characterized the potential seismic, geological and soil hazards of the site, and whether the applicant (certificate holder) can design, engineer and construct the facility to avoid dangers to human safety and the environment from these hazards.[20] Pursuant to OAR 345-022-0020(2), the Council may not impose the Structural Standard in OAR 345-022-0020(1) to approve or deny application for a solar energy facility; however, the Council may apply the requirements of the standard to impose site certificate conditions. Under the mandatory condition in OAR 345-025-0006(12), the certificate holder must design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events.[21]

As established in the project order, the analysis area for the Structural Standard is the area within the site boundary. "Site boundary," as defined in OAR 345-001-0010(55), is the area within the perimeter of the facility, its related or supporting facilities, all temporary laydown and staging areas, and all micrositing corridors.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. The request for amendment does not include changes to the site boundary, facility design, facility layout, or other changes that could

[20] OAR 345-022-0020(3) does not apply to this facility because the facility is a not a special criteria facility under OAR 345-015-0310.

[21] The Council does not preempt the jurisdiction of any state or local government over matters related to building code compliance.

impact the certificate holder's ability to design, engineer, and construct the facility to avoid dangers to human safety and the environment from seismic, geological, and soils hazards.

Potential Seismic, Geological and Soil Hazards

To aid the Council in its review and understanding of its previous evaluation, the Department presents a summary of the seismic and non-seismic hazards as evaluated in the ASC and 2018 *Final Order on the ASC*. Previously identified seismic hazards in the facility vicinity were from three seismic sources: Cascadia Subduction Zone ("CSZ") interplate events, CSZ intraslab events and crustal events (referred to as mechanisms). The CSZ is located near the coastlines of Oregon, Washington and British Columbia. Potential seismic hazards in the vicinity of the site boundary include three types of earthquakes: crustal, intraslab, and interplate events. Of these, the CSZ interplate events have the potential to produce the largest magnitude earthquake, up to 9.0 magnitude. The other types of earthquakes can be expected to produce up to 7.2 magnitude (see ASC Exhibit H, Table H-3). The previous assessment shows that the maximum probable earthquake (a 10 percent chance of exceedance in 50 years, or a 475-year nominal recurrence interval) is the 9.0 magnitude CSZ interplate event. From these seismic hazards, risks within the analysis area include earthquakes, landslides, volcanic eruptions, soil erosion, and collapsing soils.

To evaluate whether there have been changes in fact that would impact Council's previous evaluation, the Department consulted with DOGAMI and requested that the certificate holder conduct an updated literature review of reasonably available sources regarding geological and soil stability within the analysis area.[22] The certificate holder evaluated resources made available on DOGAMI's webpage for earthquake hazards in Oregon including HazVu, the Pacific Northwest Seismic Network's earthquake mapping and United States Geological Survey's Seismic Hazard Mapping Tool. Based on the Department's review of the referenced sources, the Department concurs that there are no new seismic hazards not previously evaluated within the analysis area.

Design, Engineer and Construct Facility to Avoid Dangers to Human Safety from Seismic and Non-Seismic Hazards

The facility, with proposed construction deadline extension, would be located within the previously approved site boundary. Council previously imposed Structural Standard Conditions 1 through 5 to ensure that the facility is designed, engineered and constructed to avoid dangers to human safety, as summarized below:

[22] OAR 345-021-0010(1)(h).

- Structural Standard Condition 1 requires that, prior to construction, the certificate holder conduct a site-specific geotechnical investigation and submit the report to the Department for review and concurrence, in consultation with DOGAMI;
- Structural Standard Condition 2 requires that the certificate holder design the facility in accordance with applicable state building code and design procedures;
- Structural Standard Condition 3 requires that various mitigation and design measures proposed in ASC Exhibit H be adhered during facility design and operations including use of geologic hazard mapping in facility layout; Department/DOGAMI notification of hazard warnings; and securing insurance for non-seismic geologic and soil-related hazards;
- Structural Standard Condition 4 requires that operations would be shutdown in the event of a volcanic eruption; and,
- Structural Standard Condition 5 requires that, during facility construction, various measures be implemented to minimize impacts of collapsing soils including overexcavation; placement of impermeable material around facility foundations; and placement of foundations on stable hearing layer.

In RFA1, the certificate holder identifies that the International Building Code (IBC) has been updated since Council's previous evaluation. The certificate holder asserts that the facility would be designed to meet or exceed the applicable requirements of the updated 2018 IBC. As referenced above, compliance with IBC requirements in effect at the time of construction is addressed in existing Structural Standard Condition 2.

Based upon compliance with existing site certificate conditions, and because there have not been changes in facts or law that would impact Council's previous evaluation of compliance, the Department recommends Council find that the proposed construction deadline extension would not affect the certificate holder's characterization of the site or seismic hazards, or its ability to design, engineer, and construct the facility to avoid dangers to human safety presented by seismic, geologic or soils hazards.

Integration of Disaster Resilience Design

The certificate holder identifies that wildfire and floods are climate change impacts that could impact the facility site. To address wildfire hazards, the certificate holder describes that the facility would include roads that would act as fire breaks and that the site would be revegetated in accordance with the Revegetation and Noxious Weed Control Plan which would limit the spread of wildfire. To address flooding hazards from the nearby Columbia River, the certificate holder refers to Structural Standard 3 requiring insurance and facility design which accounts for identified geologic and nongeologic onsite risks.

The certificate holder is also required to develop a Construction and Operational Fire Prevention and Response Plan (Public Services Condition 10 and 12) which would support fire prevention and control in the event of a wildfire or onsite fire.

Conclusions of Law

Based on the foregoing analysis, and in compliance with OAR 345-022-0020(2), the Department recommends Council rely upon the conditions previously imposed in the site certificate to address the Council's Structural Standard.

III.D. Soil Protection: OAR 345-022-0022

> *To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.*

Findings of Fact

The Soil Protection standard requires the Council to find that, taking into account mitigation, the design, construction and operation of a facility are not likely to result in a significant adverse impact to soils.

The analysis area for the Soil Protection standard is the area within the site boundary.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. Based on review of the Natural Resource Conservation Service's (NRCS) Web Soil Survey tool, the certificate holder evaluates potential changes in soil type that could impact the evaluation of potential impacts to soils within the analysis area. Based on this evaluation, the certificate holder asserts that there have not been significant changes to land use and that all of the area within the site boundary is non-irrigated land used for summer and winter cattle grazing.

The Department reviewed the certificate holder's representations (NRCS Web Soil Survey tool) and concurs that there is no evidence that there have been changes in soil type or land use within the analysis area. Therefore, the Department presents a summary of Council's previous evaluation of potential soil related impacts during construction and operation of the facility, as approved, for Council's reference.

Construction of the facility would permanently disturb approximately 486 acres to account for the footprint of the solar modules and associated related and supporting facilities, and an additional 59 acres would be temporarily disturbed during construction and restored following completion of construction. Soil types within the site boundary include 27b and 38D – Prosser-Rock outcrop complex (soil erodibility factor [K] of 0.55; wind erodibility group 5); 45B – Taunton loamy fine sand (soil erodibility factor [K] of 0.49; wind erodibility group 2); and 37A Prosser silt loam (soil erodibility factor [K] of 0.55); wind erodibility group 5). Based on these soil types and erodibility rating, water erosion potential at the site, following disturbance and vegetation removal, is moderate to high; wind erosion potential at the site is moderate to high.

Construction impacts to soils, based on soil properties described above and disturbance related impacts, could result in soil erosion from wind or rain, and there would be a risk to soils from spills or leakage of chemicals, petroleum products such as diesel fuel, or other materials. Facility operation would have potential soil erosion impacts until the site is stabilized follow construction activities; once stabilized, operations would be confined to cleared and graveled surfaced areas at the facility, and no additional ground disturbance is anticipated to occur during facility operation that could lead to erosion.[23] Facility operations may include module washing up to twice per year, where the washwater would be discharged by evaporation and seepage. As presented in Section III.B. *Organizational Expertise* of this order, recommended amended Organizational Expertise Condition 4 (PRE-OE-01 and OPR-OE-01), would prohibit use of chemicals, soaps, detergents and heated water for panel cleaning, unless Chemical Data Sheets for low volatile organic compound/biodegradable cleaning chemicals and solvents are approved by the Department. The requirements of the recommended amended condition are intended to minimize contamination related soil impacts from use of chemical-based cleaners.

Council previously imposed Soil Protection Condition 1 to minimize potential soil impacts from erosion, runoff and to topsoil. The topsoil management requirements were previously imposed in accordance with the Land Conservation Development Commission's (LCDC) administrative rule for solar facilities in agricultural lands (OAR 660-033-0130(38)(f)). As part of the review of RFA1, it was identified that LCDC's rule was amended and no longer requires that a topsoil management plan be required for solar facilities on agricultural lands. Therefore, the Department recommends Council remove the requirement in accordance with LCDC's May 2019 rule amendment, as presented below:

Recommended Amended Soil Protection Condition 1:

a) Prior to construction, the certificate holder shall obtain a National Pollutant Discharge Elimination System General Permit 1200-C from the Oregon Department

[23] BSEAPPDoc71. ASC Exhibit I, p. I-5. 2017-09-01.

of Environmental Quality, and shall provide the Department and Morrow County Planning Director a copy of the DEQ-approved NPDES 1200-C permit.

b) ~~Prior to construction, the certificate holder shall submit to the Department and Morrow County Planning Director for review and approval a topsoil management plan including how topsoil will be stripped, stockpiled and clearly marked in order to maximize topsoil preservation and minimize erosion impacts. [OAR 660-033-0130(38)(f)(B)]. The topsoil management plan may be incorporated into the final Erosion and Sediment Control Plan, required under sub(c), or may be provided to the Department as a separate plan.~~During construction, the certificate holder shall conduct all work in compliance with the final Erosion and Sediment Control Plan as approved by DEQ in the NPDES 1200-C permit.

[Conditions PRE-SP-01; CON-SP-01, AMD1]

Previously adopted Soil Protection Conditions 2 and 3 require that the certificate holder develop and implement a Spill Prevention, Control and Countermeasure Plan for operations, a Hazardous Materials Spill Prevent Program and DEQ permit requirements on septic. These requirements and conditions, including the Monitoring Program identified in the ASC Exhibit I, and the Final Order, remain unchanged for this RFA.

Conclusions of Law

Based on the foregoing analysis and compliance with existing and recommended amended conditions in the site certificate, the Department recommends that the Council find that the certificate holder would continue to satisfy the requirements of the Council's Soil Protection standard.

III.E. Land Use: OAR 345-022-0030

(1) To issue a site certificate, the Council must find that the proposed facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission.

(2) The Council shall find that a proposed facility complies with section (1) if:

(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a) and the Council finds that the facility has received local land use approval under the acknowledged comprehensive plan and land use regulations of the affected local government; or

(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and the Council determines that:

(A) The proposed facility complies with applicable substantive criteria as described in section (3) and the facility complies with any Land Conservation and Development Commission administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3);

(B) For a proposed facility that does not comply with one or more of the applicable substantive criteria as described in section (3), the facility otherwise complies with the statewide planning goals or an exception to any applicable statewide planning goal is justified under section (4); or

(C) For a proposed facility that the Council decides, under sections (3) or (6), to evaluate against the statewide planning goals, the proposed facility complies with the applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under section (4).

*****

For this site certificate, the certificate holder requests a Council determination under ORS 469.504(1)(b),[24] which requires:

(A) The facility complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted, and with any Land Conservation and Development Commission administrative rules and goals and any land use statutes that apply directly to the facility under ORS 197.646.

(B) For an energy facility or a related or supporting facility that must be evaluated against the applicable substantive criteria pursuant to subsection (5) of this section, that the proposed facility does not comply with one or more of the applicable substantive

[24] The Council must apply the Land Use standard in conformance with the requirements of ORS 469.504. In *Save Our Rural Oregon*, the Oregon Supreme Court held that, "under ORS 469.504(1)(b) and (5), the Council may choose to determine compliance with statewide planning goals by evaluating a facility under paragraph (A) or (B) or (C), but…it may not combine elements or methods from more than one subparagraph, except to the extent that the chosen subparagraph itself permits."
The Council may find compliance with statewide planning goals under ORS 469.504(1)(b)(A) if the Council finds that the proposed facility "complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted." Under ORS 469.504(1)(b)(B) the Council must determine whether the proposed facility "otherwise [complies] with the applicable statewide planning goals." In *Save Our Rural Oregon*, the Oregon Supreme Court held that "paragraph (B) necessarily requires an evaluation of the same applicable substantive criteria as paragraph (A) and, to the extent those criteria are not met, directs the council to consider statewide planning goals." However, as noted above, the Council may not evaluate a proposed facility under both subparagraph (A) and subparagraph (B).

criteria but does otherwise comply with the applicable statewide planning goals, or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.

(C) For a facility that the council elects to evaluate against the statewide planning goals pursuant to subsection (5) of this section, that the proposed facility complies with the applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.

ORS 469.504(5) provides, in relevant part that:

Upon request by the State Department of Energy, the special advisory group established under ORS 469.480 shall recommend to the council, within the time stated in the request, the applicable substantive criteria under subsection (1)(B)(A) of this section. If the special advisory group does not recommend applicable substantive criteria within the time established in the department's request, the council may either determine and apply the applicable substantive criteria under subsection (1)(b) of this section or determine compliance with the statewide planning goals under subsection (1)(b)(B) or (C) of this section.

Findings of Fact

The Land Use standard requires the Council to find that the facility, with the requested extension of the construction deadlines, would continue to comply with local applicable substantive criteria, as well as the statewide planning goals adopted by the Land Conservation and Development Commission (LCDC).[25]

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. The following changes in the Morrow County Zoning Ordinance (MCZO) occurred between the date the pASC was submitted (January 13, 2017) and the date the preliminary RFA (January 7, 2021) was submitted:[26]

[25] The Council must apply the Land Use standard in conformance with the requirements of ORS 469.504.

[26] Under the Council's Land Use standard at OAR 345-022-0030, the "applicable substantive criteria" are criteria from the affected local government's acknowledged comprehensive plan and land use ordinances that are required by the statewide planning goals and that are in effect on the date the applicant submits the application. For Council review of a request for amendment, pursuant to OAR 345-027-0375(3)(a) the Council shall apply the applicable substantive criteria under the Land Use standard in effect on the date the certificate holder submitted the request for amendment.

- MCZO Article 3 Section 3.010 added a new conditional use category in Exclusive Farm Use (EFU) zoned land, (C)(24): "Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale subject to Subsection K.3"
- MCZO Article 3 Section 3.010(L) Land Divisions, (M) Yards and (N) Transportation Improvements were reorganized and amended.

Section IV.E.1 addresses the applicable substantive criteria from the MCZO and Morrow County Comprehensive Plan. Section IV.E.2 addresses the applicable criteria from the GCZO and Gilliam County Comprehensive Plan. Section IV.E.3 addresses state rules directly applicable to the facility.

III.E.1. Morrow County

As previously evaluated in the Final Order on the ASC, the majority of the facility would be located within Morrow County, with the exception of the 115 kV transmission line and its associated private service road, and the POI line tap and 10,000 square foot staging area which would be located within Gilliam County. Facility components within Morrow County include: 30 module blocks (each consisting of; the solar modules, trackers, racks, posts, cabling, inverters, and transformers); underground electrical collection system; substation, control house, and generator step-up transformer; O&M building; private access road; service roads, gates, and security fence; and, additional temporary construction areas.

Morrow County Applicable Substantive Criteria

In RFA1, the certificate holder describes that there were no applicable changes to the MCZO that would apply to the facility. To verify these representations, the Department evaluated the applicable conditional uses and requirements in EFU zoned land to determine the applicability of the changes, as presented in Table LU-1 below.

Table LU-1: Morrow County Zoning Ordinance – Evaluation of Changes Applicable to RFA1

<table>
<tr><th colspan="2">Final Order on ASC (2018)</th><th colspan="2">Request for Amendment 1 (2021)</th><th>Rely on 2018 Final Order on ASC or Changes Evaluated in this order?</th></tr>
<tr><td colspan="5">Morrow County Zoning Ordinance (MCZO)</td></tr>
<tr><td colspan="5">Article 1 – Introductory Provisions</td></tr>
<tr><td>Section</td><td>Title</td><td colspan="2" rowspan="2">No Change</td><td rowspan="2">Rely on Final Order on ASC</td></tr>
<tr><td>Section 1.050</td><td>Zoning Permit</td></tr>
<tr><td colspan="4">Article 3 – Use Zones</td><td></td></tr>
<tr><td colspan="5">Section 3.010 Exclusive Farm Use, EFU Zone (Updated 11-01-2018)</td></tr>
<tr><td>Section</td><td>Title</td><td>Section</td><td>Title</td><td rowspan="3">Changes evaluated in section below</td></tr>
<tr><td>Section D Conditional Uses Permitted</td><td>(14) Commercial utility facilities for the purposes of generating power for public use by sale.</td><td>Section C Condition Uses</td><td>(24) Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale subject to Subsection K.3</td></tr>
<tr><td>NA</td><td>NA</td><td>Section K Commercial Facilities for Generating Power</td><td>(3) Photovoltaic Solar Power Generation Facility</td></tr>
<tr><td>Section G</td><td>Dimensional Standards</td><td>Section L</td><td>Land Divisions</td><td rowspan="3">Changes evaluated, but were a reorganization and did not result in substantive changes. Rely on Final Order on ASC</td></tr>
<tr><td>Section H</td><td>Yards</td><td>Section M</td><td>Yards</td></tr>
<tr><td>Section I</td><td>Transportation Impacts</td><td>Section N</td><td>Transportation Impacts</td></tr>
<tr><td>Section 3.200</td><td>Significant Resource Overlay Zone</td><td colspan="2">No Change</td><td>Rely on Final Order on ASC</td></tr>
<tr><td>Section 3.300</td><td>Historic Buildings and Sites</td><td colspan="2">No Change</td><td>Rely on Final Order on ASC</td></tr>
</table>

Table LU-1: Morrow County Zoning Ordinance – Evaluation of Changes Applicable to RFA1

Final Order on ASC (2018)		Request for Amendment 1 (2021)		Rely on 2018 Final Order on ASC or Changes Evaluated in this order?
Article 4 – Supplementary Provisions				
Section 4.020	Sight Distance	No Change		Rely on Final Order on ASC
Section 4.040	Off-Street Vehicle Parking Requirements	No Change		Rely on Final Order on ASC
Section 4.035	Permit Requirements for Land Use Development	New		Changes evaluated, but were a reorganization and did not result in substantive changes. Rely on Final Order on ASC
Section 4.050	Off-Street Parking and Loading	No Change		Rely on Final Order on ASC
Section 4.060	Design and Improvement Standards – Parking Lots	Section 4.060	Addition of new criteria and re-ordering of existing criteria A-I: New: *D. Artificial lighting which may be provided shall not shine or create glare in any residential zone or on any adjacent dwelling.*	Changes evaluated and determined not applicable to facility. Rely on Final Order on ASC
Section 4.165	Site Plan Review	No Change		Rely on Final Order on ASC
Article 6 – Conditional Uses				
Section 6.015	Requirements Under a State Energy Facility Site Certificate	No Change		Rely on Final Order on ASC
Section 6.020	General Criteria	No Change		Rely on Final Order on ASC
Section 6.025	Resource Zone Standards for Approval	No Change		Rely on Final Order on ASC
Section 6.030	General Conditions	No Change		Rely on Final Order on ASC

Table LU-1: Morrow County Zoning Ordinance – Evaluation of Changes Applicable to RFA1

Final Order on ASC (2018)		Request for Amendment 1 (2021)	Rely on 2018 Final Order on ASC or Changes Evaluated in this order?
Section 6.040	Permits and Improvements Assurance	No Change	Rely on Final Order on ASC
Morrow County Comprehensive Plan			
Agricultural Policy 1 and 4 Energy Policies 3 and 9 Economic Element Policy 2A, 3A, 4B, 5A and 6C		No Change	Rely on Final Order on ASC

1

IV.E.1.1 Morrow County Zoning Ordinance (MCZO)

The following analysis addresses the changes in MCZO applicable substantive criteria, as identified in Table LU-1 above.

MCZO Section 3.010 Exclusive Farm Use, EFU Zone

Section 3.010.C. CONDITIONAL USES PERMITTED.

In an EFU Zone, the following uses are permitted subject to county review, any specific standards for the use set forth in Section D, Article 6, the general standards for the zone, and any other applicable standards and review process in the ordinance:

Section 3.010(C)(24) Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale subject to Subsection K(3).

MCZO Section 3.010(C)(24) identifies "Photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale subject to MCZO Section 3.010(K)(3)" as a conditionally permitted use in EFU-zoned land. To determine whether the facility may be evaluated under this category, the Department evaluated MCZO Article 1 (Definitions) and Article 3. MCZO Article 1 and Article 3 Section 3.010 do not contain an explicit definition of "commercial utility facilities for the purposes of generating power for public use by sale"; however, MCZO Article 1 defines "Commercial Power Generating Facility" as a facility for the production of energy and its related or supporting facilities that: (1) generate energy using means such as a solar power.. ; (2) is intended to provide energy for sale; and (3) does not include net metering... While the MCZO Article 1 definition of "Commercial Power Generating Facility" is not exactly mirrored in MCZO Section 3.010(C)(24), it is consistent with the terms used in MCZO Section 3.010(C)(24) (i.e. generating power from solar, for sale). The MCZO Article 1 definition and MCZO Section 3.010(C)(24) terms are also consistent with the purpose and function of the proposed facility. Therefore, the Department recommends Council find that the facility is a conditionally permissible use in EFU zoned landed under MCZO Section 3.010(C)(24).

MCZO Section 3.010(C)(24) establishes that the use is subject to any specific standards set forth in MCZO Section 3.010(D) and (K)(3), Article 6, and any general standards for the zone. As presented in Table LU-3, the Department evaluated MCZO Article 3, 4 and 6 within the scope of RFA1, which is limited to an evaluation of changes in fact or law that may affect the Council's previous evaluation of compliance with MCZO applicable substantive criteria. Based upon review, MCZO Section 3.010(K)(3), (M)-(N), and Section 4.060 have changed since Council's 2018 Final Order on the ASC. MCZO Section 3.010(K)(3) establishes the minimum standards for photovoltaic solar power generation facilities within EFU-zoned land, however, the criteria have not been updated to be consistent with LCDC's 2019 amendments to OAR 660-033-0130(38). Due to the more recent changes in the OAR, not reflected in the current MCZO, the Department

recommends that the amendment request be assessed under the applicable OAR 660-033-0130(38), as presented in Section III.E.3 of this order.

III.E.2. Gilliam County

Related and supporting facilities to the energy facility that would be located within Gilliam County include the 115 kV transmission line and access road, and the POI line tap and 10,000-acre staging area.

Applicable substantive criteria from the Gilliam County Zoning Ordinance (GCZO) and Gilliam County Comprehensive Plan are provided in ASC Exhibit K and the 2018 Final Order on the ASC. The Department reviewed the GCZO and Gilliam County Comprehensive Plan, and consulted with Gilliam County Planning Director. Based on review and consultation, the Department affirms that there have been no changes to applicable substantive criteria that would impact Council's previous evaluation of compliance for the facility components approved to be located in Gilliam County. Therefore, the Department recommends Council rely on its previous findings of fact and conclusions of the law that facility components to be sited within Gilliam County and the certificate holder have demonstrated an ability to comply with all applicable substantive criteria from the GCZO and Gillion County Comprehensive Plan.

III.E.3. Directly Applicable State Statutes and Administrative Rules

Oregon Administrative Rules

OAR 660-033-0130(5) and (38) – Standards for Approval for Photovoltaic Solar Power Generation Facility in Exclusive Farm Use Zones

LCDC adopted specific rules for photovoltaic solar power generation facilities to address the specific impacts of these facilities on agricultural lands. LCDC's solar rules establish specific requirements for facilities that would use, occupy or cover 12 or more acres of high-value farmland, or 20 acres of arable land, from use as a commercial agricultural enterprise under which an exception is required to be taken pursuant to ORS 197.732 and OAR Chapter 660, division 4.

The facility requires an exception to Statewide Planning Goal 3, which was granted by Council in the 2018 Final Order on the ASC. The energy facility will be located on soils meeting the definition of "arable land" and, based on its location within the Columbia Valley American Viticulture Area and meeting certain requirements for elevation, slope, and aspect, portions of the energy facility would also be located on "high-value farmland" pursuant to ORS

195.300(10(f)(C).[27] The facility will permanently occupy approximately 486 acres of high-value farmland that is designated Class IV[28]. Updated information provided by the certificate holder, in consultation with DOGAMI, and analysis conducted for RFA1 identified no changes in the designation of the facility as occupying Class IV soils.

In 2019, LCDC revised OAR 660-033-0130(38) to add a specific provision for photovoltaic solar facilities under the rule (f) and changed the prior OAR-660-033-0130(38)(f) to the current (g), (h) and (i) of the same rule. The only provisions of the 2019 OAR 660-033-0130(38) that have significantly changed since the approval of the original site certificate are the addition of (38)(h)(E) and (38)(h)(F). All other requirements under the previous OAR (38)(f) are covered in the current OAR (38)(g),(h)and (i). A review of applicable changes in OAR 660-033-0130(38)(f)-(i) since the site certificate was issued, are presented below.

As relevant to the energy facility, changes to OAR 660-033-0130(38)(f) creates specific definition for a "photovoltaic solar power generation facility" subject to the provisions of the rule.

> *(f) "Photovoltaic solar power generation facility" includes, but is not limited to, an assembly of equipment that converts sunlight into electricity and then stores, transfers, or both, that electricity. This includes photovoltaic modules, mounting and solar tracking equipment, foundations, inverters, wiring, storage devices and other components. Photovoltaic solar power generation facilities also include electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, all necessary grid integration equipment, new or expanded private roads constructed to serve the photovoltaic solar power generation facility, office, operation and maintenance buildings, staging areas and all other necessary appurtenances. For purposes of applying the acreage standards of this section, a photovoltaic solar power generation facility includes all existing and proposed facilities on a single tract, as well as any existing and proposed facilities determined to be under common ownership on lands with fewer than 1320 feet of separation from the tract on which the new facility is proposed to be sited. Projects connected to the same parent company or individuals shall be considered to be in common ownership, regardless of the operating business structure. A photovoltaic solar power generation facility does not include a net metering project established consistent with ORS 757.300 and OAR chapter 860, division 39 or a Feed-in-Tariff project established consistent with ORS 757.365 and OAR chapter 860, division 84.*

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[27] Pursuant to OAR 660-033-0130(38)(a) defines "arable land" as "land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils." OAR 660-033-0130(38)(b) defines "arable soils" as "soils that are suitable for cultivation as determined by the governing body or its designate based on substantial evidence in the record of a local land use application, but "arable soils" does not include high-value farmland soils described at ORS 195.300(10) unless otherwise stated."

[28] Exhibit K Land Use. Final Application for Boardman Solar Energy Facility Site Certificate. 2017. P.K-43

For the purposes of this amendment request, the Boardman Solar Energy Facility meets the updated definition of a "photovoltaic solar power generation facility" for portions of the facility within Morrow County, where the generating facilities will be located.

OAR 006 033 0130(38)(g) requires that a photovoltaic solar power generating facility that does use, occupy or cover more than 12 acres satisfy the provisions of Subsection (38)(h)(H) (see below) or meet the requirements of (38)(g)(B) through meeting the requirements of an approved county dual use development plan.

> *(g) For high-value farmland described at ORS 195.300(10), a photovoltaic solar power generation facility shall not use, occupy, or cover more than 12 acres unless:*
>
> *(A) The provisions of paragraph (h)(H) are satisfied; or*
>
> *(B) A county adopts, and an applicant satisfies, land use provisions authorizing projects subject to a dual-use development plan. Land use provisions adopted by a county pursuant to this paragraph may not allow a project in excess of 20 acres. Land use provisions adopted by the county must require sufficient assurances that the farm use element of the dual-use development plan is established and maintained so long as the photovoltaic solar power generation facility is operational or components of the facility remain on site. The provisions of this subsection are repealed on January 1, 2022.*

The approved facility will use, occupy or cover over 12 acres of EFU zoned land within Morrow County. OAR 660-033-0130(38)(g) established that for projects that would be sited on 12 acres or more of high-value farmland, an exception would be taken pursuant to ORS 197.732 and OAR Chapter 660, division 4. The Council previously determined that an exception to Goal 3 was justified under ORS 469.504(2)(c) and OAR 345-022-0030(4). The Council's previous exception taken for Goal 3 should be maintained for this order.

Review under OAR 660-033-0130(38)(h) applies to this amendment request. The provisions of (h)(A) through(D) are covered under the prior (38)(f) and remain unchanged. The amendment request does, however, require analysis under Subsection (38)(h)(E) and (F) to determine applicability. Potentially applicable, new sections of (38)(h) are presented and analyzed below:

> *(h) The following criteria must be satisfied in order to approve a photovoltaic solar power generation facility on high-value farmland described at ORS 195.300(10).*
>
> *(E) Except for electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, the project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);*
>
> *(F) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:*

(i) Non high-value farmland soils are not available on the subject tract;

(ii) Siting the project on non high-value farmland soils present on the subject tract would significantly reduce the project's ability to operate successfully; or

(iii) The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract than other possible sites also located on the subject tract, including those comprised of non high-value farmland soils; and

Because (38)(h)(E) and (38)(h)(F) include additional considerations not in place at the time the site certificate was approved, they are presented below for Council review:

(E) Except for electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, the project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);

OAR 660-033-0020(8)(a) says:

(8)(a) "High-Value Farmland" means land in a tract composed predominantly of soils that are:

(A) Irrigated and classified prime, unique, Class I or II; or

(B) Not irrigated and classified prime, unique, Class I or II.

OAR 660-033-0130(38)(h)(E) requires that the certificate holder demonstrate that the facility would not be located on high-value soils as listed in OAR 660-033-0020(8)(a). The facility would not occupy land that meets the definition of (8)(a) as it is Class IV. Therefore, the changes pursuant to OAR 660-033-0130(38)(h)(E) are not applicable to this amendment request.

(F) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:

(i) Non high-value farmland soils are not available on the subject tract;

(ii) Siting the project on non high-value farmland soils present on the subject tract would significantly reduce the project's ability to operate successfully; or

(iii) The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract than other possible sites also located on the subject tract, including those comprised of non high-value farmland soils; and

OAR 660-033-0130(38)(h)(F) requires that the certificate holder, if located on high-value farmland soils, as defined in OAR 660-033-0020(8)(b)-(e)[29], or arable soils demonstrate that: 1) non high-value farmland soils are not available on the subject tract; 2) siting the project on non high-value farmland soils, if present, would significantly impact the project's ability to operate; or 3) the site is better suited than other possible sites because it would allow continued operation of existing farmland. Based on review of the high-value farmland soils definition under OAR 660-033-0020(8)(b)-(e), the facility would not impact these type of soils and therefore the evaluation is based on impacts to arable soils, which was previously evaluated by Council in the 2018 Final Order on the ASC. Based on the previous evaluation, Council found that sufficient evidence had been provided on the record of the ASC to find that the facility site

[29] (8)(a) "High-Value Farmland" means land in a tract composed predominantly of soils that are: (A) Irrigated and classified prime, unique, Class I or II; or (B) Not irrigated and classified prime, unique, Class I or II.
(b) In addition to that land described in subsection (a) of this section, high-value farmland, if outside the Willamette Valley, includes tracts growing specified perennials as demonstrated by the most recent aerial photography of the Agricultural Stabilization and Conservation Service of the U.S. Department of Agriculture taken prior to November 4, 1993. "Specified perennials" means perennials grown for market or research purposes including, but not limited to, nursery stock, berries, fruits, nuts, Christmas trees, or vineyards, but not including seed crops, hay, pasture or alfalfa;
(c) In addition to that land described in subsection (a) of this section, high-value farmland, if in the Willamette Valley, includes tracts composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in subsection (a) of this section and the following soils:
(A) Subclassification IIIe, specifically, Bellpine, Bornstedt, Burlington, Briedwell, Carlton, Cascade, Chehalem, Cornelius Variant, Cornelius and Kinton, Helvetia, Hillsboro, Hult, Jory, Kinton, Latourell, Laurelwood, Melbourne, Multnomah, Nekia, Powell, Price, Quatama, Salkum, Santiam, Saum, Sawtell, Silverton, Veneta, Willakenzie, Woodburn and Yamhill;
(B) Subclassification IIIw, specifically, Concord, Conser, Cornelius Variant, Dayton (thick surface) and Sifton (occasionally flooded);
(C) Subclassification IVe, specifically, Bellpine Silty Clay Loam, Carlton, Cornelius, Jory, Kinton, Latourell, Laurelwood, Powell, Quatama, Springwater, Willakenzie and Yamhill; and
(D) Subclassification IVw, specifically, Awbrig, Bashaw, Courtney, Dayton, Natroy, Noti and Whiteson.
(d) In addition to that land described in subsection (a) of this section, high-value farmland, if west of the summit of the Coast Range and used in conjunction with a dairy operation on January 1, 1993, includes tracts composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in subsection (a) of this section and the following soils:
(A) Subclassification IIIe, specifically, Astoria, Hembre, Knappa, Meda, Quillayutte and Winema;
(B) Subclassification IIIw, specifically, Brenner and Chitwood;
(C) Subclassification IVe, specifically, Astoria, Hembre, Meda, Nehalem, Neskowin and Winema; and
(D) Subclassification IVw, specifically, Coquille.
(e) In addition to that land described in subsection (a) of this section, high-value farmland includes tracts located west of U.S. Highway 101 composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in subsection (a) of this section and the following soils:
(A) Subclassification IIIw, specifically, Ettersburg Silt Loam and Crofland Silty Clay Loam;
(B) Subclassification IIIe, specifically, Klooqueh Silty Clay Loam and Winchuck Silt Loam; and
(C) Subclassification IVw, specifically, Huffling Silty Clay Loam.
(f) Lands designated as "marginal lands" according to the marginal lands provisions adopted before January 1, 1993, and according to the criteria in former ORS 215.247 (Transport of biosolids to tract of land for application) (1991), are excepted from this definition of "high-value farmlands";

is better suited than other lands within the subject tract to allow continuation of existing farm operations, and the requirements under OAR 660-033-0130(38)(h)(F)(iii) were satisfied.

