Exhibit K

Land Use

Sunstone Solar Project
June 2023

Prepared for

Sunstone Solar, LLC

Prepared by

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Acronyms and Abbreviations

Advisory Committee	Governor's Advisory Committee on Energy and Agriculture
AF	acre-feet
Applicant	Sunstone Solar, LLC, a subsidiary of Pine Gate Renewables, LLC
ASC	Application for Site Certificate
AVA	American Viticulture Area
CGWA	critical groundwater area
Council, or EFSC	Oregon Energy Facility Siting Council
DLCD	Department of Land Conservation and Development
EFU	Exclusive Farm Use
Facility	Sunstone Solar Project
FCA	Farmers Conservation Alliance
FEMA	Federal Emergency Management Agency
FTE	full-time equivalent
GIS	geographic information system
GRSA	Groundwater Restricted Study Area
kV	kilovolt
LCDC	Land Conservation and Development Commission
MCCP	Morrow County Comprehensive Plan
MCZO	Morrow County Zoning Ordinance
MW	megawatt
NRCS	Natural Resources Conservation Service
O&M	operations and maintenance
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OR	Oregon Route
ORS	Oregon Revised Statute
OWRD	Oregon Water Resources Department
PILOT	Payment in Lieu of Taxes
PUB	Public
ROW	right-of-way
RPS	Renewable Portfolio Standard
RV	recreational vehicle

UEC	Umatilla Electric Cooperative
USDA	U.S. Department of Agriculture
WR	Water Right
WREF	Wheatridge Renewable Energy Facility

1.0 Introduction

Sunstone Solar, LLC, a subsidiary of Pine Gate Renewables, LLC (Applicant), proposes to construct and operate the Sunstone Solar Project (Facility), a solar energy generation facility and related or supporting facilities in Morrow County, Oregon. This Exhibit K was prepared to meet the submittal requirements in Oregon Administrative Rules (OAR) 345-021-0010(1)(k).

To issue a site certificate, the Oregon Energy Facility Siting Council (Council, or EFSC) must find that the Facility complies with the Statewide Land Use Planning Goals adopted by the Land Conservation and Development Commission (LCDC). See OAR 345-022-0030(1). The Applicant has elected to seek a Council determination of compliance under Oregon Revised Statute (ORS) 469.504(1)(b). Under this election, a finding of compliance is required when the Council determines the following:

> *ORS 469.504(1)(b)(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;*
>
> *ORS 469.504(1)(b)(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 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; or*
>
> *ORS 469.504(1)(b)(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 all applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.*

Exhibit K demonstrates the Facility's compliance with the applicable substantive criteria from the Morrow County Zoning Ordinance (MCZO; Morrow County 2018) and the Morrow County Comprehensive Plan (MCCP; Morrow County 2013). In addition, Exhibit K demonstrates the Facility's compliance with the LCDC administrative rules and goals and any land use statutes directly applicable to the Facility. Exhibit K also demonstrates that a "reasons" exception to Statewide Planning Goal 3, Agricultural Lands, is justified under ORS 469.504(2). Finally, Exhibit K provides evidence upon which the Council may find that the Facility meets OAR 345-022-0030.

2.0 Land Use Analysis Area and Map

OAR 345-021-0010(1)(k)(A) Include a map showing the comprehensive plan designations and land use zones in the analysis area;

In accordance with OAR 345-001-0010(59)(c), the analysis area for land use is defined in the Project Order as "the area within and extending one-half mile from the site boundary" (Figure K-1; ODOE 2021). Approximately 19,795 acres are located within the land use analysis area, of which approximately 10,960 acres are within the site boundary. Figure K-2 shows the Morrow County land use zones and comprehensive plan designations within the analysis area. All land within the site boundary is in the Morrow County Exclusive Farm Use (EFU) zone. The entire site boundary, except for the state and county road rights-of-way (ROW), is composed of private land. Outside of the site boundary, all land within the analysis area is in the Morrow County EFU zone except for a portion of federal land (U.S. Department of Defense–owned tax lot 2N25000000200, i.e., the Boardman Bombing Range) located along the northwest boundary of the analysis area which is zoned Public (PUB).

3.0 Overview of Facility, Land Uses, Farmland Characteristics, and Agricultural Impacts/Mitigation

3.1 Facility Overview

The Facility, including individual components and related or supporting facilities, is described in detail in Exhibit B of this Application for Site Certificate (ASC). As discussed in Exhibit B, the Applicant is requesting to permit a range of photovoltaic and associated or supporting facility technology within a site boundary that provides for micrositing flexibility in anticipation of perpetual technological advances and offering maximum efficiency in use of space, providing development flexibility for potential customer's varying market requirements. As discussed in Exhibit C, the Applicant requests micrositing flexibility within the site boundary, which represents the limits of the area that may be temporarily or permanently disturbed during construction of the Facility.

Because technology is changing rapidly, this ASC analyzes impacts associated with the largest anticipated footprint, or approximately 9,442 acres located within 20 fenced areas, within a 10,960-acre site boundary (see Exhibit C). The areas would be enclosed by an 8-foot-tall security fence. For the purposes of analysis, the maximum solar array fence line area depicted in Exhibit C encompasses all solar components (i.e., modules, inverters, transformers, tracking systems, posts, underground collector lines, and other associated equipment), the distributed battery energy storage system, portions of the transmission lines, the substations, the operations and maintenance (O&M) buildings, the temporary construction areas, and new access roads in addition to the solar array (see Figure C-2 in Exhibit C). However, within the overall footprint, actual fencing of individual components (i.e.,

substations, etc.) may be different than shown. This entire fenced area is considered permanently disturbed; all temporary disturbance areas are outside the fenced solar array. This layout represents the maximum impact scenario for purposes of analyzing land use impacts. More details can be found throughout Exhibit C.

This exhibit analyzes potential land use impacts within the analysis area. For purposes of land use compliance analysis, the Facility's solar arrays, collector lines, collector substations, access roads, and related or supporting facilities[1] are considered a "photovoltaic solar power generation facility" under OAR 660-033-0130(38)(f). The Facility will include a 230-kilovolt (kV) transmission line internal to the site boundary that will connect the Facility's six supporting substations to the Northwest Power Grid via the two primary interconnection substations (switchyards). The internal 230-kV transmission line is considered an associated transmission line necessary for public service subject to the provisions under ORS 215.274 and its implementing regulations under OAR 660-033-0130(16)(B). See Sections 5.2.2.3, 5.4.1, and 5.4.2 for more information on the Facility's compliance with these provisions.

3.2 Overview of Existing Land Uses

The zoning designations, underlying land uses, and soil classifications within the Facility site boundary and analysis area are relevant for purposes of analyzing the Facility's compliance with applicable substantive criteria and directly applicable state land use regulations. Zoning is discussed in Section 2.0. Existing land uses are discussed in this section, while farmland characteristics, including water rights, soil classifications, and high-value farmland, are discussed in Section 3.3.

3.2.1 Cultivated Lands

As shown on Figure K-4, the majority of the site boundary and analysis area is composed of cultivated land. These cultivated lands are a mix of fallow fields and fields in small grain production, primarily dryland wheat. There are no farmlands receiving irrigation water within the site boundary, while some irrigated agricultural land is located within the analysis area, outside of the site boundary (see irrigation pivots in Figure K-1). More information regarding existing agricultural uses and water rights located within the site boundary and analysis area is discussed in Section 3.3.1. Exhibit P and Figure P-2 provide more detail on the surveyed habitats and ground cover within the site boundary.

3.2.2 Surrounding Energy Facilities

As shown on Figure C-3, Exhibit C, the Facility is 10 miles south and east of the existing Carty Gas Plant and former Boardman Coal Plant. As shown on Figure K-3, the Facility is adjacent to approved and constructed portions of the Wheatridge Renewable Energy Facilities to the south and west (300 megawatts [MW] of wind, 50 MW of solar, and 30 MW of storage). The EFSC-approved 500-kV

[1] ORS 469.300((11)(a)(24)

Boardman to Hemingway Transmission Line Project is sited through the site boundary on three of the seven Sunstone landowners' property. The existing 1,377-mile Gas Transmission Northwest pipeline system transects the site boundary and hosts a pipeline booster station on Bombing Range Road, supplying natural gas to the area's Coyote Springs & Carty Natural Gas plants. The Facility is also adjacent to the 40-MW Orchard Wind Farm, directly north of the site boundary.

3.2.3 Green Energy Corridor

The site boundary is also transected by the existing Umatilla Electric Cooperative (UEC) 230-kV Blue Ridge Transmission Line, with which the Facility will interconnect, requiring no new transmission ROW to deliver energy to the regional transmission system. The Facility will connect with the existing UEC 230-kV Blue Ridge Line via two new primary interconnection substations (switchyards) near the northwestern corner of the site boundary/within the solar array fence line area. The UEC Blue Ridge Transmission Line originates at a substation for the Wheatridge Project, about 5 miles south of the Bombing Range, and about 5 miles south of the southern boundary of the Columbia Improvement District where the irrigated crops that predominate the northern end of the County largely transition to dryland farms (as show on the vicinity map, Figure C-1 in Exhibit C). From its origination point, the transmission line runs north about 5.8 miles until it intersects with Bombing Range Road where it follows the road right-of-way approximately 14 miles north where it terminates in a shared substation with the Bonneville Power Administration (BPA), giving rise to the possibility of delivering energy to any customer on BPA's extensive 14,000-mile network. By carefully siting the Blue Ridge Transmission Line along Bombing Range Road, UEC minimizes impacts to irrigated agricultural lands (i.e., avoids crossing irrigation pivots) in north Morrow County. This UEC transmission line is a key part of what is emerging as an existing "green energy corridor" that connects Morrow County wind and solar projects to the regional transmission system (Plaven 2017).

During the planning for the UEC 230-kV Blue Ridge Transmission Line, a Governor's Advisory Committee on Energy and Agriculture (Advisory Committee) was formed in recognition that energy development, including generation facilities and associated generation-tie transmission lines, have the potential to take portions of high-value agricultural land out of production (State of Oregon 2017). In recent years, Morrow County has become a desirable location for data centers and many of the data center operators have clean energy goals. Amazon, which already operates four large data centers in Morrow County, recently announced an agreement with Morrow County to build six new data center facilities (Rogoway 2023). This growth in recent years has had a measurable impact to utility services, with the UEC reporting industrial power consumption is up 266 percent since 2016 (Rogoway 2022). This level of new energy demand requires new local energy generation to satisfy local demand, especially if new high-voltage transmission lines bringing energy in from afar are to be avoided.

The Advisory Committee noted existing development and food processing plants as well as development of new data centers had increased demand for energy in the region, which is also home to irreplaceable high-value agricultural land. The Advisory Committee also stated it is

important to ensure energy projects are constructed to meet the region's energy needs, developers consolidate resources, particularly transmission lines, to avoid, to the maximum extent practicable, any impacts to high-value agricultural land, as well as site future energy substations in locations that avoid cumulative impacts of transmitting energy to and from substation locations (State of Oregon 2017). Advisory Committee members, including representatives of farms and utilities, officials from Umatilla, Morrow, and Gilliam counties, as well as state senators, expressed support for a single green energy transmission corridor to minimize the impact from wind and solar farms on surrounding agricultural land (Plaven 2017).[2]

A key next step, as identified by the Advisory Committee, was a pilot project in Morrow County to conduct a community process that would establish an energy corridor that should be considered by future energy developers (State of Oregon 2017). While the Applicant did not find evidence that Morrow County has initiated this pilot project, energy service providers, such as UEC, have incorporated the concept into their own planning efforts. In its 2018 annual report, UEC noted that "the transmission line will be part of a green energy corridor planned by local, state, and federal stakeholders that will connect multiple energy projects to Bonneville Power Administration's Morrow Flat Substation" (UEC 2018). The UEC 230-kV Blue Ridge Transmission Line is part of the community's collaborative development of a sustainable utility green energy corridor that minimizes impacts to current and future irrigated agriculture in the area and consolidates the footprint of facilities that provide the public with utility services. UEC reported that "combining projects in one corridor will maximize the region's overall energy capacity and minimize disruption caused by future renewable projects" (UEC 2018). According to the UEC website, the Oregon Governor's Office, the U.S. Navy, the BPA, the U.S. Bureau of Land Management, Morrow County, Idaho Power Company, and a number of other state and local agencies have engaged in efforts that ultimately would support a green energy corridor, which has the potential to deliver enough clean energy to power a city the size of Eugene and Salem combined (Northeast Oregon Now 2018). The line allows the Wheatridge Renewable Energy Facilities to sell generation to Portland General Electric (PGE) via interconnection with BPA's grid. With a capacity for 2,500 MW, the line can accommodate other renewable projects in the vicinity (Clearing Up 2020).

As large portions of the site boundary are already dedicated to energy production and transportation (without landowners' approval, in the case of the Boardman to Hemingway Transmission Line Project), the Applicant believes there are benefits to siting additional energy infrastructure at the site, including concentrating visual impacts near already impacted vistas from wind energy development and high-voltage transmission towers, avoiding new long distance gen-tie transmission lines that might otherwise utilize existing transmission capacity, maximizing existing energy infrastructure corridors, and providing for meaningful community re-investment near a retired coal facility. Consolidating renewable energy project locations allows for efficient use of transmission and other infrastructure while consolidating land use impacts to a specific area as

[2] One farmer, Kent Madison, of Madison Ranches in Echo, said, "It's a whole lot better to have this corridor with one big transmission line through it than four small corridors over a 10-mile area, with four or five transmission lines. We need to protect the high-value agricultural ground" (Plaven 2017).

opposed to spreading these impacts out across a broader patchwork of facilities, which would require the installation of additional related and supporting facilities.

3.3 Farmland Characteristics

To support the responses to the applicable substantive criteria under OAR 660-033-0130(38) (see Section 5.4.2), this section describes the factors that influence whether the land within the site boundary and analysis area meets the definition of arable land under OAR 660-033-0130(38)(a) and/or meets the definition of high-value farmland under ORS 195.300(10). These factors include:

- Whether the land is within a place of use for a permit, certificate, or decree for the use of water for irrigation issued by the Oregon Water Resources Department (OWRD) or is within the boundaries of an irrigation district (as defined under ORS 540.505);
- Whether the land is currently irrigated or has water rights sufficient to support irrigation;
- Whether the land in a tract[3] is predominantly composed of soils that are irrigated or not irrigated and classified by the Natural Resources Conservation Service (NRCS) as prime, unique, Class I or Class II (for high-value soils) or as Class I, II, III, or IV (for arable soils); and
- Whether the land is located within the Columbia Valley American Viticulture Area, as described in 27 Code of Federal Regulations 9.74 and meets the elevation, aspect, and slope criteria listed under ORS 195.300(10)(f).

The following subsections investigate each of these factors as they apply to the site boundary and analysis area. While the site boundary contains high-value farmland and arable land based on an initial analysis of site characteristics, a more in-depth assessment detailed throughout this exhibit demonstrates land within the site boundary does not include water rights sufficient for use in crop irrigation, does not contain high-value farmland soils (under a non-irrigated condition), and is limited in its agricultural potential due to the lack of irrigation water. The site boundary contains soils that, when irrigated, would have NRCS soil capability Class I and II (i.e., high-value farmland soils per ORS 215.710(1)); however, the land within the site boundary is currently not irrigated, not within an irrigation district, and the place-of-use water rights located within the site boundary are not sufficient to provide uninterruptible water supply to support irrigated crops. Furthermore, the site boundary is within a critical groundwater area (CGWA) that restricts water use of existing groundwater rights and issuance of new groundwater rights (see Section 3.3.1). Additionally, the soil attributes within the site boundary, and in the parcels in the surrounding area, limit dryland agricultural productivity. Figure K-3 demonstrates that approximately one third of the adjacent parcels are either participating landowners (i.e., Matheny Property LLC) or affiliated with other energy facilities, including the Wheatridge Renewable Energy Facility I through III and the proposed Wagon Trail Solar Project. As depicted on Figure K-3, the county-approved Orchard Wind Farm is located immediately north of the site boundary within a portion of the analysis area. Figure

[3] Per OAR 660-033-0020(14) "Tract" means one or more contiguous lots or parcels under the same ownership. As mapped in Figure K-3, there are seven tracts located within the site boundary.

K-4 shows cultivated land across most of the parcels surrounding the site boundary. Data mapping from the NASS CropScape database shows the parcels surrounding the Facility are predominantly fallow cropland and winter wheat with some irrigation pivots of corn, potatoes, and sod/grass seed in areas that have surface water irrigation rights and/or are within the Columbia Improvement District (U.S. Department of Agriculture [USDA] 2023).

3.3.1 Existing Water Rights

As discussed in Section 3.2, there are currently no farmlands receiving irrigation water within the site boundary. None of the land within the site boundary is included within the boundaries of an irrigation district; however, three properties in the northern portion of the analysis area are included in the Columbia Improvement District (Figure K-5.1). Several place-of-use water rights occur within the site boundary and analysis area. There are three groundwater place-of-use water rights within the site boundary shown on Figure K-5.1 and listed and described in Section 3.3.1.3 below. There are six groundwater place-of-use water rights and four surface water place-of-use water rights within the analysis area (outside the site boundary) and listed and described in Section 3.3.1.4 below.

Both the site boundary and analysis area are located in areas where OWRD restricts the use of ground water to address the decreasing groundwater supply from the underlying basalt aquifers. The Butter Creek CGWA includes the entire site boundary area and most of the analysis area, except for the westernmost portion, which is located within the Ella Butte Groundwater Restricted Study Area (Figure K-5.2). Both restricted groundwater areas limit the amount of water available under the various water rights within these designated areas. Therefore, the groundwater rights in the site boundary and analysis area must be considered in context with these two groundwater restricted areas. See Sections 3.3.1.1 and 3.3.1.2 below.

3.3.1.1 Butter Creek CGWA

Established in 1986, the Butter Creek CGWA is divided into six subareas for the purpose of managing the groundwater resource; the northern portion of the site boundary and analysis area are located within the West subarea and the southern portion of the site boundary and analysis area are located within the Pine City subarea (Figure K-5.2). Groundwater development in the Butter Creek CGWA began in the 1950s to supplement limited surface water supplies and increased in the 1960s as farmers developed additional agricultural lands using ground water as the primary source for irrigation (OWRD 2003). Groundwater levels in the early 1960s were fairly shallow (near the land surface) but began to drop by the mid-1960s, and by the 1970s groundwater levels had dropped to nearly 300 feet below land surface (OWRD 2003). In a 2003 OWRD report, the Pine City and West subareas were reported to have experienced groundwater declines of 3 to 5 feet per year since the designation of the CGWA (OWRD 2003). In its 2021 CGWA Three Year Review memo (OWRD 2021), OWRD reports that rates of declines have slowed due to reduced pumpage and restrictions on groundwater allocations; however, total declines are at historically low levels in all subareas (OWRD 2021).

Within the Butter Creek CGWA, OWRD establishes and administers a "sustainable annual yield" for each subarea, which refers to the total amount of groundwater that all authorized groundwater right holders may pump in that subarea in any given year. Water right holders must request an "allocation" of this total amount on an annual basis. OWRD then allocates available water to requesting water right holders based on the seniority of their water rights. The current calculated sustainable annual yield for the West subarea is 5,670 acre-feet (AF) and for the Pine City subarea is 4,150 AF. Many junior rights in the Butter Creek CGWA do not receive an annual allocation of groundwater due to the allocation restrictions (OWRD 2021). Furthermore, no new applications for appropriation of water from the basalt groundwater reservoir in the Butter Creek CGWA are authorized (see OAR 690-507-0630(4) and OWRD 2003). OAR 690-507-0670 governs the method for OWRD's distribution of the sustainable annual yield of groundwater in the Butter Creek CGWA. The method includes consideration of following:

1. Request for allocations received;
2. The sustainable annual yield;
3. The limits of the groundwater rights;
4. The relative dates of priority;
5. The historical usage;
6. Whether or not a water user is physically capable of pumping and putting to a beneficial use the quantity requested; and
7. Any other factors deemed appropriate by OWRD.

Therefore, not only does the priority date of the water right influence OWRD's allocation of water each year in each subarea within the CGWA, but also the water right holders' historical usage and physical capability to put the allocated water to beneficial use.

3.3.1.2 Ella Butte Groundwater Restricted Study Area

Similar to the Butter Creek CGWA, development of groundwater resources in the Ella Butte Groundwater Restricted Study Area (GRSA) began in the late 1960s and 1970s to supplement limited surface water supplies (OWRD 2003). Development of irrigation from groundwater made it possible for farmers to increase yields for wheat, peas, barley, and other crops and allow them to produce crops each year rather than leaving soils fallow every other year to retain moisture for dry-land farming. Groundwater well levels continued to decline and, in 1985, OWRD initiated critical groundwater proceedings in the Ella Butte GRSA (OWRD 2003). However, during the hearing process with the development of rules for this area, testimony indicated that groundwater use in this area was dropping, and, in 1990 groundwater from the basalt aquifer in the Ella Butte GRSA was classified by OAR 690-507-0070(3)(d)(A) for statutorily exempt uses only.[4] Exempt uses

[4] Per OAR 690-507-0010(6) Statutorily Exempt Groundwater Uses means those uses for which no groundwater application, permit, or certificate is required under ORS 537.545. Those uses are for: (a)

include domestic use, stock-watering, and limited industrial use (i.e., no large-scale irrigation is permitted).

3.3.1.3 Site Boundary Place of Use Water Rights

There are three groundwater place-of-use water rights within the site boundary shown on Figures K-5.1 and K-5.2 and listed and described below.

- **Doherty (Water Right [WR] 38473).**
    - This certificate, for land located adjacent to Oregon Route (OR) 207, is associated with one well: MORR 419. This water right is located in the Butter Creek CGWA, Pine City subarea and has a priority date of March 13, 1967, which is a junior water right to 16 other groundwater rights in the Pine City subarea. The water right is for irrigation for of 36.3 acres from March 1 to October 31 with a current status of "Non-Cancelled." Review of online information from 2005 to 2022 indicates that the permit certificate holder has not requested or been allocated groundwater in any of these years (OWRD 2022).
    - The water right holder, Brian Doherty, explained to the Applicant that the water from this well was historically used to water livestock and a small area of pasture in Sand Hollow (i.e., in the low pasture lands and not in the cultivated fields). Doherty indicated that the well associated with this groundwater right has not been viable for 35 years as it either went dry or caved in (Brian Doherty, personal communication, January 30, 2023). When the well was constructed in 1964, it had a maximum depth of 376 feet and the water level was 65 feet below land surface (OWRD 2022). According to the measured well level data on the OWRD Groundwater Information System, the last recorded water level measurement was from February 1990 at a depth of 286 feet below land surface (OWRD 2022).
- **Grieb (WR 43515).**
    - This certificate, centrally located in the site boundary, is associated with two wells: MORR 408 and MORR 412. This water right is located in the Butter Creek CGWA, West subarea and has a priority date of July 19, 1967 for 7.0 cubic feet per second and March 7, 1968 for 0.81 cubic feet per second. This certificate is the most senior water right holder in the West subarea.
    - The water right is for irrigation of 2,831.9 acres with a current status of "Non-Cancelled." Review of information from the OWRD Groundwater Information System indicates that, from 2007 to 2022, the permit holder requested 1,300 to

Stockwatering purposes; (b) Watering any lawn or noncommercial garden not exceeding one-half acre in area; (c) Watering the grounds, three acres in size or less, or schools that have less than 100 students and that are located in cities with a population of less than 10,000; (d) Single or group domestic purpose in an amount not exceeding 15,000 gallons a day; (e) Down-hole heat exchange purposes; or (f) Any single industrial or commercial purpose in an amount not exceeding 5,000 gallons a day.

1,000 AF most years and, in the years where allocation was requested, OWRD allocated 500 AF in each case (OWRD 2022).

- Review of the flow meter readings from the OWRD Groundwater Information System (OWRD 2022) indicates that water has not been used from well MORR 408 since 1989 and, per the water right holder, that well is capped and has no power to run the pump (Ken and Carri Grieb, personal communication, February 3, 2023). OWRD Groundwater Information System indicates that water was used from well MORR 412 consistently from 1980 to 1996 but from 1996 to 1999 the use dropped to less than 700 AF, and after 1999 the well was either not used or was used for a nominal amount of water (less than 500 AF). No water has been pumped from either well since 2015 (OWRD 2022).
- The landowner indicated to the Applicant that their farm has been in dryland wheat production since the early 1980s, when declining water allocations forced the farm into wheat production. From 1980 to 1999, this water right was used (at various allocations) as supplemental water for the wheat crops. However, the farm has applied no supplemental water to the crops since at least 2017 (Ken and Carri Grieb, personal communication, February 3, 2023).
- The landowner indicated to the Applicant that the annual water allocation from OWRD for the past 15 years has been 500 AF, which is too little water, with availability too uncertain, to justify the costs of investing in an irrigation pivot and changing operations from dryland farming to irrigated farming. At minimum, the Griebs estimate that they would need to be allocated 1,000 AF every year to justify investing in center pivot irrigation. They would also likely need to invest in pumping equipment to get flows above 900-1,000 gallons per minute (Ken Grieb, personal communication, February 3, 2023). Based on this information, the WR 43515 water right is severely limited in its ability to support irrigated crops, despite the fact that it is a senior water right in the West subarea of the Butter Creek CGWA.

- **Doherty (WR 62326).**
  - This certificate, partially located in the southwest part of the site boundary, is associated with one well: MORR 419. This water right is located in the Butter Creek CGWA, Pine City subarea and has a priority date of June 24, 1970, which is the most junior water right in the Pine City subarea.
  - The water right is for irrigation for of 494.6 acres with a current status of "Non-Cancelled." Review of online information from 2005 to 2022 indicates that the permit holder has not requested or been allocated water in any of these years (OWRD 2022).
  - The water right holder, Brian Doherty, explained to the Applicant that the farm originally had three center pivot irrigation circles on the west side of the property associated with this water right, each 160 acres. Two of the historic center pivots were located in the site boundary and were fed by this ground water right 62326

until the state "cut off" their water use in the late 1970s or early 1980s and when declining water allocations forced the farm into wheat production. The Doherty farm has been in dryland wheat production since the early 1980s (Brian Doherty, personal communication, January 30, 2023).

- Coordination with OWRD staff in 2018 indicated that this water right was last allocated water in 1997 (270 AF) and is highly unlikely to be allocated water in the future if a request were made.[5]
- Based on the above information, the WR 62326 can be characterized as a junior groundwater right that does not provide a sufficient amount of uninterruptable supply of water to support irrigated crops and therefore is severely limited in its ability to support agricultural uses.

3.3.1.4 Analysis Area Place of Use Water Rights

In addition to the three place-of-use water rights within the site boundary, there are 10 water rights located within the analysis area 0.5 mile from the site boundary (see Figure K-5). Four of these water rights are surface water rights receiving water either from the Columbia River via the Columbia Improvement District or from Sand Hollow Creek. Of the seven groundwater rights, only three have recently received allocations of groundwater from the annual allocations of the Butter Creek CGWA: WR 42330 and WR 75649 of the Pine City subarea and WR 61848 of the West subarea. These three groundwater rights are perfected water rights with consistent history of beneficial use.

WR 42330 and WR 75649 are both senior water rights compared to the Doherty WR 62326 (located in the site boundary and in the Pine City subarea of the Butter Creek CGWA). Although the Doherty WR 38473 (located in the site boundary and in the Pine City subarea of the Butter Creek CGWA) is a senior water right compared to WR 42330 and WR 75649, it has not had a viable well in 35 years and therefore does not have a recent history of beneficial use.

WR 61848 is located in the Butter Creek CGWA, West subarea. The place of use for groundwater right 61848 is located within the Columbia Improvement District and therefore the landowner can supplement irrigation water sources from groundwater with surface water rights and due to this fact, it is economical to invest in irrigation infrastructure and put the groundwater rights under WR 61848 to beneficial use each year, thus giving this water right priority for allocation under OAR 690-507-0670. In contrast, the only water right for potential irrigation in the site boundary located in the West subarea of the Butter Creek CGWA is the Grieb WR 43515, which although senior to the WR 61848, has not been able to put the full amount of the water right to beneficial use for the past 15 years due to limited amount of water allocated by OWRD (500 AF) and the lack of other surface water rights or irrigation district water rights to supplement irrigation. As noted in Section 3.3.1.3,

[5] Personal communication with Joshua Hackett, hydrologist with the OWRD (Butter Creek Allocations) on December 6, 2018 (cited in Wheatridge Wind Energy Facility, Exhibit K Compliance with Statewide Planning Goals. June 2019. Available online at: https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2019-07-01-WRW-RFA4-Exhibits-K-CC.pdf).

Ken and Carrie Grieb estimate that they would need to be allocated a minimum of 1,000 AF every year under their groundwater right to justify investing in center pivot irrigation and changing operations from dryland farming to irrigated farming. Without a minimum of 1,000 AF, the Griebs are limited in their ability to put the allocated 500 AF to beneficial use and therefore are unlikely to be provided priority allocations over other water rights in the West subarea that do have a history of beneficial use.

3.3.2 Soil Classifications

The NRCS geographic information system (GIS) soil data indicate the analysis area comprises 13 soil types (NRCS 2023; see Exhibit I, Figure I-1). The NRCS database includes the physical and chemical properties of the soils in the analysis area and the soil map unit distribution. The NRCS assigns land capability classifications to each soil unit to show, in a general way, the suitability of soils for most kinds of field crops. Soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management (NRCS 2023). Soil classifications can depend on whether the soils are irrigated. As discussed in Section 3.3.1, there are currently no farmlands receiving irrigation water within the site boundary; however, irrigated agricultural land occurs beyond the site boundary within the analysis area[6]. Figure K-6.1 and Figure K-6.2 show NRCS soil capability classes within the analysis area and site boundary for irrigated and non-irrigated capability classes.

The NRCS provides the following descriptions for each soil class associated with the soils in the analysis area (NRCS 2023):

- Class 1 soils have few limitations that restrict their use.
- Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
- Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.
- Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.
- Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

In addition to the irrigated and non-irrigated soil capability classifications, the NRCS assigns farmland classifications to map units as prime farmland, prime farmland if irrigated, farmland of

[6] Here, the terms "irrigation" and "irrigated" refers to the application of water to land for purposes of growing agricultural products. The definition of "irrigated" in OAR 660-033-0020(9) and its applicability to the site boundary and analysis area and assessment of high-value farmland is discussed in Section 3.3.3.1.

statewide importance, farmland of local importance, or unique farmland. Farmland classifications identify the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops (NRCS 2023). Soils in the site boundary are classified by the NRCS as either prime farmland if irrigated, farmland of statewide importance, or not prime farmland. See Table K-1.

Table K-1. Soil Classifications in Site Boundary

Soil Type ID/Soil Unit	NRCS Farmland Classification	NRCS Irrigated Soil Capability Class	NRCS Non-Irrigated Soil Capability Class	Acreage within Site Boundary	Percent within Site Boundary
13E/Gravden very gravelly loam, 20 to 40 percent slopes	Not prime farmland	7	7	120	1%
13D/Gravden very gravelly loam, 5 to 20 percent slopes	Not prime farmland	7	7	39	0%
28E/Lickskillet very stony loam, 7 to 40 percent slopes	Not prime farmland	7	7	98	1%
45A/Ritzville silt loam, 0 to 2 percent slopes	Prime farmland if irrigated	1	3	412	4%
45B/Ritzville silt loam, 2 to 7 percent slopes	Prime farmland if irrigated	2	3	1,711	16%
71A/Warden silt loam, 0 to 2 percent slopes	Prime farmland if irrigated	1	4	2,766	25%
71B/Warden silt loam, 2 to 5 percent slopes	Prime farmland if irrigated	2	4	3,606	33%
71C/Warden silt loam, 5 to 12 percent slopes	Farmland of statewide importance	3	4	601	5%
70B/ Warden very fine sandy loam, 2 to 5 percent slopes	Prime farmland if irrigated	2	4	79	1%
75B/Willis silt loam, 2 to 5 percent slopes	Prime farmland if irrigated	3	3	1,011	9%

Soil Type ID/Soil Unit	NRCS Farmland Classification	NRCS Irrigated Soil Capability Class	NRCS Non-Irrigated Soil Capability Class	Acreage within Site Boundary	Percent within Site Boundary
75C/Willis silt loam, 2 to 5 percent slopes	Farmland of statewide importance	3	3	273	2%
78/ Xeric Torriorthents, nearly level	Farmland of statewide importance	3	6	245	2%
Total Acres Arable Soils if Irrigated (excluding high value/Class 1 &2 soils)					**2,130**
Total Acres Arable Soils if Not Irrigated (excluding high value/Class 1 &2 soils)					**10,459**
Total Acres Non Arable Soils if Irrigated					**257**
Total Acres Non Arable Soils if Not Irrigated					**502**

Approximately 9,584 acres (87 percent) of the site boundary consist of soils considered "prime farmland, if irrigated" per the NRCS Oregon State Prime Farmland List (NRCS 2023). Approximately 8,573 acres (78 percent) of these "prime farmland, if irrigated" soils are also classified as Class I and II soils, if irrigated. The remaining soils present on-site are not considered prime farmland or Class I or II regardless of their irrigation status.

Per OAR 660-033-0130(38)(b), *" 'arable soils' means 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."* Per the USDA Soil Conservation Service, NRCS Class 1 through 4 soils are considered suitable for cultivation or arable soils while Class 5 and higher are considered non-arable soils (Helms 1992). As Class 1 and 2 soils are considered high-value farmland soils per ORS 195.300(10) and the definition of arable soils per OAR 660-033-0130(38)(b) excludes high-value farmland soils, arable soils in the site boundary would include a total of 2,130 acres if irrigated and 10,459 acres if not irrigated (see Table K-1).

Soil classifications in the site boundary are highly dependent on availability of irrigation water. Approximately 64 percent of the site boundary is composed of 71A/B/C Warden silt loam soils, which when not irrigated are classified by the USDA NRCS as land capability Class IV soils that are the lowest of the arable soil classifications. Approximately 20 percent of the site boundary consists of 45B Ritzville silt loam that is Class III if not irrigated.

NRCS also assigns capability subclasses for each soil unit. The 71B Warden silt loam soil and 45B Ritzville silt loam soil are assigned an "e" capability subclass, which indicates that the main hazard to the soils is the risk of erosion unless close-growing plant cover is maintained. For 71A Warden silt loam, NRCS assigns a "c" subclass, which shows that the chief limitation is climate that is very cold or very dry. Soils across the entire site boundary are rated by NRCS as "organic matter depletion high," which indicates that the soil and site have features that are very conducive to the

depletion of organic matter and very careful management will be needed to prevent serious organic matter loss when these soils are farmed (NRCS 2023). Low percentage of organic matter in soil indicates low capability for the soil to retain moisture during the dry periods of the year. This means that low-organic soils can limit the potential yield for dryland crop cultivation, which relies on the moisture retained in the soil from the fallow year of the every-other-year crop rotation.

The NRCS soils report identifies irrigated and non-irrigated average crop yields per acre by soil map unit. The average yields per acre assume a high level of management to obtain the indicated yields (i.e. application of fertilizer, control of weeds, erosion control, etc.). The average crop yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered. NRCS assigns an average of 25 bushels per acre of winter wheat for non-irrigated Warden silt loam and an average of 35 bushels per acre of winter wheat for non-irrigated Ritzville silt loam. Landowner testimony (see Attachment K-1) validates that these assigned estimates are generally consistent with current yields on cultivated areas within the site boundary (see Section 3.4.1). In contrast, the NRCS assigns an average of 130 bushels per acre of winter wheat for irrigated Warden silt loam and 125 bushels per acre of winter wheat for irrigated Ritzville silt loam (NRCS 2023). The results are comparable for dryland barley and spring wheat.

See Section 3.3.3 for a discussion of lands within the analysis area that meet the definition of high-value farmlands per ORS 195.300(10) and arable lands per OAR 660-033-0130(38)(a).

3.3.3 High-Value Farmland and Arable Lands Analysis

3.3.3.1 High Value Farmland

Certain lands within the EFU zone are considered high-value farmland if they meet the definitions under ORS 195.300(10). The applicable provisions of this statute are summarized below:

- ORS 195.300(10)(a) relies on land in the EFU zone meeting the description of high-value farmland under ORS 215.710 which describes land in a tract composed predominantly of soils, that at the time the siting approval, are irrigated and classified as prime, unique, Class 1, or Class 2 or not irrigated and classified as prime, unique, Class 1, or Class 2.
- ORS 195.300(10)(c) relies on the land in the EFU zone being located within a place-of-use water right, an irrigation district, or a diking district.
- ORS 195.300(10)(f) relies on the land in the EFU zone being located within the boundaries of the Columbia Valley American Viticulture Area (AVA; see 27 Code of Federal Regulations Part 9, Subpart C - Approved American Viticultural Areas, Section 9.74 Columbia Valley)—and meeting certain elevation (below 3,000 feet), slope (between zero and 15 percent), and aspect (between 67.5 and 292.5 degrees) criteria.

Portions of the site boundary qualify as high-value farmland under all three above cited definitions. Each definition is considered below.

ORS 195.300(10)(a)

As discussed in Section 3.3.2, approximately 9,585 acres (87 percent) of the site boundary consist of soils considered "prime farmland, if irrigated" per the NRCS Oregon State Prime Farmland List (NRCS 2023). Approximately 8,574 acres (78 percent) of these "prime farmland, if irrigated" soils are also classified as Class I and II soils, if irrigated. The remaining soils present in the site boundary are not considered prime farmland or Class I or II regardless of their irrigation status.

The definition of "irrigated" in OAR 660-033-0020(9) means:

> *watered by an artificial or controlled means, such as sprinklers, furrows, ditches, or spreader dikes. An area or tract is "irrigated" if it is currently watered, or has established rights to use water for irrigation, including such tracts that receive water for irrigation from a water or irrigation district or other provider. For the purposes of this division, an area or tract within a water or irrigation district that was once irrigated shall continue to be considered "irrigated" even if the irrigation water was removed or transferred to another tract.*

Per this definition, an area or tract is "irrigated" if it is:

- Currently watered;
- Has established rights to use water for irrigation;
- Receives water for irrigation from a water or irrigation district or other provider; or
- Is located within a water or irrigation district and currently or historically was irrigated.

As none of the tracts within the site boundary are currently watered, receive water from a water or irrigation district, or are located within in a water or irrigation district, the land within the tracts is not considered irrigated based on those conditions. However, three tracts have "established rights to use water for irrigation" (see Figure K-5.1)*:*

- Tract 4: WR 43515;
- Tract 5: WR 43515; and
- Tract 7: WR 62326 and WR 38473.

These "established water rights" are limited in their potential application to the mapped place of use areas depicted in Figure K-5.1 and described in Section 3.3.1.3. Therefore, only the areas within the place of use water rights on the associated tracts are considered "irrigated" per the definition under OAR 660-033-0020(9).

The definition of high-value farmland under ORS 215.710 refers to land in a tract being *predominately* composed of soils, that at the time the siting approval, are irrigated and classified as prime, unique, Class 1, or Class 2 or not irrigated and classified as prime, unique, Class 1, or Class 2. Per guidance received from the Oregon Department of Land Conservation and Development (DLCD) and ODOE, if only a portion of the tract is irrigated (per the definition under OAR 660-033-0020(9)), then soils within the subject tracts shall be evaluated based on the following predominance test:

1. Identify NRCS irrigated soil capability class for “irrigated" portions of tract.
2. Identify NRCS non-irrigated soil capability class for non-irrigated portions of tract.
3. Sum all Class 1, 2, Prime, and Unique acres from steps 1 & 2.
4. Divide by total tract acres; if 50 percent or more are Class 1, 2, Prime, and Unique, then entire tract contains high-value farmland.

A predominance test per tract is provided in Table K-2 below. Based on the results of the predominance test, less than 50 percent of the total tract areas have Class 1, 2, Prime, and Unique soils and therefore do not meet the definition of high-value farmland under ORS 195.300(10)(a) and ORS 215.710.