Further provisions of OAR 660-033-0130(38)(h) include:

> *(H) A photovoltaic solar power generation facility may be sited on more than 12 acres of high-value farmland described in ORS 195.300(10)(f)(C) without taking an exception pursuant to ORS 197.732 and OAR chapter 660, division 4, provided the land:*
>
> *(i) Is not located within the boundaries of an irrigation district;*
>
> *(ii) Is not at the time of the facility's establishment, and was not at any time during the 20 years immediately preceding the facility's establishment, the place of use of a water right permit, certificate, decree, transfer order or ground water registration authorizing the use of water for the purpose of irrigation;*
>
> *(iii) Is located within the service area of an electric utility described in ORS 469A.052(2);*
>
> *(iv) Does not exceed the acreage the electric utility reasonably anticipates to be necessary to achieve the applicable renewable portfolio standard described in ORS 469A.052(3); and*
>
> *(v) Does not qualify as high-value farmland under any other provision of law.*

OAR 660 033 0130(38)(h)(H) applies to this amendment request and represents a change in law since the Council's previous analysis. Based on review of the record of the ASC and Final Order on the ASC, the facility site is not located with the boundaries of an irrigation district, has not had any history of water rights, does not exceed the acreage reasonably needed to achieve renewable portfolio standards, and does not qualify as high-value farmland under any other provision of law [facility site is high value farmland only under OAR 197.732(1)(f)(C)]. Therefore, based on evidence on the record of the site certificate proceedings for this facility, the Department recommends Council find that the facility would comply with OAR 660 033 0130(38)(h)(H).

Conclusions of Law

Based on the foregoing findings and the evidence in the record, and subject to compliance with existing site certificate conditions, the Department recommends Council find that the facility, with proposed construction deadline extension, continues to comply with the Land Use standard.

III.F. Protected Areas: OAR 345-022-0040

> *(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate for a proposed facility located in the areas listed below. To issue a site certificate for a proposed facility located outside the areas listed below, the Council must find that, taking into account mitigation, the design, construction and operation of the facility are not likely to result in significant adverse impact to the areas listed below. References in*

this rule to protected areas designated under federal or state statutes or regulations are to the designations in effect as of May 11, 2007:

(a) National parks, including but not limited to Crater Lake National Park and Fort Clatsop National Memorial;

(b) National monuments, including but not limited to John Day Fossil Bed National Monument, Newberry National Volcanic Monument and Oregon Caves National Monument;

(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et seq. and areas recommended for designation as wilderness areas pursuant to 43 U.S.C. 1782;

(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath, Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper Klamath, and William L. Finley;

(e) National coordination areas, including but not limited to Government Island, Ochoco and Summer Lake;

(f) National and state fish hatcheries, including but not limited to Eagle Creek and Warm Springs;

(g) National recreation and scenic areas, including but not limited to Oregon Dunes National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon Cascades Recreation Area, and Columbia River Gorge National Scenic Area;

(h) State parks and waysides as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway;

(i) State natural heritage areas listed in the Oregon Register of Natural Heritage Areas pursuant to ORS 273.581;

(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine Sanctuary, OAR Chapter 142;

(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed as potentials for designation;

(l) Experimental areas established by the Rangeland Resources Program, College of Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site, the Starkey site and the Union site;

(m) Agricultural experimental stations established by the College of Agriculture, Oregon State University, including but not limited to: Coastal Oregon Marine Experiment Station, Astoria Mid-Columbia Agriculture Research and Extension Center, Hood River Agriculture Research and Extension Center, Hermiston Columbia Basin Agriculture Research Center, Pendleton Columbia Basin Agriculture Research Center, Moro North Willamette Research and Extension Center, Aurora East Oregon Agriculture Research Center, Union Malheur Experiment Station, Ontario Eastern Oregon Agriculture Research Center, Burns Eastern Oregon Agriculture Research Center, Squaw Butte Central Oregon Experiment Station, Madras Central Oregon Experiment Station, Powell Butte Central Oregon Experiment Station, Redmond Central Station, Corvallis Coastal Oregon Marine Experiment Station, Newport Southern Oregon Experiment Station, Medford Klamath Experiment Station, Klamath Falls;

(n) Research forests established by the College of Forestry, Oregon State University, including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the Marchel Tract;

(o) Bureau of Land Management areas of critical environmental concern, outstanding natural areas and research natural areas;

(p) State wildlife areas and management areas identified in OAR chapter 635, Division 8.

*****

(3) The provisions of section (1) do not apply to transmission lines or natural gas pipelines routed within 500 feet of an existing utility right-of-way containing at least one transmission line with a voltage rating of 115 kilovolts or higher or containing at least one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of 125 psig.

Findings of Fact

The Protected Areas standard requires the Council to find that, taking into account mitigation, the design, construction and operation of a facility are not likely to result in significant adverse impacts to any protected area, designated as of May 11, 2007, pursuant to OAR 345-022-0040. The requirements of the Protected Areas standard do not apply to the approved 115 kV

transmission line because the line would be located within 500 feet of an existing utility right-of-way containing a 230 kV transmission line (OAR 345-022-0040(3)).

In accordance with OAR 345-001-0010(59)(e) and consistent with the study area boundary, the analysis area for protected areas is the area within and extending 20 miles from the site boundary. Impacts evaluated under the Protected Areas standard within the analysis area include: potential impacts during facility construction and operation from noise, increased traffic, water use, wastewater disposal, visual impacts of facility structures or plumes, and visual impacts from air emissions.[30]

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. Because the applicability of the Protected Areas standard is to areas designated as of May 11, 2007, and the Council's Final Order on the ASC was issued in 2018, Council may rely on its previous findings and conclusions (i.e. certificate holder and Council are not required to evaluate protected areas designated after 2007). Nonetheless, in RFA1, the certificate holder affirms review of state and federal websites including the Bureau of Land Management's "Current List of Areas of Critical Environmental Concern"; United States Fish and Wildlife Service's List of Wildlife Refuges; and, Oregon Department of Fish and Wildlife's wildlife habitat areas[31] to evaluate any new designated protected areas within the analysis since Council's 2018 decision on the Final Order. The Department evaluated the certificate holder's referenced sources and concurs with certificate holder's representations that there have been no newly designated protected areas within the 20-mile analysis area since 2018.

Based on the scope of the amendment request, a construction deadline extension, and the fact that there are no new protected areas which have not been previously evaluated, the Department recommends Council rely on its previous reasoning and analysis to make findings and conclusions of law related to potential impacts under this standard. The Department provides a summary of the previous impact assessment below for Council reference.

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[30] The facility would not generate any emission plumes and would not result in visual impacts from air emissions. Therefore, visual impacts from air emissions resulting from facility construction or operation, including but not limited to impacts on Class I Areas as described in OAR 340-204-0050, are not applicable and therefore not addressed in this order.

[31] Bureau of Land Management 2021. Accessed August 2021. https://www.blm.gov/programs/planning-and-nepa/planning-101/special-planning-designations/acec; United States Fish and Wildlife Service 2021. Accessed August 2021. https://www.fws.gov/refuges/find-a-wildlife-refuge/?method=state&query=Oregon. Oregon Department of Fish and Wildlife 2021. Accessed August 2021. https://www.dfw.state.or.us/maps/compass/index.asp

The certificate holder previously identified eight[32] protected areas within the analysis area, which are presented in Table PA-1, *Protected Areas within Analysis Area* below. The closest protected area to the site boundary is the Willow Creek Wildlife Management Area at approximately 0.5 miles.

Table PA- 1: Protected Areas within Analysis Area

Protected Area	Distance from Site Boundary (in miles)[1]	Direction	Protected Area Designation Basis (OAR Reference)
Willow Creek Wildlife Management Area	0.5	West	345-022-0040(1)(p)
Horn Butte Area of Critical Environmental Concern	2.1	West	345-022-0040(1)(o)
Arlington Wayside	6.3	West	345-022-0040(1)(h)
Umatilla National Wildlife Refuge	6.1	Northeast	345-022-0040(1)(d)
Boardman Research Natural Area	11.8	Southeast	345-022-0040(1)(o)
Coyote Springs Wildlife Area	15	East	345-022-0040(1)(p)
Lindsay Prairie Preserve	19.8	Southeast	345-022-0040(1)(i)
Umatilla Fish Hatchery	19.9	Northeast	345-022-0040(1)(f)

Notes:
1. The distances represented in the table do not include the portions of the site boundary where the 115 kV transmission line would be located, because as described above, OAR 345-022-0040(3) relieves the requirements of the standard for transmission lines located within 500-feet of an existing utility right of way.

Council's 2018 Final Order on the ASC determined that the facility would not be likely to result in significant adverse impacts during facility construction and operation from noise, increased traffic, water use, wastewater disposal, visual impacts of facility structures or plumes, and visual impacts from air emissions.[33] The Department recommends Council incorporate by reference its previous findings of fact and conclusions of law into this order, as there have been no identified changes in fact or law that would impact the previous analysis.

[32] In the ASC, the certificate holder included an additional protected area – Crow Butte State Bark – which is omitted from the table above because it is located in Washington; OAR 345-022-0040(h) only applies to state parks listed by the Oregon Department of Parks and Recreation.

[33] BSEAPP Final Order 2018-02-23. Pg. 104-108.

Conclusions of Law

Based on the foregoing recommended findings, the Department recommends that Council conclude that the design, construction and operation of the facility, with proposed construction deadline extension, is not likely to result in significant adverse impacts to any protected areas, in compliance with the Council's Protected Area standard.

III.G. Retirement and Financial Assurance: OAR 345-022-0050

To issue a site certificate, the Council must find that:

(1) The site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.

(2) The applicant has a reasonable likelihood of obtaining 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.

Findings of Fact

The Retirement and Financial Assurance standard requires a finding that the facility site can be restored to a useful, non-hazardous condition at the end of the facility's useful life, should either the certificate holder stop construction or should the facility cease to operate.[34] In addition, it requires a demonstration that the certificate holder can obtain a bond or letter of credit to restore the site to a useful, non-hazardous condition.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. For this standard, the Council may, depending on the methods used to evaluate the decommissioning estimate, evaluate whether there have been changes in unit costs or labor rates that would affect the previous site restoration estimate and whether there have been any changes in the certificate holder's corporate structure that would impact the likelihood that the certificate holder would continue to demonstrate a likelihood of obtaining a bond or letter of credit in the amount necessary for site restoration. For this facility, the decommissioning estimate is based on a $10,000/acre unit, and does not include other details on unit cost or labor rates. Therefore, the analysis focuses on accuracy of the tasks and actions identified for solar facility decommissioning.

[34] OAR 345-022-0050(1).

Restoration of the Site Following Cessation of Construction or Operation

OAR 345-022-0050(1) requires the Council to find that the facility site can be restored to a useful non-hazardous condition at the end of the facility's useful life, or if construction of the facility were to be halted prior to completion. The certificate holder estimates the facility's useful life as 30 years.[35]

In the 2018 Final Order on the ASC, Council concurred with the decommissioning tasks and actions identified by the certificate holder. These tasks and actions included disconnecting facility components from the transmission system and disconnecting site equipment from aboveground and underground cables. Aboveground equipment, including the solar modules, solar module steel racking system, and electrical and electronic devices (such as the medium voltage step-up transformers, solar inverters, and the disconnect switches) would be removed and transported offsite. Concrete foundations and cables up to three feet below ground would be removed and recycled or transported to a landfill. Cables located three feet or more below ground would be rendered inert and left in place.[36] The O&M building and O&M fence would be removed and the surrounding graveled area would be removed, regraded, and reseeded. Upon completion of the other facility retirement activities, bare ground portions of the site would be seeded.[37]

In RFA1, the certificate holder requests one change to the methods, tasks, or actions previously evaluated by Council for facility decommissioning. The inclusion of decommissioning costs for removal of gravel/noncombustible base was based on Oregon Fire Code (OFC) requirements for solar facilities; however, the Oregon State Fire Marshall clarified for the Department that the OFC noncombustible base requirement applies to small-scale/residential solar applications and does not apply to utility-scale solar facilities. While vegetation clearance/maintenance and fire prevention are requirements for this facility (under Land Use and Public Services), a strict requirement that the entirety of the facility footprint be comprised of a noncombustible (i.e. gravel) base does not apply. Therefore, the Department recommends Council find that the removal of the task/cost is acceptable.

Aside from the request to update the decommissioning estimate to remove cost for removal of noncombustible gravel base, the methods and assumptions necessary to restore the site to a useful, nonhazardous condition upon cessation of construction or operation, or upon retirement, have not changed from the evaluation presented in the 2018 Final Order on the ASC. Council previously found that the facility site could be restored adequately to a useful, nonhazardous condition following permanent cessation of construction or operation of the facility. The Council previously imposed several conditions to ensure the certificate holder could

[35] BSEAPPDoc71. ASC Exhibit W, p.W-1. 2017-09-01.

[36] *Id.*

[37] BSEAPPDoc71. ASC Exhibit W, p. W-1 and W-2, and Attachment W-1. 2017-09-01.

restore the site to a useful, nonhazardous condition in accordance with the Retirement and Financial Assurance standard as summarized below:

- Retirement and Financial Assurance Condition 1, which mirrors the OAR 345-025-0006(7) Mandatory Condition, requires that the certificate holder prevent the development of any condition on the site that would preclude restoration of the site to a useful, non-hazardous condition.
- Retirement and Financial Assurance Condition 2, which mirrors the OAR 345-025-0006(9) Mandatory Condition, requires the certificate holder to retire the facility in accordance with a Council-approved retirement plan.
- Retirement and Financial Assurance Condition 3, which mirrors the OAR 345-025-0006(16) Mandatory Condition, obligates the certificate holder to retire the facility upon permanent cessation of construction or operation. Additionally, the condition provides the Department the authority to develop a retirement plan, for Council approval, in the event the certificate holder ceases operation of its facility and does not retire the facility in accordance with a Council approved retirement plan. Retirement and Financial Assurance Condition 4 also allows Council the ability to draw on the bond or letter of credit per Retirement and Financial Assurance Condition 4
- Retirement and Financial Assurance Condition 4, consistent with the OAR 345-025-0006(8) Mandatory Condition, requires the certificate holder to submit a bond or letter of credit to the State of Oregon, through the Council, and maintain that bond or letter of credit in effect at all times until the facility has been retired. The initial bond or letter of credit amount is stated at $8.78 million (Q4 2017 dollars).

As discussed above, the Department recommends Council amend Retirement and Financial Assurance Condition 4 to account for decreased decommissioning estimate for noncombustible base removal.

Estimated Cost of Site Restoration

OAR 345-022-0050(2) requires the Council to find that the certificate holder continues to have a reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to restore the site of the facility, to a useful non-hazardous condition. The section below first evaluates the adequacy of the decommissioning amount, followed by the evidence submitted by the certificate holder to demonstrate the likelihood of its ability to obtain a bond or letter of credit in the current amount identified for decommissioning.

Council previously included $1.25 million (Q4 2017 dollars) in the decommissioning cost for removal of a gravel base or other noncombustible base. In RFA1, the certificate holder provides an updated cost estimate that reflects the proposed change (a reduction of $1.25 million made to the 8.78 million Q4 2017 dollars). The certificate holder's updated site restoration cost

estimate, as found in RFA1 totals $8.1 million[38], in 1st quarter 2021 dollars. Table RF-1: *RFA1 Decommissioning and Site Restoration Cost* provides a summary of the Department's site restoration cost estimate, considering the adjustments made to the methods and assumptions necessary to restore the site to a useful, nonhazardous condition upon cessation of construction or operations, as a result of RFA1.

Table RF-1: RFA1 Decommissioning and Site Restoration Cost

		2018 Final Order Cost Estimate	Department's RFA1 Cost Estimate
Subtotal (2018 Final Order)		$6,700,200	$6,700,200
Cost of gravel removal		--	(-)$1,250,000
RFA1 starting subtotal (Q4 2017 dollars)		--	$5,450,200[1]
Performance Bond	1%	$67,002	$54,502
Administration and Project Management	10%	$670,020	$545,020
Future Developments Contingency	20%	$1,340,040	$1,090,040
Total Site Restoration Cost (Q4 2017 dollars)		$8,777,262	$7,139,762
Total Site Restoration Cost (rounded to nearest $1,000; Q4 2017 dollars)		$8,777,000	$7,140,000
RFA1 Total Site Restoration Cost (rounded to the nearest $1,000; Q3 2021 dollars)		n/a	$7,654,000

Notes:
1. The Subtotal utilized in the Department's RFA1 Cost Estimate equates to the subtotal from the Final Order (prior to the Department's added contingencies, or $6,7,000,200), less the $1.25 million the certificate holder proposed as an estimate to "remove gravel from the area that would be occupied by the module blocks" as stated in the 2018 Final Order.

The Department's estimated total for site restoration (rounded to the nearest $1,000, and in Q3 2021 dollars) is $7.654 million, which accounts for the reduction of $1.25 million for gravel removal. To address the adjusted total for financial assurance obligations and ensure the adequacy of the bond or letter of credit, the Department recommends Council amend Retirement and Financial Assurance Condition 4. In addition, the Department recommends several administrative changes including 1) clarify that the decommissioning estimate must be based on present dollars as of the effective date, rather than issuance date, of the bond or letter of credit. The proposed amendment avoids issues in adjusting the final decommissioning amount and bond or letter of credit according to the inflation rate at the time if there is a lapse in time that may overlap with change in annual quarter (and inflation adjustment) from the date of issuance compared to the effective date; and 2) refer various review elements of the

[38] The certificate holder's RFA1 cost estimate deducted the $1.25 million for the gravel removal from the "Total Site Restoration Cost" Council concurred with in the 2018 Final Order ($8,777,000), and not from the subtotal of all methods and assumptions. The Department's cost estimate factored the deduction of gravel removal at the subtotal, and the costs associated with the applied contingencies (performance bond, administrative and Project Management, and future Development contingency) are less because of it.

condition (final decommissioning estimate, annual report) to the Department rather than Council, consistent with compliance review under the Department's Compliance Program, as follows:

> **Recommended Amended Retirement and Financial Assurance Condition 4**: Consistent with Mandatory Condition OAR 345-025-0006(8), 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 certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The initial bond or letter of credit amount for the facility is ~~$8.78~~7.65 million (~~Q4~~ Q3 ~~2017~~ 2021 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 revise the amount of the initial bond or letter of credit based on the final design configuration of the facility. However, any revision to the restoration costs must be adjusted to the effective date ~~of issuance~~ as described in (b) and must be reviewed and approved~~al~~ by the Department ~~Council in a site certificate amendment~~.
> (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 ~~Q4~~ Q3 ~~2017~~ 2021 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 ~~fourth~~ third quarter ~~2017~~ 2021 index value and the quarterly index value for the effective date ~~of issuance~~ of the new bond or letter of credit. If at any time the index is no longer published, the ~~Council~~ Department shall select a comparable calculation to adjust ~~fourth~~ third quarter ~~2017~~ 2021 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 Department ~~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 the ASC, AMD1; Condition GEN-RT-02]

Based on compliance with recommended amended Retirement and Financial Assurance Condition 4, the Department recommends that Council find that a retirement cost estimate of

$7.65 million (Q3 2021 dollars) is a reasonable estimate of an amount satisfactory to restore the site of the Boardman Solar Energy Facility to a useful, non-hazardous condition.

Ability of the Certificate Holder to Obtain a Bond or Letter of Credit

OAR 345-022-0050(2) requires the Council to find that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to restore the site to a useful non-hazardous condition. A bond or letter of credit provides a site restoration remedy to protect the state of Oregon and its citizens if the certificate holder fails to perform its obligation to restore the site. The bond or letter of credit must remain in force until the certificate holder has fully restored the site. OAR 345-025-0010(8) establishes a mandatory condition, imposed as Retirement and Financial Assurance Condition 4, which ensures compliance with this requirement. As described above, the Department's estimate of the amount necessary to restore the site of the facility to a useful, nonhazardous condition would be approximately $7.65 million (Q3 2021 dollars), adjusted annually as required per recommended amended Retirement and Financial Assurance Condition 4.

To demonstrate its ability to receive an adequate bond or letter of credit, the certificate holder provided a July 16, 2021 letter from Wells Fargo Bank, N.A., a financial institution pre-approved by Council. The bank letter is intended solely to demonstrate that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in the amount necessary for site restoration, as required prior to construction.[39] The letter states that the Wells Fargo has an ongoing relationship with the certificate holder, and that there is a reasonable likelihood that they will provide a letter of credit (that could total an amount of up to eight million one hundred thousand dollars, or $8.1 million) for the facility, should it be required. The $8.1 million referenced in the Wells Fargo letter would exceed the Departments $7.65 million retirement cost estimate, to restore the site to a useful, non-hazardous condition.

Subject to compliance with existing and recommended amended conditions, the Department recommends that Council find that the facility site could be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation. Additionally, the Department recommends that Council find that based on the estimate shown in Table RF-1: *RFA1 Decommissioning and Site Restoration Cost*, and the July 2021 letter from Wells Fargo bank, the certificate holder continues to demonstrate a reasonable likelihood of obtaining a bond or letter of credit in the amount necessary for site restoration.

Conclusions of Law

For the reasons described above, and based on the foregoing findings of fact, and subject to compliance with existing and recommended amended conditions, the Department

[39] BSEAMD1. Request for Amendment 1. Attachment 3. 2021-08-04.

recommends that Council find that the facility would continue to comply with the Council's Retirement and Financial Assurance standard.

III.H. Fish and Wildlife Habitat: OAR 345-022-0060

> *To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000.*

Findings of Fact

The Fish and Wildlife Habitat standard requires the Council to find that the design, construction and operation of the facility, with the requested extension of the construction deadlines, is consistent with the Oregon Department of Fish and Wildlife's (ODFW) 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 rule also establishes a habitat classification system based on the function and value of the habitat it would provide to a species or group of species likely to use it. There are six habitat categories, with Category 1 being the most valuable, and Category 6 the least valuable.

The analysis area for potential fish and wildlife habitat impacts used to evaluate RFA1, as defined in the Project Order, is the area within and extending ½-mile from the site boundary.[40] The Council addressed the Fish and Wildlife Habitat standard in the Final Order on the ASC, and found that the adoption of Fish and Wildlife Habitat Conditions 1 through 11 would ensure compliance with the general fish and wildlife habitat mitigation goals and standards.

Habitat Types and Categories in the Analysis Area

Habitat categories previously identified within the analysis area include Categories 2 (herbaceous wetland, open water wetland) and 4 (exotic annual grassland, native perennial grassland, and rabbitbrush/snakeweed shrub-steppe). Potential temporary and permanent habitat impacts from facility construction/operation is limited to Category 4. To evaluate potential changes in environmental conditions that could impact or change the previous habitat categorization, the certificate holder asserts consultation with ODFW, review of an updated list from ORBIC, and review of ODFW's Compass Tool. The Department also consulted with ODFW to determine whether there were any acknowledged changes (landowner uplift/land use changes, fire, drought, etc) that could substantively change the habitat categorization of the site. Based on the Department's consultation with ODFW and review of the ORBIC data (RFA1 Attachment 2), the Department concurs with the certificate holder's representations that there have been

[40] BSEAPPDoc33. Expedited Review Project Order. 2017-05-09

no significant changes either in documented presence of species (RFA1 Attachment 2), environmental conditions or landowner land use changes that would be likely to impact the previous habitat categorization of the site. Because the habitat categorization of the site is likely maintained from Council's previous evaluation, the Department recommends Council rely upon the previously imposed conditions to address potential impacts under the standard.

Potential Construction and Operational Impacts to Habitat

The Department does not anticipate any additional mitigation needed as a result of RFA1, as the amendment request does not include any physical changes to the facility layout or facility components. However, as part of the Department's review of RFA1, and in consultation with ODFW, an evaluation of the draft Habitat Mitigation Plan (HMP), included as Attachment C of this order, resulted in recommended updates.[41] These updates include further integration and clarification of the requirements of Fish and Wildlife Habitat Conditions 1 [PRE-FW-01] and 11 [PRE-FW-05] throughout the plan. Additionally, the Department suggests updating the language defining temporal loss, and a greater description of suggested steps the certificate holder shall take prior to construction of the facility (see Sections 4.1 Preconstruction Requirements and 4.2 *HMA Legal Instrument*); and updates the language of Section 6.0 *Plan Amendment*, to allow Department and Council review, rather than strictly limited to Council, of plan amendments.

Potential Impacts to State-Sensitive Species within Analysis Area

Council Previously imposed Fish and Wildlife Habitat Conditions 2 through 4 that would require the certificate holder to implement measures and practices to avoid and minimize potential impacts to State Sensitive species. In RFA1, the certificate holder relied on its evaluation provided in the ASC to address potential impacts to state sensitive species within the analysis area. Under existing Fish and Wildlife Habitat Condition 3, the certificate holder must adhere to seasonal construction restrictions around occupied raptor nest sites. Through this order, the Department recommends that Council amend Fish and Wildlife Habitat Condition 3 as follows, to clarify how occupied nests are to be determined both prior to and during the sensitive nesting season, and allows for work to occur within the restricted area if an occupied nest becomes unoccupied, as determined by monitoring, prior to the end date of the sensitive nesting season.

> **Recommended amended Fish and Wildlife Habitat Condition 3:** During construction, within the time periods listed in the table below, the certificate holder shall implement buffer zones around occupied nest sites of the species included in the table. No construction activities within the buffer zone <u>of occupied nests</u> 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 construction activity within the buffer zone. Occupied nests shall be determined based on the results of pre-construction surveys and

[41] BSEAMD1 Reviewing Agency Comment (ODFW) 2021-06-10.

habitat assessment, and subsequent monitoring of the occupied nests during the sensitive season. The buffer areas shall be flagged as exclusion areas in accordance with Fish and Wildlife Habitat Condition 6. The buffer distances do not apply to occupied nests north of I-84. The certificate holder may begin or resume construction within the buffer area if any known nest site is unoccupied by the early release date, as determined based on monitoring during the sensitive season.

Nesting Species	Buffer Size (Radius Around Nest Site):	Sensitive Season Avoidance Buffers in Effect from:	Early Release Date
Ferruginous hawk	0.25 mile	March 15 to August 15	May 31
Swainson's hawk	0.25 mile	April 1 to August 15	May 31
Western burrowing owl	0.25 mile	April 1 to August 15	July 15
Golden eagle	0.5 mile	January 1 to July 15	May 31
Bald eagle	0.5 mile	January 1 to August 31	--

[Condition CON-FW-01, AMD1]

Minimization, Mitigation, and Monitoring

In addition to the above described Fish and Wildlife Condition 3, Council previously imposed the following conditions to minimize potential impacts to wildlife species during construction and operation:

- Fish and Wildlife Habitat Condition 2 requires implementation of a Wildlife Monitoring and Adaptive Management Plan, including long-term monitoring for birds, bats and Washington Ground squirrel impacts.
- Fish and Wildlife Habitat Condition 5 requires that, during construction, the certificate holder require workers to complete an environmental awareness training that, at a minimum, addresses the facility site boundary, including flagged exclusion areas; restricted areas including wetlands and other areas; sensitive and special status plant and wildlife species found in the analysis area; avoidance and impact minimization measures; response procedure and notification process to be followed if sensitive resources are identified during construction; additional permit requirements; buffer distances from sensitive and protected resources; work timing restrictions including seasonal restrictions; reporting procedures for any injured or dead wildlife; speed limits; trash control; and other topics as necessary.
- Fish and Wildlife Habitat Condition 6 requires that, prior to construction, the certificate holder install exclusion flagging in sensitive habitat areas.
- Fish and Wildlife Habitat Condition 7 requires that, during construction, no trenches be left open overnight or that a wildlife escape ramp be installed to allow potentially trapped animals to escape.

- Fish and Wildlife Condition 8 restricts timing of tree and shrub-steppe clearing to September 1 and March 1, to minimize potential impacts to birds or bats roosting in the area.
- Fish and Wildlife Condition 9 restricts speed limit for onsite vehicles to 20 miles per hour to minimize wildlife fatality from vehicle collision.

Conclusions of Law

Based on the foregoing findings of fact and conclusions, and subject to compliance with the existing and recommended amended site certificate conditions, the Department recommends that Council continue to find that the facility, with the requested extension of the construction deadlines, continues to comply with the Council's Fish and Wildlife Habitat standard.

III.I. Threatened and Endangered Species: OAR 345-022-0070

To issue a site certificate, the Council, after consultation with appropriate state agencies, must find that:

(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:

(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or

(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and

(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.

Findings of Fact

The Threatened and Endangered (T&E) Species standard requires the Council to find that the design, construction, and operation of the facility, with the requested extension of the construction deadlines, are not likely to cause a significant reduction in the likelihood of survival or recovery of a fish, wildlife, or plant species listed as threatened or endangered by Oregon Department of Fish and Wildlife (ODFW) or Oregon Department of Agriculture. For threatened and endangered plant species, the Council must also find that the facility, with the requested extension of the construction deadlines, is consistent with an adopted protection and conservation program from Oregon Department of Agriculture. Threatened and endangered species are those listed under ORS 564.105(2) for plant species and ORS 496.172(2)

for fish and wildlife species. For the purposes of this standard, threatened and endangered species are those identified as such by either the Oregon Department of Agriculture or the Oregon Fish and Wildlife Commission.[42]

The analysis area for threatened or endangered plant and wildlife species is the area within and extending five miles from the site boundary, with the exception of the 115-kV transmission line, for which the analysis area is only the area within the site boundary.[43]

Potential Impacts to Identified Threatened and Endangered Species

The 2018 Final Order on the ASC identified one mammal and two fish as T&E species listed by the Oregon Fish and Wildlife Commission per ORS 496.172(2), and one plant species listed as threatened by the Oregon Depart of Agriculture per ORS 564.105(2), with potential to occur in the analysis area. These species are: Washington ground squirrel, Chinook salmon – Snake River (fall run), Chinook salmon – Snake River (spring/summer run), and Lawrence's milkvetch.[44] In order to identify whether there are any state-listed T&E species, not previously evaluated, that might occur within the analysis area, or changes in the potential presence of state-listed T&E species previously evaluated, the certificate holder conducted an updated desktop and field survey. In RFA1, the certificate holder provides the results and documentation of a desktop survey using ORBIC data (February 2021) and U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) species list.[45] Based on review of the results, as provided in RFA1 Attachment 2 and the IPaC website, the Department concurs with the certificate holder's representation that there are no new state-listed T&E species with a potential to occur within the analysis area. Additionally, the certificate holder conducted a protocol-level Washington Ground squirrel survey in 2021 which confirmed that no colonies or burrows were present within areas of suitable habitat.

Council's 2018 Final Order on the ASC imposed T&E Species Condition 1 which requires that, prior to construction, the certificate holder conduct field surveys for listed T&E species, including Washington ground squirrel and Lawrence's milkvetch, to ensure that if present, facility design would avoid any direct disturbance impacts. In RFA1, the certificate holder affirms its commitment to comply with Threatened and Endangered Species Condition 1.

[42] Although the Council's standard does not address federally-listed threatened or endangered species, certificate holders must comply with all applicable federal laws, including laws protecting those species, independent of the site certificate.

[43] BSEAPPDoc33 Expedited Review Project Order 2017-05-09.

[44] Exhibit Q, Table Q-1 also identifies the Steelhead – Middle Columbia River ESU (summer run) as potentially occurring in the analysis area; however, this species is listed as sensitive by ODFW - not threatened or endangered - and is therefore discussed in the Fish and Wildlife Habitat section of this final order.

[45] BSEAMD1 Complete RFA1, Attachment 2. 2021-08-04.