Table K-2. Tract Analysis Predominance Test of High-Value Farmland Soils

Tract	Owner	Water Right	Total Tract Acreage	Acreage of High Value Soils (NRCS Soils Class 1, 2, Prime, or Unique)			
				Irrigated Portions of Tract	Non-Irrigated Portions of Tract	Total	Percent of Tract Area
1	Ashbeck, Tony R & Ashbeck, Gerald T	None	1,547.57	0	0	0	0%
2	Cutsforth, Kraig Allen	None	0.80	0	0	0	0%
3	Doherty, Brian W & Doherty, Peggy A	WR 38473[1]	2.40	0	0	0	0%
4	Grieb Farms, Inc	WR 43515[2]	4,355.71	1,909	0	1,909	44%
5	Matheny Property LLC	WR 43515[3]	1,706.01	599	0	599	33%
6	Monagle, John B & Patricia Anne Et al	None	160.32	0	0	0	0%
7	William J Doherty Ranch, LLC	WR 62326[4] WR 38473[5] WR 43515[6]	3,540.78	406	0	406	11%

1. WR 38473 includes total of 36.3 acres for place of use water rights; approximately 1 acre located in Tract 3.
2. WR 43515 includes total of 2,831.9 acres for place of use water rights; approximately 2,000 acres located in Tract 3.
3. Approximately 650 acres of the place of use for this water right are located on Tract 5 (see Figure K-5.1).
4. WR 62326 includes total of 494.6 acres for place of use water rights; approximately 250 acres located in Tract 7.
5. WR 38473 includes total of 36.3 acres for place of use water rights; approximately 35.3 acres in Tract 7.
6. Approximately 166 acres of the place of use for this water right are located on Tract 7 (see Figure K-5.1).

ORS 195.300(10)(c)

As noted in Sections 3.3.1 and 3.3.2, none of the tracts within the site boundary are located within an irrigation district or a diking district. However, there are three groundwater irrigation water rights with mapped place of use areas within the site boundary. Based on the OWRD-mapped locations of the place of use for these three water rights (Figure K-5.1), approximately 28 percent (3,113 acres) of the site boundary meets the definition of high-value farmland under ORS 195.300(10)(c) (Figure K-7). However, none of the 3,113 place-of-use water right acres currently support irrigated crops and, due to the location in the Butter Creek CGWA, are unlikely to support irrigated crops in the foreseeable future as the groundwater levels in the underlying basalt aquifer continue to decline despite the CGWA regulations limiting groundwater use in the subbasins.

ORS 195.300(10)(f)

The entire site boundary is located within the Columbia Valley AVA. Approximately 2,433 acres (22 percent) of the site boundary qualifies as high-value farmland based on being in the Columbia Valley American Viticultural Area and meeting the elevation, slope, and aspect criteria under ORS 195.300(10)(f).

Total High-Value Farmland in Site Boundary

Per the predominance test per tract provided in Table K-2, less than 50 percent of the total tract areas have Class 1, 2, Prime, and Unique soils and therefore do not meet the definition of high-value farmland under ORS 195.300(10)(a) and ORS 215.710. However, portions of the Facility site boundary do meet the definition of high-value farmland under ORS 195.300(10)(c) (i.e. place of use water rights) and under ORS 195.300(10)(f) (i.e. location in the Columbia Valley AVA). As the lands that qualify as high-value farmland under ORS 195.300(10)(c) and (f) overlap in some areas within the site boundary and analysis area (see Figure K-7), a composite of the lands was calculated for a net total of 4,950 acres of high-value farmland within the site boundary. Table K-3 provides a breakdown by acreage of the applicable ORS 195.300(10) classifications. It should be noted that classifying the lands underneath the place-of-use water rights as "irrigated" (despite the results of the predominance test provided above) would not result in more high-value farmland within the site boundary. The same lands are classified as high-value farmland per ORS 195.300(10)(c) and the total area of high-value farmland, merging all three cited definitions, within the site boundary would not exceed 4,950 acres (45 percent of site boundary).

3.3.3.2 Arable Lands

Per OAR 660-033-0130(38)(a), *" 'arable land' means land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils*," and as each tract in the site boundary is predominately cultivated with dryland wheat, the land within each tract can be considered arable land. Figure K-8 shows a composite of arable soils and cultivated lands within the site boundary and analysis area. Section 3.3.2 provides a breakdown of total acreage of arable soils and non-arable soils within the site boundary. The Facility site boundary contains approximately 10,747 acres of arable soils and 213 acres of non-arable soils (see Table K-3). However, as each

tract is predominately cultivated and/or comprised of arable soils, all the land within each tract is accounted for as arable land in Table K-3.

Table K-3. Farmland Classification and Estimated Disturbance

Farmland Classification	Analysis Area		Tracts		Site Boundary		Estimated Permanent Disturbance within Site Boundary[3]	
	Acres	%	Acres	%	Acres	%	Acres	%
High-value land Per ORS 195.300(10)(a) (i.e., Class 1 or 2 soils)	4,234	21%	0	0%	0	0%	0	0%
High-value land Per ORS 195.300(10)(c) (i.e., within place-of-use water right or irrigation district)	5,088	26%	3,112	28%	3,113	28%	3,042	32%
High-value land Per ORS 195.300(10)(f) (i.e., within AVA and meets slope, elevation, aspect criteria.	5,075	26%	2,600	23%	2,433	22%	1,957	21%
High-value lands/high-value soils (merged all 3 HVFs)[1]	8,937	45%	5,114	45%	4,950	45%	4,414	47%
Arable [2]	19,796	100%	11,314	100%	10,960	100%	9,442	100%

1. High-value farmland (HVF) designations per ORS 195.300(10)(a), (c), and (f).

2. Arable land means land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils. Arable soils include NRCS Class I-IV and high-value lands and soils.

3. Includes approximately 20 solar array fence line areas. The area within the fence line including all solar components (i.e., modules, inverters, transformers, tracking systems, posts, portions of the collector lines, and other associated equipment), as well as the following supporting facilities: the battery energy storage system, portions of the transmission lines, new access roads, some of the substations, and the temporary constructions areas.

Note: For percentage calculations, total analysis area = 19,797 acres; total tract area = 11,313.6 acres; total site boundary area = 10,960 acres; total permanent disturbance area = 9,442 acres

3.3.3.3 Summary of High-Value Farmland and Arable Lands Analysis

Most of the site boundary, 10,747 acres or 98 percent, comprises arable lands that include areas of high-value farmland per ORS 195.300(10)(c) and (f). Non-arable lands in the site boundary comprise 213 acres. Non-arable lands are typically associated with drainages, ravines, and areas with slopes.

Per OAR 660-033-0130(38)(g), a photovoltaic solar power generation facility shall not use, occupy, or cover more than 12 acres of high-value farmland unless certain criteria under OAR 660-033-0130(38)(h) is met or an exception is taken pursuant to ORS 194.732. As the site boundary includes more than 12 acres of high-value farmland as defined under ORS 195.300(10)(c) and (f), a Goal 3 exception is required for Facility development on high-value farmland. See Section 5.5 for a demonstration that a "Reasons" exception is appropriate for the Facility.

Per OAR 660-033-0130(38)(i), a photovoltaic solar power generation facility shall not use, occupy, or cover more than 20 acres of arable lands unless certain criteria under OAR 660-033-0130(38)(i) is met or an exception is taken pursuant to ORS 194.732. As the site boundary includes more than 20 acres of arable lands, a Goal 3 exception is required for Facility development on arable lands. See Section 5.5 for a demonstration that a "Reasons" exception is appropriate for the Facility.

3.4 Agricultural Impacts and Mitigation

3.4.1 State and Local Overview

The Applicant assessed the potential economic impacts of removing approximately 9,400 acres of arable land from agricultural production. As part of a broader economic impact analysis prepared by ECONorthwest (Attachment K-2, Economic Impact Analysis), the Applicant conducted an agricultural lands assessment describing agricultural crops and existing agricultural practices on agricultural lands in Morrow County and analyzed the temporary and permanent impacts that would occur to agricultural lands and the agricultural economy as a result of the construction and operation of the Facility. This assessment briefly reviews overall agricultural use in Oregon where the top commodities in terms of value of production dollars are hay, wheat, and potatoes (USDA National Agricultural Statistics Services [NASS] 2022).

Agricultural commodities sales in the state continue to grow. Per the USDA NASS, the average yield per acre of winter wheat in Oregon was 45 bushels per acre in 2021 and 68 bushels per acre in 2022. Over the past 10 years, Oregon has an average yield of 59 bushels per acre of winter wheat. Data from a 2021 Oregon State University College of Agricultural Sciences economic analysis (OSU 2021) show the gross farm and ranch sales in Oregon based on USDA data and demonstrate how sales driven by farmers' production decisions change over time based on processor/consumer demand (Table K-4). From 2012 to 2017 commodity sales of grain across Oregon reduced from $570,142,000 to $343,911,000 (USDA NASS 2017).

Table K-4. Oregon Commodity Sales 2012 and 2017 (in thousand $)

Commodity Group	2012	2017
All crops	**3,247,433**	**3,283,355**
Grains	570,142	343,911
Vegetables and melons	492,143	539,205
Christmas trees and short rotation wood crops	107,803	121,338
Nursery, greenhouse, floriculture, and sod	756,491	886,686
Fruits and nuts	517,166	621,147
Other crops and hay	803,688	780,068
All livestock, poultry, aquaculture	**1,706,919**	**1,723,466**
Poultry and eggs	127,481	126,466
Cattle and calves	894,485	977,404
Milk from cows	519,790	507,116
Hogs and pigs	3,195	3,431
Sheep, goats, wool, mohair, and milk	31,597	28,300
Horses, ponies, mules, burros, and donkeys	13,395	14,807
Aquaculture	22,490	42,974
Other animal products	94,486	22,968
Total sales	**4,954,352**	**5,006,821**
Source: USDA NASS 2012 Census of Agriculture and 2017 Census of Agriculture.		

Morrow County represents 12 percent of state agriculture sales (USDA NASS 2017). Wheat for grain is the top crop in acres across Morrow County. However, the top reported commodities in order of total sales were vegetables (including melons, potatoes, and sweet potatoes as grouped by the USDA) and grains (including oilseeds, dry beans, and dry peas). The average yield per acre of winter wheat in Morrow County was 28 bushels per acre in 2021 and 65 bushels per acre in 2022 (USDA NASS 2022). Over the past 10 years, Morrow County had an average yield of 40 bushels per acre of winter wheat (USDA NASS 2022), 32 percent less than the average yield in Oregon across that same period. Gross farm sales in Morrow County in 2017 for crops were $190,739 million, and livestock and poultry sales were $405,748 million. Of the 1,126,101 acres of land in farms across Morrow County, 111,486 acres (approximately 10 percent) are irrigated (USDA NASS 2017). A more granular assessment of agricultural use for each property owner within the site boundary follows below and is supported by landowner testimony.

3.4.2 Agricultural Impacts

There are a total of five tracts with agricultural uses within the site boundary that would be impacted by the Facility. Part of the agricultural lands assessment included a survey of the landowners to obtain information regarding agricultural practices specific to each tract. Landowners identified as having agricultural uses on their parcels were sent a letter and survey to complete regarding the agricultural uses of their lands. The survey requested information about crop practices, historic revenues, crop yield, water availability, and value from farming operations that would be impacted (see Table K-5). Based on landowner responses, the average yield per acre of winter wheat across the tracts is approximately 36 percent less than the average yield for Oregon and approximately 6 percent less than the average yield for Morrow County.

Table K-5. Overview of Landowner Farmland Characteristics

Landowner	Crop Practices	Crop Schedule	Direct Jobs Currently Supported by Operations	Spending on labor, supplies, and services for agricultural operations (estimated reductions)	Range of crop yields over the past 5-10 years	Plans for land outside of site boundary during Facility operation
ASHBECK, TONY R & ASHBECK, GERALD T (Tract 1)	Dryland wheat. Half the farm is in wheat production every year; the other half they fallow. No water rights or history of irrigation. Located within Butter Creek CGWA (Pine City Subarea).	Seed and fertilizer applied in September, with additional fertilizer applied in March or other times of the year as needed. Harvest in July or August. Till fallow half of their land every summer. Spray for weeds every year as needed.	2 full-time jobs (landowners Tony and Gerald Ashbeck), with no seasonal help for harvest. Post-Facility construction, landowners (Tony and Gerald Ashbeck) will continue to farm their remaining farmlands and therefore the 2 full-time jobs would be retained.	Estimated reduction of $60,000 fertilizer, $30,000 seed $20,000-35,000 on fuel.	On average, 40 bushels wheat per acre.	Will continue to farm land outside of site boundary/in the area, and will seek to add leased farmland to total acres under cultivation as available.
DOHERTY, BRIAN W & DOHERTY, PEGGY A (Tracts 3 and 7)	Dryland wheat. Half the farm is in wheat production every year; the other half they fallow. Mix of chemical fallow and till fallow on the farm. History of irrigation (center pivots) associated with ground WR 62326. However, supply reduced in early 80s and no water has been applied to crops since the early 1980s. Located within Butter Creek CGWA (Pine City Subarea).	Seed and fertilizer applied in October. Harvest in the summer. In recent years the farm practices no till farming and seeds and fertilizes ground in October for summer harvest in July. Entire property sprayed for weeds at least once a year, and additionally as necessary.	1 full time job (landowner Brian Doherty), with some farm help for month or less to assist with harvest. Post-Facility construction, landowner (Brian Doherty) will continue to farm his remaining farmlands and therefore the 1 full-time job would be retained.	Estimated 75% reduction of annual spending on agriculture inputs (seed, fertilizer, weed spray, fuel)	On average 32 bushels per acre, with best years at 45 bushels per acre and worst years as little as 12 bushels per acre.	Will continue to farm his retained, adjacent field south of highway and may also lease ground in the area to farm if available. Also might look into running cattle.
GRIEB FARMS, INC (Tract 4)	Dryland wheat. The land is farmed on rotation: roughly 2,200 acres are harvested in any given year and 2,200 acres are in summer fallow. Some history of irrigation associated with ground WR 43515. However, irrigation supply reduced in early 80s. No water has been pumped from wells since 2017. Located within Butter Creek CGWA (West Subarea).	Seed and fertilizer applied in October for summer harvest in July. The entire farm, both seeded and fallow ground, is sprayed for weeds in late March or April. The fallow ground often needs to be sprayed again for weeds in the summer.	2 full-time jobs (one filled by Ken/Carrie Grieb, and one hired hand), with no seasonal workers at harvest. Post-Facility construction, Griebs would no longer farm; therefore, both full-time jobs would no longer be available.	In 2022, spent a combined total of $266,709 with Morrow County Grain Growers. about $66,000 on fuel, about $51,000 on seed, and about $180,000 on fertilizer and chemical purchases.	On average 30-40 bushels per acre, with best years at 60 bushels per acre and worst years as little as 20 bushels per acre.	No plan for continued farm/range use. Will not farm adjacent to proposed Facility.
MATHENY PROPERTY LLC (Tract 5)	Dryland wheat. Land is farmed on a yearly rotation, split between a "north field" of 900 acres and a "south field" of 720 acres. Each year one field is summer fallowed, and the other field is harvested. No water right or history of irrigation. Located within Butter Creek CGWA (West Subarea).	Seed and fertilizer applied in October. The crop is usually harvested in July. The entire farm, both seeded and fallow ground, is sprayed for weeds in late March or April. The fallow ground often needs to be sprayed again for weeds in the summer.	1 full-time job (Shane Matheny), with several seasonal farm employees at harvest for one month. Anticipate employing one 0.5-time equivalent employee on 340-acre farm remaining once facility is constructed.	Agricultural inputs (seed, fertilizer, weed spray fuel, etc.) will be reduced in proportion to the size of the project. The project lease payments might also allow investment in new equipment.	On average 38 bushels per acre, with best years as high as 60 bushels per acre and worst years as low as 20 bushels per acre.	Will continue to farm 340 acres directly adjacent to proposed Facility.

The Applicant commissioned the ECONorthwest Economic Impact Analysis (Attachment K-2, Economic Impact Analysis) that models the direct, indirect, and induced economic impact of the anticipated wheat production loss from the removal of approximately 9,400 acres of arable land from dryland wheat production (shown on Table K-6).

Table K-6. Economic Impacts of Current Site Boundary Agricultural Activities

Impact	Employment (FTE)[1]	Labor Income ($ million)[2]	Output ($ million)[2]
Direct	6.0	$473,378	$1,165,000
Indirect	3.9	$287,834	$478,566
Induced	0.4	$24,802	$104,563
Total	**10.3**	**$786,014**	**$1,748,129**

Notes:
1. Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2. Labor income and economic output are expressed in Year 2023 dollars. Source: IMPLAN 2022, ECONorthwest

The direct impact represents the gross value of production that the farmers would no longer receive from producing wheat, and the associated employment and labor income of farmers and their employees. Taking approximately 9,400 acres of arable land out of agricultural production would have impacts to the local agricultural economy due to the associated reduction in local spending. Landowners currently purchase fuel, seed, and fertilizer and chemicals from local suppliers including Morrow County Grain Growers, Sand Hollow Agricultural Supply, and McGregor Seed (see Attachment K-1). Using IMPLAN, ECONorthwest modeled the economic impacts for Morrow County based on an estimated reduction in annual output of $1.165 million in the grain sector. The direct jobs shown in Table K-6 are current employment estimates provided by the participating landowners and consist of their own labor and one full-time worker employed by one of the farms. One of the landowners, the Griebs, have indicated that they do not currently own land adjacent to the Facility and would therefore no longer be farming in this area after Facility implementation. This would result in a loss of two full-time equivalent (FTE) jobs, including the one full-time worker they currently employ. The other three landowners have indicated that they would continue to farm their lands elsewhere in the vicinity of the Facility in Morrow County after the Facility is built. In other words, only two of the direct jobs shown in Table K-6 would be lost if the Facility were to go forward.

The indirect impact represents economic activity supported by the agricultural production on the Facility site. This includes spending on inputs like seeds, fertilizer, and fuel and contract services, which could include harvesting or spraying. This supports 3.9 indirect jobs associated with $287,000 in labor income. When agricultural production on the site stops, the presumption is that this spending no longer occurs and this amount of FTE, labor income, and output would be lost. This may or may not translate into reductions in individual employment positions (jobs).

Induced impacts are generated by the spending of households associated either directly or indirectly with ongoing agricultural operations within the Facility site boundary. Assuming this

income is no longer earned, it is not available to spend and would also represent lost economic activity when agricultural production on site stops.

Most of the indirect jobs (3.9 FTEs) associated with the agricultural activities located in the site boundary are related to support activities for agriculture and forestry, which was the second largest sector of employment in Morrow County in 2021. A potential reduction of 3.1 jobs represents approximately 0.4 percent of existing employment in this sector and about 0.1 percent of total agricultural jobs in Morrow County. The remaining indirect employment (0.8 FTE) is distributed across multiple IMPLAN sectors, including wholesale, other nondurable goods, and gasoline stores. These jobs supported elsewhere in the local economy do not necessarily translate into individual positions. A reduction in demand could, for example, result in a reduction in hours worked or reduced overtime, without resulting in job loss. The estimated 0.4 job arising from the induced impacts consists of employment distributed over a range of different economic sectors (Attachment K-2, Economic Impact Analysis).

3.4.3 Agricultural Mitigation

The Applicant has identified measures to avoid, mitigate, repair, and/or provide compensation for estimated impacts that may result from the construction or operation of the Facility on privately owned agricultural land. The overall goal is to make meaningful investments in the agricultural economy to support the Morrow County agricultural stakeholders and economy.

The Applicant has worked to identify several opportunities to partner with local organizations to support agricultural improvement projects in Morrow County. Program opportunities were identified and proposed by the partnering organizations, such as the Morrow Soil & Water Conservation District, to help mitigate the local impacts of converting land from dryland wheat production to a solar/storage facility. The Applicant believes each of the identified programs has a reasonable chance of success. The Applicant will continue to coordinate with ODOE and the various partner organizations to identify a specific agricultural improvement project and develop a formal agreement/plan to execute this work and describe how this work will have economic benefits to the Morrow County agricultural economy commensurate with the economic impacts the Facility will have on the Morrow County agricultural economy.

4.0 Local Land Use Approval

OAR 345-021-0010 (1)(k)(B) If the applicant elects to obtain local land use approvals:

(i) Identify the affected local government(s) from which land use approvals will be sought;
(ii) Describe the land use approvals required in order to satisfy the Council's land use standard;
(iii) Describe the status of the applicant's application for each land use approval;
(iv) Provide an estimate of time for issuance of local land use approvals;

The Applicant has elected to address the Council's Land Use standard by obtaining a land use determination from the Council pursuant to ORS 469.504(1)(b) (see Section 5.0 for more information). Therefore, these standards do not apply.