Conclusions of Law

Based on the foregoing recommended findings of fact and conclusions, and subject to compliance with the site certificate conditions, the Department recommends Council find that the facility, with the requested extension of the construction deadlines, would continue to comply with the Council's Threatened and Endangered Species standard.

III.J. Scenic Resources: OAR 345-022-0080

> *(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order.*

Findings of Fact

The Scenic Resources Standard requires the Council to determine that the design, construction and operation of the facility, with proposed construction deadline extension, are not likely to have a "significant adverse impact" to any significant or important scenic resources and values in the analysis area. In applying the standard set forth in OAR 345-022-0080(1), the Council assesses the visual impacts of facility structures on significant or important scenic resources described in "local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order." The analysis area for the Scenic Resources standard is the area within and extending 10-miles from the site boundary.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. In RFA1, the certificate holder affirms that a review of the land management plans identified in ASC Exhibit R was completed and that none of the plans contain updates resulting in new important or significant scenic resources since Council's 2018 Final Order on the ASC. The Department consulted with select local and Tribal governments including Morrow and Gilliam counties, the Confederated Tribes of Umatilla Indian Reservation, where there were no new important or significant scenic resources, as identified in a land management plan, were identified. Therefore, the Department recommends Council find that the certificate holder's evaluation of potential changes applicable to the Scenic Resources standard is accurate.

For Council's reference to its evaluation in the 2018 Final Order on the ASC, Table SR-1 *Important Scenic Resources Inventory* presents the land management plans evaluated, important or significant scenic resources within the analysis area, distance from facility site

boundary to scenic resource, and whether the facility would be visible at or within the scenic resource.

Table SR-1: Important Scenic Resources Inventory

Scenic Resource	County	Plan Where Resource Identified	Approximate Distance and Direction from Facility Site Boundary	Is Facility Potentially Visible?
Oregon				
Rock Outcroppings near Fourmile Canyon	Gilliam	Gilliam County Comprehensive Plan (2011)	8.0 miles, SW	No
Oregon Trail Fourmile Canyon High-Potential Site		Oregon Trail Comprehensive Management and Use Plan, National Park Service (1999) Oregon Trail Management Plan, National Park Service (1993) Two Rivers Resource Management Plan Record of Decisions Rangeland Program Summary, US Fish and Wildlife Service (1986)	9.9, SW	No
City of Arlington East Slopes		City of Arlington Comprehensive Plan (1978)	9.5, SW	No
Blue Mountain Scenic Byway		1999 Oregon Highway Plan: Including Amendments November 1999 through May 2015 (ODOT)	1.2, West	Yes, intermittently from one approx. 1 mile section of SR-74
Washington				
Crow Butte State Park	Benton (WA)	Benton County Comprehensive Plan (2006)	5.5 miles, NE	No

Table SR-1: Important Scenic Resources Inventory

Scenic Resource	County	Plan Where Resource Identified	Approximate Distance and Direction from Facility Site Boundary	Is Facility Potentially Visible?
Lewis and Clark Trail Scenic Byway	Klickitat (WA)	Klickitat County Energy Overlay: Final EIS (2004) Washington State Scenic and Recreational Highways Strategic Plan, Washington DOT (2010-2030)	1.3, North	Yes, intermittently from sections of SR-14

Visual Features of the Facility

As previously evaluated, the maximum height of the solar modules and inverters is approximately 10 feet, and there would be an approximately seven foot tall security fence around the site boundary. The O&M building would be approximately 20 feet in height. The tallest facility component would be the gen-tie transmission line. As described by the Applicant, the transmission towers would be between 70 and 135 feet in height. Facility construction would remove some trees from the site, but these trees are generally invasive, non-native Russian olive trees, and their removal is beneficial to the environment. Council previously found that potential visibility of the facility would not be likely to result in a significant, visual impact to any of the important or significant resources listed in Tables SR-1 above (see Final Order on ASC, Section III.J, pg. 140-145)

Conclusion of Law

Based on the foregoing findings of fact and conclusions of law, the Department recommends Council find that the facility, with the requested extension of the construction deadlines, continues to comply with the Council's Scenic Resources standard.

III.K. Historic, Cultural, and Archaeological Resources: OAR 345-022-0090

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:

(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;

(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and

(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

** * **

Findings of Fact

Subsection (1) of the Historic, Cultural and Archaeological Resources standard, OAR 345-022-0090, requires the Council to find that the facility, with the requested extension of the construction deadlines, is not likely to result in significant adverse impacts to identified historic, cultural, or archaeological resources. Pursuant to OAR 345-022-0090(2), the Council may issue a site certificate for a facility that would produce power from solar energy without making findings regarding the Historic, Cultural and Archeological standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

The analysis area for the evaluation of potential impacts to identified historic, cultural or archeological resources, as defined in the project order, is the area within the site boundary.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. To evaluate potential changes in fact within the analysis area since the previous evaluation, the certificate holder provides the results of a February 2021 literature review, evaluating investigations and reports within 1-mile of the site boundary, using Oregon State Historic Preservation Office's (SHPO) databases of cultural resources (OARRA and Historic Sites Database). Based on the 2021 literature review, the certificate holder indicates that there have been no new studies or resources recorded within 1-mile of the site boundary since Council's 2018 Final Order on the ASC. Based on review of the referenced SHPO databases, the Department concurs with the results reported by the certificate holder.

For Council's reference of the evaluation presented in the 2018 Final Order on the ASC, the certificate holder previously identified Site 35GM402 within the analysis area. Site 35GM402 is a low-lying rock wall – a stacked rock feature – approximately 98 feet in length, and meets the definition of an archaeological site as defined by ORS 358.905(1)(c).[46] CH2M formally evaluated

[46] BSEAPPDoc71. ASC Exhibit S, p. S-3. 2017-09.01.

Site 35GM402 and recommended that it be eligible for listing on the NRHP.[47] The certificate holder proposed to avoid direct impacts to Site 35GM402 by identifying Site 35GM402 prior to construction on facility construction maps as a no-entry area, and by flagging a 100-foot (30-meter) buffer surrounding the site as an area to be avoided during construction activities.[48]

In addition, a historic property of religious and cultural significance to the CTUIR was identified within the vicinity of the site boundary, where based on a viewshed analysis, the facility would result in indirect, visual impacts. The certificate holder and CTUIR established a mutual agreement on the mitigation to address facility-related visual impacts. In 2017, during ASC review, CTUIR stated that its concerns were addressed and that they had no further concerns with the facility unless the facility changes.[49] In May 2021, CTUIR re-affirmed their 2017 letter and confirmed no new concerns based on changes proposed in RFA1.[50]

In the 2018 Final Order on the ASC, Council adopted Historical, Cultural and Archaeological Resources Conditions 1 through 7 to reduce potential adverse direct impacts on historic, cultural, and archaeological resources. Based on the Department's independent review of changes in fact or law, the Department recommends Council amend Historic, Cultural and Archeological Resources Condition 5 and 7.

Council previously imposed Historic, Cultural and Archeological Resources Condition 5 requiring that, during construction, a Monitoring Plan be implemented during all ground-disturbing work at the site, a measure proposed by the applicant in the ASC. The Monitoring Plan, as proposed in ASC Exhibit S, is provided as Attachment F of this order; the plan is denoted as "draft". The Department recommends Council amend the condition to first remove the sentence "An archeological monitor shall be present during ground disturbing activities" because it unnecessarily duplicates the intent of the Monitoring Plan; the Department considers removal of the sentence to clarify the intent – so as not to be interpreted as a distinct requirement separate from the requirements of the plan. Second, the Department recommends that the condition require that the draft plan be finalized and approved by the Department prior to construction. Lastly, the Department recommends that the condition be amended to allow for adaptive management of the Monitoring Plan, including finalization of the plan, prior to construction, and allowance of amendments of the plan, in the event increased or decreased monitoring activities are justified and agreed upon by the Department, CTUIR and SHPO, as applicable. It is essential for the certificate holder and the Department to be able to evaluate site specific circumstances and recommendations/factors identified by CTUIR and/or SHPO to allow for adjustment in monitoring levels throughout construction, given that the entirety of

[47] BSEAPPDoc71. The NRHP evaluation is included as Appendix D to the confidential cultural resources survey report (ASC Exhibit S, Attachment S-1). 2017-09.01.
[48] BSEAPPDoc71. ASC Exhibit S, p. S-6.2017-09.01.
[49] BSEAPPDoc72. CTUIR letter to ODOE 2017-10-24.
[50] BSEAMD1 Reviewing Agency Comment (CTUIR). 2021-05-03

construction includes ground disturbing activities. The Department recommends Council amend the condition as follows:

Recommended Amended Historic, Cultural and Archeological Resources Condition 5: During construction, the certificate holder shall implement the *Monitoring Plan for Cultural Resources, Boardman Solar Energy Facility, Morrow and Gilliam Counties, Oregon* included as Attachment F to the Final Order on the ASC. ~~An archaeological monitor shall be present during ground-disturbing activities.~~ Once approved by the Department, prior to construction, the Monitoring Plan may be amended from time to time by agreement of the certificate holder and Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to approve amendments to the plan, in consultation with SHPO and the associated tribes, as applicable.
[Final Order on ASC, AMD1; Condition CON-HC-01]

Council previously imposed Historic, Cultural and Archeological Resources Condition 5 requiring that the certificate holder implement and adhere to the requirements of an Inadvertent Discovery Plan (IDP), as included as Attachment F to the 2018 Final Order on the ASC. First, the Department recommends that the IDP included as Attachment F to the 2018 Final Order on the ASC be updated to reflect current agency contact information, as reporting incidental finds to the appropriate agency contact as a critical function of the IDP. Second, the Department recommends that the condition be amended to clarify that the certificate holder must finalize the IDP, based on current agency contact information, prior to construction. A draft amended IDP with current contact information is provided in Attachment F to this order.

Recommended Amended Historic, Cultural and Archeological Resources Condition 7:
Prior to construction, the certificate holder shall:
(a) Submit to the Department an Inadvertent Discovery Plan for Cultural Resources, included as Attachment F to the Final Order on RFA1, to be finalized based on current agency and personnel contact information.

During construction, operations, and retirement, the certificate holder shall:
(a) Implement and adhere to the requirements of the final Inadvertent Discovery Plan for Cultural Resources~~, included as Attachment F to the Final Order on the ASC~~.
(b) In the event of an inadvertent discovery of possible cultural materials, including human remains, the certificate holder shall:
    1. Immediately cease all ground-disturbing activities in the vicinity of the find.
    2. Place a 100-foot (30-meter) buffer around the discovery and the area shall be secured and protected from further disturbance. Construction, operations, and retirement activities shall proceed outside of this buffered area unless additional cultural materials are encountered.
(c) The certificate holder shall follow the protocol for coordination and notification described in the Inadvertent Discovery Plan for Cultural Resources.
(d) 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 NHRP, the certificate holder shall, in consultation with the Department,

SHPO, interested Tribes and other appropriate parties, propose and implement mitigation measures, including avoidance, field documentation, and data recovery. The certificate holder shall not restart work in the affected area until a professional archaeologist is able to assess the discovery and the Department, in consultation with SHPO, determines that the certificate holder has demonstrated that it has complied with archeological resources protection regulations.
[Final Order on the ASC, AMD1; Condition GEN-HC-01]

Conclusions of Law

Based on the foregoing recommended analysis, and in accordance with OAR 345-022-0090(2), the Department recommends Council rely on the previously imposed and recommended amended Historic, Cultural, and Archeological Resources conditions to address the protection of historic, cultural, and archaeological resources at the facility site.

III.L. Recreation: OAR 345-022-0100

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities in the analysis area as described in the project order. The Council shall consider the following factors in judging the importance of a recreational opportunity:
(a) Any special designation or management of the location;
(b) The degree of demand;
(c) Outstanding or unusual qualities;
(d) Availability or rareness;
(e) Irreplaceability or irretrievability of the opportunity.
****[51]*

[51] The facility is not a special criteria facility under OAR 345-0015-0310; therefore, OAR 345-022-0100(2) is not applicable.

Findings of Fact

The Recreation standard requires the Council to find that the design, construction, and operation of a facility, with the requested extension of the construction deadlines, would not likely result in significant adverse impacts to "important" recreational opportunities. Therefore, the Council's Recreation standard applies only to those recreation areas that the Council finds to be "important," utilizing the factors listed in the sub-paragraphs of section (1) of the standard. In accordance with OAR 345-001-0010(59)(d) and consistent with the study area boundary, the analysis area for recreational opportunities is the area within and extending 5 miles from the site boundary.

In RFA1, the certificate holder reviewed and evaluated information from the US Army Corps of Engineers, Bureau of Land Management, ODFW, and ODOT, and confirmed that, based on this review, there are no new recreational opportunities within the analysis area since the Council's 2018 Final Order on the ASC. The Department consulted with Morrow and Gilliam counties, where there were no new recreational opportunities identified. Therefore, because there are no new recreational opportunities that could be impacted by the facility, the Department recommends Council rely upon and incorporate by reference its evaluation as presented in Section IV.L of the 2018 Final Order on the ASC.

For reference, Council previously identified five recreational opportunities within the analysis area as "important" including: the Lewis and Clark Trail Scenic Byway, Lewis and Clark National Historic Trail, Blue Mountain Scenic Byway, Willow Creek Wildlife Area, and Quesnel Park. Based on potential impacts to important recreational opportunities within the analysis area Council implemented two Recreation Standard conditions, and one Public Services Standard Condition to ensure the noise, traffic, and visual impacts from the construction and operation of the facility were not likely to result in significant adverse impacts to any of the recreational opportunities identified as important. These conditions are summarized below:

- Recreation Standard Condition 1, requires that the certificate holder to maintain an alternate public access route to Willow Creek Wildlife Area during construction, in coordination with the landowner.
- Recreation Standard Condition 2, requires that the certificate holder to coordinate with both ODFW and the landowner, during construction, to provide a safe and clear wayfinding to Willow Creek Wildlife Area on the alternate access route, including at a minimum directional roadway signage.
- Public Services Condition 4, requires the certificate holder to prepare and submit a Construction Traffic Management Plan to the Department for review and approval, prior to construction. The plan will include traffic management measures or other recommendations as applicable, based on consultation with the Morrow County Public Works Department.

Based on compliance with the above-recommended conditions and limited impacts from the facility at the other recreational opportunities, Council found that noise, traffic, and visual impacts from the construction and operation of the facility were not likely to result in significant adverse impacts to any of the recreational opportunities identified as important.

Conclusions of Law

Based on the foregoing recommended findings of fact and conclusions, the Department recommends that Council continue to find that the facility, with the requested extension of the construction deadlines, complies with the Recreation standard.

III.M. Public Services: OAR 345-022-0110

> *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.*
>
> *(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.*
> *****

Findings of Fact

The Public Services standard requires the Council to find that the facility, with proposed construction deadline extension, is not likely to result in significant adverse impacts 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. Pursuant to OAR 345-022-0110(2), the Council may issue a site certificate for a facility that would produce power from solar energy without making findings regarding the Public Services standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

The analysis area for potential impacts to public services from construction and operation of the facility is the area within and extending 10-miles from the site boundary.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. In RFA1, the certificate holder asserts that there have been no changes in the ability of public or private service providers to continue

providing services considering the potential demand of the facility during construction and operation. To support this statement, the certificate holder obtained letters from the Boardman Fire Rescue District (dated April 26, 2021) and Morrow County Sheriff, provided in RFA1 Attachments 4 and 5, which affirm that fire protection and police services would not be unduly burdened by service demands forecasted for the facility during construction and operation.

Council previously addressed the Public Services Standard in Section IV.M. of the 2018 Final Order on the ASC, and adopted Public Services Conditions 1 through 15 to address impacts to public services during facility preconstruction, construction, operation, and retirement.[52] In RFA1, the certificate holder asserts that the requested construction deadline extension would not affect Councils previous findings, and that by abiding by Council's existing public services conditions, the facility would maintain compliance with the standard.

Based on the evidence provided in RFA1 and the fact that there are no changes in the assumptions previously relied upon for use of public services by the facility during construction and operation, the Department agrees with the certificate holder, and recommends Council find that, subject to the previously imposed conditions and in compliance with OAR 35-022-0110(2), and based on the foregoing analysis, the requested extension of the construction deadlines are not anticipated to significantly impact compliance with the Public Services Standard.

Conclusions of Law

Based on the foregoing analysis, and in compliance with OAR 345-022-0110(2), the Department recommends Council rely upon the previously imposed condition in the site certificate to address the Council's Public Services Standard.

III.N. Waste Minimization: OAR 345-022-0120

> *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that, to the extent reasonably practicable:*
>
> > *(a) The applicant's solid waste and wastewater plans are likely to minimize generation of solid waste and wastewater in the construction and operation of the*

[52] Council previously imposed Public Services Condition 4 requiring that, prior to construction, the certificate holder consult with Morrow County Public Works Department on a Construction Traffic Management Plan. On the record of the DPO, the SAG requested that, prior to construction, the certificate holder be required to secure a Road Use Agreement with the Public Works Department. BSEAMD1 DPO Comment (Morrow-Mabbott) LETTER 2021-09-01. The Department believes that Public Services Condition 4 provides an opportunity for the certificate holder and Morrow County Public Works Department to review and discuss all necessary actions to address potential traffic/road related issues during facility construction and therefore does not recommend Council impose additional requirements in response to the SAG's comment.

facility, and when solid waste or wastewater is generated, to result in recycling and reuse of such wastes;

(b) The applicant's plans to manage the accumulation, storage, disposal and transportation of waste generated by the construction and operation of the facility are likely to result in minimal adverse impact on surrounding and adjacent areas.

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

*****

Pursuant to OAR 345-022-0020(2), the Council may issue a site certificate for a solar facility without making findings regarding the Waste Minimization standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

Findings of Fact

The Waste Minimization Standard requires the Council to find that the certificate holder will minimize the generation of solid waste and wastewater, and that the waste generated will be managed to result in minimal adverse impacts on surrounding and adjacent areas. Pursuant to OAR 345-022-0120(2), the Council may issue a site certificate for a facility that would produce power from solar energy without making findings regarding the Waste Minimization standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

In RFA1, the certificate holder asserts that the proposed construction deadline would not affect the certificate holder's ability to comply with existing site certificate conditions. To address the standard, Council previously imposed Waste Minimization Conditions 1 and 2. Waste Minimization Condition 1 requires the development of a Construction and Operations Waste Management Plan and Condition 2 mandates recycling of eligible materials under the Solar Energy Industries Association national PV Recycling Program. The proposed extension to construction deadlines would not require modifications to the procedures and practices to be used to handle solid waste and wastewater, nor impact the certificate holder's ability to comply with site certificate conditions. Therefore, based upon compliance with existing site certificate conditions, the Department recommends that Council find that the certificate holder would minimize and manage solid waste and wastewater, resulting in minimal adverse impacts on surrounding and adjacent areas.

Conclusions of Law

Based on the foregoing recommended findings of fact and conclusions, and in compliance with OAR 345-022-0120(2), the Department recommends that the Council rely on the conditions previously imposed to satisfy the requirements of the Waste Minimization Standard.

III.O. Division 23 Standards

The Division 23 standards apply only to "nongenerating facilities" as defined in ORS 469.503(2)(e)(K), except nongenerating facilities that are related or supporting facilities. The facility is not a nongenerating facility as defined in statute, and therefore Division 23 is inapplicable to the facility and facility, with proposed construction deadline extension.

III.P. Division 24 Standards

The Council's Division 24 standards include specific standards for siting facilities including wind, underground gas storage reservoirs, transmission lines, and facilities that emit carbon dioxide. The only applicable Division 24 specific standard to the Boardman Solar facility is OAR 345-024-0090, Siting Standards for Transmission Lines.

III.P.1. Siting Standards for Transmission Lines: OAR 345-024-0090

To issue a site certificate for a facility that includes any transmission line under Council jurisdiction, the Council must find that the applicant:

(1) Can design, construct and operate the proposed transmission line 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;

(2) Can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable.

Findings of Fact

The Siting Standards for Transmission Lines address issues associated with alternating current electric fields and induced currents generated by high-voltage transmission lines. OAR 345-024-0090(1) sets a limit for electric fields from transmission lines of not more than 9 kV per meter at one meter above the ground surface in areas that are accessible to the public. Section (2) requires the certificate holder to design, construct and operate the 115 kV transmission line in a manner that reduces the risk posed by induced current. The Council imposed Siting Standards for Transmission Line Conditions 1 through 4 on the site certificate to ensure compliance with the standard during pre-construction, construction and operations phases.

For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended

site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the standard. The certificate holder reviewed changes to facts or law that would affect the certificate holder's ability to comply with the standard. The certificate holder conducted a review of aerial maps in the project area, current as of 2021, that revealed there are no new structures within 200 feet on the center line of the approved, not constructed 115 kV transmission line.

Because there have been no changes in law or environmental conditions that would impact Council's previous evaluation, the Department recommends Council rely upon its previous findings and conclusions and find that the request for construction timeline extension would not result in a significant adverse impact under OAR 345-024-0090(1) and (2).

Conclusions of Law

Based on the foregoing analysis, and subject to compliance with the existing certificate conditions, the Department recommends Council finds that the facility, with proposed construction deadline extensions, continues to comply with the Council's Siting Standards for Transmission Lines.

III.Q. Other Applicable Regulatory Requirements Under Council Jurisdiction

Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-0000), the Council must determine whether the facility, with proposed construction deadline extension, complies with "all other Oregon statutes and administrative rules…as applicable to the issuance of a site certificate for the facility." This section addresses the applicable Oregon statutes and administrative rules that are not otherwise addressed in Council standards, including noise control regulations, regulations for removal or fill of material affecting waters of the state, and regulations for appropriating ground water.

III.Q.1. Noise Control Regulations: OAR 340-035-0035

(1) Standards and Regulations:

*****

(b) New Noise Sources:

(B) New Sources Located on Previously Unused Site:

(i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).

(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises

generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

(iii) For noise levels generated or caused by a wind energy facility:

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with windspeed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility's turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

(V) For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility's nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the windspeed corresponding to the maximum sound power level and no turbine that

could contribute to the noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of wind speeds.

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level.

(VII) For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility's nearest wind turbine is operating at the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled.

***

Findings of Fact

The Noise Control Regulation at OAR 340-035-0035 have been adopted by Council as the compliance requirements for EFSC-jurisdiction energy facilities. For amendments requesting to extend construction deadlines, the Department and Council evaluate whether there have been "changes in fact or law" since the site certificate or amended site certificate was issued to determine whether, based on changes in fact or law, the facility would continue to satisfy requirements of the administrative rule.

In the Final Order, the Council found that there were no noise sensitive properties within the 1-mile analysis area and that the facility would comply with the Noise Control Regulations in OAR 340-035-0035(1)(b)(B).[53] In RFA1, the certificate holder asserts that, based on property owner data obtained from the Morrow and Gilliam county tax assessor's office, there are no new noise sensitive properties within the 1-mile analysis area. The Department relies upon Google Earth aerial imagery to evaluate whether there are NSRs (dwellings) located on properties within 1-mile of the site boundary. Based on review of Google Earth aerial imagery (2020), the Department affirms that there are no established dwellings (NSRs) within the 1-mile analysis area. Therefore, the Council may rely on its previous findings and conclusions as presented in Section IV.Q. *Noise Control Regulations* of the 2018 Final order on the ASC (pg. 184-187).

[53] OAR 340-035-0015(38) defines noise sensitive property as "real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it meets the above criteria in more than an incidental manner."

Conclusions of Law

Based on the foregoing recommended findings of fact and conclusions of law, the Department recommends Council finds that the facility, with proposed construction deadline extension, continues to comply with the Noise Control Regulations in OAR 340-035-0035(1)(b)(B).

III.Q.2. Removal-Fill

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085-0500 through 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."[54] The Council, in consultation with DSL, must determine whether a removal-fill permit is needed and if so, whether a removal-fill permit should be issued. The analysis area for wetlands and other waters of the state is the area within the site boundary.

Findings of Fact

The Council addressed the removal-fill law in Section IV.Q.2. of the 2018 Final Order on the ASC and found that the facility would not require a removal-fill permit.

During the ASC process, the certificate holder conducted field surveys in September and October 2016.[55] The survey area encompassed a 758-acre portion of the facility site boundary and a 300-foot-wide buffer around the transmission line encompassing approximately 158 acres, for a total of 916 acres.[56] Of the 30 wetland polygons delineated in the study area, 28 were classified as Palustrine Emergent wetlands, one was classified as a Palustrine Scrub-Shrub wetland, and one was classified as a Palustrine Forested wetland.[57] All 30 wetlands were presumed to be waters of the state. One ephemeral drainage was present along the transmission line survey corridor and was determined to be a vegetative swale, and therefore was not considered waters of the state. DSL concurred with the wetland delineation on March 22, 2017, which remain valid through March 22, 2022.[58] The Council found in the Final Order on the ASC that none of the wetlands would be impacted by the construction or operation of the facility and therefore that the facility would not require a removal-fill permit.

RFA1 does not request any change to the facility layout or site boundary, and does not otherwise propose any activities that would require a Removal-Fill permit. Because the previous evaluation remains valid, based on DSL concurrence, through March 2022, the Department recommends the Council finds that the facility, with the requested extension of the

[54] ORS 196.800(15) defines "Waters of this state." The term includes wetlands and certain other waterbodies.
[55] BSEAPPDoc71. ASC, Exhibit J, p. J-2. 2017-09-01.
[56] BSEAPPDoc71. ASC, Exhibit J, p. J-1. 2017-09-01.
[57] BSEAPPDoc71. ASC, Exhibit J, p. J-3. 2017-09-01.
[58] BSEAPPDoc29 DSL Wetland Delineation Concurrence 2017-03-22.

construction deadline, maintains compliance with the removal-fill law and the certificate holder is not currently required to obtain a removal-fill permit.

Conclusions of Law

Based on the foregoing recommended findings of fact and conclusions, the Department recommends Council find that a removal-fill permit is not needed for the facility, with proposed construction deadline extension.

III.Q.3. Water Rights

Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources Department (OWRD) administers water rights for appropriation and use of the water resources of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility would comply with the statutes and administrative rules identified in the project order. The project order identified OAR 690, Divisions 310 and 380 (Water Resources Department permitting requirements) as the administrative rules governing use of water resources and water rights as applicable to the facility. The project order also stated that OAR 345-021-0010(1)(o) applies to the facility (except for provision (D), which is applicable only to thermal power plants). OAR 345-021-0010(1)(o)(F) requires that if a facility needs a groundwater permit, surface water permit, or water right transfer, that a decision on authorizing such a permit rests with the Council.

Findings of Fact

OAR 690 establishes the procedures and standards which shall be applied by the OWRD in the evaluation of applications for a permit to appropriate surface water, ground water, to construct a reservoir and store water, to use reserved water, or to use water stored in a reservoir. The certificate holder is not requesting a groundwater permit, a surface water permit, or a water rights transfer during the construction and operation of the facility.

The Council previously found in the *Final Order on the ASC* that the facility would comply with the Ground Water Act of 1955 and Water Resources Department administrative rules. The facility would consume approximately 5.4 million gallons over a 9-month construction period under annual average conditions (9.7 million gallons under worst-case conditions), and approximately 600,000 gallons per year under annual average conditions (1.1 million gallons per year under worst-case condition). No conditions were imposed by Council on the Site Certificate.

The certificate holder does not request any changes to the facility layout, design, or site boundary, nor does the certificate holder request a water permit. As such, the facility, with proposed construction deadline extension, would maintain compliance with the Ground Water Act of 1955 or Water Resources Department rules.

Conclusions of Law

Based on the foregoing findings of fact, the Department recommends that the Council conclude that the facility, with proposed construction deadline extension, does not require a groundwater permit, surface water permit, or water right transfer.

IV. PROPOSED CONCLUSIONS AND ORDER

Based on the recommended findings and conclusions included in this order, the Department recommends that Council make the following findings:

1. The certificate holder's request to extend the construction commencement and completion deadlines, as presented in Request for Amendment 1 of the Boardman Solar Energy Facility site certificate, complies with the requirements of the Oregon Energy Facility Siting Statutes, ORS 469.300 to 469.520.

2. The certificate holder's request to extend the construction commencement and completion deadlines, as presented in Request for Amendment 1 of the Boardman Solar Energy Facility site certificate, complies with the standards adopted by the Council pursuant to ORS 469.501.

3. The certificate holder's request to extend the construction commencement and completion deadlines, as presented in Request for Amendment 1 of the Boardman Solar Energy Facility site certificate, complies with all other Oregon statutes and administrative rules identified in the project order as applicable to the issuance of an amended site certificate for the facility.

Accordingly, the Department recommends that the Council find that the request for a construction deadline extension, as presented in Request for Amendment 1 of the Boardman Solar Energy Facility site certificate, complies with the General Standard of Review (OAR 345-022-0000). The Department recommends that the Council find, based on a preponderance of the evidence on the record, that the site certificate may be amended as requested.

Issued this 10th day of September, 2021

The OREGON ENERGY FACILITY SITING COUNCIL

By: _____

Todd Cornett, Assistant Director
Oregon Department of Energy, Energy Facility Siting Division

Attachments:

Attachment A: Draft Amended Site Certificate
Attachment B: ~~Reviewing Agency~~ Comments received on preliminary RFA1 and DPO
Attachment C: Draft Amended Habitat Mitigation Plan
Attachment D: Draft Amended Revegetation and Weed Control Plan
Attachment E: Wildlife Monitoring and Adaptive Management Plan
Attachment F: Monitoring Plan for Cultural Resources
Attachment G: Amended Inadvertent Discovery Plan for Cultural Resources

Notice of the Right to Appeal

[Text to be added to Final Order]

ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

First Amended Site Certificate for the Boardman Solar Energy Facility

ISSUANCES~~E~~ DATES

~~February 23, 2018~~Site Certificate	February 23, 2018
First Amended Site Certificate	DATE

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Table of Contents

Attachments

Attachment A Facility Layout Map

Acronyms and Abbreviations

ASC	Application for Site Certificate
Council	Oregon Energy Facility Siting
Department	Oregon Department of Energy
DOGAMI	Oregon Department of Geology and Mineral Industries
GSU	Generator Step-up
HMP	Habitat Mitigation 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
POI	Point of Interconnection

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 Boardman Solar Energy LLC (certificate holder), which is a wholly-owned subsidiary of Invenergy Solar Development LLC. Invenergy Solar Development LLC is a wholly-owned subsidiary of Invenergy LLC (parent company). As authorized under Oregon Revised Statute (ORS) Chapter 469, the Council issues this site certificate authorizing the certificate holder to construct, operate and retire the Boardman Solar Energy Facility (facility) at the below described site within Morrow and Gilliam 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 Request for Amendment 1 of the Site Certificate for the Boardman Solar Energy Facility* (Final Order on AMD1) issued on DATE; (b) *Final Order on the Application for Site Certificate for the Boardman Solar Energy Facility* issued on February 23, 2018 (hereafter, *Final Order on the Application*). Any ambiguity will be clarified by reference to the following, in order of priority: (1) Final Order on AMD1; ~~the~~ *Final Order on the Application*, and (2) the record of the proceedings that led to the *Final Order on AMD1 and 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)).

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 345-027-0013 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.

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.

2.0 Facility Location and Site Boundary

The energy facility and its related and supporting facilities will be located within Morrow and Gilliam counties. The site boundary, as defined in OAR 345-001-0010, encompasses approximately 798 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 the transmission line corridor proposed by the certificate holder, as approved by the Council. A map of the approved facility site boundary is included as Attachment A to this site certificate.

The facility components include the solar module blocks; underground electrical collection system; substation, control house and generator step-up transformer; 115-kV transmission line, private service road, and point of interconnection (POI); operations and maintenance (O&M) building; private access road, service roads, gates, and security fence; and additional temporary construction areas.

All facility components (with the exception of the transmission line, transmission line service road, and POI) will be located in Morrow County, Oregon, in the following sections according to the Public Land Survey System:

• Township 4 North, Range 23E, Sections 20, 21, 28, 29, 30, 31

An overhead 115-kV transmission line will connect the facility substation to the POI with the existing electrical grid. The approved transmission line is 2.1 miles long. The transmission line, transmission line service road, and POI will be located in Gilliam County, Oregon, in the following sections according to the Public Land Survey System:

• Township 4 North, Range 22E, Sections 25, 36
• Township 3 North, Range 22E, Sections 1, 12

The transmission line will run parallel to and immediately west of an existing Portland General Electric transmission line.

3.0 Facility Description

3.1 Energy Facility

The energy facility includes 75 megawatts (MW) of solar photovoltaic power generation ~~facility~~ components and related and supporting facilities. The facility will be comprised of 30 module blocks. Each module block will consist of multiple components including; the solar modules themselves, trackers, racks, posts, cabling, inverters, and transformers. ~~The area under and around each solar module installation will have a gravel or other non-combustible base.~~

4.0 Facility Development

4.1 Construction

Facility construction is anticipated to take 15-months. Construction activities would employ an average of 100 people and a maximum of 250 people during peak summer months. The certificate holder represents that construction would occur in phases including: clearing, excavation, foundation, erection and finishing. In accordance with ORS 469.300(6), preconstruction conditions, if specified, may be satisfied for the applicable phase, facility component or for the facility, as applicable, based on final design and configuration.