5.0 Council Determination on Land Use

The Applicant has elected to address the Council's Land Use standard by obtaining a land use determination from the Council pursuant to ORS 469.504(1)(b). The Council's rules state that an applicant seeking the Council's land use approval must identify the "applicable substantive [land use] criteria" of the relevant local governments and must describe how the facility complies with those criteria, as well as any LCDC rules, goals, or land use statutes that apply directly to the facility under ORS 197.646(3). If an applicant cannot demonstrate compliance with one or more of the applicable substantive criteria, they must describe how the facility complies with the Statewide Planning Goals adopted by the LCDC, or alternatively, warrants a goal exception (OAR 345-021-0010(1)(k)). This exhibit demonstrates how the Facility, as proposed, complies with the applicable substantive criteria, and where it does not comply, demonstrates the Facility, as proposed, justifies a goal exception.

5.1 Identification of Applicable Substantive Criteria

OAR 345-021-0010(1)(k)(C) If the applicant elects to obtain a Council determination on land use:

(i) Identify the affected local government(s).

The Facility will be located entirely within the EFU zone of Morrow County. Therefore, as noted in previous sections, only Morrow County criteria are addressed. Sections 5.2 and 5.3 provide an assessment of compliance with the applicable local substantive criteria for commercial solar energy generation in Morrow County.

(ii) Identify the 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 that are in effect on the date the application is submitted and describe how the proposed facility complies with those criteria.

The applicable substantive criteria of the MCZO and MCCP are addressed in Sections 5.2 and 5.3, respectively. The Morrow County Board of Commissioners issued a letter on July 27, 2022—in response to the NOI—to outline the local applicable standards. The substantive criteria are:

- **Morrow County Zoning Ordinance (Morrow County 2018):**
    - MCZO 3.010 Exclusive Farm Use, EFU
    - MCZO 4.010 Access
    - MCZO 4.020 Sight Distance

- MCZO 4.035 Permit Requirements
- MCZO 4.040 Off-Street Vehicle Parking
- MCZO 4.070 Sight Limitations
- MCZO 4.165 Site Plan Review
- MCZO 6.020 General Criteria
- MCZO 6.025 Resource Zone Standards for Approval
- MCZO 6.030. General Conditions
- MCZO 6.040 Permit Improvements

- **Morrow County Comprehensive Plan (Morrow County 2013):**
  - Goal 1 Citizen Involvement
  - Goal 2 General Land Use Policies
  - Goal 3 Agricultural Lands Element – Policies 1 and 4
  - Goal 9 Economic Element – Policies 2A, 3A, 5A and 7B
  - Goal 10 Housing Element
  - Goal 11 Public Facilities and Service Element – General, Fire Protection
  - Goal 13 Energy Conservation Element – Policies 2, 3 and 9

5.2 Compliance with the Applicable Substantive Criteria from the Morrow County Zoning Ordinance

5.2.1 Article 3. Use Zones

5.2.1.1 Section 3.010. EFU Zone; B. Uses Permitted Outright

In the EFU zone, the following uses and activities and their accessory buildings and uses are permitted subject to the general provisions set forth by this ordinance:

24. Utility facility service lines subject to Subsection D.9.

Response: Utility facility service lines are permitted outright in the EFU zone. However, the Facility will not contain utility facility service lines subject to MCZO 3.010, Subsection D.9. Underground solar collector lines that connect the Facility to the six supporting substations are considered part of the Facility, which is a conditional use in the EFU zone. Per the definition provided under MCZO Section 3.010, Subsection K.3.e., photovoltaic solar power generation facilities include the photovoltaic modules, racking, collection system, inverters, new or expanded private roads, O&M buildings, and substations. Therefore, Facility collector lines are not separately permitted outright in the EFU zone.

25. Utility facilities necessary for public service, including associated transmission lines as defined in Article 1 and wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height as provided in Subsection D.10.

Response: The 230-kV transmission line is less than 200 feet in height and meets the MCZO Article 1 definition for "associated transmission line," which includes "transmission lines constructed to connect an energy facility to the first point of junction with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid" (Morrow County 2018). Therefore, the Facility's associated transmission line is permitted outright in the EFU zone, subject to the standards under MCZO 3.010, Subsection D.10. See Section 5.2.2.3 for a discussion of the 230-kV transmission line's compliance with MCZO Section 3.010, Subsection D.10.b.

5.2.1.2 Section 3.010. EFU Zone; C. Conditional Uses

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:

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.

Response: The Facility is considered a "photovoltaic solar power generation facility" per the definition provided under MCZO Section 3.010, Subsection K.3.e, discussed in Section 5.2.1.4 of this exhibit. Photovoltaic solar power generation facilities include the photovoltaic modules, racking, collection system, inverters, new or expanded private roads, O&M buildings, and substation expansion. Therefore, the Facility is considered a conditionally allowed use within the EFU zone, provided it meets the applicable standards under MCZO Section 3.010 K.3, MCZO Article 6, the applicable general standards for the zone (MCZO Section 3.010 L through N), and any other applicable standards. Note that per MCZO Section 3.010 C.22, "commercial utility facilities for the purpose of generating power for public use by sale" does not include "photovoltaic solar power generation facilities," and therefore photovoltaic solar power generation facilities are not subject to the standards listed under MCZO Section 3.010 D.10.

As discussed further in Section 5.4.1.2, the proposed 230-kV transmission line meets the definition of "associated transmission line" under Article 1 of the MCZO and ORS 469.300 because it is necessary to connect the energy facility to the Northwest power grid. Therefore, the Applicant analyzes the 230-kV transmission line under MCZO Section 3.010.D.10.b and ORS 215.274 rather than treating the 230-kV transmission line as an accessory use to the larger commercial power generation facility under MCZO Section 3.010.C.24. See Section 5.2.1.3 for a discussion of the 230-kV transmission line's compliance with MCZO Section 3.010.D.10.b and Section 5.4.1.2 for a discussion of the transmission line's compliance with ORS 215.274.

5.2.1.3 Section 3.010. EFU Zone; D. Use Standards

10. A utility facility that is necessary for public service.

a. A utility facility is necessary for public service if the facility must be sited in the exclusive farm use zone in order to provide the service.

Response: MCZO 3.010.D.10(a) mirrors the provisions under ORS 215.275. However, the proposed 230-kV transmission line meets the definition for an "associated transmission line" per MCZO Article 1, ORS 469.300 and 215.274 and is therefore subject to ORS 215.274. Per MCZO Article 1, ORS 469.300 and 215.274, "associated transmission lines" means transmission lines constructed "to connect an energy facility to the first point of junction with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid." The proposed approximately 11-mile-long 230-kV transmission line will connect the Facility's primary interconnection substations (switchyards) to the existing UEC 230-kV Blue Ridge Line, thereby connecting the proposed energy facility to the Northwest power grid. As such, the Facility's proposed 230-kV transmission line is an "associated transmission line" under ORS 469.300 and is subject to ORS 215.274 and MCZO 3.010.D.10(b).

b. An associated transmission line is necessary for public service upon demonstration that the associated transmission line meets either the following requirements of Subsection (1) or Subsection (2) of this Subsection.

Response: As discussed above, the proposed 230-kV transmission line is necessary to connect the energy facility to the Northwest power grid. Therefore, the transmission line meets the definition of "associated transmission line" under Article 1 of the MCZO. The criteria under Subsection b mirrors the provisions of ORS 215.274. As discussed below, the entire proposed 230-kV transmission line route does not meet the requirements of Subsection (1) but does meet the requirements under Subsection (2).

(1) An applicant demonstrates that the entire route of the associated transmission line meets at least one of the following requirements:

(a) The associated transmission line is not located on high-value farmland, as defined in ORS 195.300, or on arable land;

Response: The proposed associated transmission line will be located on portions of high-value farmland as defined by ORS 195.300, or on arable land. As a result, the route does not meet this requirement.

(b) The associated transmission line is co-located with an existing transmission line;

Response: The associated transmission line will not be co-located with an existing transmission line. Therefore, the route does not meet this requirement.

(c) The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or

Response: The associated transmission line will not parallel an existing transmission line corridor; therefore, the route does not meet this requirement.

> *(d) The associated transmission line is located within an existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground.*

Response: The associated transmission line will be an approximately 11-mile-long 230-kV overhead line that will transport power from the six supporting substations to the two primary interconnection substations located at the point of interconnection (Exhibit C, Figure C-2). A majority of the associated transmission line does not follow or include public ROW because no public ROW is available between or near the proposed collector substations. The associated transmission line will run north-south along Bombing Range Road; however, because portions of the transmission line may be sited adjacent to existing ROW rather than within existing ROW, it does not meet this requirement for the entire route.

> *(2) After an evaluation of reasonable alternatives, an applicant demonstrates that the entire route of the associated transmission line meets, subject to Subsections D.10.b(3) and (4), two or more of the following criteria:*
>
> *(a) Technical and engineering feasibility;*

Response: The Applicant evaluated the technical and engineering feasibility of alternative transmission routes to minimize potential impacts to arable land and high-value farmland. The existing UEC 230-kV Blue Ridge Line is in a fixed position that cannot be moved and runs along the western edge of the Facility site boundary, where it connects to the Facility at the primary interconnection substations (switchyards) near the northwest corner of the site boundary. As shown on Figure K-3, the site boundary and analysis area is surrounded by EFU-zoned land, aside from a small portion in the northwest corner of the analysis area within the U.S. Department of Defense Boardman Bombing Range that is zoned PUB).

The transmission line route was sited so that it could have a reasonably direct route to the grid system interconnection point, thereby minimizing impacts. The proposed 230-kV overhead transmission line corridor represents the straightest route and the shortest length between the Facility collector substations and the UEC Blue Ridge Line and has the least impacts as it avoids sensitive habitat. There is no alternative transmission route that can avoid EFU and high-value farmland and transmit energy from the Facility to the existing UEC Blue Ridge Line. Therefore, it meets the technical and engineering feasibility criterion.

> *(b) The associated transmission line is locationally-dependent because the associated transmission line must cross high-value farmland, as defined in ORS 195.300, or arable land to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;*

Response: As shown on Figure K-2, all land within and adjacent to the site boundary is zoned EFU by Morrow County with the exception of the U.S. Department of Defense–owned tax lot 200 (the

Boardman Bombing Range), which is zoned PUB. Figures K-7 and K-8 show the high-value farmland and arable land located within and surrounding the site boundary due to the presence of Columbia Valley AVA and place-of-use water rights, particularly the Grieb water right (WR 43515) that encompasses a large swath of land at the center of the site boundary. Arable land is prevalent throughout the site boundary and analysis area. The location of the Facility's two primary interconnection substations (switchyards) could be moved within the site boundary, but, even so, there is no feasible alternative to completely avoid these lands and still connect the Facility to the Blue Ridge Line because of the extent of high-value and arable lands in the area. Therefore, the associated transmission line must cross high-value farmland and arable land to achieve a reasonably direct route, and that the alternative route is therefore "locationally dependent" and satisfies this criterion.

(c) Lack of an available existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground;

Response: A majority of the associated transmission line does not follow or include public ROW because no public ROW is available between or near the proposed collector substations. The associated transmission line will provide the most direct connection between collector substations, regardless of whether it is located within a public ROW. This will limit the amount of transmission line required and in turn decrease visual impacts and impacts to other resources. A portion of the associated transmission line that runs along the western boundary of solar array fence line areas 7 and 8 is within the public ROW of Bombing Range Road (transmission line runs to the east of the road). Additionally, a portion of the associated transmission line that interconnects solar array fence line areas 8 and 16 will cross Doherty Road and the Lexington-Echo Highway. The Facility transmission line has been sited adjacent to and is utilizing existing linear ROWs to the greatest extent practicable. Due to the lack of available existing ROW, the associated transmission line route would satisfy this criterion.

(d) Public health and safety; or

Response: The Applicant is minimizing health and safety risks from exposure to magnetic fields or shock by limiting the length of the transmission line for the Facility and locating the transmission line away from populated areas, specifically rural residences in the area. However, the rationale for route selection was not based on health and safety risks and does not meet this criterion.

(e) Other requirements of state or federal agencies.

Response: As documented through the site certificate process, the Facility complies with other requirements of state and federal agencies. However, the siting of the associated transmission line was not determined by state or federal agencies, and as such the associated transmission line route selection does not meet this criterion.

(3) As pertains to Subsection (2), the applicant shall demonstrate how the applicant will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding lands devoted to farm use in order to prevent a significant change in

accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

Response: The Applicant has designed the 230-kV transmission line to minimize, to the greatest degree practicable, impacts to EFU land. The transmission line is sited to minimize disturbing agricultural practices by being sited adjacent to existing linear ROWs wherever possible. The amount of new transmission line corridor has been minimized to the greatest extent practicable by following the shortest practicable route between substations. Landowners and farm operators will be compensated for the loss of land for agricultural production, as necessary. In addition, when construction is completed, lands temporarily affected by construction will be restored to their original condition. Therefore, because permanent impacts of the 230-kV transmission line are minimal and the transmission line has been sited in consideration of farming practices, it will not force a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

(4) The county may consider costs associated with any of the factors listed in Subsection (2), but consideration of cost may not be the only consideration in determining whether the associated transmission line is necessary for public service.

Response: The associated transmission line route follows the shortest practicable route between substations, which reduces costs associated with a longer route. Longer routes would increase overall cost, but as outlined above, cost was not the sole factor in development of the associated transmission line route.

5.2.1.4 Section 3.010. EFU Zone; K. Commercial Facilities for Generating Power[7]

3. Photovoltaic Solar Power Generation Facility. A proposal to site a photovoltaic solar power generation facility shall be subject to the following definitions and provisions:

a. "Arable land" means land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils.

b. "Arable soils" means 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.

c. "Nonarable land" means land in a tract that is predominantly not cultivated and predominantly comprised of nonarable soils.

d. "Nonarable soils" means soils that are not suitable for cultivation. Soils with an NRCS agricultural capability class V–VIII and no history of irrigation shall be considered nonarable in all cases. The governing body or its designate may determine other soils,

[7] MCZO 3.010.K.3 parallels the requirements under OAR 660-033-0130(38) for siting a photovoltaic solar power generation facility on EFU land.

including soils with a past history of irrigation, to be nonarable based on substantial evidence in the record of a local land use application.

Response: Figure K-3 shows the tracts located in and adjacent to the site boundary. As described in Section 3.3, the site boundary comprises both high-value farmlands (4,950 acres) and arable lands (10,747 acres) and a small amount of non-arable lands (213 acres).

e. "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.

Response: As described earlier in the response to MCZO 3.010.C, the Facility meets the definition of "photovoltaic solar power generation facility," which includes photovoltaic modules, racking, collection system, inverters, new or expanded private roads, O&M buildings, and substations. This also includes the battery storage system that will be within the fence line of the Facility. As shown on Figure K-3, the Facility is adjacent to the proposed Wagon Trail Solar Project, the operating Wheatridge Renewable Energy Facility (WREF) I, and the operating WREF III. However, these facilities are under separate ownership than the proposed Sunstone Solar Project, which by itself meets the acreage threshold for a Goal 3 exception. Therefore, this analysis does not include an acreage analysis from the adjacent facilities. As discussed in Section 3.2.3, the Applicant believes there are benefits to siting the Facility in close-proximity to other energy facilities. The Facility will be sited to utilize the 230-kV UEC transmission line, a key part of a the green energy corridor that connects Morrow County wind and solar projects to the regional transmission system (Section 3.2.3).

f. For high-value farmland described at ORS 195.300(10), a photovoltaic solar power generation facility shall not preclude more than 12 acres from use as a commercial agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4. The governing body or its designate must find that:

Response: As outlined in Table K-3, approximately 4,950 acres within the site boundary meet the definition of high-value farmland under ORS 195.300(10) (c) and (f), primarily based on presence within place-of-use water rights that, as discussed above, are restricted due to their presence within the Butter Creek CGWA. In addition, 22 percent of the site boundary is covered by high-value farmland as a result of the AVA designation. As the total area of high-value farmland within the site boundary that would be precluded from use as a commercial agricultural enterprise is more than 12 acres, a goal exception will be needed. However, because the Facility falls under the Council's jurisdiction, it is the Council's statutes and rules that govern the goal exception process (i.e., ORS 469.504(2) and OAR 345-022-0030(4), rather than ORS 197.732). See Section 5.5 for the statewide planning goal exception justification.

> *(1) The proposed photovoltaic solar power generation facility will not create unnecessary negative impacts on agricultural operations conducted on any portion of the subject property not occupied by project components. Negative impacts could include, but are not limited to, the unnecessary construction of roads dividing a field or multiple fields in such a way that creates small or isolated pieces of property that are more difficult to farm, and placing photovoltaic solar power generation facility project components on lands in a manner that could disrupt common and accepted farming practices;*

Response: As discussed in Section 3.4, the Applicant worked with ECONorthwest to assess the potential impact to the agricultural economy of removing approximately 9,400 acres of arable land from agricultural production. The findings in Table K-6 indicate the proposed Facility would have a minimal impact on output and employment for the overall farm economy of Morrow County, further supported by the testimony from three landowners that convey plans to continue farming (Table K-5). The potential reduction of 3.91 jobs represents approximately 0.4 percent of existing employment in this sector and about 0.1 percent of total agricultural jobs in Morrow County (Attachment K-2, Economic Impact Analysis). The Facility will not create negative impacts on the landowner's current and future agricultural operations conducted on the portions of the subject tracts not occupied by the Facility for the reasons described in this section. The solar arrays are generally oriented adjacent and parallel to existing roads (see Exhibit C, Figure C-2), and have been sited to maximize efficiency while also consolidating the solar arrays to areas that do not constrain the current and future dryland wheat farming activities on the remainder of the tracts or on neighboring tracts. Access roads will not be constructed outside of the solar array fence line. The Applicant will design and construct the Facility using the minimum land area necessary for safe construction and operation. The Facility will utilize existing access roads to the extent practicable. The Facility will not create negative impacts on agricultural operations conducted on any portion of the subject property not occupied by Facility components because:

- The Applicant will sign and record in the deed records of Morrow County a document prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming practices as defined in ORS 30.930(2) and (4).

- The Facility will not limit or impact current or future farm activities on the surrounding land and will not diminish the opportunity for neighboring parcels to expand, purchase, or lease any vacant land available for agricultural uses.
- The Applicant will implement a Noxious Weed Control Plan during construction and operation that will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control (see Attachment P-3 to Exhibit P for weed prevention and control measures).
- Construction of the Facility could adversely affect soil quality by erosion or compaction. Some farmland would be temporarily disturbed and unavailable for farming during construction. To avoid or reduce adverse impacts to soil quality, the Applicant will implement dust control and erosion control measures during construction and operation of the Facility (see Exhibit I). To the extent practicable, the Applicant proposes to reduce impact to soils by using areas that are already disturbed and limiting the area of new disturbance.
- Post-construction, the Facility will not result in increased traffic impacts, air emissions, or dust from ongoing agricultural use, in consideration of drought conditions that could become longer and more severe due to climate change (Parks 2021). Common and accepted farming practices may need to change in response to changing conditions, and accessory uses, such as temporary long-term leases, may become more reliable sources of income.
- Interviews with the landowners did not identify or anticipate any adverse impact, or any increase in the cost of farming practices, in the vicinity of the solar arrays.

Ultimately, construction, operation, and maintenance of the solar array and associated equipment will not change existing land use practices on lands surrounding the solar siting area.

> *(2) The presence of a photovoltaic solar power generation facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the submittal and county approval of a soil and erosion control plan prepared by an adequately qualified individual, showing how unnecessary soil erosion will be avoided or remedied and how topsoil will be stripped, stockpiled and clearly marked. The approved plan shall be attached to the decision as a condition of approval;*

Response: Exhibit I addresses soil erosion. Construction will be performed under a National Pollutant Discharge Elimination System 1200-C permit, including an Oregon Department of Environmental Quality (ODEQ) Erosion and Sediment Control Plan, which will also include erosion and sediment control best management practices. After completing construction in an area, the Applicant will monitor the area and coordinate with the landowner, who understands the specifics about the land, to evaluate whether construction-related impacts to soils are being adequately addressed by the mitigation procedures described in the Erosion and Sediment Control Plan and the Revegetation Plan (see Exhibit P, Attachment P-4).