Construction water use is anticipated to use up to 9.7 million gallons under worst-case conditions for dust suppression, concrete production from a temporary batch plant and drinking and sanitation.

4.2 Operations

Facility operation would include two full-time operations and maintenance (O&M) staff. O&M activities may include washing of solar modules. It is conservatively assumed that solar modules would be washed twice a year, which would require approximately 250,000 gallons of water per year. A third-party contractor would obtain water for panel cleaning from an offsite source. Water would then be applied via a tanker truck and would not have any cleaning solvents in it, unless otherwise approved by the Department (recommended amended Organizational Expertise Condition 4). Washwater would be discharged by evaporation and seepage into the ground.

4.3 Retirement

Facility retirement would include disconnecting facility components from the transmission system and disconnecting site equipment from aboveground and underground cables. Aboveground equipment, including the solar modules, solar module steel racking system, and electrical and electronic devices (such as the medium voltage step-up transformers, solar inverters, and the disconnect switches) would be removed and transported offsite. Concrete foundations and cables up to three feet below ground would be removed and recycled or transported to a landfill. Cables located three feet or more below ground would be rendered inert and left in place. The O&M building and O&M fence would be removed and the surrounding graveled area would be removed, regraded, and reseeded. Internal service roads,

access road, perimeter fencing, and the transmission line would be left in place and maintained if the planned next use of the land would benefit from these components remaining in place. Upon completion of the other facility retirement activities, bare ground portions of the site would be seeded.

5.0 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

Some conditions are coded for more than one phase of implementation.

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.

5.1 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	The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate. a) Facility construction shall commence ~~within three years after the site certificate is executed by the Council Chair.~~ by February 23, 2024. Within 7 days of construction commencement, the certificate holder shall provide the Department written verification that it has met the construction commencement deadline. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor. b) Construction of all facility components shall be completed within three years after construction commencement. Within 7 days of construction completion, the certificate holder shall provide the Department written verification that it has met the construction completion deadline. [Final Order on ASC, AMD1, General Standard Condition 1, OAR 345-025-0006(4)]
GEN-GS-02	The certificate holder shall design, construct, operate, and retire the facility: a) Substantially as described in the site certificate;[2] 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. [Final Order on ASC, Mandatory Condition 2, OAR 345-025-0006(3)]
GEN-GS-03	Except as necessary for the initial survey or as otherwise allowed for transmission lines 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 the transmission line associated with the energy facility 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 occurs during the certificate holder's negotiations to acquire construction rights on another part of the site. [Final Order on ASC, Mandatory Condition 3, OAR 345-025-0006(5)]

[2] Boardman Solar Energy LLC represents in the ASC that the facility consists of approximately 75 megawatts of nominal electric generating capacity. In issuing this site certificate, the Council does not limit the electric generating capacity of the facility, and the approximate electric generating capacity is provided for informational purposes only.

GEN-GS-04	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. [Final Order on ASC, Mandatory Condition 4, OAR 345-025-0006(6)]
GEN-GS-05	The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment 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, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. For coastal sites, this also includes tsunami hazards and seismically-induced coastal subsidence. [Final Order on ASC, Mandatory Condition 6, OAR 345-025-0006(12)]
GEN-GS-06	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 to propose and implement corrective or mitigation actions. [Final Order on ASC, Mandatory Condition 7, OAR 345-025-0006(13)]
GEN-GS-07	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. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [Final Order on ASC, Mandatory Condition 8, OAR 345-025-0006(14)]
GEN-GS-08	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 345-027-0400 apply to any transfer of ownership that requires a transfer of the site certificate. [Final Order on ASC, Mandatory Condition 9, OAR 345-025-0006(15)]
GEN-GS-09	Because the facility includes a transmission line as a related or supporting facility under Council jurisdiction, the following conditions apply: a) The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the 2017 ~~2012~~ Edition of the National Electrical Safety Code approved ~~on June 3, 2011~~ by the American National Standards Institute; and b) The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, 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. [Final Order on ASC, Site Specific Condition 1, OAR 345-025-0010(4)]
GEN-GS-10	The certificate holder is authorized to construct the 2.1 mile 115 kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The

	approved corridor extends the 2.1 mile length of the 115 kV transmission line route and is as described in ASC Exhibit B, Section B.4.2 and as presented on Figure 1 of the Site Certificate. [Final Order on ASC, Site Specific Condition 2, OAR 345-025-0010(5)]
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
GEN-OE-01	During design, construction, operation, and retirement, the certificate holder shall contractually require all contractors and subcontractors to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. The contractual obligation shall be required of each contractor and subcontractor prior to that firm working on the facility. Such contractual provisions shall not operate to relieve the certificate holder of responsibility under the site certificate. [Final Order on ASC, Organizational Expertise Condition 1]
GEN-OE-02	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. [Final Order on ASC, Organizational Expertise Condition 2]
GEN-OE-03	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. [Final Order on ASC, Organizational Expertise Condition 3]
STANDARD: STRUCTURAL STANDARD (SS) [OAR 345-022-0020]	
GEN-SS-01	The certificate holder shall design, engineer, and construct the facility in accordance with the versions of the International Building Code, Oregon Structural Specialty Code, and local building codes in effect at the time of construction. [Final Order on ASC, Structural Standard Condition 2]
GEN-SS-02	The certificate holder shall: a) Prior to construction, design the facility to avoid potential nonseismic hazards. b) Prior to construction, in accordance with Structural Standard Condition 1, conduct subsurface investigations to characterize the soils and use the resulting data to adequately plan and design appropriate mitigation measures. c) Prior to construction, create detailed geologic hazard maps to aid in laying out facilities and provide copies of maps to the Department. d) During design, construction and operation, provide warnings to the Department and DOGAMI in the event a potential or imminent hazard is discovered. e) Prior to operation, provide evidence to the Department that insurance has been obtained that provides coverage of the facility for non-seismic geologic and soil-related hazards. [Final Order on ASC, Structural Standard Condition 3]
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
GEN-RT-01	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. [Mandatory Condition OAR 345-025-0006(7)] [Final Order on ASC, Retirement and Financial Assurance Condition 1]

GEN-RT-02	Consistent with Mandatory Condition OAR 345-025-0006(8), 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 certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The initial bond or letter of credit amount for the facility is ~~8.78~~7.65 million (~~Q4~~ Q3 ~~2017~~ 2021), 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 revise the amount of the initial bond or letter of credit based on the final design configuration of the facility. However, any revision to the restoration costs must be adjusted to the the effective date ~~of issuance~~ as described in (b) and must be reviewed and approved~~al~~ by the Department ~~Council in a site certificate amendment~~. 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 ~~Q4~~ Q3 ~~2017~~ 2021 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 ~~fourth~~ third quarter ~~2017~~ 2021 index value and the quarterly index value for the effective date ~~of issuance~~ of the new bond or letter of credit. If at any time the index is no longer published, the ~~Council~~ Department shall select a comparable calculation to adjust ~~fourth~~ third quarter ~~2017~~ 2021 dollars to 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 Department ~~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, AMD1, Retirement and Financial Assurance Condition 4]
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
GEN-HC-01	Prior to construction, the certificate holder shall: (a) Submit to the Department an Inadvertent Discovery Plan for Cultural Resources, included as Attachment F to the Final Order on RFA1, to be finalized based on current agency and personnel contact information. During construction, operations, and retirement, the certificate holder shall: a) Implement and adhere to the requirements of the final Inadvertent Discovery Plan for Cultural Resources~~, included as Attachment F to the Final Order on the ASC~~. b) In the event of an inadvertent discovery of possible cultural materials, including human remains, the certificate holder shall: 1. Immediately cease all ground-disturbing activities in the vicinity of the find. 2. Place a 100-foot (30-meter) buffer around the discovery and the area shall be secured and protected from further disturbance. Construction, operations, and retirement activities shall proceed outside of this buffered area unless additional cultural materials are encountered.

	c) The certificate holder shall follow the protocol for coordination and notification described in the Inadvertent Discovery Plan for Cultural Resources. d) 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 NHRP, the certificate holder shall, in consultation with the Department, SHPO, interested Tribes and other appropriate parties, propose and implement mitigation measures, including avoidance, field documentation, and data recovery. The certificate holder shall not restart work in the affected area until a professional archaeologist is able to assess the discovery and the Department, in consultation with SHPO, determines that the certificate holder has demonstrated that it has complied with archeological resources protection regulations. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 7] [AMD1]
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0100]	
GEN-PS-01	During construction, operation, and retirement, the certificate holder shall: a) On an annual basis, consult with Morrow County to identify appropriate recycling opportunities for solid waste. b) Collect 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. c) Conduct waste hauling within Morrow County in compliance with the Morrow County Solid Waste Management Ordinance, which requires that all loads be covered and secured. [Final Order on ASC, Public Services Condition 2]
GEN-PS-02	During construction, operation, and retirement, 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. [Final Order on ASC, Public Services Condition 3]
GEN-PS-03	The certificate holder shall design and construct the new access roads and private road improvements to standards approved by the applicable county jurisdiction (Gilliam County or Morrow County). [Final Order on ASC, Public Services Condition 7]
STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]	
GEN-WM-01	During facility construction, operation, and retirement, solar panels that are nonfunctional or are retired shall be recycled through the Solar Energy Industries Association National PV Recycling Program (or similar program). [Final Order on ASC, Waste Minimization Condition 2]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
GEN-FW-01	The certificate holder shall construct the 115 kV transmission line in accordance with the latest Avian Power Line Interaction Committee design standards. [Final Order on ASC, Fish and Wildlife Habitat Condition 4]

5.2 Pre-Construction (PRE) Conditions

Condition Number	Pre-Construction (PRE) Conditions
STANDARD: GENERAL STANDARD (GS) [OAR 345-022-0010]	
PRE-GS-01	At least 90 days prior to beginning construction (unless otherwise agreed to by the Department), the certificate holder shall submit to the Department and the Morrow County Planning Department a compliance plan documenting and demonstrating actions completed or to be completed to satisfy the requirements of all site certificate terms and conditions and applicable statutes and rules. The plan shall be provided to the Department for review and compliance determination for each requirement. The Department may request additional information or evaluation deemed necessary to demonstrate compliance. [Final Order on ASC, General Standard Condition 2]
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
PRE-OE-01 (also OPR-OE-01)	a) At least 30 days prior to construction, the certificate holder shall provide to the Department the following: 1. Written confirmation that its third-party contractors have obtained all necessary local and state permits for the temporary concrete batch plant, if required during facility construction, and wastewater discharge. These permits are expected to include a Conditional Use Permit for Temporary Concrete Batch Plant from Morrow County and a General Water Pollution Control Facilities Permit for Temporary Concrete Batch Plant concrete washout water from Oregon Department of Environmental Quality. 2. Proof of agreements between the certificate holder and the third-party regarding access to the resources or services secured by the permits or approvals identified prior to construction per sub(a) above. 3. ~~During operation, provide written confirmation that its third-party contractors have obtained a General Water Pollution Control Facilities Permit for washwater discharge from maintenance equipment washdown (as well as from solar module cleaning, if solar panel washing will occur) from Oregon Department of Environmental Quality and proof of an agreement between the certificate holder and the third-party for access to the service secured by the permit.~~ b) During facility operation, the certificate holder may discharge solar panel wash water through evaporation or infiltration into the ground at the point of application. The use of chemicals, soaps, detergents and heated water is prohibited, unless Chemical Safety Data Sheets for low volatile organic compound/biodegradable cleaning chemicals and solvents are submitted to the Department for review and approval. Pressure washing is allowed, so long as it does not remove paint or other finishes. [Final Order on ASC, AMD1, Organizational Expertise Condition 4]
STANDARD: STRUCTURAL STANDARD (SS) [OAR 345-022-0020]	
PRE-SS-01	At least 90-days prior to construction, unless otherwise agreed to by the Department, the certificate holder shall submit to the Department and DOGAMI a pre-construction site-specific geological and geotechnical investigation report (report), for review and concurrence that the facility site has been adequately characterized and the facility has been designed to avoid seismic, soil and geologic hazards. The report shall at a minimum include:

	a) Review of available data from previous geotechnical explorations in the vicinity of the facility site. b) Review of available geologic information from published sources. c) Discussion of geotechnical field exploration conducted within the site boundary, including soil borings, test pits, infiltration tests, and if necessary, geophysical testing. d) Discussion of additional soil samples collected for classification and, if necessary, laboratory testing. e) Calculation of the bearing capacity of the soils. f) Stability analyses. g) Engineering recommendations for construction of the structures. h) Determination of the final site class(es) at the locations where facility components would be constructed. [Final Order on ASC, Structural Standard Condition 1]
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
PRE-SP-01 (also CON-SP-01)	a) Prior to construction, the certificate holder shall obtain a National Pollutant Discharge Elimination System General Permit 1200-C from the Oregon Department of Environmental Quality, and shall provide the Department and Morrow County Planning Director a copy of the DEQ-approved NPDES 1200-C permit. ~~b) Prior to construction, the certificate holder shall submit to the Department and Morrow County Planning Director for review and approval a topsoil management plan including how topsoil will be stripped, stockpiled and clearly marked in order to maximize topsoil preservation and minimize erosion impacts. [OAR 660-033-0130(38)(f)(B)]. The topsoil management plan may be incorporated into the final Erosion and Sediment Control Plan, required under sub(c), or may be provided to the Department as a separate plan.~~ b) During construction, the certificate holder shall conduct all work in compliance with the final Erosion and Sediment Control Plan as approved by DEQ in the NPDES 1200-C permit. [Final Order on ASC, AMD1, Soil Protection Condition 1]
PRE-SP-02	Prior to facility construction, the certificate holder shall: a) Submit to the Department its Spill Prevention, Control and Countermeasure (SPCC) Plan for operations, developed to comply with OAR Chapter 340, Division 100-113 and 142. b) Provide evidence that a Hazardous Materials Spill Prevention Program will be implemented during construction and operation, which includes at a minimum training for personnel on proper handling, storing, transporting, and disposing of hazardous materials; hazardous materials storage requirements; and, cleanup procedures. [Final Order on ASC, Soil Protection Condition 2]
PRE-SP-03	Prior to construction of the septic system at the O&M building, the certificate holder shall secure any necessary septic system permits from DEQ or the responsible local agency, for a septic system designed with a discharge capacity of less than 2,500 gallons per day. The certificate holder shall provide copies of the necessary permits to the Department. [Final Order on ASC, Soil Protection Condition 3]
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
PRE-LU-01	Prior to construction, the certificate holder shall submit maps and distance tables (e.g., identify the distance from north, south and east facility perimeter fenceline to nearest

	property) demonstrating that facility components within Morrow County satisfy the following front, side, and rear yard setback distances, and stream setback distance: a) The south side of the facility perimeter fenceline shall be setback a minimum of 100-feet from adjacent land uses designated as intensive agricultural use. b) The north side of the facility perimeter fenceline shall be setback a minimum of 25-feet from adjacent land uses designated as intensive agricultural use. c) The east and west sides of the facility perimeter fenceline shall be setback a minimum of 20-feet from adjacent land uses. d) All permanent buildings and structures, including the onsite septic system, shall be set back a minimum of 100-feet from the high-water line or mark along all streams and lakes within and adjacent to the site boundary. [Final Order on ASC, Land Use Condition 1]
PRE-LU-02	Before beginning construction, the certificate holder shall provide to the Department copies of issued local permits including: a) All necessary zoning, building, Type I (administrative review), and Conditional Use Permit from Morrow and Gilliam counties; and, b) Copies of 12-month extensions, if requested by certificate holder. [Final Order on ASC, Land Use Condition 3]
PRE-LU-03	Prior to 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 consistent with OAR 660-033-0130(38)(i). [Final Order on ASC, Land Use Condition 4]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
PRE-FW-01	Prior to construction, the certificate holder shall: a) Submit to the Department and ODFW the proposed methods or protocol to be implemented for the pre-construction habitat assessment of the site boundary. Methods could include, for example, desktop survey results informed by the threatened and endangered species surveys conducted per Threatened and Endangered Species Condition 1. The method or protocol shall be approved by the Department in consultation with ODFW. b) Conduct a survey, based upon the methods or protocol as approved by the Department in sub(a), to confirm the habitat categories of all areas to be impacted by facility components, as well as the locations of any sensitive resources such as active state-listed or sensitive bird species nests, wetlands, and other state-listed threatened or endangered species and habitat that could be temporarily or permanently impacted by facility components. c) At least 45-days prior to construction, unless otherwise agreed to by the Department, submit to the Department and ODFW a pre-construction habitat assessment report. The report shall be approved by the Department, in consultation with ODFW, prior to construction. The pre-construction habitat assessment report shall, at a minimum, include the following: i. Habitat impact table, based upon final facility design, including permanent and temporary impacts by facility component and habitat category/type/subtype. ii. Maps showing: habitat categories and subtypes of all areas within the site boundary, final location of temporary and permanent facility components, and locations of any sensitive resources that will be flagged as exclusion zones in accordance with Fish and Wildlife Habitat Condition 6. If necessary, sensitive

	resource information shall be submitted to the Department in hard copy only and provided under request for information to be treated as confidential. iii. Discussion of habitat impacts including a confirmation of avoidance of temporary or permanent impacts to category 1 habitat. [Final Order on ASC, Fish and Wildlife Condition 1]
PRE-FW-02 (also CON-FW-02)	The certificate holder shall require all onsite construction workers to complete an environmental awareness training and shall demonstrate compliance with this condition per sub(a) and (b) of the condition as follows: a) Prior to construction, the certificate holder shall submit to the Department a copy of the final presentation and environmental training materials. The training materials shall, at a minimum, address the following topics: facility site boundary, including flagged exclusion areas; restricted areas including wetlands and other areas; sensitive and special status plant and wildlife species found in the analysis area; avoidance and impact minimization measures; response procedure and notification process to be followed if sensitive resources are identified during construction; additional permit requirements; buffer distances from sensitive and protected resources; work timing restrictions including seasonal restrictions; reporting procedures for any injured or dead wildlife; speed limits; trash control; and other topics as necessary. b) During construction, the certificate holder shall require all construction personnel to attend an environmental and permit requirements awareness training session conducted by a knowledgeable environmental professional. Records of completed training shall be maintained onsite and made available to the Department upon request. [Final Order on ASC, Fish and Wildlife Habitat Condition 5]
PRE-FW-03	Prior to construction, the certificate holder shall: a) Flag all environmentally sensitive areas as restricted work zones. Restricted work zones shall include but not be limited to wetlands and waterways on or near the site boundary, areas with sensitive or protected plant species, buffers around raptor nests in accordance with Fish and Wildlife Habitat Condition 3, and any other buffers around sensitive or protected species habitats. The final limits of the restricted work zone flagging shall be based on the surveys and/or habitat assessment conducted for Fish and Wildlife Habitat Condition 1. All wetlands shall be flagged with a minimum 100 foot buffer distance. b) Prohibit any construction activity within restricted work zones. c) Provide maps with the locations of the restricted work zones, and instructions prohibiting construction activity within these areas, to construction personnel. [Final Order on ASC, Fish and Wildlife Habitat Condition 6]
PRE-FW-04	No less than 45 days prior to construction, unless otherwise agreed to by the Department, the certificate holder shall submit to the Department and the Morrow and Gilliam County Planning Departments and Weed Supervisors a final Revegetation and Noxious Weed Plan. The Department will review the plan in consultation with ODFW and Morrow and Gilliam County weed control personnel. The plan must be approved by the Department, in consultation with ODFW and the Morrow and Gilliam County Planning Departments and Weed Supervisors, prior to construction. The certificate holder shall implement the provisions of the plan following completion of construction and during operation, as appropriate. The finalized plan shall be based on the draft plan, included as Attachment C of the Final Order on the ASC. The final plan must, at a minimum, include the following: a) Finalize Tables 1 and 2 of the draft plan, related to habitat category and type within the site boundary and anticipated temporary and permanent impacted acreage. This

	information shall be based on the pre-construction habitat assessments that are required by Fish and Wildlife Habitat Condition 1. b) A schedule for implementation of the revegetation activities, including a schedule for monitoring assessments and reporting. c) Topsoil management and soil decompaction, including scarification, procedures. d) A statement that if at any time during the monitoring program the certificate holder, or the Department in consultation with ODFW, conclude that revegetation of an area is unsuccessful and unlikely to be successful, the impacted area must be considered permanent. In this circumstance, the certificate holder must provide appropriate compensatory mitigation for the permanent loss of habitat quality and quantity, consistent with the EFSC Fish and Wildlife Habitat standard. Any mitigation required under this provision is subject to the approval of the Department, in consultation with ODFW. e) A statement that if it is determined that the underlying landowner has converted an area that was temporarily impacted during facility construction (and intended to be restored) to a use that is inconsistent with the success criteria, the Department shall conclude that the certificate holder has no further obligation to restore the area. However, in such circumstances, if the area has been converted by the landowner prior to the area reaching success criteria as determined by the Department, the certificate holder shall be obligated to provide compensatory mitigation consistent with the EFSC Fish and Wildlife Habitat standard to account for the permanent loss of habitat quality and quantity. f) The plan 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, following consultation with the Morrow and Gilliam County Planning Departments and Weed Supervisors. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of the plan agreed to by the Department. [Final Order on ASC, Fish and Wildlife Habitat Condition 10]
PRE-FW-05	No less than 45 days prior to facility construction, unless otherwise agreed to by the Department, the certificate holder shall submit a final Habitat Mitigation Plan (HMP), consistent with the draft HMP included as Attachment C to this order), for review and approval by the Department, in consultation with ODFW. The final HMP shall be based on final facility design, unless otherwise agreed upon by the Department. a) 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 habitat assessment results and impact assessment calculations called for in Fish and Wildlife Habitat Condition 1. b) The certificate holder shall acquire the legal right to create, enhance, maintain, and protect the habitat mitigation area (or areas), as long as the site certificate is in effect, by means of an outright purchase, conservation easement or similar conveyance. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the HMP. c) 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, and monitoring. The mitigation actions shall be

	implemented at the compensatory habitat mitigation site as soon as possible concurrent with the impact. d) The final HMP shall include a monitoring and reporting program for evaluating the effectiveness of mitigation actions, including ecological uplift actions at the habitat mitigation area. e) The 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 the plan agreed to by the Department. [Final Order on ASC, Fish and Wildlife Habitat Condition 11]
STANDARD: THREATENED AND ENDANGERED SPECIES (TE) [OAR 345-022-0070]	
PRE-TE-01	Prior to construction, the certificate holder shall conduct a field survey within the site boundary for state-listed threatened and endangered species. The surveys shall be conducted by qualified professionals with experience in detection of the Washington ground squirrel and its habitat, and Lawrence's milkvetch. Surveys shall be conducted according to a survey protocol approved by ODOE in consultation with ODFW. Washington ground squirrel surveys shall be conducted in the active squirrel season, which is typically March 1 to May 31 but can vary depending on weather, and must be verified by ODOE and ODFW as part of the survey protocol approval. Lawrence's milkvetch surveys shall be conducted in spring when the ground surface is visible. Surveys for Washington ground squirrel are valid for no more than two years after the year in which the surveys are conducted. The certificate holder shall provide written reports of the surveys to ODOE and to ODFW and shall identify the boundaries of any listed species identified, including but not limited to Category 1 Washington ground squirrel habitat and Lawrence's milkvetch, if present. The certificate holder shall not begin construction until the survey report has been approved by ODOE in consultation with ODFW. In compliance with the Council's Fish and Wildlife Habitat standard, no impacts to Category 1 habitat are allowed. If any Category 1 habitat is identified in the site boundary during the pre-construction survey, the certificate holder shall flag or fence off all Category 1 habitat and avoid all impacts. If any plant species listed as threatened or endangered by Oregon Department of Agriculture per ORS 564.105(2) are found in the site boundary during the pre-construction survey, the facility shall be designed to avoid any impacts to these plants. If any listed plant species are identified in the site boundary, no herbicides or other weed control chemical shall be used within an appropriate buffer distance from that species. The buffer distance shall be established by ODOE and shall be based on specific risks based on the plant species and the proposed herbicide or weed control chemical proposed to be used. The environmental awareness training (required per Fish and Wildlife Habitat Condition 6) shall include information specifically regarding protection of listed species and areas of

	Category 1 habitat where no impact is allowed. [Final Order on ASC, Threatened and Endangered Species Condition 1]
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
PRE-HC-01	Prior to construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility, the areas that will be temporarily disturbed during construction and the areas that were surveyed in 2016 for historic, cultural, and archaeological resources. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 1]
PRE-HC-02 (also CON-HC-02)	Prior to construction, the certificate holder shall identify Site 35GM402 on construction maps as a no-entry area, and flag a 100-foot (30-meter) buffer surrounding the site as an area to be avoided during construction activities. The certificate holder shall ensure that no physical disturbance occurs within the buffer zone. A copy of current maps and drawings must be maintained onsite during construction and made available to the Department upon request. Flagging or marking shall be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 2]
PRE-HC-03	Prior to construction, the certificate holder shall ensure that a monitor or cultural resources specialist 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. The Cultural Resource Awareness Training Information packet (ASC Exhibit S, Attachment S-3) shall be distributed to training attendees and shall be available for reference when ground-disturbing work is performed during facility construction, operation, and retirement. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 6]
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0100]	
PRE-PS-01	Prior to construction, the certificate holder shall prepare and submit to the Department a Construction Traffic Management Plan for review and approval. The certificate holder shall demonstrate that the Construction Traffic Management Plan includes traffic management measures or other recommendations, as applicable, based upon consultation with the Morrow County Public Works Department. The Construction Traffic Management Plan applies to construction vehicle transport and activity on Threemile Canyon Road and shall, at a minimum, include the following measures: a) Temporary road signage and warnings such as "Equipment on Road," "Truck Access," or "Road Crossings" at locations where trucks are expected to slow down or enter/exit a public roadway shall be installed and maintained, in accordance with Chapter 3, Page 93 of the ODOT Traffic Control Plans Design Manual (ODOT, 2016c)). b) Advance signage shall be implemented, where possible, in accordance with Chapter 3, Page 62 and Chapter 3, Page 84 of the ODOT Traffic Control Plans Design Manual (ODOT, 2016c). c) Pilot cars will be used for slow or oversize loads per OAR 734-082-0035. d) Construction workforce will be encouraged to carpool during safety meetings and worker training activities; high-occupancy vans or buses will be provided by the certificate holder or contractor to transport workers to the site. e) Flag personnel will be used to minimize the potential for accidents during large deliveries, in accordance with Chapter 3, Page 102-107 of the ODOT Traffic Control Plans Design Manual (ODOT, 2016c).

	f) At least one travel lane will be made available at all times during construction at entrance and exit points onto public roads. g) The certificate holder, in coordination with the owner of Threemile Canyon Farms, will provide a temporary alternate access to Willow Creek Wildlife Area. h) Adequate parking for construction vehicles in the main temporary staging area will be provided, including one space per worker, consistent with Morrow County Zoning Ordinance Article 4 Supplementary Provisions Section 4.040 Off-Street Vehicle Parking Requirements. [Final Order on ASC, Public Services Condition 4]
PRE-PS-02	Prior to construction, the certificate holder shall submit engineering drawings to the Department and Morrow County Public Works Department demonstrating that road improvements at the intersection of Threemile Canyon Road and the improved road to the Willow Creek Wildlife Area, and at the intersection of the access road to the facility and the road to the Willow Creek Wildlife Area meet the minimum intersectional sight distance pursuant to MCZO Section 4.020. Specifically, the minimum intersectional sight distance shall be equal to ten times the vehicular speed of the road and shall be based on eye height of 3.5 feet and an object height of 4.25 feet above the road; and shall be assumed to be 10 feet from the near edge of pavement or the extended curb line or near the edge of the graveled surface of a gravel road to the front of a stopped vehicle. [Final Order on ASC, Public Services Condition 6]
PRE-PS-03 (also CON-PS-03 and OPR-PS-03)	Prior to construction, the certificate holder shall prepare a Fire Prevention and Response Plan. The certificate holder shall submit the plan no less than 30 days prior to beginning construction to the Department for review and approval in consultation with the Boardman Rural Fire Protection District and the North Gilliam County Rural Fire Protection District. The plan shall include information on the final construction plans and construction phasing, identify the location of and access to the facility structures, and discuss how the certificate holder will provide mutual assistance in the case of fire within or around the facility site boundary. The plan shall be maintained onsite and implemented throughout construction and operation of the facility. All onsite workers shall be trained on the fire prevention and safety procedures contained in the plan prior to working on the facility. Additional information that shall be included in the plan: 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. b) Identification of agencies that are designated as first response agencies for the site boundary and vicinity. c) A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility that could respond to an emergency. d) Contact information for each agency listed above. e) Communication protocols for both routine and emergency events. f) The designated employee meeting location in case of evacuation. g) Staff training requirements. [Final Order on ASC, Public Services Condition 10]
PRE-PS-04 (also CON-PS-05 and	Prior to working on the facility, all construction personnel must receive fire prevention and response training that includes instruction on facility fire hazards, fire safety, emergency

OPR-PS-04)	notification procedures, use of fire safety equipment, and fire safety rules and regulations. Annual fire prevention and response training shall also be provided during facility operations. The certificate holder shall notify the Department, the Boardman Rural Fire Protection District, and the North Gilliam County Rural Fire Protection District 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. [Final Order on ASC, Public Services Condition 12]
PRE-PS-05 (also CON-PS-06 and OPR-PS-05)	Before beginning construction, the certificate holder shall 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 shall 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 project, and available upon request by the Department. [Final Order on ASC, Public Services Condition 14]
PRE-PS-06	Before beginning construction, the certificate holder shall require that at least one on-site person is available at the worksite during construction activities that is 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. [Final Order on ASC, Public Services Condition 15]
STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]	
PRE-WM-01 (also CON-WM-01)	Prior to construction, the certificate holder shall develop a Construction Waste Management Plan, which at a minimum, shall include the following: a) A requirement to implement a detailed material usage estimating and procurement system to minimize the amount of excess materials ordered. b) A policy requiring that waste collection containers be covered and secured within construction staging areas. c) Description of waste segregation methods for recycling or disposal. d) Names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements to be used during construction. 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). [Final Order on ASC, Waste Minimization Condition 1]
STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (ST) [OAR 345-024-0090]	
PRE-ST-01	Prior to construction, the certificate holder shall schedule a time to brief the Public Utility Commission 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. [Final Order on ASC, Siting Standards for Transmission Lines Condition 3]

5.3 Construction (CON) Conditions

Condition Number	Construction (CON) Conditions
STANDARD: STRUCTURAL STANDARD (SS) [OAR 345-022-0020]	
CON-SS-01	During construction, if localized areas of soils with collapsing or settling potential are identified, the certificate holder shall over excavate the soils and replace them with compacted structural fill; place impermeable material around the facility foundations to prevent wetting or saturation; or place the foundations deeper on a stable bearing layer (such as basalt rock). [Final Order on ASC, Structural Standard Condition 5]
CON-SS-02 (also OPR-SS-01)	In the event of a volcanic eruption that could damage or affect facility components: a) During construction, the certificate holder shall temporarily cease construction activities if necessary to protect equipment and human health. b) During operation, the certificate holder shall shut down the facility until safe operating conditions return. [Final Order on ASC, Structural Standard Condition 4]
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
CON-SP-01 (also PRE-SP-01)	a) Prior to construction, the certificate holder shall obtain a National Pollutant Discharge Elimination System General Permit 1200-C from the Oregon Department of Environmental Quality, and shall provide the Department and Morrow County Planning Director a copy of the DEQ-approved NPDES 1200-C permit. ~~b) Prior to construction, the certificate holder shall submit to the Department and Morrow County Planning Director for review and approval a topsoil management plan including how topsoil will be stripped, stockpiled and clearly marked in order to maximize topsoil preservation and minimize erosion impacts. [OAR 660-033-0130(38)(f)(B)]. The topsoil management plan may be incorporated into the final Erosion and Sediment Control Plan, required under sub(c), or may be provided to the Department as a separate plan.~~ b) During construction, the certificate holder shall conduct all work in compliance with the final Erosion and Sediment Control Plan as approved by DEQ in the NPDES 1200-C permit. [Final Order on ASC, AMD1, Soil Protection Condition 1]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
CON-FW-01	During construction, within the time periods listed in the table below, the certificate holder shall implement buffer zones around occupied nest sites of the species included in the table. No construction activities within the buffer zone of occupied nests 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 construction activity within the buffer zone. Occupied nests shall be determined based on the results of pre-construction surveys and habitat assessment, and subsequent monitoring of the occupied nests during the sensitive season. The buffer areas shall be flagged as exclusion areas in accordance with Fish and Wildlife Habitat Condition 6. The buffer distances do not apply to occupied nests north of I-84. The certificate holder may begin or resume construction within the buffer zone if any known nest site is unoccupied by the early release date, as determined based on monitoring during the sensitive season.

	<table><tr><th>Nesting Species</th><th>Sensitive Season Buffer Size (Radius Around Nest Site):</th><th>Avoidance Buffers in Effect from:</th><th>Early Release Date</th></tr><tr><td>Ferruginous hawk</td><td>0.25 mile</td><td>March 15 to August 15</td><td>May 31</td></tr><tr><td>Swainson's hawk</td><td>0.25 mile</td><td>April 1 to August 15</td><td>May 31</td></tr><tr><td>Western burrowing owl</td><td>0.25 mile</td><td>April 1 to August 15</td><td>July 15</td></tr><tr><td>Golden eagle</td><td>0.5 mile</td><td>January 1 to July 15</td><td>May 31</td></tr><tr><td>Bald eagle</td><td>0.5 mile</td><td>January 1 to August 31</td><td>--</td></tr></table> [Final Order on ASC, Fish and Wildlife Habitat Condition 3]
CON-FW-02 (also PRE-FW-02)	The certificate holder shall require all onsite construction workers to complete an environmental awareness training and shall demonstrate compliance with this condition per sub(a) and (b) of the condition as follows: a) Prior to construction, the certificate holder shall submit to the Department a copy of the final presentation and environmental training materials. The training materials shall, at a minimum, address the following topics: facility site boundary, including flagged exclusion areas; restricted areas including wetlands and other areas; sensitive and special status plant and wildlife species found in the analysis area; avoidance and impact minimization measures; response procedure and notification process to be followed if sensitive resources are identified during construction; additional permit requirements; buffer distances from sensitive and protected resources; work timing restrictions including seasonal restrictions; reporting procedures for any injured or dead wildlife; speed limits; trash control; and other topics as necessary. b) During construction, the certificate holder shall require all construction personnel to attend an environmental and permit requirements awareness training session conducted by a knowledgeable environmental professional. Records of completed training shall be maintained onsite and made available to the Department upon request. [Final Order on ASC, Fish and Wildlife Habitat Condition 5]
CON-FW-03	During construction, the certificate holder will not leave any trenches open overnight. All trenches shall be covered or filled before the end of the working day or nightfall in a way that prevents animals from entering the trenches. If trenches cannot be fully covered or filled, a wildlife escape ramp must be installed into the trench so that animals can escape the trench. [Final Order on ASC, Fish and Wildlife Habitat Condition 7]
CON-FW-04	During construction, the certificate holder shall limit clearing of trees or shrub-steppe habitat to within September 1 and March 1. If the certificate holder needs to clear trees or shrub-steppe habitat outside this period, prior to the clearing, a biological survey must be performed no more than seven days prior to the clearing to determine if the area has birds or bats roosting in the area, or other sensitive wildlife species. If sensitive species are discovered, clearing must not occur until after the sensitive species have left for the season. If bat roosts or other sensitive wildlife species are discovered, the certificate holder must contact the Department and ODFW for guidance, and clearing cannot proceed without approval from the Department, in consultation with ODFW. [Final Order on ASC, Fish and Wildlife Habitat Condition 8]
CON-FW-05	During construction, the certificate holder shall impose a 20 mile per hour speed limit on new and improved private facility roads. Speed limit signs shall be posted throughout the facility. No

	off-road travel shall be allowed except in case of emergency. All on-site personnel shall be instructed on these requirements as part of the environmental awareness training for all employees (associated with Fish and Wildlife Habitat Condition 5). [Final Order on ASC, Fish and Wildlife Habitat Condition 9]
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
CON-HC-01	During construction, the certificate holder shall implement the *Monitoring Plan for Cultural Resources, Boardman Solar Energy Facility, Morrow and Gilliam Counties, Oregon* included as Attachment F to the Final Order on the ASC. An archaeological monitor shall be present during ground-disturbing activities. Once approved by the Department, prior to construction, the Monitoring Plan may be amended from time to time by agreement of the certificate holder and Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to approve amendments to the plan, in consultation with SHPO and the associated tribes, as applicable. [Final Order on ASC, AMD1, Historic, Cultural, and Archeological Resources Condition 5]
CON-HC-02 (also PRE-HC-02)	Prior to construction, the certificate holder shall identify Site 35GM402 on construction maps as a no-entry area, and flag a 100-foot (30-meter) buffer surrounding the site as an area to be avoided during construction activities. The certificate holder shall ensure that no physical disturbance occurs within the buffer zone. A copy of current maps and drawings must be maintained onsite during construction and made available to the Department upon request. Flagging or marking shall be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 2]
CON-HC-03 (also OPR-HC-01)	a) During facility construction, the certificate holder shall direct personnel to extinguish nighttime exterior lights at the operations and maintenance building; substation; and any temporary construction work site, equipment, and laydown yard (if any) when not in use. b) During facility operation, the certificate holder shall install motion detectors or timers and hoods on exterior lights on the operations and maintenance building, control house and substation to minimize skyward light. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 4]
STANDARD: RECREATION (RC) [OAR 345-022-0010]	
CON-RC-01	During construction, the certificate holder shall, in coordination with the landowner, maintain an alternate public access route to Willow Creek Wildlife Area. The alternate public access route shall be the route shown in ASC Exhibit L, Figure L-2, or shall be another comparable route. [Final Order on ASC, Recreation Standard Condition 1]
CON-RC-02	During construction, the certificate holder shall coordinate with ODFW and the landowner to provide safe and clear wayfinding to Willow Creek Wildlife Area on the alternate access route, including at a minimum directional roadway signage. [Final Order on ASC, Recreation Standard Condition 2]
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0100]	
CON-PS-01	During construction, the certificate holder shall: a) Implement the final Construction Traffic Management Plan (Threemile Canyon Road), as approved by the Department. b) Include the requirements of the Construction Traffic Management Plan in contract specifications for construction contractors, as applicable.

	c) Maintain a monthly log, to be submitted monthly to the Department for review and confirmation of compliance with the components of the Construction Traffic Management Plan. d) The Department, in consultation with the Morrow County Public Works Department, may require implementation of additional traffic management measures including a Traffic Impact Assessment per MCZO Section 3.010(1) if any requirement of the Construction Traffic Management Plan is determined not adequately implemented, or if additional measures are deemed necessary based on actual passenger car equivalent trips per day during facility construction. Within 30-days of submittal of the monthly compliance report required under sub(c), the certificate holder shall obtain written confirmation from the Department on any additional construction traffic management measures required to be implemented. [Final Order on ASC, Public Services Condition 5]
CON-PS-02	During construction, the certificate holder shall provide for 24-hour security, and shall establish effective communications between on-site security personnel and both the Morrow County Sheriff's Office and Gilliam County Sheriff's Office. [Final Order on ASC, Public Services Condition 8]
CON-PS-03 (also PRE-PS-03 and OPR-PS-03)	Prior to construction, the certificate holder shall prepare a Fire Prevention and Response Plan. The certificate holder shall submit the plan no less than 30 days prior to beginning construction to the Department for review and approval in consultation with the Boardman Rural Fire Protection District and the North Gilliam County Rural Fire Protection District. The plan shall include information on the final construction plans and construction phasing, identify the location of and access to the facility structures, and discuss how the certificate holder will provide mutual assistance in the case of fire within or around the facility site boundary. The plan shall be maintained onsite and implemented throughout construction and operation of the facility. All onsite workers shall be trained on the fire prevention and safety procedures contained in the plan prior to working on the facility. Additional information that shall be included in the plan: 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. b) Identification of agencies that are designated as first response agencies for the site boundary and vicinity. c) A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility that could respond to an emergency. d) Contact information for each agency listed above. e) Communication protocols for both routine and emergency events. f) The designated employee meeting location in case of evacuation. g) Staff training requirements. [Final Order on ASC, Public Services Condition 10]
CON-PS-04	During construction, the certificate holder must maintain an area clear of vegetation for fire prevention around construction sites, including solar modules and any areas where work includes welding, cutting, grinding, or other flame- or spark-producing operations. [Final Order on ASC, Public Services Condition 11]
CON-PS-05	Prior to working on the facility, all construction personnel must receive fire prevention and

(also PRE-PS-04 and OPR-PS-04)	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. Annual fire prevention and response training shall also be provided during facility operations. The certificate holder shall notify the Department, the Boardman Rural Fire Protection District, and the North Gilliam County Rural Fire Protection District 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. [Final Order on ASC, Public Services Condition 12]
CON-PS-06 (also PRE-PS-05 and OPR-PS-05)	Before beginning construction, the certificate holder shall 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 shall 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 project, and available upon request by the Department. [Final Order on ASC, Public Services Condition 14]
STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]	
CON-WM-01 (also PRE-WM-01)	Prior to construction, the certificate holder shall develop a Construction Waste Management Plan, which at a minimum, shall include the following: a) A requirement to implement a detailed material usage estimating and procurement system to minimize the amount of excess materials ordered. b) A policy requiring that waste collection containers be covered and secured within construction staging areas. c) Description of waste segregation methods for recycling or disposal. d) Names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements to be used during construction. 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). [Final Order on ASC, Waste Minimization Condition 1]

5.4 Pre-Operational (PRO) Conditions

Condition Number	Pre-Operational (PRO) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
PRO-GS-01	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 in accordance with the applicable site certificate provisions and the Morrow County Solid Waste Management Plan. [Final Order on ASC, Mandatory Condition 5, OAR 345-025-0006(11)]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
PRO-FW-01 (also OPR-FW-01)	Following construction, the certificate holder shall implement the Wildlife Monitoring and Adaptive Management Plan (WMAMP), as included in Attachment E of the Final Order on the ASC. The WMAMP 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 WMAMP agreed to by the Department. [Final Order on ASC, Fish and Wildlife Habitat Condition 2]
STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (ST) [OAR 345-024-0090]	
PRO-ST-01	Prior to facility operation, the certificate holder shall identify and ground metal fences within the transmission line right-of-way. [Final Order on ASC, Siting Standards for Transmission Lines Condition 1]
PRO-ST-02	Prior to facility operation, the certificate holder shall provide the landowner a map of the 115-kV transmission line on their property and advise the landowner of possible health and safety risks from induced currents caused by electric and magnetic fields. The map shall identify any metal fences grounded as per Siting Standards for Transmission Lines Condition 1. [Final Order on ASC, Siting Standards for Transmission Lines Condition 2]
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
PRO-PS-01	Before beginning operation of the facility, the certificate holder must provide a final site plan to the Boardman Rural Fire Protection District and the North Gilliam County Rural Fire Protection District. The certificate holder must indicate on the site plan the actual location of all facility structures and the identification number assigned to each solar module block. [Final Order on ASC, Public Services Condition 13]

5.6 Operational (OPR) Conditions

Condition Number	Operational (OPR) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
OPR-GS-01	The certificate holder shall submit a legal description of the site to the Oregon Department of Energy and the Morrow County Planning Department 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. [Final Order on ASC, Mandatory Condition 1, OAR 345-025-0006(2)]
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
OPR-OE-01 (also PRE-OE-01)	a) At least 30 days prior to construction, the certificate holder shall provide to the Department the following: 1. Written confirmation that its third-party contractors have obtained all necessary local and state permits for the temporary concrete batch plant, if required during facility construction, and wastewater discharge. These permits are expected to include a Conditional Use Permit for Temporary Concrete Batch Plant from Morrow County and a General Water Pollution Control Facilities Permit for Temporary Concrete Batch Plant concrete washout water from Oregon Department of Environmental Quality. 2. Proof of agreements between the certificate holder and the third-party regarding access to the resources or services secured by the permits or approvals identified prior to construction per sub(a) above. ~~b) During operation, provide written confirmation that its third-party contractors have obtained a General Water Pollution Control Facilities Permit for washwater discharge from maintenance equipment washdown (as well as from solar module cleaning, if solar panel washing will occur) from Oregon Department of Environmental Quality and proof of an agreement between the certificate holder and the third-party for access to the service secured by the permit.~~ b) During facility operation, the certificate holder may discharge solar panel wash water through evaporation or infiltration into the ground at the point of application. The use of chemicals, soaps, detergents and heated water is prohibited, unless Chemical Safety Data Sheets for low volatile organic compound/biodegradable cleaning chemicals and solvents are submitted to the Department for review and approval. Pressure washing is allowed, so long as it does not remove paint or other finishes. [Final Order on ASC, AMD1, Organizational Expertise Condition 4]
STANDARD: STRUCTURAL STANDARD (SS) [OAR 345-022-0020]	
OPR-SS-01 (also CON-SS-02)	In the event of a volcanic eruption that could damage or affect facility components: a) During construction, the certificate holder shall temporarily cease construction activities if necessary to protect equipment and human health. b) During operation, the certificate holder shall shut down the facility until safe operating conditions return. [Final Order on ASC, Structural Standard Condition 4]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
OPR-FW-01 (also PRO-FW-01)	Following construction, the certificate holder shall implement the Wildlife Monitoring and Adaptive Management Plan (WMAMP), as included in Attachment E of the Final Order on the

	ASC. The WMAMP 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 WMAMP agreed to by the Department. [Final Order on ASC, Fish and Wildlife Habitat Condition 2]
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
OPR-HC-01 (also CON-HC-03)	a) During facility construction, the certificate holder shall direct personnel to extinguish nighttime exterior lights at the operations and maintenance building; substation; and any temporary construction work site, equipment, and laydown yard (if any) when not in use. b) During facility operation, the certificate holder shall install motion detectors or timers and hoods on exterior lights on the operations and maintenance building, control house and substation to minimize skyward light. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 4]
STANDARD: PUBLIC SERVICES (PS) [OAR 345-002-0100]	
OPR-PS-01	During facility operation, the certificate holder shall maintain a totalizing flow meter or dedicated measuring tubes ~~written log~~ for the on-site water well~~, in accordance with ORS 537.765,~~ demonstrating that water use does not exceed 5,000 gallons of water per day. [Final Order on ASC, AMD1, Public Services Condition 1]
OPR-PS-02	During operation, the certificate holder shall ensure that appropriate law enforcement agencies 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. [Final Order on ASC, Public Services Condition 9]
OPR-PS-03 (also PRE-PS-03 and CON-PS-03)	Prior to construction, the certificate holder shall prepare a Fire Prevention and Response Plan. The certificate holder shall submit the plan no less than 30 days prior to beginning construction to the Department for review and approval in consultation with the Boardman Rural Fire Protection District and the North Gilliam County Rural Fire Protection District. The plan shall include information on the final construction plans and construction phasing, identify the location of and access to the facility structures, and discuss how the certificate holder will provide mutual assistance in the case of fire within or around the facility site boundary. The plan shall be maintained onsite and implemented throughout construction and operation of the facility. All onsite workers shall be trained on the fire prevention and safety procedures contained in the plan prior to working on the facility. Additional information that shall be included in the plan: 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. b) Identification of agencies that are designated as first response agencies for the site boundary and vicinity. c) A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility that could respond to an emergency. d) Contact information for each agency listed above.

	e) Communication protocols for both routine and emergency events. f) The designated employee meeting location in case of evacuation. g) Staff training requirements. [Final Order on ASC, Public Services Condition 10]
OPR-PS-04 (also PRE-PS-04 and CON-PS-05)	Prior to working on the facility, all construction personnel must receive 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. Annual fire prevention and response training shall also be provided during facility operations. The certificate holder shall notify the Department, the Boardman Rural Fire Protection District, and the North Gilliam County Rural Fire Protection District 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. [Final Order on ASC, Public Services Condition 12]
OPR-PS-05 (also PRE-PS-05 and CON-PS-06)	Before beginning construction, the certificate holder shall 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 shall 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 project, and available upon request by the Department. [Final Order on ASC, Public Services Condition 14]
STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (ST) [OAR 345-024-0090]	
OPR-ST-01	During operation, the certificate holder shall: a) Annually update the Public Utility Commission Safety Staff as to how the operator will comply with OAR Chapter 860, Division 024 considering future operations, maintenance, emergency response, and alterations until project retirement. b) File the following required information with the Commission: i. 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 757.035 must provide the commission with the following information before January 2 of each even-numbered year: a. 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; and b. 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. c. 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.

	d. 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] c) Provide Public Utility Commission Safety Staff with: i. Maps and drawings of routes and installation of electrical supply lines showing: • 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 ii. Plan and profile drawings of the transmission lines (and name and contact information of responsible professional engineer). [Final Order on ASC, Siting Standards for Transmission Lines Condition 4]
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
OPS-LU-01	Within 90-days after beginning commercial operation, the certificate holder shall provide to the Department, Morrow County Planning Department, and Gilliam County Planning Department the actual latitude and longitude location or Stateplane NAD83(91) coordinates of each facility component and a summary of as-built changes in the facility compared to the pre-construction final facility design. [Final Order on ASC, Land Use Condition 2]

5.7 Retirement Conditions (RET)

Condition Number	Operational (OPR) Conditions
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
RET-RT-01	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. [Mandatory Condition OAR 345-025-0006(9)] [Final Order on ASC, Retirement and Financial Assurance Condition 2]
RET-RT-02	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. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-025-0006(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. [Mandatory Condition OAR 345-025-0006(16)] [Final Order on ASC, Retirement and Financial Assurance Condition 3]
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
RET-HC-01	Prior to facility retirement and site restoration activities, the certificate holder shall identify Site 35GM402 on retirement maps as a no-entry area, and flag a 100-foot (30-meter) buffer surrounding the site as an area to be avoided during retirement and site restoration activities. The certificate holder shall ensure that no physical disturbance occurs within the buffer zone. A copy of current maps and drawings must be maintained onsite during facility retirement and site restoration and made available to the Department upon request. Flagging or marking shall be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected. [Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 3]

6.0 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 345-027-04~~1~~00.

7.0 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.

8.0 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 Boardman Solar Energy, LLC.

ENERGY FACILITY SITING COUNCIL	**Boardman Solar Energy, LLC**
By: _____	By: _____
~~Barry Beyeler~~ Marcia L. Grail, Chair	James Williams
Oregon Energy Facility Siting Council	Boardman Solar Energy, LLC
Date: _____	Date: _____

Attachment A
Facility Layout Map

(ASC Exhibit C, Figure C-1)

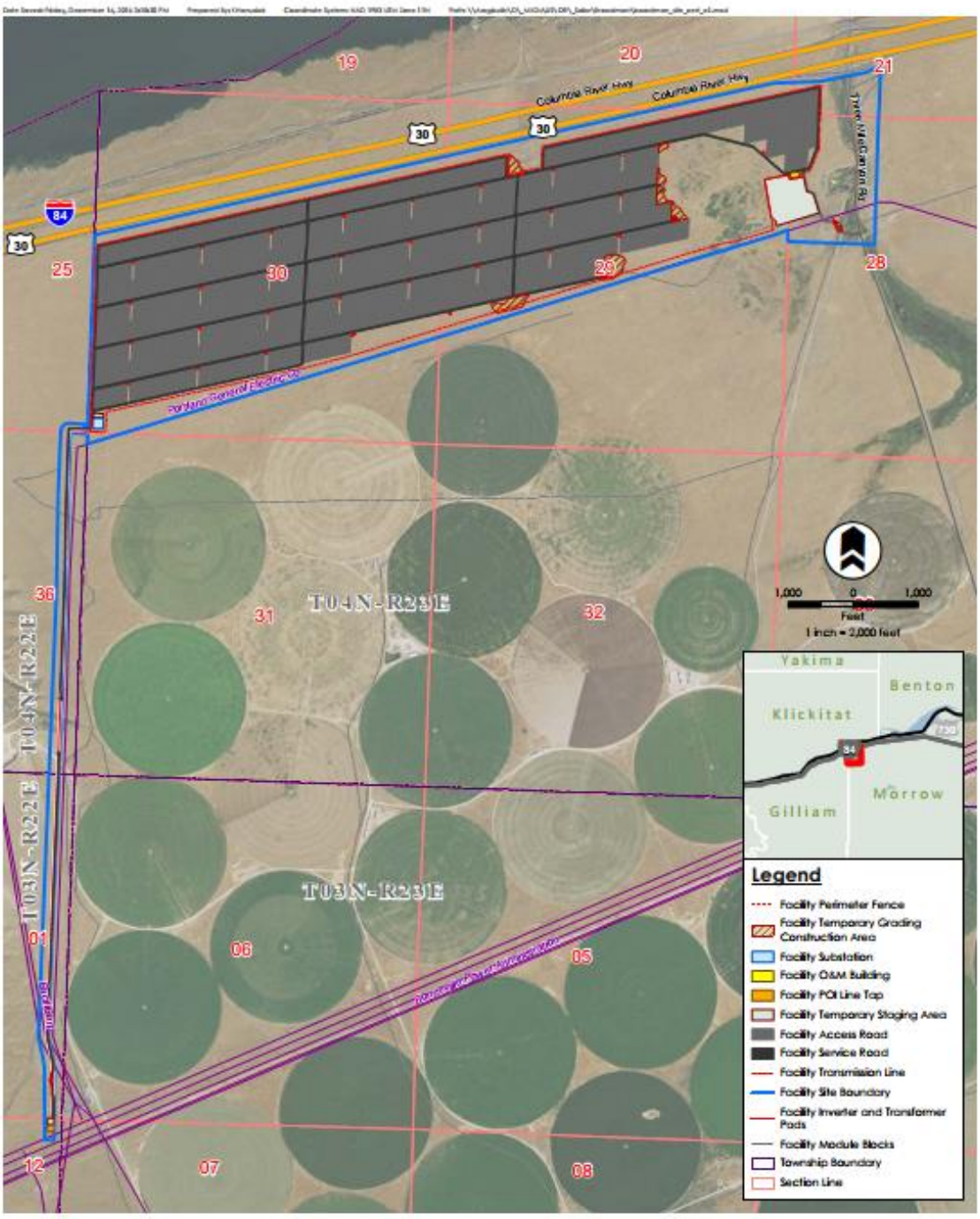

Figure C-1. Facility Layout

Boardman Solar Energy Facility, Morrow and Gilliam Counties, Oregon December 19, 2016 Rev. 00

Invenergy

Attachment B: pRFA1 and DPO Comments

Attachment B: pRFA/DPO Comment Index

Date Received	Commenter	Organization/Affiliation	Comment Phase (pRFA1 or DPO)
1/13/2021; 1/26/2021	Michelle Colby, Planning Director	Gilliam County Planning Department	pRFA1
5/3/2021	Teara Farrow Ferman, Manager, Cultural Resources Protection Program	Confederated Tribes of the Umatilla Indian Reservation	pRFA1
6/10/2021	Steve Cherry, District Biologist	Oregon Department of Fish and Wildlife	pRFA1
6/16/2021	Special Advisory Group	Morrow County Board of Commissioners	pRFA1
9/1/2021	Special Advisory Group	Morrow County Board of Commissioners	DPO
9/3/2021	Seth Thompson, Aviation Planner	Oregon Department of Aviation	DPO
9/6/2021	Julia Pommert	Public	DPO

From: Michelle Colby
Sent: Tuesday, January 26, 2021 9:41 AM
To: MCVEIGH-WALKER Chase * ODOE
Subject: RE: Boardman Solar Energy Facility preliminary Request for Amendment Notice

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Chase –

Thanks for the response, you've confirmed that the part of the project that is actually in Gilliam County is a transmission line that paralles the county border between Gilliam and Morrow and connects to existing GE line.

Thanks for the clarification, greatly appreciated.

Michelle Colby
Planning Director
Gilliam County
221 S. Oregon St.
Condon, OR 97823
Ph. 541-384-2381
Michelle.colby@co.gilliam.or.us
Planning Dept. Office hours
Monday –Thursday 8:00 am to 5:00 pm
Friday by appointment only

From: MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Sent: Friday, January 15, 2021 1:22 PM
To: Michelle Colby <michelle.colby@co.gilliam.or.us>
Subject: RE: Boardman Solar Energy Facility preliminary Request for Amendment Notice

Good afternoon Michelle,

I left a message on your voice mail in response to your emailed questions from Wednesday, but am also following up with an email. First, construction of the facility (including the You are correct that the approved 115 kV Transmission line (at approximately 2.1 miles long) parallels the border between Gilliam and Morrow County. The Figure I have attached to this email (Figure C-1 from the Complete ASC) hopefully better clarifies the location/route of the approved 115 Transmission Line and the

facility site boundary/corridor that surrounds it. The 115 kV Transmission Line approved with this facility will originate at the Facility Substation, span approximately 2.1 miles south, and connect to the existing Bonneville Power Administration (BPA) Boardman-Alkali 115-kV transmission line (via a Point Of Interconnect). In the complete ASC, the certificate holder explains that the POI installation and work would be completed by BPA. If you have additional questions about what was already approved at the facility, don't hesitate to reach out.

Regards,
-Chase

From: Michelle Colby <michelle.colby@co.gilliam.or.us>
Sent: Wednesday, January 13, 2021 5:16 PM
To: MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Subject: RE: Boardman Solar Energy Facility preliminary Request for Amendment Notice

Chase –

Good evening, thanks for the status update. Remind me about the 115-kV transmission line. According to the maps the line parallels the border between Gilliam County and Morrow and is yet to be built correct? The new line will connect to an existing line in already in Gilliam County that runs to Slatt Substation correct?

Thanks a bunch

Hope this finds you doing well in 2021.

Michelle Colby

From: MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Sent: Wednesday, January 13, 2021 4:07 PM
To: Michelle Colby <michelle.colby@co.gilliam.or.us>; Elizabeth Farrar <elizabeth.farrar@co.gilliam.or.us>; Leslie Wetherell <leslie.wetherell@co.gilliam.or.us>; Sherrie Wilkins <sherrie.wilkins@co.gilliam.or.us>
Subject: Boardman Solar Energy Facility preliminary Request for Amendment Notice

> Good afternoon,
>
> The Oregon Department of Energy (ODOE) received a preliminary Request for Amendment (pRFA) for the Boardman Solar Energy Facility and an Amendment Determination Request (ADR) requesting the proposed amendment be processed under the "Type B" review process and on January 7, 2021. This notice is intended to make you aware of the request, but we are not specifically asking for your review at this time. ODOE is currently reviewing the pRFA for completeness and may reach out to specific agencies to assist us. While we are not requesting your review at this time, you are welcome to review the pRFA, provide us comments and that time is reimbursable if you have a cost reimbursement agreement with us.

The preliminary Request for Amendment seeks approval from the Energy Facility Siting Council (EFSC or Council) to extend the construction commencement and completion deadlines.

An electronic copy of both the ADR and pRFA are available to download and view from the Department website at:

https://www.oregon.gov/energy/facilities-safety/facilities/Pages/BSE.aspx

Thank you, and please do not hesitate to contact me with any questions.

-Chase

OREGON DEPARTMENT OF ENERGY

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 503-934-1582
P (In Oregon): 800-221-8035

From: Teara Farrow Ferman
Sent: Monday, May 3, 2021 1:43 PM
To: SLOAN Kathleen * ODOE
Cc: MCVEIGH-WALKER Chase * ODOE; Shawn Steinmetz
Subject: RE: Boardman Solar and Time Extension Request for Amendment
Attachments: CTUIR letter to ODOE_Boardman Solar Energy Facility.pdf

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Good afternoon Kate,
Attached is the letter we sent to the ODOE in 2017 regarding the Boardman Solar project. I understand the amendment is just a time extension. If this is correct, the CTUIR has no further concerns or questions.

Congratulations on your position with ODOE. I look forward to working with you.

Thank you,

TEARA FARROW FERMAN
Manager | Cultural Resources Protection Program
Confederated Tribes of the Umatilla Indian Reservation
AND
Assistant General Manager | Átaw Consulting, LLC
A Small Business Enterprise of the CTUIR
541.429.7230 Office | Fax
TearaFarrowFerman@ctuir.org

From: SLOAN Kathleen * ODOE [mailto:Kathleen.SLOAN@oregon.gov]
Sent: Monday, May 3, 2021 8:55 AM
To: Teara Farrow Ferman <TearaFarrowFerman@ctuir.org>
Cc: MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Subject: FW: Boardman Solar and Time Extension Request for Amendment

Hello,
I am resending because I entered Teara's lastname incorrectly. Sorry!

From: SLOAN Kathleen * ODOE
Sent: Monday, May 3, 2021 8:39 AM

To: tearafarrowfurman@ctuir.org; bambirodriguez@ctuir.org; shawnsteinmetz@ctuir.org
Cc: MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Subject: Boardman Solar and Time Extension Request for Amendment

Good Morning Teara, Sean and Bambi,

I hope this email finds you and your families well. I am writing to you in my new capacity as a Siting Analyst with Oregon Department of Energy. I recently started here and am helping other analysts with work load while I am going through my onboarding and training. I have been here a month.

I am attaching, for your review, a notice Chase sent you in Jan. 2021 as part of the request for comments/review on the Preliminary Request for Amendment (pRFA). Upon reviewing the Final Order for this project, I see that there were some CTUIR concerns that were to be resolved with you outside of our process with the certificate holder. The EFSC Council also added some mandatory conditions on the site certificate. So I am following up on that.

An RFA is considered a "general reopener" so this email is to just check in with you on any new information or concerns about this that we might need to consider in this DPO for a time extension. The applicant is requesting an additional 3 years to begin/complete construction from the dates on the original Order/Site Cert.

I am ccing Chase, because its his project. I am just helping with some tasks. And I wanted to say Hi and let you know that I am here at ODOE Siting Division now.

If you have any questions, concerns or need any additional details, please let us know.

Thank you and have a great day,

Kathleen Sloan
Senior Siting Analyst
Oregon Department of Energy

kathleen.sloan@oregon.gov
Cell: 971-701-4913

Confederated Tribes *of the*
Umatilla Indian Reservation

Board of Trustees & General Council

46411 Timíne Way • Pendleton, OR 97801
(541) 429-7030 • fax (541) 276-3095
info@ctuir.org • www.umatilla.nsn.us

October 24, 2017

Katie Clifford, Senior Siting Analyst
Energy Facility Siting
Oregon Department of Energy
550 Capital Street NE
Salem, Oregon 97301-2567

Dear Ms. Clifford,

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) thanks the Oregon Department of Energy (ODOE) for initiating consultation pursuant to the Oregon Revised Statue 469.501 and Oregon Administrative Review Chapter 345, Divisions 22 and 24, and other applicable statutes, rules, and standards for Boardman Solar Energy, LLC's Boardman Solar Energy Facility project (the "Project").

The CTUIR has been in discussions with Boardman Solar Energy, LLC regarding the Project and we have come to a mutual agreement on the effects the Project may have on historic properties of religious and cultural significance to the CTUIR. The CTUIR is taking the initiative to let the ODOE know that the CTUIR's concerns have been addressed and we have no further concerns with the proposed Project unless the Project changes.

Should you have questions or concerns, please feel free to contact Mrs. Teara Farrow Ferman, Manager, Cultural Resources Protection Program, at (541) 276-3447 or tearafarrowferman@ctuir.org.

Respectfully,

Gary Burke

Gary Burke, Chairman
Board of Trustees

From: CHERRY Steve P * ODFW
Sent: Thursday, June 10, 2021 9:57 AM
To: MCVEIGH-WALKER Chase * ODOE
Subject: RE: Boardman Solar Energy Facility HMP Discussion

Chase,
I appreciate the opportunity to look at this and discuss it on our meeting yesterday. ODFW is agreeable to the proposed changes in the HMP. Thanks

Steve

I have a new email address as of 4-26-21
Steve.p.cherry@odfw.oregon.gov

From: MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Sent: Thursday, June 3, 2021 5:09 PM
To: CHERRY Steve P <Steve.P.Cherry@state.or.us>
Subject: Boardman Solar Energy Facility HMP Discussion

Steve,

I hope all is well. As you are aware, we are working on reviewing the Request for Amendment (1) to the Boardman Solar Energy Facility, including the Draft Habitat Mitigation Plan (Attachment C) of the 2018 Final Order. Would you have time tomorrow (6/4) anytime between 9:00-10:30, or after 2:00? If tomorrow doesn't work, we are available Monday from 11:30-2:00. Attached to this email, I have included a redline version of the plan, in which the redline changes are what we have come up with and would like to discuss. If you have any questions, please don't hesitate to reach out. Thanks in advance for the help.

Regards,
-Chase

OREGON DEPARTMENT OF ENERGY

Chase McVeigh-Walker
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 503-934-1582
P (In Oregon): 800-221-8035
Stay connected!