(3) Construction or maintenance activities will not result in unnecessary soil compaction that reduces the productivity of soil for crop production. This provision may be satisfied by the submittal and county approval of a plan prepared by an adequately qualified individual, showing how unnecessary soil compaction will be avoided or remedied in a timely manner through deep soil decompaction or other appropriate practices. The approved plan shall be attached to the decision as a condition of approval;

Response: Construction of the Facility will limit the extent of grading to specific areas within the site boundary, and therefore will not result in unnecessary soil compaction that reduces the productivity of soil for crop production. Soil compaction reduction plan measures are incorporated into the Revegetation Plan (see Exhibit P, Attachment P-4), which includes a program to protect and restore agricultural soils temporarily disturbed during Project construction. Once the Facility's commercial operations end, compacted soils will be restored during decommissioning. Compliance with the final Revegetation Plan ensures that agricultural soils temporarily disturbed during Facility construction will be protected and restored. The Applicant will obtain Council and County approval of these plans prior to start of construction.

(4) Construction or maintenance activities will not result in the unabated introduction or spread of noxious weeds and other undesirable weed species. This provision may be satisfied by the submittal and county approval of a weed control plan prepared by an adequately qualified individual that includes a long-term maintenance agreement. The approved plan shall be attached to the decision as a condition of approval;

Response: Before beginning construction, the Applicant shall prepare a Noxious Weed Control Plan that is consistent with Morrow County weed control requirements, prepared in coordination with the Morrow County and the Oregon Department of Fish and Wildlife (ODFW), and will be approved by the Oregon Department of Energy (ODOE).

(5) The project is not located on high-value farmland soils unless it can be demonstrated that:

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

(b) 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

(c) 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

Response: As described in Section 3, the area within the site boundary primarily comprises arable land, and approximately 45 percent of the site boundary includes high-value farmland. It is not possible to site the solar arrays completely avoiding the high-value farmland due to presence of place-of-use water rights and the patchy and irregular nature of the Columbia Valley AVA on the

tracts (see Figure K-7. As the Facility will preclude more than 12 acres of high-value farmland from use as a commercial agricultural enterprise, an exception is being requested pursuant to ORS 469.504(1)(b) and OAR 345-022-0030(4) (see Section 5.5).

> *(6) A study area consisting of lands zoned for exclusive farm use located within one mile measured from the center of the proposed project shall be established and:*
>
> *(a) If fewer than 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits within the study area, no further action is necessary.*
>
> *(b) When at least 48 acres of photovoltaic solar power generation have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities within the study area, the local government or its designate must find that the photovoltaic solar energy generation facility will not materially alter the stability of the overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential photovoltaic solar energy generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to diminished opportunities to expand, purchase or lease farmland or acquire water rights, or will reduce the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area.*

Response: As mentioned earlier in this exhibit, the approved WREF I and III are adjacent to the Facility (Figure K-3). The 1-mile study area established under this provision is shown in Figure K-9, and demonstrates a small portion (33.29 acres), fewer than 48 acres, of the WREF I falls within the study area measured from the center of the proposed Facility. Therefore, since less than 48 acres of photovoltaic solar power generation has been constructed or received approval within the 1-mile study area no further action is necessary.

> *g. For arable lands, a photovoltaic solar power generation facility shall not preclude more than 20 acres from use as a commercial agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4. The governing body or its designate must find that:*
>
> *(1) The project is not located on high-value farmland soils or arable soils unless it can be demonstrated that:*
>
> *(a) Nonarable soils are not available on the subject tract;*
>
> *(b) Siting the project on nonarable soils present on the subject tract would significantly reduce the project's ability to operate successfully; or*
>
> *(c) 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 nonarable soils;*

Response: As outlined in Table K-3, approximately 10,747 acres within the site boundary qualify as arable land and approximately 9,426 acres are anticipated to be impacted by the Facility. As described in Section 3, the area within the site boundary primarily comprises arable land and 45 percent of the site boundary includes high-value farmland (consisting mostly of high-value farmland classified as such due to the presence of place-of-use water rights and its location in the Columbia Valley AVA and meeting the criteria of slope, aspect, and elevation). It is not possible to site the solar arrays completely avoiding arable lands or high-value farmland due to the extent of arable lands and high-value farmland that make up the area within the site boundary (see Figures K-7 and K-8). As the total area of arable lands within the site boundary that would be precluded from use as a commercial agricultural enterprise is more than 20 acres, a goal exception will be needed. However, because the Facility falls under the Council's jurisdiction, it is the Council's statutes and rules that govern the goal exception process (i.e., ORS 469.504(2) and OAR 345-022-0030(4), rather than ORS 197.732). See Section 5.5 for the statewide planning goal exception justification.

> *(2) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10) unless an exception is taken pursuant to 197.732 and OAR chapter 660, division 4;*

Response: As the total area of high-value farmland within the site boundary that would be precluded from use as a commercial agricultural enterprise is more than 12 acres, a goal exception will be needed. However, because the Facility falls under the Council's jurisdiction, it is the Council's statutes and rules that govern the goal exception process (i.e., ORS 469.504(2) and OAR 345-022-0030(4), rather than ORS 197.732). See Section 5.5 for the statewide planning goal exception justification.

> *(3) A study area consisting of lands zoned for exclusive farm use located within one mile measured from the center of the proposed project shall be established and:*
>
> > *(a) If fewer than 80 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits within the study area no further action is necessary.*
> >
> > *(b) When at least 80 acres of photovoltaic solar power generation have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities, within the study area the local government or its designate must find that the photovoltaic solar energy generation facility will not materially alter the stability of the overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential photovoltaic solar energy generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to diminished opportunities to expand, purchase or lease farmland, acquire water rights or diminish the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area; and*

Response: As mentioned earlier in this exhibit, the approved WREF I and III are adjacent to the Facility (Figure K-3). The 1-mile study area measured from the center of the Facility established under this provision is shown in Figure K-9, and demonstrates that no existing or approved solar facilities are within the study area. Therefore, since less than 80 acres of photovoltaic solar power generation has been constructed or received approval within the 1-mile study area, no further action is necessary.

(4) The requirements of Subsections K.3.f(1), (2), (3), and (4) are satisfied.

Response: The requirements of Subsections K.3.f(1), (2), (3), and (4) are discussed above. Therefore, this criterion is satisfied.

h. For nonarable lands, a photovoltaic solar power generation facility shall not preclude more than 320 acres from use as a commercial agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4. The governing body or its designate must find that:

Response: The Facility does not preclude more than 320 acres of non-arable land from use as a commercial agricultural enterprise, and is therefore compliant with MCZO Section 3.010 K.3.h.

(1) The project is not located on high-value farmland soils or arable soils unless it can be demonstrated that:

(a) Siting the project on nonarable soils present on the subject tract would significantly reduce the project's ability to operate successfully; or

(b) The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract as compared to other possible sites also located on the subject tract, including sites that are comprised of nonarable soils;

Response: See response to MCZO 3.010.K.g(1).

(2) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);

Response: See response to MCZO 3.010.K.g(2).

(3) No more than 20 acres of the project will be sited on arable soils unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 4;

Response: As outlined in Table K-2, approximately 10,747 acres within the site boundary qualifies as arable land. It is not possible to site the solar arrays completely avoiding arable lands due to the extent of arable lands that make up the area within the site boundary (see Figure K-8). As the total area of arable lands within the site boundary that would be precluded from use as a commercial agricultural enterprise is more than 20 acres, a goal exception will be needed. However, because the Facility falls under the Council's jurisdiction, it is the Council's statutes and rules that govern the goal exception process (i.e., ORS 469.504(2) and OAR 345-022-0030(4), rather than ORS 197.732). See Section 5.5 for the statewide planning goal exception justification.

(4) The requirements of Subsection K.3.f(4) are satisfied;

Response: See response to MCZO 3.010.K.f(4).

(5) If a photovoltaic solar power generation facility is proposed to be developed on lands that contain a Goal 5 resource protected under the county's comprehensive plan, and the plan does not address conflicts between energy facility development and the resource, the applicant and the county, together with any state or federal agency responsible for protecting the resource or habitat supporting the resource, will cooperatively develop a specific resource management plan to mitigate potential development conflicts. If there is no program present to protect the listed Goal 5 resource(s) present in the local comprehensive plan or implementing ordinances and the applicant and the appropriate resource management agency(ies) cannot successfully agree on a cooperative resource management plan, the county is responsible for determining appropriate mitigation measures; and

Response: There are no Goal 5 resources in the Facility site boundary.

(6) If a proposed photovoltaic solar power generation facility is located on lands where the potential exists for adverse effects to state or federal special status species (threatened, endangered, candidate, or sensitive), or to wildlife species of concern identified and mapped by the Oregon Department of Fish and Wildlife (including big game winter range and migration corridors, golden eagle and prairie falcon nest sites, and pigeon springs), the applicant shall conduct a site-specific assessment of the subject property in consultation with all appropriate state, federal, and tribal wildlife management agencies. A professional biologist shall conduct the site-specific assessment by using methodologies accepted by the appropriate wildlife management agency and shall determine whether adverse effects to special status species or wildlife species of concern are anticipated. Based on the results of the biologist's report, the site shall be designed to avoid adverse effects to state or federal special status species or to wildlife species of concern as described above. If the applicant's site-specific assessment shows that adverse effects cannot be avoided, the applicant and the appropriate wildlife management agency will cooperatively develop an agreement for project-specific mitigation to offset the potential adverse effects of the facility. Where the applicant and the resource management agency cannot agree on what mitigation will be carried out, the county is responsible for determining appropriate mitigation, if any, required for the facility.

(7) The provisions of Subsection K.3.h(6) are repealed on January 1, 2022.

Response: Professional biologists conducted site-specific assessment using methodologies reviewed and accepted by ODFW. Based on these surveys, it was determined there will be no adverse effects to special status species or Category 1 wildlife habitats. Exhibit Q provides information about state-listed threatened endangered plant and wildlife species that may be affected by the Facility as required by OAR 345-022-0070. Exhibit P provides information about the

fish and wildlife habitats and species, other than the species addressed in Exhibit Q, that could be affected by the Facility. These exhibits also outline the agency consultation that has occurred at various stages of Facility development and measures to avoid, reduce, and mitigate impacts, as necessary.

> *i. The project owner shall sign and record in the deed records for the county a document binding the project owner and the project owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).*

Response: The Applicant will sign and record with the subject tract's deed a document prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming practices as defined in ORS 30.930(2) and (4).

> *j. Nothing in this Section shall prevent the county from requiring a bond or other security from a developer or otherwise imposing on a developer the responsibility for retiring the photovoltaic solar power generation facility.*

Response: Retirement of the Facility will be the responsibility of the Applicant pursuant to Council rules and the conditions of the Site Certificate, per the Council's Retirement and Financial Assurance standard, OAR 345-022-0050 (see Exhibit X).

5.2.1.5 Section 3.010. EFU Zone; M. Yards

In an EFU Zone, the minimum yard setback requirements shall be as follows:

1. The front yard setback from the property line shall be 20 feet for property fronting on a local minor collector or marginal access street ROW, 30 feet from a property line fronting on a major collector ROW, and 80 feet from an arterial ROW unless other provisions for combining accesses are provided and approved by the County.

2. Each side yard shall be a minimum of 20 feet except that on corner lots or parcels the side yard on the street side shall be a minimum of 30 feet.

3. Rear yards shall be a minimum of 25 feet.

Response: Bombing Range Road is a major collector, Sand Hallow Road is a minor collector, OR-207 is a minor arterial road, and the remaining roads are unlisted (Morrow County 2012: Figure 3.1). Therefore, the required front yard setback is between 20 and 80 feet from roads. MCZO Section 1.030 defines "Setback (yard)" as follows:

An open space on a lot, which is unobstructed from the ground upward except as otherwise provided in this Ordinance.

- *A. Setback, Front. A setback between side lot lines and measured horizontally at right angles to the front lot line from the front lot line to the nearest point of a building.*
- *B. Setback, Rear. A yard between side lot lines and measured horizontally at right angles to the rear lot line from the rear lot line to the nearest point of a building.*

C. Setback, Side. A setback between the front and rear yards measured horizontally and at right angles from the side lot line to the nearest point of a building.

D. Setback, Street Side. A setback adjacent to a street between the front setback and rear lot line measured horizontally and at right angles from the side lot line to the nearest point of a building.

The front, rear, side, and street setback definitions all reference "lot line to the nearest point of a building." MCZO Section 1.030 defines "building" as:

A structure built for the support, shelter, or enclosure of persons, animals, chattels, or property of any kind.

MCZO Section 7.100.B provides general exceptions to yard requirements for lots in any zone. Under subpart (2) of Section 7.100.B, the MCZO describes non-building features as including "*Steps, terraces, platforms, and porches having no roof covering, and fences not interfering with the vision clearance requirements (see Article 4 of this Ordinance) may occupy a yard and not impact setback requirements.*" During a call with the Applicant on June 20, 2023, Planning Director Tamra Mabbott confirmed setback standards in the EFU zone apply to the O&M buildings, but do not apply to solar arrays and inverters since they are not consistent with the definition of "building" in MCZO Section 1.030— solar arrays and inverters are not structures "built for the support, shelter, or enclosure of persons, animals, chattels, or property of any kind." Director Mabbott also confirmed per MCZO Section 1.030, setbacks do not apply to underground collector lines and, per MCZO Section 7.200.B.2, setbacks to not apply to the Facility's perimeter fence. The Applicant also noted, and Director Mabbott agreed, that there is precedent in Morrow County to apply the setback requirements only to the perimeter property boundaries (T. Mabbott, personal communication, June 20, 2023). For the Wheatridge Wind Energy Facility Request for Amendment (RFA) 4, which added 150 MW of photovoltaic solar energy generation, Morrow County and the Council agreed to conditions of approval (GENLU-01) specific to that project's solar facility components.[8] Instead of applying setbacks to solar arrays along internal property lines, the conditions of approval required facility structures along the perimeter fenceline to be set back from adjacent uses by locations north, east, and west. The Facility's site layout, including the solar arrays, inverters, and O&M buildings, meet the minimum front yard setback for all property fronting on minor collector Sand Hollow Road (20 feet), major collector Bombing Range Road (30 feet), and arterial Highway 207 (80 feet), as well as the minimum side/rear yard (25-30 feet) along the perimeter of the site boundary. In addition, each O&M building meets the minimum side/rear yard (25-30 feet) setback along the internal property lines not adjacent to minor collector, major collector, or arterial roads. The Applicant will document consistency with the applicable setbacks based on final design, as confirmed and submitted to Morrow County as part of the zoning permit.

4. Stream Setback. All sewage disposal installations such as outhouses, septic tank and drainfield systems shall be set back from the high-water line or mark along all streams and lakes a minimum of 100 feet, measured at right angles to the high-water line or mark. All

[8] Wheatridge Wind Energy Facility - Final Order on Request for Amendment 4 (November 22, 2019), pg. 37

structures, buildings, or similar permanent fixtures shall be set back from the high-water line or mark along all streams or lakes a minimum of 100 feet measured at right angles to the high-water line or mark.

Response: The Applicant will document consistency with the applicable setback based on final design, as confirmed and submitted to Morrow County as part of the zoning permit.

5.2.1.6 Section 3.010. EFU Zone; N. Transportation Impacts

1. Traffic Impact Analysis (TIA). In addition to the other standards and conditions set forth in this section, a TIA will be required for all projects generating more than 400 passenger car equivalent trips per day. Heavy vehicles – trucks, recreational vehicles and buses – will be defined as 2.2 passenger car equivalents. A TIA will include: trips generated by the project, trip distribution for the project, identification of intersections for which the project adds 30 or more peak hour passenger car equivalent trips, and level of service assessment, impacts of the project, and, mitigation of the impacts. If the corridor is a State Highway, use ODOT standards. (MC-C-8-98)

Response: The Facility, as proposed, will require increased automobile trips during construction, but it is not expected the proposed use will exceed 400 trips per day because the Facility will be constructed in phases based on six blocks of approximately 200 MW each. Options for construction phasing for the Facility will include six sequential phases or fewer phases based on concurrent construction of multiple blocks. For the purposes of demonstrating impacts to public and private services, the Applicant presents the impact analysis as if the Facility would be constructed in a single phase lasting 12 months. This approach maximizes the average daily traffic count, the daily water use requirement, and the number of workers on-site at any given time. Phasing of Facility construction would spread the same impacts out over multiple construction periods, each with lesser impacts than if the Facility were to be built in a single phase.

As noted in Exhibit U, the Applicant assumes an average of 312 truck trips per day (including all estimated delivery trips; 156 roundtrips, i.e., including return trips), with a peak of 447 trips per day (224 roundtrips), will be needed over approximately 250 construction work days (about 12 months, i.e., a single phase of construction). Traffic is not expected to be impacted during the long-term operation of the Facility because there will be 10 permanent personnel and 6 to 15 vegetation maintenance seasonal employees hired for operation and maintenance of the Facility. In general, traffic volumes on Morrow County roadways are low. Existing volume-to-capacity ratios are low for county roads, and thus it is assumed that existing capacity deficiencies on any county roadways are unlikely (Morrow County 2012). County roadway volumes are minimal, with some increase during the summer and early fall for harvest of various crops in the area. As detailed further in Exhibit U, adverse operational impacts to traffic safety or travel times from the Facility are not anticipated. Therefore, a Traffic Impact Analysis is not required.

5.2.2 Article 4. Supplementary Provisions

5.2.2.1 Section 4.010. Access

Intent and Purpose: The intent of this ordinance is to manage access to land development while preserving the flow of traffic in terms of safety, capacity, functional classification, and level of service. Major roadways, including highways, arterials, and collectors serve as the primary network for moving people and goods. These transportation corridors also provide access to businesses and homes and have served as the focus for commercial and residential development. If access points are not properly designed, these roadways will be unable to accommodate the needs of development and retain their primary transportation function. This ordinance balances the right of reasonable access to private property with the right of the citizens of Morrow County and the State of Oregon to safe and efficient travel. This ordinance shall apply to all public roadways under the jurisdiction of Morrow County and to application for development for any property that abuts these roadways. This ordinance is adopted to implement the land access and access management policies of Morrow County as set forth in the Transportation System Plan. Access shall be provided based upon the requirements below:

A. Minimum Lot Frontage Requirement. Every lot shall abut a street, other than an alley, for at least 50 feet, except on cul-de-sacs where the frontage may be reduced to 30 feet.

Response: There will be no changes to any lots as part of the Facility. The lots that the Facility will be located on currently have minimum lot frontage of at least 50 feet.

B. Access Permit Requirement. Where access to or construction on a county road is needed, an access permit or right-of-way permit from Morrow County Public Works department is required subject to the requirements in this Ordinance. Where access to a state highway is needed, an access permit from ODOT is required as part of the land use application. Where access is needed to a road managed by the Forest Service or other entity, an access permit or other authorization from the appropriate entity shall be required as part of the land use application.

Response: Access (Approach) permits, per the requirements stated under MCZO Section 4.010 B, will be obtained for the Facility.

C. Emergency Vehicle Access. It is the responsibility of the landowner to provide appropriate access for emergency vehicles at the time of development. A dead-end private street exceeding one hundred-fifty (150) feet in length shall have an adequate turn around facility approved by the appropriate Fire Marshal or, if the Fire Marshal fails to review the private street, approval by the Building Official or his designee.

Response: Emergency vehicle access will be provided from accesses off of County and Oregon Department of Transportation (ODOT) roads and designed to applicable standards to internal site Facility roads. Facility roads will be sufficiently sized for emergency vehicle access and reviewed by the Fire Marshal or, if the Fire Marshal fails to review, the Building Official prior to construction of each phase.

D. Easements and Legal Access: All lots must have access onto a public right of way. This may be provided via direct frontage onto an existing public road, a private roadway, or an easement. Minimum easement requirements to provide legal access shall be as follows: 1. 1000' or less, a minimum easement width of 20' 2. More than 1000', a minimum easement width of 40' 3. Parcels where 3 or more lots share an access (current or potential), a minimum easement of 60'.

Response: As shown on Figure C-2 in Exhibit C, the lots that the Facility will be located on will have access to public ROW.