From: CHERRY Steve P * ODFW
Sent: Thursday, June 10, 2021 11:39 AM
To: SLOAN Kathleen * ODOE
Cc: ESTERSON Sarah * ODOE; MCVEIGH-WALKER Chase * ODOE
Subject: RE: Info for BSEAMD1 for call today

Kathleen,
The only state listed T&E species potential in the project area would be the Washington ground squirrel. ORBIC is usually the best place to go for applicants to look to see if there are any listed or sensitive species locations close to a project boundary. As long as the applicant has competed WGS surveys within three years of the start of construction and adequately made protection and provisions for any WGS found then ODFW considers that the applicant has met the requirement of the protections for WGS. As long as the avoidance and minimization measures that are normally in place for the protection of WGS then this project will continue to unlikely cause a significant reduction in the likelihood of survival or recovery of WGS. There are not any other state listed T&E wildlife species that need to be surveyed as part of this project. We would like them to do an updated raptor nest survey within ¼ mile of the project boundary prior to construction to determine if there are any nesting raptors that need protections during the construction phase. I hope this answers your questions but please feel free to call me if you have any questions

Steve

I have a new email address as of 4-26-21
Steve.p.cherry@odfw.oregon.gov

From: SLOAN Kathleen * ODOE <Kathleen.SLOAN@oregon.gov>
Sent: Wednesday, June 9, 2021 11:30 AM
To: CHERRY Steve P * ODFW <Steve.P.CHERRY@odfw.oregon.gov>
Cc: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>; MCVEIGH-WALKER Chase * ODOE <Chase.McVeigh-Walker@oregon.gov>
Subject: Info for BSEAMD1 for call today

Steve,

I am contacting you to follow up on an agency review request sent in January for the preliminary Request for Amendment (pRFA1) to an existing Site Certificate for Boardman Solar Energy Facility (BSEF). BSEF is a previously approved not constructed 75 MW solar facility to be located in Morrow County. The only change proposed in pRFA1 is to extend the construction start and completion dates by three years. The original site certificate approved construction to begin by Feb 2021 and complete by Feb 2024. The certificate holder requests to extend these to begin construction by Feb 2024 and complete by Feb2027. For this type of amendment, in order to approve the extension of time, we are required to evaluate changes in facts or law that could impact Council's previous evaluation.

As you may know, our T&E Species standard requires that the Department demonstrate consultation with ODFW in order for the Council to find that for state-listed T&E species, the design, construction

and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species. We would therefore like to demonstrate consultation on the T&E Species standard has occurred with ODFW regarding pRFA1 on the Boardman Solar Energy Facility,

Previously identified habitat at the site includes Category 3 grasslands and shrublands. Previously identified state-listed T&E species with suitable habitat within 5-miles of the facility included Washington Ground Squirrels (WGS). Certificate holder is currently conducting protocol-level WGS surveys and we plan to share those results with you. Certificate holder conducted an ORBIC search and did not identify any new species observed within 3-miles of the facility.

Could you comment on the following:

- Could you confirm whether there are state-listed T&E species, based on ODFW's Feb 21, 2021 state-listed T&E list, with a potential to occur within 5-miles of the facility (see attached figure for facility location reference).
- Are there any other data sources that should be reviewed to confirm potential presence of state-listed T&E species within 5-miles of the site?
- We requested that the certificate holder conduct protocol-level WGS surveys to inform the amendment request because the previous surveys were more than 3-years old. The amendment requests to extend the construction deadline from Feb 2021 to Feb 2024, therefore the June 2021 WGS surveys would be less than 3 years by the construction deadline. Could you confirm whether ODFW then concurs that the preconstruction WGS survey requirement may be removed?
- Could you comment on whether ODFW concurs that the facility would continue to be unlikely to cause a significant reduction in the likelihood of survival or recovery of WGS?
    - If there are any other state listed T&E species with a potential to occur within 5-miles of the facility, please comment on whether surveys or other avoidance measures are recommended.
- Anything else?

We can discuss this email during our call this afternoon. Thanks!

Kathleen Sloan
Senior Siting Analyst
Oregon Department of Energy
Siting Division

kathleen.sloan@oregon.gov
Cell: 971-701-4913

MORROW COUNTY

Board of Commissioners

P.O. Box 788 • Heppner, OR 97836
541-676-5613
www.co.morrow.or.us

Commissioner Don Russell, Chair
Commissioner Jim Doherty
Commissioner Melissa Lindsay

June 16, 2021

Kathleen Sloan, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E., 1st Floor
Salem, Oregon 97301

RE: Comment letter, Boardman Solar Energy Facility Preliminary Request for Amendment 1

Dear Ms. Sloan,

Thank you for the request to provide comments on Boardman Solar Energy Facility's Preliminary Request for Amendment 1. It is the understanding of Morrow County that the Amendment 1 request is for the approval of a three-year extension to both the construction commencement and completion deadlines found in the Boardman Solar Energy Facility Site Certificate. Morrow County would not be opposed to this request, as presented, and would support the Applicant's request for extension.

Applicant did, on October 29, 2020 via electronic letter, request an extension to Conditional Use Permit CUP-N-333-18. The request was made prior to the expiration date of November 17, 2020 and was granted with a new expiration date of November 17, 2021. Should the applicant not perfect this CUP by applying for, and receiving zoning approval prior to that date, a new CUP would need to be applied for and approved for this project.

This letter also responds to the specific questions you raised with Planning Department staff. While Morrow County Zoning Ordinance (MCZO) Section 3.010(C)(24) does not reflect the Land Conservation and Development Commission's 2019 amendments, Oregon Revised Statute would be directly applied. Additionally, Morrow County has not made any other changes to the MCZO that could be applied to the facility. No additional Goal 5 Inventory, or recreational opportunities have been added since 2018. A map of the current Goal 5 inventory can be found in the Morrow County Comprehensive Plan, posted on the County website at: www.co.morrow.or.us/planning/page/comprehensive-plan

Thank you again for the opportunity to comment on the Boardman Solar Energy Facility Preliminary Request for Amendment 1. If you have any questions about these comments, please contact Planning Director Tamra Mabbott at 541-922-4624 or by email at tmabbott@co.morrow.or.us.

Sincerely,

Don Russell
Chair

Jim Doherty
Commissioner

Absent
Melissa Lindsay
Commissioner

cc: Matt Scrivner, Sandra Pointer, Dave Pranger, Morrow County Public Works
Mike Gorman, Morrow County Assessor & Tax Collector
Michelle Colby, Gilliam County Planning Director
Laura Minor, Invenergy

Board of Commissioners

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www.co.morrow.or.us

Commissioner Don Russell, Chair
Commissioner Jim Doherty
Commissioner Melissa Lindsay

September 1, 2021

Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capitol Street N.E., 1st Floor
Salem, OR 97301

RE: Boardman Solar Energy Facility, Request for Amendment 1 (RFA1)

Dear Mr. McVeigh-Walker,

Morrow County appreciates the opportunity to comment on the Boardman Solar Energy Facility Request for Amendment 1 (RFA1). It is our understanding that RFA1 seeks only to extend the permit timeline and construction period, and that no other changes are proposed for the approximately 798-acre project.

The Department issued its Draft Proposed Order recommending approval of the amendment. The Energy Facility Siting Council is accepting comments until September 6, 2021.

Morrow County, acting as both the Board of Commissioners and the Special Advisory Group, does not object to the proposed extension. The change, if approved, would make the new construction commencement deadline February 23, 2024 and the new construction completion deadline February 23, 2027.

The Planning Department authorized an extension of the Conditional Use Permit (CUP-N-33-2018). That extension expires November 21, 2021. If approved by EFSC, the amended Site Certificate will likewise require an amended Conditional Use Permit. A Zoning Permit will also be required for each individual tax lot within the project boundary.

Additionally, we request the facility owners and developers coordinate in advance of the construction to secure a Road Use Agreement from Matt Scrivner, Morrow County Public Works Director.

As always, Morrow County appreciates the opportunity to coordinate with you and other Department staff. Should you have any questions about this comment letter, or need additional

information, please do not hesitate to contact Tamra Mabbott, Planning Director, 541-922-4624.

Sincerely,

Don Russell
Chair

Jim Doherty
Commissioner

Melissa Lindsay
Commissioner

Cc: Gilliam County Court
Michelle Colby, Gilliam County Planning Director
Port of Morrow
Mike McArthur, Director, Community Renewable Energy Association (CREA)
Matt Scrivner, Morrow County Public Works Director
Mike Gorman, Morrow County Assessor
Tamra Mabbott, Morrow County Planning Director

Oregon
Kate Brown, Governor

OREGON DEPARTMENT OF AVIATION

TO: Chase McVeigh-Walker, Senior Siting Analyst
Oregon Department of Energy
550 Capitol St N.E., 1st Floor
Salem, OR 97301

FROM: Seth Thompson, Aviation Planner
Oregon Department of Aviation
3040 25th Street, SE
Salem, OR 97302-1125
503-378-2529
Seth.Thompson@aviation.state.or.us

DATE: September 3, 2021

RE: Oregon Department of Aviation Agency Report on the Draft Proposed Order on Request for Amendment 1 (RFA1) and Complete RFA1 of the Boardman Solar Energy Facility

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The Oregon Department of Aviation (ODA) appreciates the opportunity to review and comment on the Draft Proposed Order on Request for Amendment 1 (RFA1) and Complete RFA1 of the Boardman Solar Energy Facility. The ODA has reviewed the proposal and provides the following report and comments.

The site certificate amendment request seeks to extend the construction commencement and completion deadlines by three years each. The ODA has no comment regarding the site certificate amendment request. However, the Boardman Solar Energy Facility is positioned between the Boardman Airport in Morrow County and the Arlington Municipal Airport in Gilliam County. For this reason, the ODA wishes to address the potential impacts of glare caused by the solar energy facility to aviation safety.

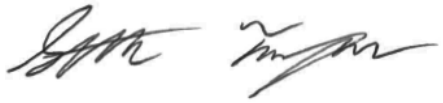
In the 2018 Boardman Solar Energy Facility Application for Site Certificate Final Order, the "Applicant describes in ASC Exhibit L (and elsewhere in the ASC), that it would use solar modules that incorporate anti-reflective technology, which would substantially reduce glare from the facility."[i] In addition, the Applicant performed a "glare/glint analysis using the Sandia Solar Glare Hazard Analysis Tool" and also received a "determination of no hazard to air navigation" from the FAA.[ii]

The ODA appreciates the applicant's efforts to address the potential impacts of glare caused by the solar energy facility. However, due to the positioning of the energy facility, the ODA further encourages the applicant to mitigate the impacts of glare caused by the solar energy facility to prevent interference with aircraft or airport operations at the Boardman Airport and the Arlington Municipal Airport.

The ODA appreciates the opportunity to comment on this proposal. The Department requests to be identified as a party of record for any future applications. If you have any

questions or need clarification on these comments, please feel free to contact me at 503-378-2529 or Seth.Thompson@aviation.state.or.us.

Sincerely,



Seth Thompson, Aviation Planner

CC: Heather Peck, Planning & Projects Manager
Oregon Department of Aviation

[i] Energy Facility Siting Council of the State of Oregon. *Boardman Solar Energy Facility Application for Site Certificate Final Order*. (2018). Page 109.
[ii] Energy Facility Siting Council of the State of Oregon. *Boardman Solar Energy Facility Application for Site Certificate Final Order*. (2018). Page 173.

BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of Request for Amendment 1 for the Boardman Solar Energy Facility Site Certificate
)
)
)
)

DRAFT PROPOSED ORDER ON REQUEST FOR AMENDMENT 1 TO THE SITE CERTIFICATE

ODOE contact: Chase McVeigh-Walker
energy.siting@oregon.gov

Public comment **opposed** to delaying solar farm construction in Boardman

Our Oregon legislature passed HB 2021 which "Requires retail electricity providers to reduce greenhouse gas emissions associated with electricity sold to Oregon consumers to 80 percent below baseline emissions levels by 2030".

According to OPB this bill includes;

- includes $50 million in grants for community renewable energy projects in cities other than Portland, which has its own fund for such projects
- allows cities in Oregon to create so-called "green tariffs," where they agree to pay utilities more money for power from a cleaner mix of sources in order to meet their own climate goals

PGE Vice President of Public Affairs Dave Robertson said in an emailed statement that the bill's passage is "an important step toward the clean energy future we have been pursuing for Oregon and our customers."

If we are to make this reduction in this period of time, fossil fueled electricity production must be **replaced** by clean energy production. This Boardman solar facility is a step in the right direction. Why would we want to wait an additional 2 years to build this clean electricity producing facility?

The proposed facility owner, Invenergy, wants the delay because they do not have contracts for the electricity to be produced. This is where the grants and green tariffs of HB 2021 should be called on. Existing fossil fuel electric generation contracts should be bought out and a generation contract made with this solar facility, now.

Do not allow a 3-year extension of this permit. We need the clean energy now to reduce the impacts of Climate Change.

Julia Pommert
5425 NW Lianna Way
Portland, OR 97229
juliapommert@yahoo.com
(541) 556-3483

Attachment C: Draft Habitat Mitigation Plan

(As Amended in Final Order on Request for Amendment 1, DATE, 2021)

1.0 INTRODUCTION

~~Boardman Solar Energy LLC (Applicant or Certificate Holder) has prepared this document for the Boardman Solar Energy Facility (Facility or BSEF) Application for Site Certificate (ASC) submitted to the Oregon Department of Energy (ODOE).~~ This draft Habitat Mitigation Plan (HMP) provides a preliminary strategy for effectively mitigating impacts to habitat. The habitat categorizations and concepts for mitigation have been discussed with personnel from the Oregon Department of Fish and Wildlife (ODFW).

The Facility is located in Gilliam and Morrow counties, Oregon. Western EcoSystems Technology, Inc. (WEST) completed habitat mapping and categorization of the site in the fall of 2016, and avian use surveys, special status wildlife species surveys, and raptor nest surveys in 2017. Details on habitat types, subtypes, and categories can be found in the ASC Exhibit P and in the Site Characterization Study (ASC Exhibit P Attachment P-2). Details on potential impacts to habitat and special-status species from construction and operation can be found in the ASC Exhibits P and Q, as can avoidance and minimization measures. As imposed in the Site Certificate, the Certificate Holder is required to complete preconstruction habitat surveys, which includes requirements to document observations of active state-listed or sensitive bird species nests, wetlands, and other state-listed threatened or endangered species (Condition PRE-FW-01). The ~~Applicant~~ Certificate Holder is committed to mitigate impacts to Category 4 grassland and shrub-steppe habitat that cannot be avoided or minimized with in-kind or out-of-kind habitat mitigation measures in- proximity or off-proximity to the Facility site boundary with input from ODFW.

2.0 DESCRIPTION OF FACILITY IMPACTS ADDRESSED BY THE PLAN

The Facility will be constructed within an approximately 798 acre-site boundary of privately owned land and will have a generating capacity of approximately 75 megawatts and a 2.1-mile-long overhead 115-kilovolt transmission line. The types of habitat present within the site boundary are identified in Table 1.

Table 1. Habitat Types within the Site Boundary

General Land Cover Type and Codes	Specific Habitat Type ("Subtype") and Mapping Codes	Description	Acres in Site Boundary
Wetland	Herbaceous	Includes various wetland classes such as palustrine emergent, forested and scrub-shrub with no open water. However, no distinction was made here between formal wetland classes (refer to **Exhibit J** for more detail regarding wetland types). Predominant species found within the wetlands included cattail (*Typha latifolia*), watercress (*Nasturtium officinale*), softstem bulrush (*Schoenoplectus tabernaemontani*), and western goldenrod (*Euthamia occidentalis*).	11.4
	Open Water	Excavated area along west side of Threemile Canyon Road. Dominated by cattail and softstem bulrush.	0.5
Grassland (G) Steppe dominated by native and/or non-native grasses (<20% shrub cover)	Exotic Annual Grassland (GA)	Dominated by two non-native grass species associated with heavy grazing and periodic burning: cheatgrass (*Bromus tectorum*) and bulbous bluegrass (*Poa bulbosa*). Scattered gray rabbitbrush and (*Ericameria nauseosa*) snakeweed (*Gutierrezia sarothrae*) were also present throughout.	664.5
	Native Perennial Grassland (GB)	Predominantly native bunchgrasses such as bluebunch wheatgrass (*Pseudoroegneria spicata*). Native forb species (e.g., northern buckwheat [*Eriogonum compositum*], arrowleaf balsomroot [*Balsamorhiza sagittata*]) are likely in these areas.	7.3
Shrub-steppe (SS) dominated by native and/or non-native grasses (<20% shrub cover)	Rabbitbrush/ Snakeweed Shrub-steppe (SSB)	Dominated by gray rabbitbrush and snakeweed, with small isolated areas of big sagebrush (*Artemisia tridentata*) also present. Understory was dominated by cheatgrass.	113.9
Total			798

Acreages of disturbance within the site boundary are the current estimate of the maximum affected area (the permanent [facility footprint] and temporary [construction] impacts) (Table 2). The actual areas of disturbance will be determined based on the final design layout of the Facility. In accordance with Condition PRE-FW-01, t~~T~~he final design layout of the Facility will be provided to ODOE and ODFW, along with the associated permanent and temporary impact acreages prior to the beginning of construction.

Table 2. Temporary and Permanent Disturbance by Habitat Category and Subtype.

Habitat Category	Habitat Subtype	Permanently Disturbed	Temporarily Disturbed	Total Disturbed
2	Herbaceous Wetland	0	0	0
	Open Water Wetland	0	0	0
	Subtotal	0	0	0
4	Exotic Annual Grassland	472.45	26.62	499.07
	Native Perennial Grassland	0.05	4.08	4.13
	Rabbitbrush/Snakeweed Shrub-steppe	13.53	28.29	41.82
	Subtotal	486.03	58.99	545.02
Total		**486.03**	**58.99**	**545.02**

Oregon Administrative Rule (OAR) 635-415-0025, ~~the~~ ODFW's Fish and Wildlife Habitat Mitigation Policy), defines habitats based on type, quality, availability, and usefulness/importance to wildlife, and establishes mitigation goals and implementation standards for each.

Category 1 habitat is defined by OAR 635-415-0025 as irreplaceable, essential, and limited. As further described in the ASC Exhibit P, the Facility may have suitable habitat for Washington ground squirrel (WGS) along the transmission line. If WGS colonies are present, the WGS colonies and a 785-foot buffer around those colonies would be considered Category 1 habitat. The Facility was designed and microsited to avoid all Category 1 habitat, and thus Facility components and activities are not expected to impact such habitat. WGS protocol surveys will be conducted prior to construction ~~in the spring of 2017~~ to confirm no WGS habitat will be impacted. WGS protocol survey results are valid for 3-years.

Category 2 habitat is defined by OAR 635-415-0025 as essential and limited. Approximately 11.892 acres of wetlands were identified within the Facility site boundary. Based on the "essential and limited" criteria, discussion with ODFW during the November 21 site visit, and the value of such wetlands to wildlife generally and, in particular, to species of special state or federal status, the wetlands were determined to be Category 2 habitat. The Facility was designed and microsited to avoid all Category 2 habitat and a significant portion of the surrounding area (see ASC Exhibit P Figure P-1).

Category 4 habitat is defined by OAR 635-415-0025 as important. The remainder of the Facility's 486.03-acre footprint (area to be covered by permanent facilities) will occupy predominantly exotic annual grassland, with smaller portions of shrub-steppe and native perennial grassland (see ASC Exhibit P Figure P-1). All three habitat types have been classified as Category 4 habitat based on discussion with ODFW onsite on November 21, 2016, to be reaffirmed prior to construction per Condition PRE-FW-01.

In addition to the permanent impacts mentioned above, construction will entail temporary impacts to 58.99 acres of Category 4 habitat (exotic annual grassland, shrub-steppe, and native perennial grassland). There will be no disturbance to Category 1 or 2 habitats.

3.0 HABITAT MITIGATION AREA

The exact permanent and temporary disturbance areas cannot be determined until the final design layout of the Facility is known. In accordance with Condition PRE-FW-01, ~~Before beginning construction of the facility~~, the Certificate Holder shall, prior to construction: provide to the Oregon Department of Energy (ODOE) and the Oregon Department of Fish and Wildlife (ODFW) a map showing the final design configuration of the Facility and an updated Table 2 showing the estimated areas of permanent impacts and temporary impacts on habitat (by category, habitat types and habitat subtypes). In accordance with Condition PRE-FW-05, t~~T~~he Certificate Holder shall calculate the size of the habitat mitigation area (HMA), as illustrated below, based on the final design configuration of the Facility. The Certificate Holder shall implement the habitat enhancement actions described in this plan, after ODOE has approved the size of the HMA.

The HMA must be large enough and have the characteristics to meet the standards set in OAR 635-415-0025. The standards for Category 1 mitigation is "no loss of either habitat quantity or quality." The mitigation goal for Category 2, if impacts are unavoidable, is "no net loss of either habitat quantity or quality and to provide a net benefit of habitat quantity or quality" (ODFW Wildlife Habitat Mitigation Policy). The standards for Category 4 mitigation require "no net loss of either habitat quantity or quality."

The ~~Applicant~~ Certificate Holder has designed the Facility to completely avoid Habitat Categories 1 and 2. For the permanent impacts to Category 4 habitat, and to satisfy the ODFW "no net loss" in habitat quantity goal, the HMA must include one acre for every acre of impact (a 1:1 ratio). For the permanent impacts to Category 4 habitat, and to satisfy the ODFW "no net loss" in habitat quality goal, the HMA must include sufficient opportunities for habitat enhancement actions. To address the temporal loss of habitat quality during the recovery of Category 4 habitat temporarily disturbed during construction of the Facility, the HMA must include ½ acre for every Category 4 habitat affected (a 0.5:1 ratio).[1] The total HMA is calculated as shown in Table 3, and will be updated once the final design configuration is complete.

Table 3. Habitat Mitigation Area by Habitat Category and Subtype.

Habitat Category	Habitat Subtype	1:1 Ratio	0.5:1 Ratio	Total
2	Herbaceous Wetland	0	0	0
	Open Water Wetland	0	0	0
	Subtotal	0	0	0
4	Exotic Annual Grassland	472.45	~~13.31~~0	~~485~~472 ~~.76~~45
	Native Perennial Grassland	0.05	~~2.04~~0	~~2.09~~0.05
	Rabbitbrush/Snakeweed Shrub-steppe	13.53	14.15	27.68
	Subtotal	486.03	~~29.50~~14.15	~~515~~500 ~~.53~~18

[1] Temporal loss refers to loss of habitat function and values from the time an impact occurs to the time when the restored habitat provides a pre-impact level of habitat function. Habitat subtypes identified within the site boundary, including rabbitbrush/snakeweed shrub-steppe are reasonably expected to require a longer restoration timeframe (5+ years) and therefore would be expected to result in temporal loss requiring compensatory mitigation beyond the certificate holder's revegetation obligation.

Total	**486.03**	**~~29.50~~14.15**	**~~515.53~~ 500.18**

For unavoidable permanent and temporary impacts of Category 4 habitat, the ~~Applicant~~ Certificate Holder will use in-kind or out-of-kind habitat mitigation measures in-proximity or off-proximity to the Facility to effectively offset impacts in consultation with the Department and ODFW and consistent with Council's Fish and Wildlife Habitat standard (OAR 345-022-0060) (which implements ODFW's Habitat Mitigation Policy (OAR 635-415-0005)), ~~which are~~ defined as follows:

> *"In-kind Habitat Mitigation" means habitat mitigation measures which recreate similar habitat structure and function to that existing prior to the development action.*
>
> *"Out-of-kind Habitat Mitigation" means habitat mitigation measures which result in different habitat structure and function that may benefit fish and wildlife species other than those existing at the site prior to the development action.*
>
> *"In-proximity Habitat Mitigation" means habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, "in proximity to" means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development.*
>
> *"Off-proximity Habitat Mitigation" means habitat mitigation measures undertaken outside the area that would constitute "in-proximity mitigation" but within the same physiographic province as the development action.*

The Certificate Holder shall therefore select a ~~515~~500.~~53~~18 acre HMA either in the same home range or physiographic province of the Facility and either lease or purchase the area to benefit similar or different habitat than those at the Facility.

The Certificate Holder~~Applicant~~ has identified a 515.53 acre parcel that would benefit similar habitat within the same home range of the Facility (BSEF Olex HMA). It is located in the Olex Conservation Opportunity Area (Olex COA) in Gilliam County managed by the onsite owners (see Figure 1). The Olex COA is a 2,100 acre area where the Willow Creek Wind Project conservation easement is located along with other long-term habitat protection measures and conservation areas in place (see Figure 2). Collectively, the long-term conservation easements provide value for wildlife habitat functionality within and adjacent to the proposed BSEF HMA. The BSEF Olex HMA habitat includes a mosaic of exotic annual grassland, rabbitbrush/buckwheat shrub-steppe, sagebrush shrub-steppe, perennial grassland, and native perennial grassland; these are displayed as general land cover types in Figure 2. There are 833 acres available, and the 515.53 BSEF HMA will be located at the south end within 645 acres illustrated on Figure 2 that is near other protected habitat. The habitat is of varying quality but could all be classified as Categories 2, 3 and 4. The Olex COA also has Category 1 (Washington ground squirrel) habitat. The BSEF Olex HMA will be protected through a conservation easement.

In the future, the Certificate Holder may, in consultation with ODFW and ODOE, select a HMA parcel other than the BSEF Olex HMA as long as it still meets the concepts outlined in this HMP, subject to ODOE approval.

4.0 HABITAT MITIGATION ACTIONS & SUCCESS CRITERIA

The Certificate Holder shall restrict uses of the HMA during the life of the Facility that are inconsistent with the goal of no net loss in habitat quantity or quality to Category 4 habitat. Specific habitat quality ~~maintenance~~ actions that will ~~preserve~~ enhance the HMA habitat **at minimum** Category 4 quality and quantity will include the following:

- Restricting development of buildings or other structures;
- Restricting livestock grazing practices to those that benefit wildlife;
- Inspecting for and then removing or chemically treating noxious weeds in the spring prior to the growing season to benefit vegetative structure and complexity for wildlife;
- Revegetating with native vegetation (by seeding) in bare ground areas created by weed control; and
- Preparing a wildfire response plan that takes into account the arid nature of the region and addresses risks on a seasonal basis.

As presented, the above list represents the minimum actions to be considered for implementation at the HMA. Section 4.1 describes applicable preconstruction requirements to further evaluate HMA habitat and enhancement opportunities suitable to satisfy the Category 4 habitat mitigation goal.

The conservation and enhancement of the HMA will be completed as compensation for the 545 acres of unavoidable ~~temporary and~~ permanent disturbance of Category 4 grassland and shrub-steppe habitat, and temporal disturbance of Category 4 shrub-steppe habitat. ~~This plan does not include additional avoidance and minimization measures discussed in ASC Exhibits P and Q and the BSEF Wildlife Monitoring and Adaptive Management Plan.~~

Mitigation of the permanent and temporal habitat impacts of the Facility may be considered successful if the Certificate Holder protects and enhances sufficient habitat within the HMA to meet the ODFW goal of no net loss of habitat quantity or quality in Category 4. The Certificate Holder must protect the quantity and enhance the quality of habitat within the HMA for the life of the Facility. The mitigation goals are successfully achieved when the HMA contains a sufficient quantity and quality of habitat ~~y~~ to meet the mitigation area requirements calculated under Section 3 and enhancement requirements described in Section 4. The Certificate Holder may count habitat of higher value toward meeting the acreage requirements for Category 4 habitat. The Certificate Holder shall determine the actual mitigation area requirements, subject to ODOE approval, before beginning construction of the Facility. The Certificate Holder may demonstrate success based on evidence that the habitat quality at the HMA is maintained and enhanced as Category 4 or higher.

If the revegetation success criteria are not met in the affected areas of temporarily disturbed Category 4 habitat in the Site Boundary, as determined under the Revegetation and Noxious Weed Control Plan (Exhibit P, Appendix P-6), then ODOE may require the Certificate Holder to provide additional mitigation.

If the quality of the HMA habitat has degraded to worse than Category 4, and as determined during the regularly scheduled monitoring program or at any time the Certificate Holder becomes aware of degradation, the Certificate Holder shall describe if/why the ~~maintenance~~ enhancement actions were not effective and then propose and implement remedial action. Details and monitoring for success will be prepared at that time, with input from the ODOE and ODFW. In addition~~al~~ to improving maintenance actions, if possible, some enhancement actions could include the following:

- planting native grasses and shrubs;
- removing old barbed wire fencing;
- installing artificial burrowing owl nest burrows; and/or
- installing wildlife watering guzzlers.

4.1 HMA Preconstruction Requirements

Prior to construction of the Facility, Certificate Holder shall complete the following steps:

1) HMA Habitat Assessment: Certificate Holder shall conduct a desk-top or field survey, as determined appropriate by ODOE, in consultation with ODFW, of the HMA. Certificate Holder shall submit a report or memo, including maps and tables, identifying the habitat sub-type/vegetation characteristics of all acreage within the HMA and polygons of areas identified/recommended as suitable for enhancement actions identified in Section 4.

2) Grazing Assessment: Certificate Holder shall submit a report or memo to ODOE and ODFW describing the current grazing management practices within the HMA, including information such as Animal Unit Months (AUMs) and pasture rotation schedule; and shall describe measures Certificate Holder intends to employ to track and monitor changes in grazing practices within the HMA for the life of the Facility.

3) Enhancement Action Review: Following review of the HMA Habitat Assessment, Certificate Holder shall seek input from ODOE and ODFW on enhancement action opportunities at the HMA. Enhancement actions may be based on review of the HMA Habitat Assessment or HMA site visit conducted by Certificate Holder, ODOE and ODFW, or both. The final Plan shall include a detailed description of final enhancement actions to be implemented and monitored at the HMA.

4) Success Criteria: Following identification of final list of enhancement actions, Certificate Holder shall propose, for ODOE and ODFW review and approval, success criteria appropriate for tracking the success of enhancement actions to be implemented and monitored at the HMA.

5) Monitoring and Reference Site Identification: Applicant shall identify paired monitoring and reference sites. Reference sites shall be identified, in consultation with ODFW, near the enhancement areas to represent pre-enhancement conditions. One or more reference sites shall be identified that closely resembles the pre-enhancement characteristics of the identified enhancement areas The Certificate Holder shall consider land use patterns, soil type, local terrain, and noxious weed densities in selecting reference sites. Once reference sites are selected by the Certificate Holder and approved by ODOE in consultation with ODFW, the reference site shall remain in the same location unless approval for use of a differing reference site is obtained by ODOE in consultation with ODFW. Prior to construction of the Facility or any phase of the Facility, the Certificate Holder shall provide to ODOE and ODFW a map and table presenting pre-enhancement habitat category/vegetation characteristics and latitude and longitude of the reference sites; enhancement areas; and designated monitoring sites within enhancement areas in proximity to the reference sites.

6) Legal Instrument: Prior to construction of the Facility, the Certificate Holder or third party will acquire the legal right to create, maintain, and protect the HMA for the life of the Facility by means of an outright purchase, conservation easement, or similar conveyance and will provide a copy of the documentation to ODFW and ODOE. The legal instrument shall, at a minimum, adhere to the requirements outlined in Section 5 of the Plan.

4.2 HMA Legal Instrument

Certificate Holder will enter into an enforceable and recordable legal instrument, such as a

landowner agreement, memorandum of understanding, conservation easement, or other similar conveyance that demonstrates reliability and durability of the habitat mitigation and Plan.

The legal instrument shall reference and be consistent with the Plan. In the event of ownership transfer of the HMA, if not owned by Certificate Holder, the Certificate Holder shall notify ODOE and ODFW, and shall enter into a new agreement with the new landowner.

The legal instrument shall include a map and description of all existing structures, existing impervious surfaces and access road networks within the HMA.

Prior to construction, the Certificate Holder shall provide a draft of the legal instrument to ODOE for review and approval, in consultation with ODFW.

5.0 MONITORING

The Certificate Holder will hire a qualified investigator (a botanist, wildlife biologist or vegetation specialist) to conduct an annual site visit of the HMA to ensure that the quality of the habitat is maintained at a Category 4 or higher. Monitoring for habitat maintenance actions will include describing if any development has occurred, recording signs and extent of livestock grazing, assessing for noxious weeds, describing if any wildfires occurred and any response measures, recording incidental wildlife observations, including special status plants and animals, and documenting habitat quality category/categories. Following completion of the preconstruction HMA requirements outlined in Section 4.1, Certificate Holder shall establish m~~M~~onitoring methods for enhancement actions, including success criteria~~, will be established if/when they are employed~~. All methods and results of monitoring will be reported to ODOE and ODFW.

In addition, as part of the wildfire response plan, onsite owners will notify the Certificate Holder of any wildfire when it occurs.

6.0 PLAN AMENDMENT

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. ~~This Habitat Mitigation Plan may be amended by written agreement of the holder of the Site Certificate and the Oregon Energy Facility Siting Council. Amendments to this Plan will not require an amendment of the Site Certificate.~~

[redacted]

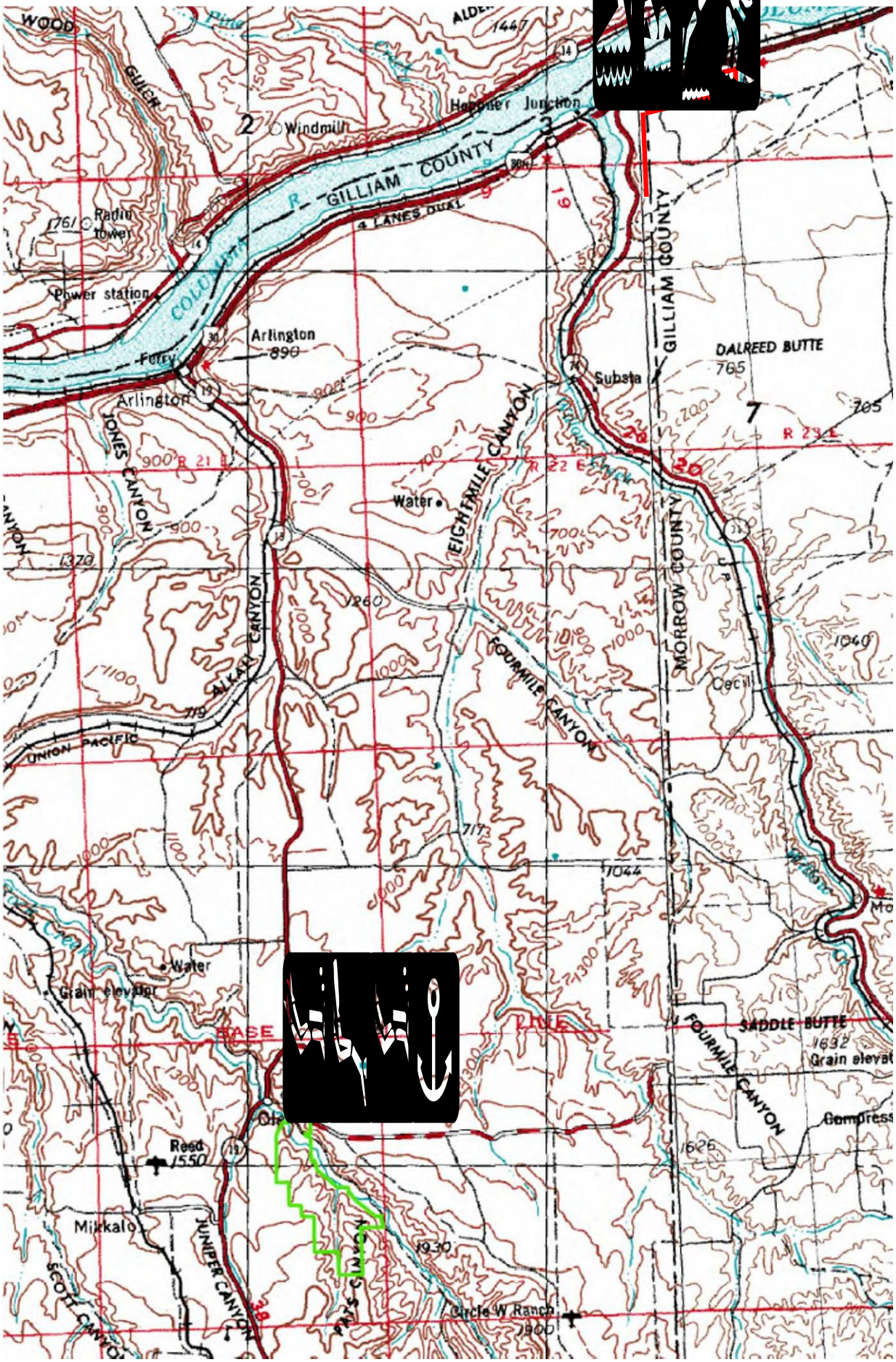
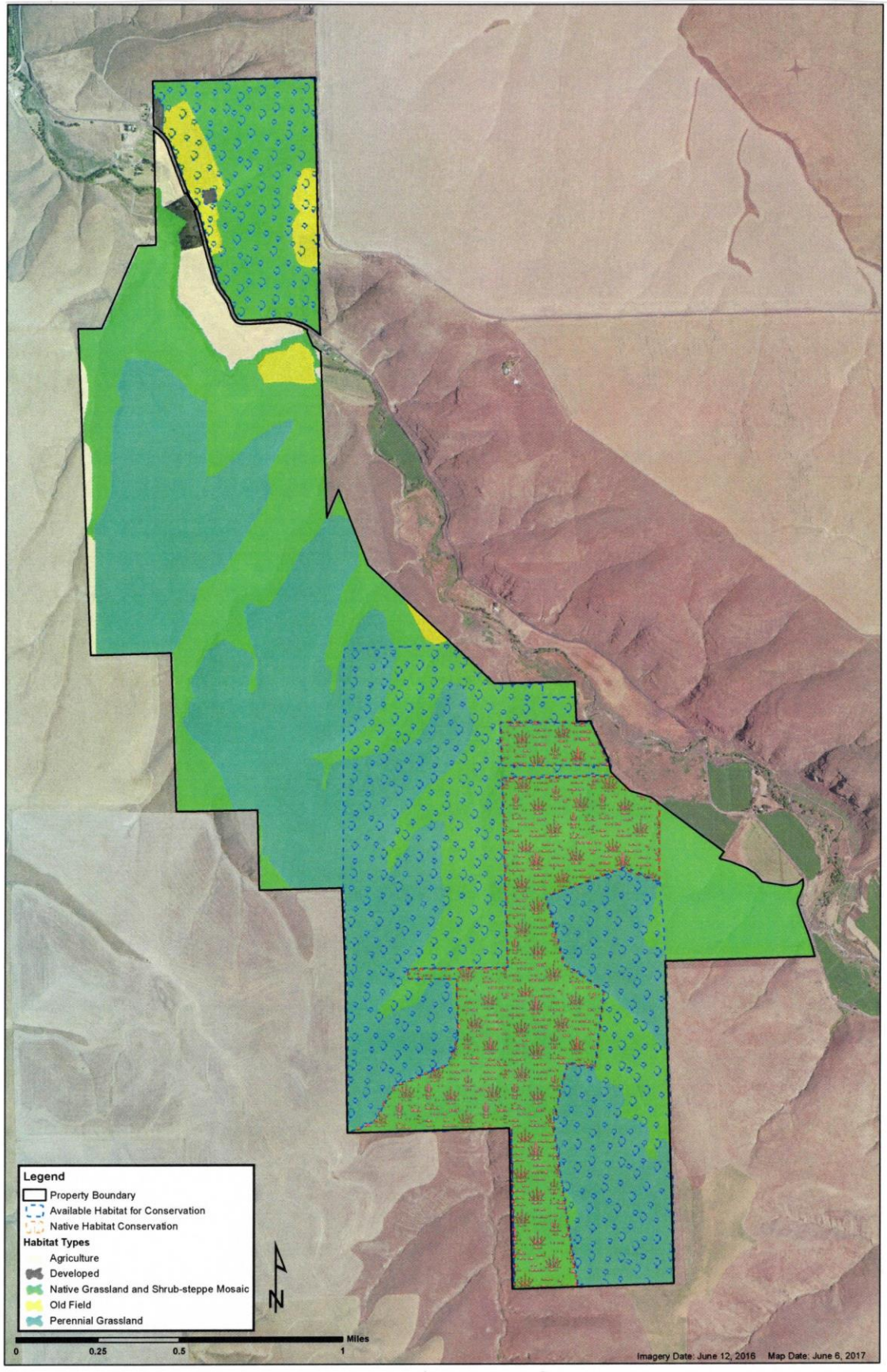

GILLIAM COUNTY
4 LANES DUAL
Hepner Junction
Windmill
Radio tower
Power station
Arlington
890
Arlington
Fury
JONES CANYON
ALKALI CANYON
EIGHTMILE CANYON
FOURMILE CANYON
MORROW COUNTY
GILLIAM COUNTY
Substa
DALREED BUTTE
765
Water
Cecil
UNION PACIFIC
Grain elevator
SADDLE BUTTE
1632
Reed
1550
Mikkalo
JUNIPER CANYON
Circle W Ranch
1900
R 21 E
R 22 E
R 23 E

Figure 2. Olex Conservation Opportunity Area habitat types available for conservation.
179 acres available at north end, 515+ acres (645 ac. shown) available at south end around habitat in long term conservation.



Attachment D: Draft Revegetation and Weed Control Plan

1.0 INTRODUCTION

Boardman Solar Energy LLC (Applicant or Certificate holder) has prepared this document for the Boardman Solar Energy Facility (Facility or BSEF) Application for Site Certificate (ASC) submitted to the Oregon Department of Energy (ODOE). This draft Revegetation and Noxious Weed Control Plan (RNWCP) provides primary concepts for effective revegetation and noxious weed control. These concepts have been discussed with personnel from the Oregon Department of Fish and Wildlife (ODFW) and with Morrow County Weedmaster Dave Pranger. The Applicant will continue to consult with ODFW, Morrow County Weedmaster, and also with Gilliam County Weedmaster Don Farrar. This RNWCP also provides concepts for effective vegetation management to limit potential for wildfire to spread in to or from the Facility area.

The Facility is located in Gilliam and Morrow counties, Oregon. Western EcoSystems Technology, Inc. (WEST) completed habitat mapping and categorization of the site in the fall of 2016, and avian use surveys, special status wildlife species surveys, and raptor nest surveys in 2017. Details on habitat types, subtypes, and categories can be found in the ASC Exhibit P and in the Site Characterization Study (WEST, 2016). Details on potential impacts to habitat and special status species from construction and operations can be found in the ASC Exhibits P and Q, as can avoidance and minimization measures. The Applicant is committed to minimizing impacts to Category 4 grassland and shrub-steppe habitat that cannot be avoided.

2.0 DESCRIPTION OF FACILITY IMPACTS ADDRESSED BY THE PLAN

The Facility will be constructed within an approximately 798-acre site boundary of privately owned land and will have a generating capacity of approximately 75 megawatts and a 2.1-mile overhead 115-kilovolt transmission line. The types of habitat present within the site boundary are identified in Table 1.

Table 1. Habitat Types within the Site Boundary

General Land Cover Type and Codes	Specific Habitat Type ("Subtype") and Mapping Codes	Description	Acres in Site Boundary
Wetland	Herbaceous	Includes various wetland classes such as palustrine emergent, forested and scrub-shrub with no open water. However, no distinction was made here between formal wetland classes (refer to **Exhibit J** for more detail regarding wetland types). Predominant species found within the wetlands included cattail (*Typha latifolia*), watercress (*Nasturtium officinale*), softstem bulrush (*Schoenoplectus tabernaemontani*), and western goldenrod (*Euthamia occidentalis*).	11.4
	Open Water	Excavated area along west side of Threemile Canyon Road. Dominated by cattail and softstem bulrush.	0.5
Grassland (G) Steppe dominated by native and/or non-native grasses (<20% shrub cover)	Exotic Annual Grassland (GA)	Dominated by two non-native grass species associated with heavy grazing and periodic burning: cheatgrass (*Bromus tectorum*) and bulbous bluegrass (*Poa bulbosa*). Scattered gray rabbitbrush and (*Ericameria nauseosa*) snakeweed (*Gutierrezia sarothrae*) were also present throughout.	664.5
	Native Perennial Grassland (GB)	Predominantly native bunchgrasses such as bluebunch wheatgrass (*Pseudoroegneria spicata*). Native forb species (e.g., northern buckwheat [*Eriogonum compositum*], arrowleaf balsomroot [*Balsamorhiza sagittata*]) are likely in these areas.	7.3
Shrub-steppe (SS) dominated by native and/or non-native grasses (<20% shrub cover)	Rabbitbrush/ Snakeweed Shrub-steppe (SSB)	Dominated by gray rabbitbrush and snakeweed, with small isolated areas of big sagebrush (*Artemisia tridentata*) also present. Understory was dominated by cheatgrass.	113.9
Total			798

Acreages of impact are the current estimate of the maximum affected area (the permanent [facility footprint] and temporary [construction] impacts) (Table 2). The actual areas of disturbance will be determined based on the final design layout of the Facility. The final design layout of the Facility will be provided to ODOE and ODFW, along with the associated permanent and temporary impact acreages prior to the beginning of construction.

Table 2. Temporary and Permanent Disturbance by Habitat Category and Subtype

Habitat Category	Habitat Subtype	Permanently Disturbed	Temporarily Disturbed	Total Disturbed
2	Herbaceous Wetland	0	0	0
	Open Water Wetland	0	0	0
	Subtotal	0	0	0
4	Exotic Annual Grassland	472.45	26.62	499.07
	Native Perennial Grassland	0.05	4.08	4.13
	Rabbitbrush/Snakeweed Shrub-steppe	13.53	28.29	41.82
	Subtotal	486.03	58.99	545.02
Total		**486.03**	**58.99**	**545.02**

3.0 WEED MANAGEMENT PLAN

As described in Section 2.0, Facility impacts will primarily be in exotic annual grassland and some in native perennial grassland and shrub-steppe. In addition to the invasive species cheatgrass (*Bromus tectorum L.*), per Morrow County Weedmaster Dave Pranger, there are known occurrences of diffuse knapweed (*Centaurea diffusa*; Morrow County weed of economic importance) and potential occurrences of rush skeletonweed (*Chondrilla juncea L.*; Morrow County noxious weed) and yellow star-thistle (*Centaurea solstitialis L.*; Morrow County noxious weed). Weed lists are maintained by Morrow County in Section 9 Weed Control of the County Code Enforcement Ordinance. This RNWCP also serves as the Weed Management Plan required by the Morrow County Code Enforcement Ordinance Section 9.300(B).

Prior to construction, a weed survey will occur in all areas to be impacted by Facility construction to get a baseline of conditions. The location of all noxious species and weeds of economic importance will be maps and flagged for treatment. They will be treated because, even though much of the Facility area will be cleared of vegetation, treatment will help prevent reemergence after construction as well as limit introduction of noxious weeds to other locations.

All flagged noxious species and weeds of economic importance will be promptly (i.e. within 30 days or prior to viable seed production, whichever comes first) treated and/or removed. Occurrences will be treated via mechanical or chemical means in order to reduce the spread of noxious weed seed or plant parts. Plant material and topsoil at treatment areas will be removed and disposed of in a landfill. Vehicles or equipment used to remove noxious weeds or contaminated topsoil will be cleaned before proceeding with other work. After construction and revegetation, weeds will continue to be treated and/or removed in the same manner. In addition, heavy construction vehicles will be cleaned before entering the site so as to limit introduction of noxious weeds from other locations.

4.0 REVEGETATION METHODS

Revegetation will begin as soon as feasible after completion of construction for temporary impacts, and demolition for permanent impacts as part of final restoration, and seeding and planting will be done in a timely manner and in the appropriate season. Soil preparation will involve standard, commonly-used methods, and will take into account all relevant site-specific factors, including slope, size of area, and erosion potential. Topsoil will be restored to the preconstruction condition or better. Mulching and other erosion control measures will be used throughout construction and during revegetation efforts. Preconstruction land use, soil, and vegetation type will help determine the seed mix used for each area to be restored. All disturbed grassland and shrub-steppe habitat will be reseeded with a mix of native or native-like grasses, forbs, and shrubs. Seed mix and application rates will be determined in consultation with the landowner and ODFW, and will take into consideration soil types, erosion potential, and growing conditions. ODFW has suggested between 0 and 10 percent forbs and shrubs for grassland habitat restoration. Seeds will be obtained from a reputable supplier in compliance with the Oregon Seed Law.

Methods and timing of planting will be appropriate to the seed mix, weather conditions, and site conditions (including area size, slope, soil depth and composition, and erosion potential). Preparation of disturbed ground may include replacing lost topsoil and/or chemical or mechanical weed control. Two common application methods are described below.

a) Broadcasting

In this method, which may be used successfully in areas with shallow and rocky soils, the seed mix will be broadcast at specified application rates. Broadcasting should not be utilized when winds exceed five miles per hour. If feasible, half of the seed mix will be broadcast in one direction, with the other half broadcast perpendicular to the first half. A tracking dye may be added to facilitate uniform application. Certified weed-free straw will be applied at a rate of two tons per acre immediately after seeding; straw may either be crimped into the ground or applied with a tackifier.

b) Drilling

In this method, which is more successful in areas with deeper soils, seed will be planted using an agricultural or range seed drill according to application rates recommended by the seed supplier.

In order to encourage revegetation success, grazing and other activities will be restricted until revegetation is determined successful in accordance with Section 6. This will be done after completion of construction for temporary impacts, and demolition for permanent impacts as part of the land agreement.

5.0 VEGETATION MANAGEMENT

During construction, most of the vegetation will be removed from the 545 acre area with grubbing and grading equipment. Any vegetation that grows back in the 486 acre area of permanent disturbance will be managed in order to limit potential for wildlife to spread to or from the Facility area. Management will be via mechanical and/or chemical means. Mechanical methods will include use of gravel or other noncombustible base (in accordance with the fire prevention plan as described in ASC Exhibit B Section

B.1.5) and/or physical removal. Chemical methods could include an annual emergent and/or spot spraying. The intent will be to eliminate fuel for wildfire to spread in to or out of the Facility.

6.0 MONITORING

Monitoring of the revegetation and weed management effort will be conducted by an independent botanist or revegetation specialist; this monitoring will be done during the first growing season after planting and continuing until there is sufficient evidence of progress for ODOE to conclude that additional revegetation or weed management efforts in the area are not necessary. Thereafter, the monitor shall perform qualitative assessments of the restored areas at five-year intervals for the life of the Facility. The monitor will also train Operations and Maintenance (O&M) personnel on how to identify and treat weeds in the interim to improve likelihood of on-going revegetation success.

Nearby reference sites (approximating preconstruction conditions) will be selected as targets toward which revegetation will aim. Reference sites will be chosen with consideration to land use patterns, soil types, terrain, and presence of noxious weeds. At present, these reference sites occur to the west of the Facility across the County line and to the east of the Facility across Threemile Canyon Road. New reference sites may be chosen if land use changes, wildfire, or other disturbance makes a chosen reference site no longer representative of target conditions.

The specialist will assess extent of bare soil, weed growth and success of revegetation and weed control measures. Assessments will address whether each revegetation area is trending toward meeting the success criteria described below. During each assessment, revegetated areas will be compared to ensure they meet or exceed reference site conditions with regard to the following:

- Extent of bare soil
- Presence and density of weeds
- Degree of erosion
- Vegetative density
- Proportion of desirable vegetation
- Species diversity and structural stage of desirable vegetation

Records will also be kept by the holder of the Site Certificate of revegetation efforts that will include the following:

- Date construction was completed
- Description of the affected area
- Date revegetation was initiated
- Description of the revegetation effort

Revegetation efforts and monitoring reports will be reported to ODOE and ODFW each year in which monitoring is conducted until there is sufficient evidence of progress for ODOE to conclude that additional revegetation or weed management efforts in the area are not necessary, and thereafter, at five-year intervals for the life of the Facility. Each report will involve an assessment of the progress toward revegetation objectives. The overarching metric for success is when the habitat quality (erosion, desirable

vegetation density, and diversity) is equal to or better than the quality at the relevant reference site according to the conditions described above and is restored to pre-construction (or better) ODFW habitat category.

Remedial action options will be identified in cases where success criteria are not met, whether due to wildfire subsequent to construction or because of lower than expected rates of germination or survival. Remedial actions may include reseeding or other measures. The specialist will make recommendations for remedial actions after each monitoring visit, and the holder of the Site Certificate will take appropriate measures to meet the restoration objectives. The holder of the Site Certificate will include in its annual report the specialist's recommendations for remedial actions and the measures taken. For the qualitative assessments performed at five-year intervals (after ODOE concludes that additional revegetation or weed management efforts in the area are not necessary), the investigator shall assess the general condition of the revegetated areas, check for erosion or weed control problems, and report on any damage to revegetated areas that may be attributed to off-road vehicle use. The investigator will include in the report any remedial actions recommended. The Certificate Holder shall submit the qualitative assessment reports to ODOE as part of the facility annual report for the years in which assessments are done.

Based on the assessment and report at the end of the fifth year or at the time that success criteria has been substantially achieved, whichever is earlier, the holder of the Site Certificate will consult with ODOE and ODFW to design an action plan for subsequent years during operations. The holder of the Site Certificate may propose remedial actions and/or additional monitoring for areas that have not met the success criteria. Alternatively, revegetation efforts may in some cases be deemed to have failed, and mitigation may be proposed in such cases to compensate for the permanent habitat loss.

In all cases, ODOE, in consultation with ODFW, will review the Applicant's proposed remedial actions, and may recommend or require one or more of those actions and/or additional remedial actions.

7.0 PLAN AMENDMENT

This Revegetation and Noxious Weed Control Plan may be amended by written agreement of the holder of the Site Certificate and the Oregon Energy Facility Siting Council. Amendments to this Plan will not require an amendment of the Site Certificate.

Attachment E: Wildlife Monitoring and Adaptive Management Plan

1.0 BACKGROUND AND GOALS

Boardman Solar Energy LLC (Certificate Holder) has prepared a Wildlife Monitoring and Adaptive Management Plan (WMAMP) for the Boardman Solar Energy Facility (BSEF or Facility) Application for Site Certificate (ASC) submitted to the Oregon Department of Energy (ODOE) (Application). The WMAMP provides a detailed plan for post-construction wildlife monitoring and adaptive management, to be finalized with input from Oregon Department of Fish and Wildlife (ODFW). Preliminary concepts associated with this proposed plan have been discussed with ODFW staff.

The specific goals of the WMAMP are to

1) describe a post-construction monitoring protocol designed to determine the estimated bird and bat fatality rates at the BSEF during four seasons of operation;
2) assess effectiveness of avoidance and minimization measures with respect to birds and bats as outlined in Exhibits P and Q to the Application and implemented during design, construction, operation, maintenance, and decommissioning; and
3) identify adaptive management procedures to guide management actions for the life of the BSEF.

2.0 MONITORING PLAN

2.1 Monitoring Goals

The WMAMP will involve surveys designed to estimate bird and bat fatality rates at the BSEF. Post-construction monitoring results will be evaluated through adaptive management, which could include more extensive monitoring (as described in Section 3 in this WMAMP). Certificate Holder will analyze bird and bat carcass monitoring data to accomplish the following goals:

- detect carcasses and estimate bird and bat fatality rates for the BSEF;
- estimate fatality rates for species of concern, if practicable; and
- determine whether additional conservation measures are needed to reduce impacts to birds and bats at the BSEF.

2.2 Monitoring Methods

2.2.1 Study Design

This proposed WMAMP is designed to maximize the accuracy of the fatality estimates and to correct for the following sources of field-sampling error: (1) carcasses that occur on a highly periodic basis, (2) carcass removal by scavengers, (3) searcher efficiency, and (4) carcasses or injured birds or bats that may land or move to areas not included in the search transects (Kunz et al. 2007). Post-construction monitoring at the BSEF will involve standardized distance-sampling based carcass searches, searcher efficiency trials, and carcass persistence trials, consistent with recommendations from Huso et.al (2016b) and accepted monitoring designs at other utility-scale solar facilities (WEST 2016a-c).

Surveys of the PV panel area will be conducted using a distance-sampling based methodology. The layout of PV facilities is often well-suited to a distance-sampling approach. Distance sampling involves searching a transect line and assumes that searcher efficiency decreases (possibly dramatically) as a function of distance from the observer, and is ideally suited to situations in which animals (or carcasses) are sparsely distributed across a landscape (Buckland et al. 1993). As the landscape at the BSEF is flat and relatively clear of vegetation, a distance sampling design is well supported, as demonstrated at other PV solar facilities (WEST 2016a; Huso et. al 2016b).

Distance sampling adjusts carcass counts for variable searcher efficiency by calculating the *effective* searcher efficiency along a transect. Effective searcher efficiency is the average probability of detection in the searched area, derived from the detection function. As a highly simplified example, if a searcher walks a 10-m (33-ft) long transect line and detects 90% of all carcasses within 10-m of the line, and 60% of carcasses that are 10 to 30 m (33 to 99 ft) from the line, then the effective searcher efficiency between zero and 10 m would be 0.9 and the effective searcher efficiency between 10 and 30 m would be 0.6. For the total 10 by 30-m area, the effective searcher efficiency would be $\frac{0.9+0.6}{100\ m^2+\ 200\ m^2} = 0.5$.

In practice, searcher efficiency is modeled as a continuous function of distance, and the detection function is estimated from bias trial data. An advantage to the use of data from bias trials is that the assumption that carcasses are randomly distributed within the search area (typical of most distance sampling designs) becomes unnecessary. Furthermore, having a sufficient sample size to fit the detection function is no longer dependent on what is observed, as in most distance sampling studies, and trials can be placed to measure potential covariates such as carcass size and ground cover. The fitted detection function is used to determine the overall probability of detection as well as to inform the approximate effective view shed of non-zero detection probability for observers.

Assuming that vegetation will be well controlled during the monitoring period, searchers will be able to visually scan the full length of the PV array rows (90 m or 295 ft; Figure 1). This will allow observers to walk or drive using ATVs along the Facility's access roads, perpendicular to panel rows, and search 90 meters (295 ft). Surveys will include a 50% sample of the blocks in the PV panel area.

2.2.2 Search Interval and Search Period

Surveys will be conducted once every three weeks November through February, and once every two weeks from March through October in the year following construction; this period includes spring and fall migration and summer nesting/maternity seasons for birds and bats, respectively. Carcass persistence trials will be conducted concurrently with carcasses searches, and if documented scavenger rates indicate that shorter or longer search intervals are needed, the search intervals may be modified to improve carcass detection rates. Guidance from Huso et. al (2016b) suggests determining search intervals such that the average probability a carcass is available to be found is at least 50%. Since carcass persistence may vary by carcass size, search intervals should be determined based on the size or sizes of principal species of interest; for example, if impacts to water-associated birds are a focus, then search intervals can be adjusted based on persistence times for large and medium-sized birds, such as grebes, ducks, and loons.

2.2.3 Searcher Qualifications

Searchers will be trained to conduct carcass searches and will be familiar with and able to accurately identify bird and bat species likely to be found in the BSEF area. Any unknown birds and bats or suspected state or ESA-listed species discovered during carcass searches will reported to a qualified biologist for positive identification.

2.2.4 Data Collection

For each carcass found, data recorded will include the following:

- Photos of the carcass from different angles and including a size-referencing object
- Date and time
- Initial species identification
- Sex, age, and reproductive condition (when possible)
- GPS location
- Nearest BSEF component (PV array, control house/storage facility, equipment, or other)
- Distance from observer when carcass first observed Distance to nearest PV panel
- Substrate/ground cover conditions

- Condition of specimen
    - Alive, no sign of physical trauma
    - Dead and intact
    - Dismembered
    - Feather spot (at least two or more primary feathers, five or more tail feathers, or ten or more feathers)
    - Injured
- Carcass condition (fresh/dry, intact/scavenged)

Bird and bat carcasses found in non-search areas (i.e., outside of the sampled areas described in Section 2.2.1) will be coded as incidental finds and documented in a similar fashion to those found during standard searches. Incidental finds will be included in the raw survey summary totals but will not be included in the estimated fatality calculations.

Searchers will not collect or handle carcasses, and therefore neither state nor federal collecting/salvaging permits will be acquired for this study. Searchers will mark the carcasses with spray paint to prevent recounting.

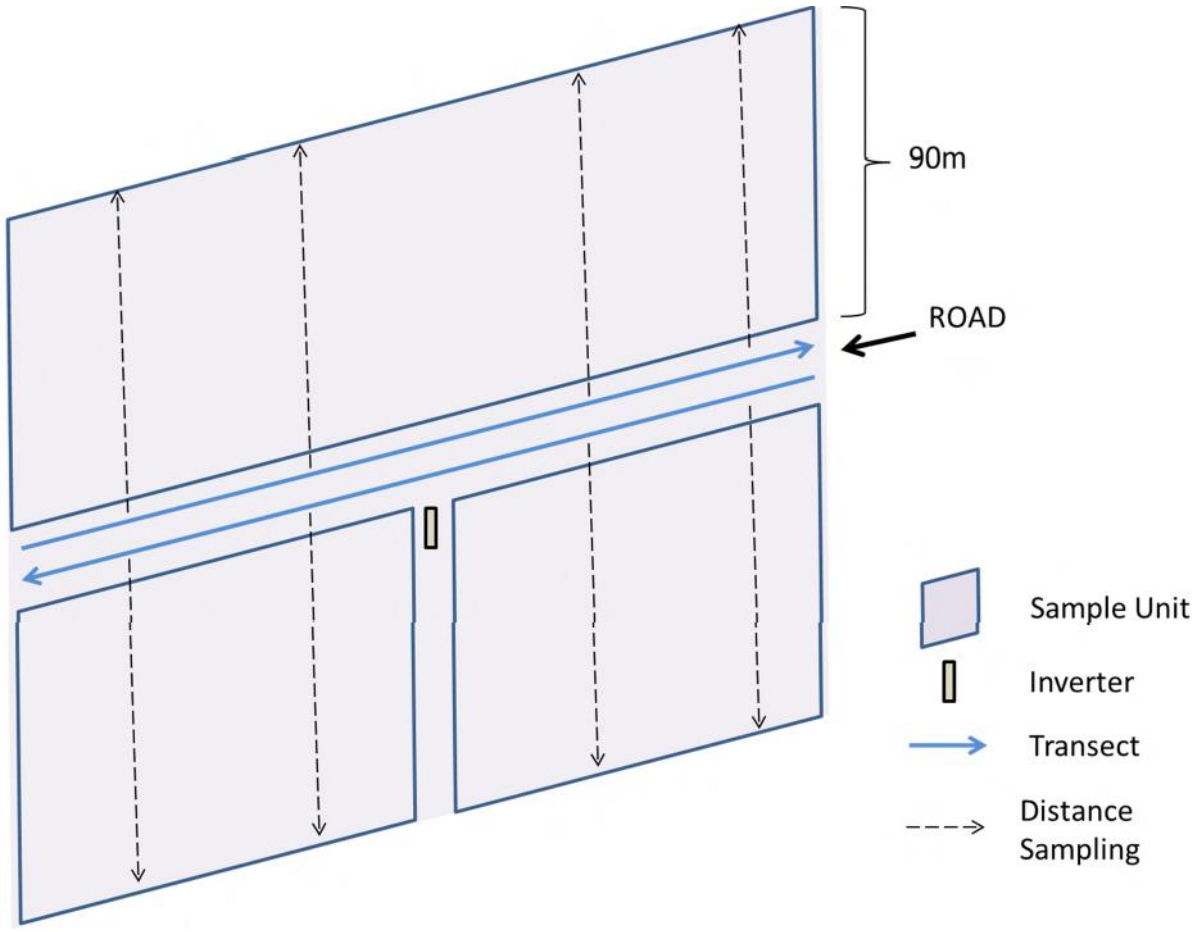


Figure 1. Example illustration of generic PV sampling unit with travel routes and searches using distance sampling ('observation perspectives').

2.2.4.1 Searcher Efficiency and Carcass Persistence Trials

Searcher efficiency and carcass persistence trials will be conducted in conjunction with standard carcass surveys. Searcher efficiency trials will be placed throughout each season on scheduled search days to ensure trials are representative of search conditions throughout each season. Trials will be placed on at least five different days throughout each season. Searcher efficiency trials will be used to estimate the percentage of bird and bat carcasses that are detected during the carcass searches. Using the detection function fit from searcher efficiency trial data, the average probability of detecting a carcass over the 90m (295 ft) length of panel rows can be calculated and used to adjust discovered carcasses for detection bias. Similarly, carcass persistence trials will be used to estimate the percentage of bird and bat carcasses that persist (i.e. are not removed by scavengers) long enough to be located by searchers. When considered together, the results of searcher efficiency and carcass persistence trials will inform the likelihood that a bird or bat carcass that falls within the searched area will be recorded. These correction factors will be incorporated into a fatality estimate model to estimate fatality rates.

The bias-trial sample sizes required to produce precise, adjusted fatality estimates are not well established, in part because needs may vary substantially depending on actual project-specific searcher efficiency, carcass persistence, and fatality rates. However, using searcher-efficiency trials to help evaluate the efficacy of the distance-sampling approach used in this investigation will require larger sample sizes to produce a sampling design that effectively accounts for distance as a key covariate of interest. A minimum of 25 carcass samples per small size class, 15 for medium, and 10 for large is anticipated within the solar array, per season. Searcher efficiency will be summarized for each individual searcher, but to avoid needlessly inflating the variance of the estimate, individual searcher effects will not be included in the fatality estimation model.

Table 1. Approximate Searcher efficiency trial sample sizes per season.

Project component	Size	sample size
Solar arrays	Small	25
	Medium	15
	Large	10
Totals		**50**

Carcasses from non-listed bird and bat species recovered during the study may be re-used in the searcher efficiency trials, as carcass condition allows. Species such as house sparrows (*Passer domesticus*) and European starlings (*Sturnus vulgaris*) may be used to represent small-sized birds; rock doves (*Columba livia*) and commercially raised hen mallards (*Anas platyrhynchos*) or hen pheasants (*Phasianus colchicus*) may be used to represent medium to large-sized birds. If visibility classes are established, to account for differences in vegetation, trial carcasses will be placed in a variety of vegetation types so that searcher efficiency rates can be determined for each visibility class. The number of carcasses used will be limited to ensure that a scavenger swamping does not occur.