E. Access Spacing Requirements for Development Accessing State Highways. Applications for development with access onto state highways shall be provided to ODOT for review, to ensure consistency with adopted ODOT Access Management Standards shown in Table 4.010-1. These standards apply only to unsignalized access points. Where a right of access exists, a property shall be allowed to have access onto a state highway at less than adopted access spacing requirements only if all the following conditions are met:

1. The property does not have reasonable access via an alternative to the state highway;

2.There are no other possible access options along the parcel's highway frontage; and

3. The access spacing standards cannot be accomplished.

When a proposed access onto a state highway does not meet the access spacing standards in Table 4.010-1, a deviation from standard will be considered by the ODOT Region Manager, subject to requirements in OAR 734-051-0135.

TABLE 4.010-1
ACCESS MANAGEMENT STANDARDS FOR MORROW COUNTY
NON-INTERSTATE HIGHWAYS

		Access Spacing Standards for Public or Private Unsignalized Access (ft) for Posted Speed Indicated (mph)				
Highway	Classification	>55	50	40 & 45	30 & 35	<25
US 730, OR 74	Regional	990	830	750	600	450
OR 206, OR 207	District	700	550	500	400	400

REFERENCE: OREGON ADMINISTRATIVE RULES SECTION 734-051 (2004)

Response: As shown on Figure C-2 in Exhibit C, access to an ODOT ROW will meet the access spacing standards in *Table 4.010-1*.

F. Access within the Influence Area of an Interchange Access within the influence area of existing or proposed state highway interchanges is regulated by standards in OAR 734-051, which are included as Appendix F of the 2005 Morrow County Transportation System Plan Update. These standards do not retroactively apply to interchanges existing prior to adoption of the 1999 Oregon Highway Plan, except or until any redevelopment, change of use, or

highway construction, reconstruction or modernization project affecting these existing interchanges occurs. It is the goal at that time to meet the appropriate spacing standards, if possible, but, at the very least, to improve the current conditions by moving in the direction of the spacing standard.

Response: There are no interchanges or an Influence Area of an Interchange Access in the analysis area. Therefore, this standard does not apply.

G. Signalized Intersection Spacing on State Facilities. New traffic signals proposed for state facilities, whether the intersecting facility is a public or private road, shall meet the requirements for installation of a traffic signal on a state highway in OAR 734-020-0400. New traffic signals on state facilities must be approved by the State Traffic Engineer. For approval of a new traffic signal on a County facility as part of a condition of development approval, the applicant shall be required to show, through analysis prepared by a qualified professional engineer registered in the State of Oregon, that the signal is warranted to improve traffic operations, address safety deficiencies, or a combination, based upon traffic signal warrants in the current version of the Manual on Uniform Traffic Control Devices.

Response: No new traffic signals are proposed for state facilities. Therefore, this standard does not apply.

H. Access Spacing Requirements for Development Accessing County Facilities. All developments shall have legal access to a County or public road. Except for interim access as provided in Section 4.010 H [Interim Access], access onto any County road in the unincorporated or incorporated urban area shall be permitted only upon issuance of an access permit upon demonstration of compliance with the provisions of the County road standards and the standards of Section 4.010. For County roadways designated as major collector or arterial in the Transportation System Plan, the standards in Table 4.010-2 apply for intersections created by a new public roadway, new private roadway or new private driveway. For County roadways designated as minor collectors or local access roads, intersections created by a new public roadway, new private roadway or new private driveway shall meet minimum County traffic safety and operational requirements, including sight distance, as determined by the County Engineer.

TABLE 4.010-2
ACCESS MANAGEMENT STANDARDS FOR MORROW COUNTY ROADWAYS

	Access Spacing Standards for Public or Private Access (ft)		
Classification	Public Roadway	Private Roadway	Private Driveway[a]
Arterial	600	600	300
Collector	300	300	100
Local	200	200	Access to each lot

a. For most roadways, at-grade crossings are appropriate. Also, allowed moves and spacing requirements may be more restrictive than those shown to optimize capacity and safety. Any access to a state highway requires a permit from the district office of ODOT and is subject to the access spacing standards in Table 4.010-1 in this section.

No use will be permitted to have direct access to a street or road except as specified below, or as provided in Section 4.010.H (Interim Access). Access spacing shall be measured from existing or approved accesses on either side of a street or road. Measurements shall be made from easement or right-of-way line to easement or right-of-way line. (See following access diagram where R/W = Right-of-Way; P.I. = Point-of-Intersection where P.I. shall be located based upon a 90 degree angle of intersection between ultimate right-of-way lines, and 'C' and 'D' = each side of adjacent accesses to private property.

1. All minimum distances stated in the following sections shall be governed by sight distance requirements according to this Ordinance and applicable County Road Standards.

2. All minimum distances stated in the following sections shall be measured to the nearest easement line of the access or edge of travel lane of the access on both sides of the road.

3. The minimum curb radius shown in the diagram below (i.e., distance from Point "A" to Point "B") shall be 15 feet. In areas zoned for industrial uses, the minimum curb radius shall be 30 feet. At intersections between facilities classified as major collector, arterial or highway, any new or modified intersection shall be designed to accommodate a WB-50 Semitrailer Design Vehicle. If either route is designated by the County as a truck route, the intersection shall be designed to accommodate a WB-65 Interstate Semitrailer Design Vehicle. The curb alignment shall be designed so that the design vehicle can complete a right turn without entering a lane used by opposing traffic.

4. All minimum distances between accesses shall be measured from existing or approved accesses on both sides of the road.

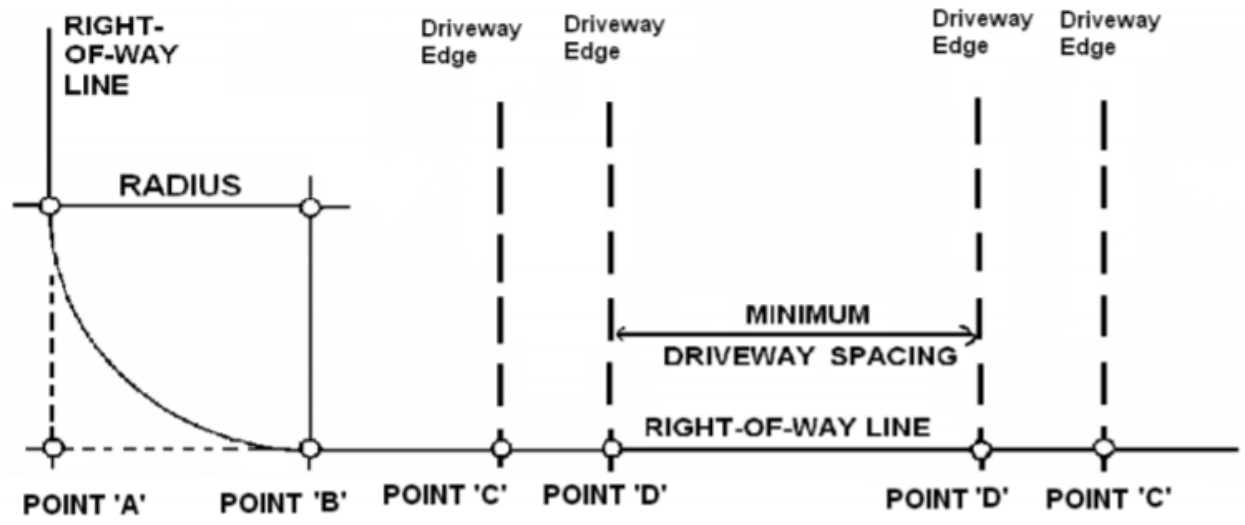
5. Minimum spacing between driveways shall be measured from Point "D" to Point "D" as shown below (i.e., the edges of adjacent driveways closest to each other).

6. In all instances, access points near an intersection with a Collector or Arterial shall be located beyond the influence of standing queues of the intersection in accordance with AASHTO standards. Additionally, access shall be located beyond the back of any left turn refuge either existing on the affected road or required to accommodate the proposed development. This requirement may result in an access spacing greater than one hundred (100) feet in the case of a collector, or 300 feet in the case of an arterial.

7. Access onto local roads will not be permitted within ten (10) feet of Point "B" as shown below. If no radius exists, access will not be permitted within twenty-five (25) feet of Point "A".

8. Access onto collector roads will not be permitted within fifty (50) feet of Point "B" as shown below. If no radius exists, access will not be permitted within sixty-five (65) feet of Point "A". Where a common or shared access is available it shall be used, provided that such use will not result in operational or safety problems. Minimum spacing between driveways shall be one-hundred (100) feet.

9. Direct access to an arterial will be permitted provided that Point 'C' of such access is more than three hundred (300) feet from any intersection Point 'A' or other access to that minor arterial.



Response: As shown on Figure C-2 in Exhibit C, the lots that the Facility will be located on will have access to a public ROW that meets access management standards.

I. Interim Access onto County Facilities. No development with sole access onto a County arterial or major collector shall be denied based only on an inability to provide an access that meets applicable access spacing standards. In such an event, the use may be issued an interim access permit which shall expire when access as required under this Ordinance becomes available. An interim access permit may be granted based upon the following:

1. The site is situated such that adequate access cannot otherwise be provided in accord with the access spacing requirements of this Code.

2. The interim access shall meet minimum County traffic safety and operational requirements, including sight distance.

3. Alternate access shall not be deemed adequate and connections to alternate access shall not be required if the resulting route of access would require a trip in excess of one (1) block or five-hundred (500) feet out of direction (whichever is less).

4. The property owner signs a consent to participate agreement for the formation of a Local Improvement District or similar financing mechanism for the primary purpose of constructing a public road or right-of-way providing access to the arterial or collector road; such access shall meet the minimum applicable County standard.

5. The property owner records an agreement to participate in any project that would consolidate access points where such project would not result in new or more severe traffic operation or safety problems.

6. The property owner records an agreement to abandon use of the existing private access way when an adequate alternative access becomes available.

Response: It is not anticipated that the Facility will require interim access onto County facilities. However, the Facility will meet Morrow County access standards.

5.2.2.2 Section 4.020. Sight Distance

Response: Adequate sight distance, per the requirements stated under MCZO Section 4.020.A, will be maintained at facility approaches as part of the zoning permit.

5.2.2.3 Section 4.035. Permit Requirements For Land Use Development

Except where otherwise noted, all proposed projects should meet the following Plot Plan Requirements as described in Table 4.035-1 below. A common threshold for a TIA (traffic impact analysis) applying to all types of development is 400 daily trips (e.g., 40 houses). Trip generation should be estimated using the current edition of Trip Generation by the Institute of Transportation Engineers, other similar published resources, or actual driveway counts of similar land uses. The County Planning Commission, County Planning Director or County Public Works Director or designee may require a TIA for any level of development. TIA requirements are described in the Appendix.

Response: The Facility will require increased automobile trips during construction, but it is not expected the proposed use will exceed 400 trips per day because the Facility will be constructed in phases based on six blocks of approximately 200 MW each. Traffic will not be impacted during the long-term operation of the Facility.

5.2.2.4 Section 4.040. Off-Street Vehicle Parking Requirements

Because vehicle parking facilities can occupy large amounts of land, they must be planned and designed carefully to use the land efficiently while maintaining the visual character of the community. At the time of construction, reconstruction, or enlargement of a structure, or at the time a use is changed in any zone, off-street parking space shall be provided as follows unless greater requirements are otherwise established. When the requirements are based on the number of employees, the number counted shall be those working on the premises during the largest shift at peak season. Fractional space requirements shall be counted as a whole space. Off-street parking spaces may include spaces in garages, carports, parking lots, and/or driveways if vehicles are not parked in a vehicle travel lane (including emergency or fire access lanes), public right-of-way, pathway or landscape area. The County may allow credit for "on-street parking", as provided in Section 4.050. For uses not specified in Table 4.040-1, parking requirements shall be determined by the use in Table 4.040-1 found to be most similar in terms of parking needs.

Response: There will be four O&M buildings, each located on up to 2.8 acres. The buildings themselves will be one-story, prefabricated, and approximately 2,000 square feet in size. O&M staff will utilize pickups for these visits. As there will be only periodic visits from O&M personnel within the fenced solar arrays, parking will be accommodated within the solar array site access areas. The O&M buildings will include covered vehicle parking at a permanent graveled parking area located adjacent to each O&M building.

5.2.2.5 Section 4.070. Sign Limitations and Regulations

In addition to sign limitations and regulations set forth in a specific zone, the following limitations and regulations shall apply to any sign hereafter erected, moved or structurally altered within the jurisdiction of the County.

Response: Signage may be included at the site access roads and will comply with Morrow County requirements under MCZO Section 4.070, as documented through the zoning and building permit process.

5.2.2.6 Section 4.165 Site Plan Review

Site Plan Review is a nondiscretionary or "ministerial" review conducted without a public hearing by the County Planning Director or designee. Site Plan Review is for less complex developments and land uses that do not require site development or conditional use review and approval through a public hearing.

A. Purpose. The purpose of Site Plan Review (ministerial review) is based on clear and objective standards and ensures compliance with the basic development standards of the land use district, such as building setbacks, lot coverage, maximum building height, and similar provisions. Site Plan review also addresses conformity to floodplain regulations, consistency with the Transportation System Plan, and other standards identified below.

B. Pre-application review. Prior to filing its application for site plan review, the applicant shall confer with the County Planning Director or designee, who shall identify and explain the relevant review procedures and standards.

C. Applicability. Site Plan Review shall be required for all land use actions requiring a Zoning Permit as defined in Section 1.050 of this Ordinance. The approval shall lapse, and a new application shall be required, if a building permit has not been issued within one year of Site Review approval, or if development of the site is in violation of the approved plan or other applicable codes.

D. Review Criteria.

1. The lot area shall be adequate to meet the needs of the establishment.

Response: The Facility will not require new lots or parcels. The Applicant has secured an adequate area of land to meet the needs of the Facility.

2. The proposed land use is permitted by the underlying land use district.

Response: The area within the site boundary is entirely within Morrow County's designated EFU zone. As described in response to MCZO 3.010.C(24) above, the Facility meets the definition of a photovoltaic solar power generation facility, and is therefore permitted as a conditional use in Morrow County's EFU zone.

3. The land use, building/yard setback, lot area, lot dimension, density, lot coverage, building height and other applicable standards of the underlying land use district and any sub-district(s) are met.

Response: The Applicant identified and demonstrated compliance with the applicable standards of the Morrow County EFU zone, as described above in responses to MCZO 3.010(C), (D), (K), (M), and (N). Therefore, the Facility, as proposed, complies with this provision.

4. Development in flood plains shall comply with Section 3.100 Flood Hazard Overlay Zone of the Ordinance.

Response: Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps show that almost all of the site boundary is located in Zone X. The Morrow County Flood Hazard Overlay Zone does not regulate FEMA flood Zone X. FEMA maps show there is an area within FEMA Zone A in the center of the site boundary, but no activities associated with the solar generation facilities will occur in this area. The solar generation facilities are being sited to avoid floodplains. No portion of the area that will be developed is located within Morrow County's Flood Hazard Overlay Zone; therefore, this criterion does not apply to the Facility.

5. Development in hazard areas identified in the Morrow County Comprehensive Plan shall safely accommodate and not exacerbate the hazard and shall not create new hazards.

Response: The only hazard areas identified in the applicable substantive policies of the MCCP are those areas within Morrow County's Flood Hazard Overlay Zone. As described above in the

response to MCZO 4.165(D)(4), the site boundary is almost entirely within a moderate to low-risk flood area, as defined by FEMA Flood Insurance Rate Maps, and no portion of the area within the solar array areas will be located within Morrow County's Flood Hazard Overlay Zone. As such, the Facility, as proposed, will not exacerbate or create new flood hazards. This criterion is met.

> *6. Off-street parking and loading-unloading facilities shall be provided as required in Section 4.040 and 4.050 of the Morrow County Zoning Ordinance. Safe and convenient pedestrian access to off-street parking areas also shall be provided as applicable.*

Response: Minimum vehicle parking requirements for various types of land uses are listed under MCZO 4.040, and criteria for off-street parking and loading areas for uses that receive and distribute materials and merchandise by trucks are provided in MCZO 4.050. A photovoltaic solar power generation facility is not a use listed or described in these Morrow County ordinances, nor will it receive and distribute materials and merchandise by trucks during operation.

> *7. County transportation facilities shall be located, designed and constructed in accordance with the design and access standards in the Morrow County Transportation System Plan.*

Response: The Applicant will follow the Morrow County transportation standards such as entering into Road Use Agreements with Morrow County which include a pre-construction assessment of road surfaces.

> *8. Site planning, including the siting of structures, roadways and utility easements, shall provide, wherever practicable, for the protection of trees eight inch caliper or greater measured four feet from ground level, with the exception of noxious or invasive species, such as Russian olive trees.*

Response: The area within the site boundary consists mostly of cultivated winter wheat, with patches of mixed grassland with scattered shrubs (see Exhibit P).

> *9. Development shall comply with Section 3.200 Significant Resources Overlay Zone or 3.300 Historic Buildings and Sites protecting inventoried significant natural and historic resources.*

Response: The area within the site boundary is not located within the Significant Resources Overlay Zone, and no significant resource sites, as designated on the MCCP Goal 5 resource map, are located within the site boundary. Therefore, the provisions of MCZO 3.200 do not apply to the construction and operation of the solar generation facilities. In addition, MCZO 3.300 applies to the alteration or demolition of any structure listed in the MCCP inventory of significant historic resources. No structures listed in the MCCP inventory of significant historic resources are located within the site boundary (see Exhibit S). Therefore, this provision is met.

> *10. The applicant shall determine if compliance is required with Oregon Water Resources Department water quantity and/or Oregon Department of Environmental Quality water quality designations.*

Response: See Exhibit O for Facility compliance with OWRD water quantity and/or ODEQ water quality designations. As identified in Exhibit E, the Applicant may obtain an On-site Sewage Disposal Construction-Installation Permit for the sewage disposal system to be installed at the O&M buildings. The Applicant does not anticipate requiring any other quality-related permits from the ODEQ.

> *11. The applicant shall determine if previous Code Enforcement violations have been cleared as applicable.*

Response: The Applicant does not know of any Code Enforcement violations associated with the tracts. Therefore, this provision does not apply.

> *12. The applicant shall determine the method of disposal for solid waste, with staff providing information to the applicant about recycling opportunities.*

Response: Solid waste, disposal, and recycling are addressed in Exhibits G, U, and W of this ASC.

> *13. The applicant shall obtain the necessary access permit through the Public Works Department as required by Morrow County Resolution R-29-2000.*

Response: The Applicant will obtain necessary local permits, including access permits through the Morrow County Public Works Department, prior to construction.

5.2.3 Article 6. Conditional Uses

5.2.3.1 Section 6.015. Requirements Under a State Energy Facility Site Certificate

If a holder of a Site Certificate issued by the Oregon Energy Facility Siting Council requests a conditional use permit for an energy facility as outlined under ORS 469.401(3) and pays the requisite fee, the Planning Director shall issue such conditional use permit. The conditional use permit shall incorporate only the standards and conditions in Morrow County's land use and other ordinances as contained in the site certificate. Issuance of the Conditional Use Permit shall be done promptly, not taking more than four weeks once it has been determined that a valid Site Certificate has been issued, the applicant has submitted a complete application and the fee has been received.

Response: The Applicant has elected to obtain a land use determination from the Council pursuant to ORS 469.504(1)(b). This Exhibit demonstrates how the Facility, as proposed, complies with the applicable substantive criteria of the MCCP and MCZO, and where it does not comply, demonstrates the Facility, as proposed, justifies a goal exception.

5.2.3.2 Section 6.020. General Criteria

In judging whether or not a conditional use proposal shall be approved or denied, the Commission shall weigh the proposal's appropriateness and desirability, or the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular

development at the location proposed and, to approve such use, shall find that the following criteria are either met or can be met by observance of conditions.

A. The proposal will be consistent with the Comprehensive Plan and the objectives of the Zoning Ordinance and other applicable policies and regulations of the County.

Response: The Applicant demonstrates in the responses to the applicable substantive criteria of the MCCP (see Section 5.3) and MCZO (see Section 5.2) that the Facility is consistent with the MCCP, MCZO, and other applicable policies and regulations of Morrow County. Therefore, this provision is met.

B. If located within the Urban Growth Boundary of a city, that said city has had an opportunity to review and comment on the subject proposal.

Response: The Facility is not located within the urban growth boundary of a city; therefore, this criterion is not applicable.

C. The proposal will not exceed carrying capacities of natural resources or public facilities.

Response: Exhibits I, J, P, Q, S, and U of this ASC demonstrate that the carrying capacities of natural resources or public facilities will not be exceeded.