Searcher efficiency trials will be conducted blindly; the searchers will not know when trials are occurring, within which transects the trial carcasses are placed, or where trial carcasses are located within the BSEF. The number and location of trial carcasses found by searchers will be recorded and compared to the total number placed in the transects. Searchers will be instructed prior to the initial search effort to leave carcasses, once discovered to be trial carcasses, in place (these carcasses will also be used to calculate carcass persistence). The number of trial carcasses available for detection (non-scavenged) will be

determined immediately after the conclusion of the trial. Searcher efficiency of the surveyors will generate the estimate of searcher bias for input into the fatality estimate models (Section 2.2.4.4).

Carcass persistence trials will be conducted concurrently with searcher efficiency trials and, to the extent possible, using the same carcasses from the searcher efficiency trials. In total, 30 small, 20 medium, and 10 large carcasses will be randomly placed and monitored within the solar arrays, each season. Carcass persistence trials in the solar arrays will be monitored, using motion-triggered, digital trail cameras (e.g., see Smallwood et al. 2010). The status of each trial carcass (e.g. gone/present, fresh/desiccated, whole/partial) will be recorded throughout the trial. The length of time carcasses persist on the ground will be used to generate the estimate of carcass persistence for input into of the fatality estimate models (Section 2.2.4.4).

Table 2. Approximate carcass persistence trial sample sizes per season.

Project component	Size	sample size
Solar arrays/fence	Small	30
	Medium	20
	Large	10
Totals		**60**

Fake cameras or cameras without bias trial carcasses may also be placed to avoid training ravens to recognize cameras as "feeding stations". Periodic ground-based checking of carcasses also will occur to guard against misleading indicators of carcass removal, such as wind blowing the carcass out of the camera's field of view. To minimize potential bias caused by scavenger swamping (Smallwood 2007, Smallwood et al. 2010), carcass-persistence specimens will be distributed across the entire Facility, not just in areas subject to standard surveys, and new specimens will be placed every two to three weeks in small numbers.

2.2.4.2 Data Analysis and Modeling

Because the detectability of carcasses during field surveys can be imperfect, raw carcass counts generally underestimate actual mortality. Therefore, the Huso fatality estimator (Huso 2011; Huso et al. 2012, Huso et. al 2016a), modified to account for distance sampling (WEST 2016a, Huso et. al 2016b), will be applied to generate corrected fatality rate estimates for the BSEF.

The Huso fatality estimator (Huso 2011; Huso et al. 2012) allows the user to model categorical covariates that may affect searcher efficiency and carcass persistence. AICc scores are used to evaluate the effectiveness of candidate models before generating final fatality estimates. Because the underlying assumption that searchers have a single opportunity to discover a carcass, only those carcasses determined to have occurred within the previous search interval will be used to generate adjusted fatality estimates. In addition, the model does not produce reliable estimates when there are few carcasses included in analysis. When fewer than five carcasses belonging to a group of interest (e.g. small birds) are found and included in analysis, estimates will not be provided.

Corrected fatality estimates will be reported for the solar Facility (PV panel area). Estimated mortalities will be expressed in terms of carcasses/MW/season and in other metrics appropriate for a solar facility to facilitate comparison with other studies.

Analysis of data collected during the post-construction study will include seasonal fatality estimates for all birds and bats to the taxonomic level where fatality estimates can be calculated. Fatality estimates and confidence intervals will be compared to determine if differences in fatality estimates between taxa or group

(e.g. birds compared to bats, large birds compared to small birds), or season. Because representative fatality estimates are more challenging to develop for small (i.e. <5) numbers of carcasses, appropriate taxonomic-level fatality estimates will only be calculated if the number of carcasses is sufficient.

2.3 Reporting

The Certificate Holder will document the results of the monitoring in a summary report following the completion of the post-construction monitoring. The certificate holder may include the reporting of wildlife monitoring data and analysis in the annual report required under OAR 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted.

The summary report will include fatality estimates and data summaries. The report will include all data analyses, including correlation analyses and overall fatality estimates, and a discussion of monitoring results and their implications. The Certificate Holder shall notify the appropriate agency as outlined in Section 3.2 immediately upon the discovery of a carcass of any state-listed, ESA-listed species or eagle on the Facility site.

2.4 Amendment

This WMAMP may be amended by written agreement of the Certificate Holder and the Oregon Energy Facility Siting Council. Amendments to this WMAMP will not require an amendment of the Site Certificate.

3.0 ADAPTIVE MANAGEMENT

3.1 Adaptive Management Goals

The goals of the adaptive management process for this Facility are to enable the incorporation of relevant new information into the BSEF's avoidance and minimization measures as outlined in Exhibits P and Q to the Application. Additional avoidance and minimization measures may be incorporated at any time by Certificate Holder. However, certain trigger events and subsequent changes to avoidance and minimization measures have been defined as a part of the adaptive management process. Adaptive management will allow Certificate Holder to meet the BSEF's goals of avoiding and minimizing impacts to birds and bats. After the end of the first year of post-construction monitoring, if the fatality rates do not exceed any thresholds of concern identified in Section 3.2, no additional monitoring will be conducted. However, if the fatality rates do exceed any of the thresholds of concern in Section 3.2, ODOE, in consultation with ODFW and the Certificate Holder, will determine if additional monitoring is warranted, based on the number of observed carcasses and estimated fatality rates, and consideration of any other significant information available at the time.

3.2 Adaptive Management Process

To enable new information, including the results of post-construction monitoring, to influence and improve the avoidance and minimization measures of the BSEF, certain trigger events and the subsequent changes or actions have been established.

The events that would trigger changes to avoidance and minimization measures presented herein would be:

- Discovery of an eagle carcass
- New ESA-listing of a bird or bat species

- Discovery of an ESA-listed species carcass
- New state-listing of a bird or bat species
- Discovery of a state-listed species carcass
- The total number of observed bird and bat mortalities is higher than expected and likely to be significant, as defined in Section 3.2.6.

3.2.1 Discovery of an Eagle Carcass

If an eagle carcass is discovered at the BSEF, the following actions will be taken:

- Certificate Holder will, working with a qualified wildlife biologist, promptly identify and secure the carcass at the place of its discovery in the field until USFWS personnel can be reached and provide the further instruction for the storage of the carcass.
- Certificate Holder will notify USFWS, ODFW, and ODOE within one business day after discovery and positive identification of the carcass.
- Certificate Holder will work with the USFWS to evaluate available data concerning the find and, as appropriate, identify and implement avoidance and minimization measures to reduce the risk of future carcasses. Potential adaptive management approaches are presented in Section 3.2.7 below.
- Certificate Holder will assess the need to obtain additional authorizations in view of the new information.

3.2.2 New ESA-listing of a Bird or Bat Species

If a bird or bat species, known to occur or that has a high likelihood to occur within the BSEF area, becomes listed under the ESA during the life of the BSEF, Certificate Holder will coordinate with USFWS. If this trigger is met, Certificate Holder will work with USFWS to assess the potential for the BSEF to impact the species and subsequently to determine the appropriate action(s) for the BSEF, if any.

3.2.3 Discovery of an ESA-listed Species Carcass

If a carcass of an ESA-listed species is discovered at the BSEF, the following actions will be taken:

- Certificate Holder will, working with a qualified wildlife biologist, promptly identify and secure the carcass at the place of its discovery in the field until USFWS personnel can be reached and provide the further instruction for the storage of the carcass.
- Certificate Holder will notify USFWS, ODFW, and ODOE within one business day after the discovery and positive identification of the carcass.
- Certificate Holder will work with the USFWS to evaluate available data concerning the discovery and, as appropriate, identify and implement avoidance and minimization measures to reduce the risk of future mortalities.
- Certificate Holder will assess the need to obtain additional authorizations in view of the new information.

3.2.4 New State-listing of a New Bird or Bat Species

If a bird or bat species, known to occur or that has a high likelihood to occur within the BSEF area, becomes listed by ODFW during the life of the BSEF, Certificate Holder will coordinate with ODFW and ODOE. If this trigger is met, Certificate Holder will work with ODFW and ODOE to assess the potential for the BSEF to impact the species and subsequently to determine the appropriate action(s) for the BSEF, if any.

3.2.5 Discovery of a State-listed Species Carcass

- Certificate Holder will, working with a qualified wildlife biologist, promptly identify and secure the carcass at the place of its discovery in the field until ODFW personnel can be reached and provide the further instruction for the storage of the carcass.
- Certificate Holder will notify ODFW and ODOE within one business day after the discovery and positive identification of the carcass.
- Certificate Holder will work with the ODFW and ODOE to evaluate available data concerning the discovery and, as appropriate, identify and implement avoidance and minimization measures to reduce the risk of future mortalities.
- Certificate Holder will assess the need to obtain additional authorizations in view of the new information.

3.2.6 Total Number of Observed Bird and Bat Mortalities is Higher than Expected and Likely to be Significant

Avian use and species richness are expected to be low during pre-construction avian surveys. Similarly, bat use of the area is expected to be limited to foraging and also expected to be low. Thus, mortalities to birds and bats during operations are expected to be low. Significance of the levels of mortality of any bird or bat species would be determined in coordination with USFWS, ODFW and ODOE in a separate document, which shall be incorporated herein by reference at that time and would be based on the best available information, including the most recent data on species' population sizes and trends and fatality rates at technologically and geographically similar facilities if available. At the time of this permit application, there is no publicly available avian fatality data at PV facilities in Oregon but there may be in the future. This approach recognizes that higher levels of mortality of common species may not be significant. Conversely, lower levels of mortalities of less common species may be of more concern, particularly if these species appear to be at risk (e.g., Oregon sensitive-critical species). Given the assessment and prediction that impacts are likely to be low, the following actions are suggested in response to monitoring outcomes:

1. If documented fatalities are lower or not different than predicted and are not significant, no mitigation will be conducted.
2. If fatalities are greater than predicted and are likely to be significant, Certificate Holder will meet and confer with the ODFW and ODOE and the applicable actions presented below will be carried out. If a particular cause can be identified, Certificate Holder will develop specific mitigation measures in consultation with ODFW and ODOE to address the occurrence.

3.2.7 Potential Adaptive Management Approaches

Circumstances that trigger the need for adaptive management will be investigated such that the Certificate Holder can, in consultation with ODFW and ODOE, implement avoidance, minimization, and mitigation measures designed and implemented to reduce impacts to birds and/or bats while maintaining Facility viability. If ODOE determines that additional avoidance, minimization or mitigation measures are appropriate based on analysis of the data, consultation with ODFW, and consideration of other significant information available at the time, the Certificate Holder, in consultation with ODOE and ODFW shall propose and implement measures to address the concern, subject to the approval of ODOE.

Avoidance, minimization, and mitigation actions that may be taken under adaptive management include, but are not limited to, the following:

1) Remove or modify any identified sources of bird or bat attraction to the extent practicable.

2) If more than one eagle carcass is discovered in a 5-year time period, Certificate Holder will develop and implement a roadkill removal program on roads within or near the BSEF, as appropriate, to offset BSEF impacts to eagles.

3) Implement technological solutions. If bird and/or bat carcass discoveries exceed the above-defined adaptive management triggers and new techniques or technology become available, the Certificate Holder, ODOE, and/or ODFW shall propose new approaches, techniques or technology designed to avoid and/or minimize impacts to the affected species, taking into consideration factors including but not limited to cost effectiveness and feasibility to implement, subject to the approval of ODOE. At the time of this permit application, there are no technological solutions available.

If ODOE determines that additional monitoring is appropriate based on analysis of the data, consultation with ODFW and Certificate Holder, and consideration of any other significant information available at the time, the Certificate Holder shall conduct additional specific, targeted monitoring to determine if adaptive management measures are effective.

4.0 LITERATURE CITED

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Western EcoSystems Technology, Inc. (WEST). 2016b. Bird and Bat Conservation Strategy, Blythe Solar Energy Project, Riverside County, California. 57 pp.

Western EcoSystems Technology, Inc. (WEST). 2016c. Bird and Bat Conservation Strategy, McCoy Solar Energy Project, Riverside County, California. 57 pp.

Attachment F: Monitoring Plan for Cultural Resources

Monitoring Plan for Cultural Resources, Boardman Solar Energy Facility, Morrow and Gilliam Counties, Oregon

Consultation with the Oregon State Historic Preservation Office (SHPO) and Confederated Tribes of the Umatilla Indian Reservation (CTUIR), along with additional background research, has identified the possibility that buried archaeological resources or human remains may be present along a traditional travel corridor for the Umatilla and other peoples of the mid-Columbia River. As a result of consultation and the additional background research, the survey conducted for the proposed Boardman Solar Energy Facility (Facility) and documented in *Technical Report: Cultural Resources Survey of the Proposed Boardman Solar Energy Facility, Gilliam and Morrow Counties, Oregon* (CH2M, 2017) resulted in a recommendation for cultural resources monitoring during fieldwork activities. This monitoring plan was designed to identify and protect archaeological resources or burials that may be present within the Facility area and provides guidelines to be implemented during Facility construction and operation. Representatives of the CTUIR should be notified at least 1 week prior to the commencement of ground-disturbing Facility activities and offered a chance to participate in monitoring.

Cultural Resources Monitor

The Cultural Resources Monitor (Monitor) will have at a minimum an undergraduate degree in anthropology, archaeology, historic archaeology, or a related field and at least 1 year of professional archaeological experience or equivalent specialized training. The Monitor will work closely with the construction managers to provide status updates on a daily basis. The Monitor's actions and activities will be reviewed on a daily or as-needed basis by a cultural resource professional meeting the Secretary of Interior Standards of professional archaeology.

Monitoring Duties

The Monitor will provide a cultural resource awareness training (CH2M, 2017: Appendix F) to construction personnel on the role and responsibility of the Monitor and the procedures to be followed in the event of a cultural resource discovery.

The Monitor will be present during ground-disturbing activities to watch and inspect cleared ground and excavated areas for signs of previously undiscovered archaeological resources. Ground-disturbing activities include those activities that remove earth with excavating equipment but exclude those activities that involve post-driving equipment. The Monitor will observe activities involving native soil disturbance in areas where subsurface deposits may exist.

If the Monitor or other construction personnel discover archaeological materials during construction, the Monitor will have authority to halt construction and will notify the designated cultural resource contacts. If archaeological materials are discovered, all work will stop in the immediate area (100 feet [30 meters]) of discovery. The discovery perimeter will be flagged to prevent access and protect further disturbance to materials.

The Monitor will prepare a daily monitoring log (briefly describing the field conditions, type of construction equipment being used, construction progress and activities) and record any finds of archaeological material.

It is the Monitor's responsibility to ensure that the appropriate cultural resource protections (for example, flagging avoidance areas and installing no entry signs) are in place at the only recorded archaeological site, 35GM402, in the vicinity of the Facility before construction work begins on the transmission line and associated service road.

Construction-Related Discoveries

The Monitor will photograph the work area and any cultural resources in the immediate area before work begins to establish a record of baseline conditions in the proposed Facility area.

In the event that previously unidentified archaeological materials are encountered during monitoring, the Monitor will stop construction-related activities within the immediate vicinity (100 feet [30 meters]) of the discovery. The monitor will follow the guidelines outlined in the *Inadvertent Discovery Plan for Cultural Resources* (CH2M, 2017: Appendix G)

The Monitor will evaluate whether significant cultural resources are present and, if so, whether they will be adversely affected by continuing operations. The types of cultural resources that may be encountered include prehistoric artifacts such as grinding stones, fire-cracked rock, shell fragments, projectile points, lithic materials, bone, cobble tools, or other indicators. Historic artifacts may include glass bottles, ceramic objects, metal objects, building foundations, bricks, concrete, or other indicators. The Monitor will be responsible for directing Facility-related activities away from the newly identified cultural resources.

The area of the discovery will be delineated using flagging tape, rope, or some other means to ensure Facility activities do not continue in the area of the discovery. The Monitor will notify the field construction manager and contact the Facility's Cultural Resources Manager or designee. Ground-disturbing activities in the immediate vicinity of the discovery will remain stopped to avoid any additional impacts to the discovery until significance is determined and an appropriate treatment can be identified and implemented through consultation between the Applicant, Oregon Department of Energy, SHPO, and the CTUIR. During this period, construction activities outside the find area will continue.

If the newly identified cultural resources are determined to be either an isolate or a site, the Monitor or designated Cultural Resources Specialist will determine whether the new material is a stand-alone cultural resource or part of an adjoining site. The Monitor will document the discovery and prepare an isolate or site form and request a Smithsonian trinomial from SHPO. Isolate discoveries will be recorded and construction will continue. Isolate finds will be reported in a final Facility monitoring report.

Discovery of Human Remains

In the event that human skeletal remains are discovered during construction activities, the Monitor will follow the protocol outlined in the *Inadvertent Discovery Plan for Cultural Resources* (CH2M, 2017: Appendix G)

Monitoring Documentation

Cultural resource monitoring will be documented in daily monitoring logs (see Attachment 1) and photographs. Areas monitored during the day will be marked on a map (see Figure 1 in Attachment 2). Photographic documentation will be collected by the Monitor before Facility construction begins, during ground-disturbing activities, and after work is complete.

Monitoring Report

A monitoring report will be prepared by the Monitor following the completion of monitoring activities. The monitoring report will include descriptions and photographs of monitored activities within the Facility area. The monitoring report will be submitted to SHPO, the CTUIR and the Oregon Department of Energy after completion of the monitoring activities.

Reference

CH2M HILL Engineers, Inc. (CH2M). 2017. *Technical Report: Cultural Resources Survey of the Proposed Boardman Solar Energy Facility, Gilliam and Morrow Counties, Oregon*. Prepared for Boardman Solar Energy, LLC, by David Sheldon and Jamelon Brown. Report on file at the Oregon State Historic Preservation Office, Salem. Revised July.

Attachment 1
Daily Cultural Monitoring Log

Daily Cultural Monitoring Log
Boardman Solar Energy Facility

Monitor Name(s): _____ Date: _____

Participant Name(s): _____

Job Site Contact: _____ Phone Number: _____

Project Description:

Conditions:

Location and Dimensions (Length x Width x Height) of Excavation:

Excavation Technique (include types of equipment used):

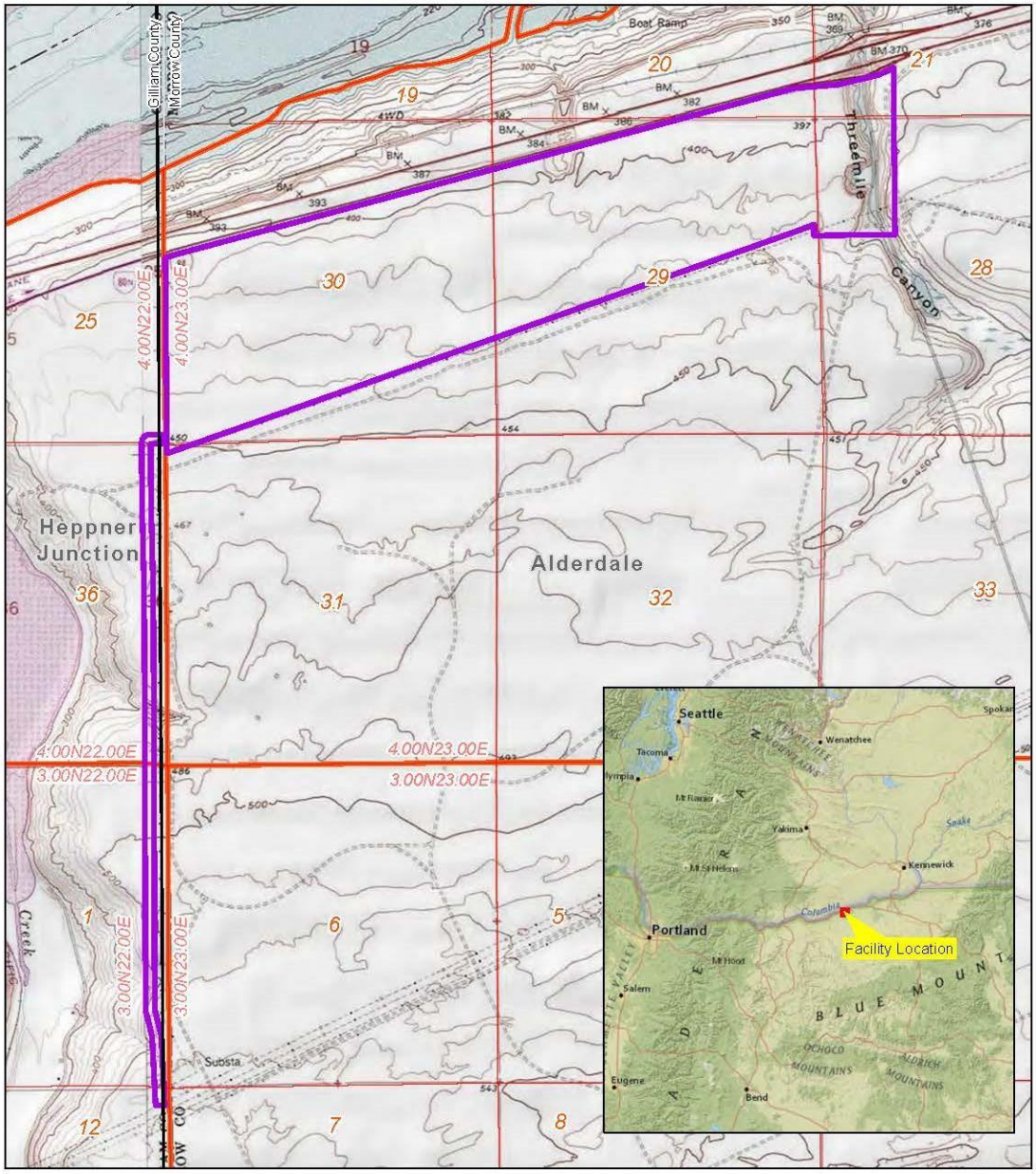
Sediment Description (if sediment is fill, explain why):

Cultural Materials Observed:

Additional Notes:

Sketch Maps of the Excavation and Sidewalls:

Attachment 2
Figure 1: Facility Site Boundary on Topographic Background



LEGEND

- Facility Site Boundary
- County
- USGS 7.5-minute Quadrangle
- Township and Range
- Section

0 2,250
Feet

Invenergy

FIGURE 1
Facility Site Boundary on Topographic Background
Boardman Solar Energy Facility
Morrow and Gilliam Counties, Oregon

BAOTSP01 C:\GIS\PROJ\INVENERGY\V421524HEPPNER\BOARDMAN_SOLAR_PROJECT\GIS\MAPFILES\2016\CULTURAL\NOVEMBER\FIG1_FACILITY_SITE_BOUNDARY_ON_TOPO.MXD

ch2m

Attachment G: Amended Inadvertent Discovery Plan for Cultural Resources

Inadvertent Discovery Plan for Cultural Resources, Boardman Solar Energy Facility, Morrow and Gilliam Counties, Oregon

Boardman Solar Energy LLC (Applicant) proposes to construct a photovoltaic solar power generation facility on approximately 798 acres of private land in Morrow and Gilliam counties, Oregon. The project will consist of photovoltaic panels, inverters, mounting infrastructure, electrical collection system, substation, operations and maintenance building, private service roads, a 115-kilovolt transmission line, and fencing. **The Inadvertent Discovery Plan should be followed if cultural materials, including human remains, are encountered during construction.**

Protocol for Coordination in the Event of Inadvertent Discovery

Discovery Procedures: What to do if you find something

1. **Stop ALL work in the vicinity of the find**
2. **Secure and protect area of inadvertent discovery with 30 meter/100 foot buffer—work may continue outside of this buffer**
3. **Notify Project Manager and Agency Official**
4. **Project Manager will need to contact a professional archaeologist to assess the find.**
5. **If archaeologist determines the find is an archaeological site or object, contact SHPO. If it is determined to *not* be archaeological, you may continue work.**

Human Remains Procedures

1. **If it is believed the find may be human remains, stop ALL work.**
2. **Secure and protect area of inadvertent discovery with 30 meter/100 foot buffer, then work may continue outside of this buffer with caution.**
3. **Cover remains from view and protect them from damage or exposure, restrict access, and leave in place until directed otherwise. Do not take photographs. Do not speak to the media.**
4. **Notify All:**
   - **Oregon State Police**: Lieutenant Craig Heuberger, Cell (503) 508-0779, Dispatch (503) 731-3030 (Do not call 911)
   - **LCIS**: Patrick Flanagan, Executive Director (503) 986-1067
   - **SHPO**: John Pouley, State Archaeologist (503) 480-9164
   - **Appropriate Tribes:** (Final contacts to be confirmed with LCIS)
   - **ODOE:** Chase McVeigh Walker (971) 600-5323
5. **If the site is determined not to be a crime scene by the Oregon State Police, do not move anything! The remains will continue to be secured in place along with any associated funerary objects, and protected from weather, water runoff, and shielded from view.**
6. **Do not resume any work in the buffered area until a plan is developed and carried out between**

ODOE, the State Police, SHPO, LCIS, and appropriate Native American Tribes and you are directed that work may proceed. ODOE approval will be required to resume work.

For Boardman Solar Energy Facility, the primary contacts for the associated tribes are currently listed below but should be updated and verified with LCIS if a discovery is made to ensure correct contacts are made:

1. CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION

   Teara Farrow Ferman
   Cultural Resources Program Manager
   P: 541-276-3447

   Bambi Rodriguez
   P & F: 541-429-7203

2. CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION

   Christian Nauer
   Cultural Resources Director
   P: 541-553-2026

Confidentiality

The Boardman Solar Energy Facility, its contractors, and employees shall make their best efforts, in accordance with federal and state law, to ensure that its personnel and contractors keep the discovery confidential. The media, or any third-party member or members of the public are not to be contacted or have information regarding the discovery, and any public or media inquiry is to be reported to ODOE. Prior to any release, the responsible agencies and Tribes shall concur on the amount of information, if any, to be released to the public.

To protect fragile, vulnerable, or threatened sites, the National Historic Preservation Act, as amended (Section 304 [16 U.S.C. 470s-3]), and Oregon State law (ORS 192.501(11)) establishes that the location of archaeological sites, both on land and underwater, shall be confidential.

Detailed Protocol for Treatment of Native American Human Remains

Any Native American human skeletal remains will be treated with the utmost dignity and respect. Attachment A is a Tribal position paper on the treatment of human remains titled *Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigations on Private and Public, State-Owned Lands in Oregon* (Government to Government Cultural Resources Cluster Group, September 2006; accessed from SHPO Web site on March 30, 2017). The attached paper further describes the appropriate protocol for the treatment of Native American human remains.

Protocol for Coordination in the Event of Inadvertent Discovery

- ☐ In the event of an inadvertent discovery of possible cultural materials, including human remains, all work will stop immediately in the vicinity of the find. A 100-foot (30-meter) buffer should be placed around the discovery with work being able to proceed outside of this buffered area unless additional cultural materials are encountered.
- ☐ The area will be secured and protected by flagging and roping off the area and covering (not reburying) the cultural materials/human remains.
- ☐ The Project Manager/Land Manager will be notified. The Project/Land Manager will notify the State Historic Preservation Office (SHPO) and the Oregon Department of Energy (ODOE). If possible human remains are encountered, the Oregon State Police, Commission on Indian Services (CIS), SHPO, ODOE, and appropriate Tribes will also be notified, in accordance with Oregon Revised Statute 97.745(4). The Applicant's representative will be responsible for contacting the Tribe(s) after confirming the appropriate Tribe(s) with CIS.
  - Oregon State Police: Chris Allori (503-731-4717)
  - CIS: Karen Quigley (503-986-1067)
  - Appropriate Tribes: As confirmed with CIS
  - SHPO: Dennis Griffin (503-986-0674), John Pouley (503-986-0675), or Matt Diederich (503-986-0577)
  - ODOE: Katie Clifford (503-302-0267)
- ☐ No work may resume until consultation with SHPO and ODOE has occurred and a professional archaeologist is able to assess the discovery.
- ☐ If human remains are encountered, do not disturb them in any way. *Do not call 911*. Do not speak with the media. Secure the location. Do not take photos. The location should be secured and work will not resume in the area of discovery until all parties involved agree upon a course of action.
- ☐ A professional archaeologist may be needed to assess the discovery and they will consult with SHPO, ODOE, and appropriate Tribal governments to determine an appropriate course of action.

~~☐ Archaeological excavations may be required. This is handled on a case-by-case basis by the professional archaeologist and Project Manager, in consultation with SHPO, ODOE, and appropriate tribes.~~

When to Stop Work

Construction work may uncover previously unidentified Native American or Euroamerican artifacts. This may occur for a variety of reasons, but may be associated with deeply buried cultural material, access restrictions during project development, or if the area contains impervious surfaces throughout most of the project area that would have prevented standard archaeological site discovery methods.

Work must stop when the following types of artifacts or features are encountered:

Native American artifacts may include (but are not limited to):

☐ Flaked stone tools (for example, arrowheads, knives scrapers)

☐ Waste flakes that resulted from the construction of flaked stone tools

☐ Ground stone tools like mortars and pestles

☐ Layers (strata) of discolored earth resulting from fire hearths (may be black, red, or mottled brown and often contain discolored cracked rocks or dark soil with broken shell)

☐ Human remains

☐ Structural remains—wooden beams, post holes, fish weirs

Euroamerican artifacts may include (but are not limited to):

☐ Glass (from bottles, vessels, windows)

☐ Ceramic (from dinnerware, vessels)

☐ Metal (nails, drink/food cans, tobacco tins, industrial parts)

☐ Building materials (bricks, shingles)

☐ Building remains (foundations, architectural components)

☐ Old wooden posts, pilings, or planks (these may be encountered above or below water)

☐ Remains of ships or seagoing vessels, or marine hardware

☐ Old farm equipment (may indicate historic resources in the area)

Even what looks to be old garbage could very well be an important archaeological resource.

When in doubt, call it in!

Proceeding with Construction

☐ Construction can proceed only after the proper archaeological inspections have occurred and environmental clearances are obtained. This requires close coordination with SHPO, ODOE, and the tribes.

☐ After an inadvertent discovery, some areas may be specified for close monitoring or no-work zones. Any such areas will be identified by the professional archaeologist to the Project Manager and appropriate contractor personnel.

☐ In coordination with SHPO and ODOE, the Project Manager will verify these identified areas and be sure that the areas are clearly demarcated in the field, as needed.

Attachment A
Tribal Position Paper on the Treatment of Human Remains

Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigations on Private and Public, State-Owned Lands in Oregon

Native American burial sites are not simply artifacts of the tribe's cultural past, but are considered sacred and represent a continuing connection with their ancestors. Native American ancestral remains, funerary objects, sacred objects and objects of cultural patrimony associated with Oregon Tribes are protected under state law, including criminal penalties (ORS 97.740-.994 and 358.905-.961). The laws recognize and codify the Tribes' rights in the decision-making process regarding ancestral remains and associated objects. Therefore both the discovered ancestral remains and their associated objects should be treated in a sensitive and respectful manner by all parties involved.

Identification of Human Remains

- Oregon laws (ORS 146.090 & .095) outline the types of deaths that require investigation and the accompanying responsibilities for that investigation. The law enforcement official, district medical examiner, and the district attorney for the county where the death occurs are responsible for deaths requiring investigation. Deaths that require investigation include those *occurring under suspicious or unknown circumstances.*
- If human remains that are inadvertently discovered or discovered through criminal investigations **are not clearly modern**, then there is high probability that the remains are Native American and therefore ORS 97.745(4) applies, which requires immediate notification with State Police, State Historic Preservation Office, Commission on Indian Services, and all appropriate Native American Tribes. To determine who the "appropriate Native American Tribe" the responsible parties should contact the Legislative Commission on Indian Services (CIS). To determine whether the human remains are Native American the responsible parties should contact the appropriate Native American Tribes at the initial discovery. It should be noted that there may be more than one appropriate Native American Tribe to be contacted.
- If the human remains are possibly Native American then the area should be secured from further disturbance. The human remains and associated objects **should not be disturbed, manipulated, or transported from the original location until a plan is developed in consultation with the above named parties.** These actions will help ensure compliance with Oregon state law that prohibits any person willfully removing human remains and/or objects of cultural significance from its original location (ORS 97.745).
- All parties involved and the appropriate Native American Tribes shall implement a culturally sensitive plan for reburial.

Attachment B:
OR SHPO Visual Reference Guide to Encountering Archaeology

Figure 1: Stone flakes

Figure 2: Stone tool fragments

Figure 3: Cordage

Figure 4: Shell midden

Figure 5: Historic glass artifacts

Figure 6: Historic metal artifacts

Figure 7: Historic building foundations

Figure 8: 18th Century ship

~~Detailed Protocol for Treatment of Native American Human Remains~~

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