5.2.3.3 Section 6.025. Resource Zone Standards for Approval

A. In the Exclusive Farm Use zone a conditional use may be approved only when the County finds that the use will not:

1. Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or

2. Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.

Response: There is no forest use within the analysis area or site boundary as shown on Figure K-2. The lands devoted to farm use in the area surrounding the Facility in Morrow County are primarily for cultivation of wheat and grazing livestock, and related accessory uses. The analysis area also includes other energy generation facilities (Figure K-3), such as the approved WREF phases I-III that are compatible land uses to the proposed Facility. Figure C-3, Exhibit C, shows a broader perspective of the vast energy facility land use in the vicinity. There are various energy facilities and in-service or proposed transmission lines within 10 miles of the Facility. Siting the Facility close to other energy facilities allows for efficient use of infrastructure while limiting land use impacts to a specific area rather than isolated facilities spread further apart that would require construction of more supporting infrastructure and result in greater impacts. The Facility will connect with the existing UEC 230-kV Blue Ridge Line via two new primary interconnection substations (switchyards) within the northwest corner of the solar array fence line area.

As shown on Figure K-4, the majority of the site boundary is composed of cultivated land, primarily dryland wheat. These cultivated lands are a mix of fallow fields and fields in small grain production.

There are currently no farmlands receiving irrigation water within the site boundary, while irrigated agricultural areas appear beyond the site boundary within the analysis area (see Figure K-1). Based on the definition of farm use under ORS 215.203, most of the site boundary, approximately 10,296 acres, is considered currently employed to farm use (predominantly dryland wheat cultivation). Table K-6 shows that once built, permanent Facility components would occupy approximately 9,442 acres, or 86 percent, of the site boundary. A smaller amount (4,414 acres, or 40 percent) of the permanent impact area within the site boundary is considered high-value farmland (per ORS 195(10)(c) and (f)).

Table K-7. Impacts to Farmland in Morrow County

Area	Acres	
Total Area within site boundary (acres)	10,960	
Total Permanent Disturbance within Site Boundary (acres)	**9,442**	
	Non-High Value Farmland	**High Value Farmland[1]**
Acres within the site boundary permanently impacted by Facility	5,028	4,414
1. Pursuant to MCZO 3.010.K.2(b), this calculation applies the definition of "high-value farmland" from ORS 195.300(10)(a), (c), and (f).		

The Facility will not make it more difficult for the existing farms in the area (including the tract landowners) to continue operation, as further described under the response to MCZO Section 3.010 K.3.f. The impact of the Facility will not force a significant change in accepted farm practices or significantly increase the cost of farm practices, for the following reasons:

- Facility components and temporary construction areas will be within the solar array permanent disturbance area to minimize disturbance to farming operations.
- Most of the land within the site boundary currently available for agricultural use will be returned to its current status after Facility decommissioning.
- Even if the land within the site boundary were assumed to be permanently lost to farm use due to siting of permanent Facility improvements, the amount of loss would be less than 1 percent of the 1,126,101 acres of land in farms across Morrow County (USDA NASS 2017). As shown on Table K-3, 9,442 acres of farmland (or 0.8 percent of the 1,126,101 acres of farmland in Morrow County) would be permanently impacted. Of those 9,442 acres, 4,414 acres (0.4 percent of the total farmland in Morrow County) are classified as high-value farmland. Therefore, the inability to use the land for farm purposes is not significant. Further, as detailed in Section 3.4.3, the Applicant is proposing to develop a mitigation plan that brings economic benefits to the Morrow County agricultural economy.
- The Applicant will implement a Noxious Weed Control Plan consistent with the Morrow County Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated land and the associated cost to the landowner for weed control.

- The Applicant will sign and record in the deed records for the county a document binding the Facility owner and the Facility owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).
- Construction and operation of the Facility could cause changes in routes of access to fields, and changes in the pattern of cultivation, seeding, fertilizing and harvesting near the solar array areas. To minimize this, the Applicant, in consultation with the landowners, will design Facility components to minimize obstacles to farming in cultivated fields (components around which the farmer would have to plow, plant and harvest).
- Construction of the Facility could adversely affect soil quality by erosion or compaction. Some farmland would be temporarily disturbed and unavailable for farming during construction. To avoid or reduce adverse impacts to soil quality, the Applicant will implement dust control and erosion-control measures during construction and operation of the Facility (see Exhibit I). To the extent practicable, the Applicant proposes to reduce impacts to soils by using areas already impacted by existing roads and previous development activities, thereby limiting the area of new disturbance.
- While some increase in traffic is anticipated during construction, Exhibit U demonstrates that the temporary increase in the level of traffic will not significantly impact level of service on local roads. Therefore, construction traffic will not interfere with harvest time activities such as tractor movement between fields or trucks delivering agricultural products to market. There will be no traffic impacts during Facility operation.
- The Facility will not affect the application of pesticides or fertilizers using aerial or ground-based methods.

The measures above are intended to avoid or minimize the impacts of the Facility on farming operations in the analysis area and to mitigate for necessary impacts. The Applicant will consult with area landowners during construction and operation of the Facility to determine further measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.

The participating landowners submitted survey responses regarding the Facility's use of their lands (see Attachment K-1). In their responses, the landowners testify that the Facility would have no impact to any of their neighbor's ability to expand, purchase, or lease any vacant land available for farming. These testimonials provide evidence that the Facility will not make it more difficult for the existing farms in the area (including the tract landowners) to continue operation. Further, based on the evidence presented in Exhibit U, the Applicant has demonstrated that the construction and operation of the Facility, taking into account mitigation, is not likely to result in significant adverse impacts on the ability of the providers within the analysis area to provide the following services: sewers and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, healthcare, and schools.

5.2.3.4 Section 6.030. General Conditions

In addition to the standards and conditions set forth in a specific zone, this article, and other applicable regulations; in permitting a new conditional use or the alteration of an existing conditional use, the Commission may impose conditions which it finds necessary to avoid a detrimental impact and to otherwise protect the best interests of the surrounding area or the County as a whole. These conditions may include the following:

A. Limiting the manner in which the use is conducted including restricting the time an activity may take place and restraints to minimize such environmental effects as noise, vibration, air pollution, glare and odor.

B. Establishing a special yard or other open space or lot area or dimension.

C. Limiting the height, size or location of a building or other structure.

D. Designating the size, number, location and nature of vehicle access points.

1. Where access to a county road is needed, a permit from Morrow County Public Works department is required. Where access to a state highway is needed, a permit from ODOT is required. 2. In addition to the other standards and conditions set forth in this section, a Traffic Impact Analysis (TIA) will be required for all projects generating more than 400 passenger car equivalent trips per day. A TIA will include: trips generated by the project, trip distribution for the project, identification of intersections for which the project adds 30 or more peak hour passenger car equivalent trips, and level of service assessment, impacts of the project, and mitigation of the impacts. If the corridor is a State Highway, use ODOT standards. (MC-C-8-98)

E. Increasing the amount of street dedication, roadway width or improvements within the street right-of-way.

1. It is the responsibility of the landowner to provide appropriate access for emergency vehicles at the time of development. (MC-C-8-98)

F. Designating the size, location, screening, drainage, surfacing or other improvement of a parking area or loading area.

G. Limiting or otherwise designating the number, size, location, height, and lighting of signs.

H. Limiting the location and intensity of outdoor lighting and requiring its shielding.

I. Requiring diking, screening, landscaping or another facility to protect adjacent or nearby property and designating standards for its installation and maintenance.

J. Designating the size, height, location and materials for a fence

K. Protecting and preserving existing trees, vegetation, water resources, wildlife habitat or other significant natural resources.

L. Other conditions necessary to permit the development of the County in conformity with the intent and purpose of this Ordinance and the policies of the Comprehensive Plan.

Response: The provisions under MCZO 6.030 describe conditions that may be imposed "to avoid a detrimental impact and to otherwise protect the best interests of the surrounding area or the County as a whole." The section is a list of discretionary conditions and does not contain substantive standards. The Facility, as proposed, has been designed to avoid detrimental impacts. In addition, this ASC, to which the Applicant must comply, will provide adequate conditions for the best interests and protection of the surrounding area and Morrow County as a whole.

5.2.3.5 Section 6.040. Permit and Improvements Assurance

The Commission may require an applicant to furnish the County with a performance bond or such other form of assurance that the Commission deems necessary to guarantee development in accordance with the standards established and the conditions attached in granting a conditional use permit.

Response: This provision does not establish approval standards. Financial assurance for facilities constructed and operated through this ASC will be in accordance with the Council's Retirement and Financial Assurance standard, OAR 345-022-0050 (see Exhibit X).

5.2.3.6 Section 6.050. Standards Governing Conditional Uses

A conditional use shall comply with the standards of the zone in which it is located and with the standards set forth in this subsection.

O. Radio, television tower, utility station or substation:

1. In a residential zone, all equipment storage on the site may be required to be within an enclosed building.

Response: This provision, MCZO 6.050.O.1, does not apply because the Facility is not located in a residential zone.

2. The use may be required to be fenced and provided with landscaping.

Response: This provision provides for a discretionary condition. Although the ordinance does not contain a substantive standard for imposing the fencing or landscaping requirement, this ASC proposes to include a fence around the perimeter of the solar array facilities.

3. The minimum lot size for a public utility facility may be waived on finding that the waiver will not result in noise or other detrimental effects to adjacent property.

Response: The lot size is not applicable to this ASC as a new lot will not be required.

4. Transmission towers, hoses, overhead wires, plumbing stations, and similar gear shall be so located, designed and installed as to minimize their conflict with scenic values.

Response: The maximum height of the collector line poles (where the collector line runs above ground, estimated at less than 4.3 miles) will be approximately 35 to 45 feet above grade, the transmission line poles will be approximately 70 to 180 feet above grade depending on design and

terrain, and the maximum height of the panels (at full tilt) will be less than 15 feet. Exhibit R reviews scenic and aesthetic values in consideration of this ASC.

5.3 Compliance with the Applicable Substantive Criteria from the Morrow County Comprehensive Plan

In 1986, Morrow County adopted a comprehensive plan to address the sustainable management of resources within the county that might be threatened by population growth and development. The MCCP (Morrow County 2013) has several "Goals" or "Elements" relating to different resources within the county. This section demonstrates compliance with the MCCP Elements applicable to the Facility.

5.3.1 Goal 1: Citizen Involvement

Policy 3: To encourage people to attend and participate in Planning Commission and County Court meetings and hearings.

Response: The Council's ASC rules provide sufficient notice and comment periods to satisfy Goal 1 as it applies to the Facility. The Applicant has complied and will comply with the Council's public-notice standards, which will involve notification to Morrow County Board of Commissioners. In addition, prior to the preparation and submittal of the pASC, the Applicant held a voluntary town hall community meeting in May 2022 to describe the proposed Facility and solicit feedback from members of the community in Morrow County. Therefore, the Facility is consistent with this policy.

5.3.2 Goal 2: General Land Use Policies

Policy 3: To continue efforts to identify lands suitable for development and areas where development should be restricted.

Response: Rural Morrow County has become an attractive location for energy development and other utility-scale development, such as data centers. As detailed throughout this ASC, the Applicant selected this site because it is suitable for solar development. As shown on Figure C-3 in Exhibit C of the ASC, the Facility is in the vicinity of other energy facilities, which allows for the efficient use of existing infrastructure while minimizing impacts that would occur with isolated facilities that require long generation-tie interconnection. The proposed Facility does not require new transmission ROW and will interconnect with UEC's existing Blue Ridge 230-kV transmission line that runs along Bombing Range Road and passes through the west portion of the Facility site boundary. While the Facility site boundary impacts high-value farmland, the Applicant makes the case throughout this ASC that the farmland within the site boundary is not irrigated and is functionally limited due to a critical groundwater management area that restricts the availability of water for existing water rights and precludes the issuance of new water rights and allocation for irrigation. Therefore, the Facility is consistent with this policy.

5.3.3 Goal 3: Agricultural Lands Element

Policy 1: It shall be the policy of Morrow County, Oregon, to preserve agricultural lands, to protect agriculture as its main economic enterprise, to balance economic and environmental conditions, to limit noncompatible nonagricultural development, and to maintain a high level of livability in the County.

Response: The Facility is located on agricultural lands as defined in the MCCP. The proposed use—solar energy generation—is consistent with MCCP Goal 3, Policy 1, as it is a compatible nonagricultural use in the EFU zone. As discussed in Section 5.2, the Facility meets the applicable substantive criteria of the Morrow County EFU zone. Furthermore, by locating the Facility adjacent to other energy facilities (Exhibit C, Figure C-3), it consolidates land use impacts to agricultural lands to a specific area characterized by less productive agricultural lands rather than spreading these impacts out across a broader area in the County EFU lands and it allows for efficient use of existing transmission infrastructure. The Facility will be sited to utilize an existing 230-kV UEC transmission line, a key part of the green energy corridor that connects Morrow County wind and solar projects to the regional transmission system (Section 3.2.3).

MCZC Section 3.010.C.(24) conditionally permits photovoltaic solar power generation facilities on agricultural land subject to Section 3.010.K.3. As the Facility exceeds the threshold allowed for photovoltaic solar energy facilities on high-value and arable farmland, an exception is being requested (see Section 5.5). An exception is warranted to allow a locationally dependent facility that will fulfill important state and county goals by providing renewable energy while minimizing impacts on local farming practices and mitigating economic impacts to the agricultural economy.

The Facility will not permanently damage the soils within the site boundary, allowing the land to convert back to agricultural use after the Facility is decommissioned. According to the Morrow County 2017 Census of Agriculture (USDA NASS 2017), approximately 1,126,101 acres of land is considered to be "farms." As shown on Table K-3, 9,442 acres of farmland (or less than 1 percent of the 1,126,101 acres of farmland in Morrow County) will be permanently impacted. Of those 9,442 acres, 4,414 acres (0.4 percent of the total farmland in Morrow County) are classified as high-value farmland. The Applicant also details plans to mitigate impacts to the agricultural economy in Section 3.4.3. Therefore, the inability to use the land for farm purposes is not significant. Furthermore, the Facility will not remove any of the county's highly productive, irrigated agricultural lands from agricultural use as no farmlands receiving irrigation water are located within the site boundary. Rather, the site boundary comprises arable soils used for dryland wheat or cattle grazing. As outlined in Table K-2, approximately 4,950 acres within the site boundary meet the definition of high-value farmland under ORS 195.300(10)(c) and (f), primarily based on presence within place-of-use water rights that, as discussed above, are restricted due to presence within the Butter Creek CGWA. The Facility will also be compatible with adjacent agricultural uses, as it will not limit or impact current or future farm activities on the surrounding land.

The carrying capacities of natural resources or public facilities will not be exceeded by the Facility; therefore, this ASC will not have a significant adverse impact on "livability" in Morrow County (see Exhibits I, J, P, Q, S, and U). Therefore, the Facility is consistent with this policy.

> *Policy 4: It shall be the policy of the County to develop and implement comprehensive and definitive criteria for the evaluation of all non-farm developments to ensure that all objectives and policies set forth herein are compiled with to the maximum level possible.*

Response: Morrow County has established comprehensive and definitive criteria in the MCZO for the evaluation of all non-farm developments within agricultural lands. As provided in previous sections of this ASC, the Facility will comply with these criteria to the maximum level possible. Therefore, the Facility is consistent with this policy.

5.3.4 Goal 9: Economic Element

> *Policy 2A: To maximize the utilization of the local work force as job opportunities increase.*

Response: The Facility will provide temporary employment opportunities during construction, as described in Exhibit U. Operation of the Facility will require three full-time employees. As detailed in Section 3.4, the Facility would result in a direct loss of two FTE jobs, which would be offset by the direct gain of three FTE permanent jobs that will contribute to the local economy. In addition, development of the Facility will result in an increase in annual property tax revenue to Morrow County. The Applicant has entered into a long-term Payment in Lieu of Taxes (PILOT) agreement with Morrow County that provides for fixed payments of $7,000 per MW in lieu of taxes from the Facility over a 17-year period (Attachment K-3). PILOT payments would be staggered based on the year each 200-MW phase comes online, increasing to $8.4 million per year in Year 4 for all six phases. Following expiration of the PILOT agreement, property tax payments on the PV facility would increase to an estimated $14 million in Year 18, with an estimated total net value of $300 million generated over the 40-year operating life of the Facility. With the BESS facility property tax payments would increase to $37.4 in Year 18 and the combined Facility would generate a net value of $590 million over 40 years.

The ECONorthwest Economic Impact Analysis (Attachment K-2) estimates tax revenues would be distributed to the 13 taxing districts with jurisdiction over the Facility site, with the largest shares distributed to Morrow County (37 percent) and the Morrow County School District #1 (34 percent). Estimated property tax payments on the PV facility in Year 18 would support an estimated 40 total (direct, indirect, and induced) jobs in Morrow County and approximately $3.6 million in labor income, with total economic output of approximately $5.2 million.

Construction of the Facility will also benefit the local economy in the short term by providing temporary construction-related employment. During construction, construction workers and their employers will purchase goods and supplies, stay in area hotels, and eat at local restaurants, all of these providing an economic benefit to the local and regional economy by supporting area businesses. The additional tax revenue generated by the existence of the Facility will increase each

County's ability to provide roadways, police protection, fire protection and emergency response, and other services to its citizens. Therefore, the Facility is consistent with this policy.

> *Policy 3A: To encourage local producers to new markets for local products and to seek out new products that are in demand in the market place and that can be produced locally.*

Response: The Facility will support Morrow County's Goal to diversify its existing industries and to promote economic growth and stability of the County by adding a new source of tax revenue while ensuring the existing agricultural industries in the surrounding area are not impacted. In addition, the Facility will supplement the landowners' farm income through the lease payments, stabilizing their farm uses by diversifying their income sources while not restricting their ability to farm the remaining portions of the parcel. In responses to survey questions from the Applicant, landowners indicated that lease payments will help keep the land in the family and provide money to invest in agricultural equipment for continued farming in the Butter Creek area (Attachment K-1). In addition, UEC has seen significant load growth in recent years. In its 2019 annual report, UEC noted it became Oregon's largest consumer-owned electric company (UEC 2019). In 2021, UEC reported delivering 4.8 billion kilowatt hours of energy to its members— a 30 percent increase over the prior year (UEC 2021). Since then, at least six new data centers have been announced in the area (Rogoway 2023), which indicates the region will continue to experience demand for energy to support the growing data center market. Therefore, the Facility is consistent with this policy.

> *Policy: 5A: To utilize appropriate mechanisms in implementing regulations to reduce undesirable impacts from industrial and commercial developments, including the establishment of buffer zones or other mitigation measures if determined to be necessary.*

Response: MCZC Section 3.010.C.(24) conditionally permits photovoltaic solar power generation facilities on agricultural land subject to Subsection K.3. As provided in previous section of this exhibit, the Facility will comply with these criteria to the maximum level possible. Additionally, the Applicant will sign and record in the deed records for the county a document binding the Facility owner and the Facility owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices, as required per MCZC Section 3.010 K.3.i. Therefore, the Facility is consistent with this policy.

> *Policy: 6C: To require that development plans be based on the best economic information available, comply with applicable environmental standards, and take into account the effects of the development on the existing economy and available resources, including transportation and work force.*

Response: The Facility will monetize the available solar energy resources in Morrow County while minimizing its impacts to the environment (see Exhibits P and Q) and public services (see Exhibit U). The Facility is sited adjacent to other energy facilities, thus allowing for efficient use of transmission infrastructure, specifically, the 230-kV UEC transmission line. Therefore, the Facility is consistent with this policy.

> *Policy: 7B: To ensure implementing regulations require the use of best management practices to protect surface and groundwater supplies.*

Response: Water required during construction will be for dust control, concrete, and soil compaction. Water required during operations may be required for panel washing, but will be as minimal as possible. The use of water during construction and operations will be as efficient as practicable (see Exhibit O). Therefore, the Facility is consistent with this policy.

5.3.5 Goal 10: Housing Element

Policy 5. The County will encourage sponsors of major construction projects in the area to help the County plan for and handle temporary populations of construction employees.

Response: Potential impacts to housing could occur if there were an inadequate supply of housing in relation to the demand from the new temporary and permanent residents associated with the Facility. It is not yet known where the new temporary and permanent residents will settle and what type of housing they will select. See Attachment U-1 for the full analysis of housing availability and associated impacts.

Note that although sufficient housing supply is projected to meet peak project demand within the region, the housing markets closest to the Facility (i.e., Morrow and Umatilla counties; see Attachment U-1) have the potential to be constrained as a result of the Facility-related housing demand. Therefore, the following mitigation measures may be implemented to minimize impacts as necessary (see Attachment U-1 for further detail):

- Develop a detailed housing plan consistent with updated workforce estimates prior to construction.
- Provide housing information to workers prior to the start of their employment.
- Hire a housing coordinator to manage housing-related planning and communication with employees, housing providers, and local officials.
- Work proactively with incoming workers to identify housing options and minimize potential issues finding suitable and affordable housing (taking into consideration commuting and transportation).
- Consult with cities as well as the county as necessary regarding temporary housing options prior to construction.
- Work with local officials and housing providers to ensure information provided to workers is up to date and consistent with local housing policies and objectives.
- Work with local officials to preemptively address potential issues related to constraints on RV sites and hookups.
- Partner with local private entities as appropriate to support permitting for additional RV facilities to support housing for Facility construction employees.

- Work with Facility contractors to track and assess non-local worker demographics to identify patterns of use and proactively identify potential shortages or changes in housing demand.
- Consider providing support to local housing advocacy organizations to augment resources available to low-income residents.

With the implementation of these mitigation measures, no significant adverse housing impacts from Facility construction are anticipated.

5.3.6 Goal 11: Public Facilities and Services Element

General

Policy F: All utility lines and facilities shall be located on or adjacent to existing public or private right-of-way or through generally unproductive lands to avoid dividing existing farm units.

Response: The Facility will be sited to utilize an existing substation, point of interconnection, and ROWs. Siting the Facility close to existing or approved renewable energy development allows for efficient use of infrastructure, while minimizing impacts to surrounding agricultural lands. Therefore, the Facility is consistent with this policy.

Fire Protection

Policy A: Fire protection shall be considered a common problem by the cities, County and fire protection districts.

Response: Fire protection measures for the Facility include coordination with the Ione Rural Fire Protection District and the Heppner Volunteer Fire Department. Both agencies would be able to provide fire protection services for the Facility. Several fire prevention systems and procedures would be employed at the Facility, including requirements to conduct welding or metal cutting only in areas that are graveled or cleared of vegetation, and to keep emergency firefighting equipment on-site when potentially hazardous operations are taking place. On-site employees will also receive training on fire prevention and response. Additional fire protection measures are described in Exhibit U. Therefore, the Facility is consistent with this policy.

Policy B: All new subdivision design shall take into consideration the need for both an ingress and egress route for emergency vehicles and evacuation traffic.

Response: Facility roads will be sufficiently sized for emergency vehicle access as reviewed by the Fire Marshal. Vegetation will be cleared and maintained along perimeter roads to provide a vegetation clearance for fire safety. The Facility is consistent with this policy. Therefore, the Facility is consistent with this policy.

5.3.7 Goal 13: Energy Conservation Element

Policy 2: To conserve energy and develop and use renewable energy resources.

Response: Renewable energy sources include sunshine per Policy 15, under MCCP Goal 13. Therefore, solar energy is considered a renewable energy resource under the MCCP, and the Facility will utilize solar resources in Morrow County to generate electric power for public use. The Facility is consistent with this policy. Therefore, the Facility is consistent with this policy.

Policy 3: Encourage development of solar and wind resources.

Response: The Facility will utilize solar resources in Morrow County to generate electric power for public use. Therefore, the Facility as proposed is consistent with this policy. Therefore, the Facility is consistent with this policy.

Policy 9: The County will encourage the development of alternative energy sources in County industries and businesses.

Response: Solar energy is considered an alternative energy source because it is not fossil-based. The Facility will generate electric power from a solar energy source for public use, and therefore is developing an alternative energy source in Morrow County. Therefore, the Facility is consistent with this policy.

5.4 Directly Applicable Rules, Statutes, and Goals

OAR 345-021-0010(1)(k)(C)(iii) Identify all Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3) and describe how the proposed facility complies with those rules, goals and statutes;

Response: The administrative rules, statutes, and statewide planning goals directly applicable to the Facility are discussed below.

5.4.1 Oregon Revised Statutes

5.4.1.1 ORS 215.283 Uses permitted in exclusive farm use zones in nonmarginal lands counties

(2) The following nonfarm uses may be established, subject to the approval of the governing body or its designee in any area zoned for exclusive farm use subject to ORS 215.296 (Standards for approval of certain uses in exclusive farm use zones):

(g) Commercial utility facilities for the purpose of generating power for public use by sale. If the area zoned for exclusive farm use is high-value farmland, a photovoltaic solar power generation facility may be established as a commercial utility facility as provided in ORS 215.447 (Photovoltaic solar power generation facilities on high-value farmland). A

renewable energy facility as defined in ORS 215.446 (Renewable energy facility) may be established as a commercial utility facility.

Response: Pursuant to ORS 215.283(2)(g), "commercial utility facilities for the purpose of generating power for public use by sale" may be established in the EFU zone of nonmarginal lands counties (including Morrow County) "subject to the approval of the governing body or its designee in any area zoned for exclusive farm use subject to ORS 215.296." MCZO 3.010.C(24) states "photovoltaic solar power generation facilities as commercial utility facilities for the purpose of generating power for public use by sale" as a conditional use in the EFU zone. The standards for a conditional use in the EFU zone are set forth in MCZO 6.025(A), and are identical to ORS 215.296(1) and to OAR 660-033-0130(5), which is addressed in Section 5.4.2.

ORS 215.283(1)(C) provides that "utility facilities necessary for public service" may be established in the EFU zone of nonmarginal lands counties (including Morrow County) pursuant to ORS 215.274 if the utility is an associated transmission line. A demonstration of compliance with ORS 215.274 is provided further below in Section 5.4.1.2.

5.4.1.2 ORS 215.274 Associated transmission lines for public service

ORS 215.274 Associated transmission lines necessary for public service; criteria; mitigating impact of facility.

(1) As used in this section, "associated transmission line" has the meaning given that term in ORS 469.300.

Response: The Facility's 230-kV transmission line meets the definition for an "associated transmission line" and is therefore subject to ORS 215.274. Per MCZO Article 1, ORS 469.300 and 215.274, "associated transmission lines" means transmission lines constructed "to connect an energy facility to the first point of junction with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid." The 230-kV transmission line will connect the Facility's collector substation switchyards to the existing 230-kV UEC Blue Ridge Line, thereby connecting the proposed energy facility to the Northwest power grid. As such, the 230-kV transmission line is an "associated transmission line" under ORS 469.300 and ORS 215.274.

(2) An associated transmission line is necessary for public service if an applicant for approval under ORS 215.213 (1)(c)(B) or 215.283 (1)(c)(B) demonstrates to the governing body of a county or its designee that the associated transmission line meets:

(a) At least one of the requirements listed in subsection (3) of this section; or

(b) The requirements described in subsection (4) of this section.

Response: The criteria under ORS 215.274 mirrors EFU zone use standards in MCZO Section 3.010.D(10) as well as the implementing provisions under OAR 660-033-0130(b). The Facility transmission line meets two or more of the requirements of subsection (4) as detailed in Section

5.2.1.3 of this exhibit where the same standards under ORS 215.274 are evaluated under MCZO Section 3.010.D(10).

(3) The governing body of a county or its designee shall approve an application under this section if an applicant demonstrates that the entire route of the associated transmission line meets at least one of the following requirements:

(a) The associated transmission line is not located on high-value farmland, as defined in ORS 195.300, or on arable land;

(b) The associated transmission line is co-located with an existing transmission line;

(c) The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or

(d) The associated transmission line is located within an existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground.

Response: As detailed in Section 5.2.1.3 of this exhibit, the associated transmission line will be an approximately 11-mile-long, 230-kV overhead line that will transport power from the six supporting substations to the two primary interconnection substations located at the point of interconnection (Exhibit C, Figure C-2). However, because portions of the transmission line may be adjacent to existing ROW rather than within existing ROW, it does not meet any of the identified factors for the entire route. However, the entire route meets more than one of the factors under subpart (4)(a), below, which mirrors the standards of MCZO 3.010.D.10.b.(2).

(4)(a) Except as provided in subsection (3) of this section, the governing body of a county or its designee shall approve an application under this section if, after an evaluation of reasonable alternatives, the applicant demonstrates that the entire route of the associated transmission line meets, subject to paragraphs (b) and (c) of this subsection, two or more of the following factors:

(A) Technical and engineering feasibility;

(B) The associated transmission line is locationally dependent because the associated transmission line must cross high-value farmland, as defined in ORS 195.300, or arable land to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;

(C) Lack of an available existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground;

(D) Public health and safety; or

(E) Other requirements of state or federal agencies.

Response: As discussed in Section 5.2.2.3 in response to the standards of MCZO 3.010.D.10.b.(2), which mirror ORS 215.274(4)(a), the Applicant demonstrates that the entire route of the associated

transmission line meets the criteria under ORS 215.274(4)(a)(A), (B), (C), (D) and (E). See Section 5.2.1.3 for the justification of the Facility meeting this standard.

(b) The applicant shall present findings to the governing body of the county or its designee on how the applicant will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

Response: The Applicant has designed the 230-kV transmission line to minimize, to the greatest degree practicable, impacts to EFU land. The transmission line is sited to minimize disturbing agricultural practices by being sited adjacent to existing linear ROWs wherever possible. The amount of new transmission line corridor has been minimized to the greatest extent practicable by following the shortest practicable route between substations. Landowners and farm operators will be compensated for the loss of land for agricultural production, as necessary. In addition, when construction is completed, lands temporarily affected by construction will be restored to their original condition. Therefore, because permanent impacts of the 230-kV transmission line are minimal, and the transmission line has been sited in consideration of farming practices, it will not force a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

(c) The governing body of a county or its designee may consider costs associated with any of the factors listed in paragraph (a) of this subsection, but consideration of cost may not be the only consideration in determining whether the associated transmission line is necessary for public service.

Response: Land costs were not a significant consideration in determining the location of the transmission line segment. The location of the transmission line is dependent on providing a connection for the energy generated by the energy facility to the electrical energy grid interconnection point (Blue Ridge Substation). No alternative location exists, regardless of cost, to locate the 230-kV transmission line exclusively on non-EFU land.

5.4.1.3 ORS 215.296 Standards for approval of certain uses in exclusive farm use zones

ORS 215.296 Standards for approval of certain uses in exclusive farm use zones; violation of standards; complaint; penalties; exceptions to standards.

(1) A use allowed under ORS 215.213 (2) or (11) or 215.283 (2) or (4) may be approved only where the local governing body or its designee finds that the use will not:

(a) Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or

(b) Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.

Response: The Facility is being permitted through the Council for a site certificate. See the response to MCZO 6.025(A) in Section 5.2.3.3 of this exhibit as the standards in this provision of the MCZO are identical to ORS 215.296(1) and to OAR 660-033-0130(5). The Applicant acknowledges the procedural standards set forth in ORS 215.296(2)-(10).

5.4.2 Oregon Administrative Rules

5.4.2.1 OAR 660-033-0120

OAR 660-033-0120 Uses Authorized on Agricultural Lands

Response: Per the table in OAR 660-033-0120, "Photovoltaic solar power generation facilities [are] commercial utility facilities for the purpose of generating power for public use by sale" and are permitted in high-value farmland and other agricultural land after the required review and approval by the relevant governing body. This use is subject to requirements of OAR 660-033-0130(5) and OAR 660-033-0130(38), which are addressed in Sections 5.4.2.2 and 5.4.2.3 below.

5.4.2.2 OAR 660-033-0130(5)

OAR 660-033-0130 Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses

(5) Approval requires review by the governing body or its designate under ORS 215.296. Uses may be approved only where such uses:

(a) Will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; and

(b) Will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.

Response: See the response to MCZO 6.025(A) in Section 5.2.3.3 of this exhibit as the standards in this provision of the MCZO are identical to ORS 215.296(1) and to OAR 660-033-0130(5).

5.4.2.3 OAR 660-033-0130(38)

OAR 660-033-0130 Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses

(38) A proposal to site a photovoltaic solar power generation facility shall be subject to the following definitions and provisions:

(a) "Arable land" means land in a tract that is predominantly cultivated or, if not currently cultivated, predominantly comprised of arable soils.

(b) "Arable soils" means 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.

(c) "Dual-use development" means developing the same area of land for both a photovoltaic solar power generation facility and for farm use.

(d) "Nonarable land" means land in a tract that is predominantly not cultivated and predominantly comprised of nonarable soils.

(e) "Nonarable soils" means soils that are not suitable for cultivation. Soils with an NRCS agricultural capability class V–VIII and no history of irrigation shall be considered nonarable in all cases. The governing body or its designate may determine other soils, including soils with a past history of irrigation, to be nonarable based on substantial evidence in the record of a local land use application.

Response: The provisions under OAR 660-033-0130(38)(a), (b), (d) and (e) are discussed in Section 5.2.1.4 in response to MCZO Section 3.010.K.3. As described in Section 3.3, the site boundary primarily comprises both high-value and arable lands that are predominantly cultivated with dryland wheat. Development and retirement of the Facility will preserve the land it is sited on for future farm use by reducing grading and disturbance of the land during construction and decommissioning to the extent practicable; maintaining vegetation on most of the land within the fenceline during operations; and using pile driven posts rather than concrete bases to hold up the racking system that the panels are mounted on to the extent practicable. Therefore, along with minimizing the wind and soil erosion from continual farming, these efforts to preserve soil health and soil moisture are anticipated to preserve the farmland for future use and serve as a form of dual use as farmland is often left fallow as a farming technique.

(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.

Response: The provisions under OAR 660-033-0130(38)(f) are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.e. The Facility meets the definition of "photovoltaic solar power generation facility." As discussed previously, the Facility by itself meets the acreage threshold for a Goal 3 exception.

> *(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.*

Response: As discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f, portions of the site boundary area meet the definition of high-value farmland under ORS §195.300(10). The Applicant is not proposing any dual-use development plans with this ASC (as defined under OAR 660-033-0130(38)(c)) within the site boundary and does not meet the requirements of paragraph (h)(H) (see analysis below). As the total area of high-value farmland within the site boundary would use, occupy, or cover more than 12 acres, the Applicant seeks a goal exception. However, because the Facility falls under the Council's jurisdiction, it is the Council's statutes and rules that govern the goal exception process (i.e., ORS 469.504(2) and OAR 345-022-0030(4), rather than ORS 197.732). See Section 5.5 for the statewide planning goal exception justification.

> *(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).*
>
> > *(A) The proposed photovoltaic solar power generation facility will not create unnecessary negative impacts on agricultural operations conducted on any portion of the subject property not occupied by project components. Negative impacts could include, but are not limited to, the unnecessary construction of roads dividing a field or multiple fields in such a way that creates small or isolated pieces of property that are more difficult to farm, and placing photovoltaic solar power generation facility project components on lands in a manner that could disrupt common and accepted farming practices;*

Response: The OAR 660-033-0130(38)(h)(A) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f.(1), which concludes that construction, operation, and maintenance of the solar array and associated equipment will not change existing land use practices on lands surrounding the solar siting area.

(B) The presence of a photovoltaic solar power generation facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the submittal and county approval of a soil and erosion control plan prepared by an adequately qualified individual, showing how unnecessary soil erosion will be avoided or remedied. The approved plan shall be attached to the decision as a condition of approval;

Response: The OAR 660-033-0130(38)(h)(B) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f.(2), which concludes that the presence of a photovoltaic solar power generation facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property.

(C) Construction or maintenance activities will not result in unnecessary soil compaction that reduces the productivity of soil for crop production. This provision may be satisfied by the submittal and county approval of a plan prepared by an adequately qualified individual, showing how unnecessary soil compaction will be avoided or remedied in a timely manner through deep soil decompaction or other appropriate practices. The approved plan shall be attached to the decision as a condition of approval;

Response: The OAR 660-033-0130(38)(h)(C) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f.(3), which concludes that construction or maintenance activities will not result in unnecessary soil compaction that reduces the productivity of soil for crop production.

(D) Construction or maintenance activities will not result in the unabated introduction or spread of noxious weeds and other undesirable weed species. This provision may be satisfied by the submittal and county approval of a weed control plan prepared by an adequately qualified individual that includes a long-term maintenance agreement. The approved plan shall be attached to the decision as a condition of approval;

Response: The OAR 660-033-0130(38)(h)(D) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f.(4). As discussed in response to MCZO 3.010, the Applicant will implement a Noxious Weed Control Plan in coordination with Morrow County that will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control.

(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);

Response: OAR 660-033-0020(8)(a) defines high-value farmland as land in a tract composed predominately of soils that are: (A) Irrigated and classified prime, unique, Class 1 or 2; or (B) Not irrigated and classified prime, unique, Class 1 or 2. The site boundary includes three place-of-use water rights within the site boundary which are considered "irrigated" for purposes of this standard. However, the Applicant followed DLCD guidance to prepare a predominance test that

evaluates the soils within the subject tracts. The predominance test results outlined in Table K-2 indicate less than 50% of the total tract areas have Class 1, 2, Prime, and Unique soils and therefore none of the tracts within the site boundary meet the definition of high-value farmland under ORS 195.300(10)(a) and ORS 215.710. Therefore, the Facility complies with this provision.

The Applicant also notes that, as discussed in Section 3.3.1, the only place-of-use water right within the site boundary that has been issued an allocation of groundwater in recent years (Grieb WR 43515) is not sufficient to grow irrigated crops at an economically feasible or competitive scale. As such, the water rights are not considered sufficient to support irrigated agriculture and the soils within the site boundary are not high value in a non-irrigated condition (most are Class IV soils with some Class III soils, see Figure K-6.2).

> *(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*

Response: The OAR 660-033-0130(38)(h)(F) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f.(5).

> *(G) A study area consisting of lands zoned for exclusive farm use located within one mile measured from the center of the proposed project shall be established and:*
>
> *(i) If fewer than 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits within the study area, no further action is necessary.*
>
> *(ii) When at least 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities within the study area, the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential photovoltaic solar power generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to diminished opportunities to expand, purchase or lease farmland, acquire water rights, or*

diminish the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area.

Response: The OAR 660-033-0130(38)(h)(G) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.f.(6).

(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;

Response: As discussed in Section 3.3.1, the Facility site boundary 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;

Response: As discussed in Section 3.3.1, several place-of-use water rights that meet the definition of high-value farmland under ORS 195.300(10)(c) occur within the site boundary and analysis area. As the Facility will use more than 12 acres of high-value farm land for a commercial solar energy facility, an exception is being requested pursuant to ORS 469.504(2) and OAR 345-022-0030(4) (see Section 5.5).

(iii) Is located within the service area of an electric utility described in ORS 469A.052(2);

Response: The Facility is located within the UEC service area. The UEC is considered a small electric utility and therefore not described in ORS 469A.052(2). Therefore, the Facility does not meet this criterion.

(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

Response: As the Facility does not meet criteria (iii) above, this provision is not applicable.

(v) Does not qualify as high-value farmland under any other provision of law; or

Response: As discussed in Section 3.3, the area within the site boundary contains high-value farmland and is primarily composed of arable soil and therefore qualifies as arable land. As the Facility will use more than 20 acres of arable land for a commercial solar energy facility, an exception is being requested pursuant to ORS 469.504(2) and OAR 345-022-0030(4) (see Section 5.5).

(i) For arable lands, a photovoltaic solar power generation facility shall not use, occupy, or cover more than 20 acres. The governing body or its designate must find that the following criteria are satisfied in order to approve a photovoltaic solar power generation facility on arable land:

Response: The OAR 660-033-0130(38)(i) provisions are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.g. As discussed in Section 3.3, the area within the site boundary primarily comprises arable soil and therefore qualifies as arable land. As the Facility will use more than 20 acres of arable land for a commercial solar energy facility, an exception is being requested pursuant to ORS 469.504(2) and OAR 345-022-0030(4) (see Section 5.5).

(A) 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);

Response: See the response to OAR 660-033-0130(38)(h)(E) above.

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

(i) Nonarable soils are not available on the subject tract;

(b) Siting the project on non non-arable soils present on the subject tract would significantly reduce the project's ability to operate successfully; or

(c) 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 nonarable soils;

Response: Compliance standards are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.g.(1), which mirrors OAR 660-033-0130(38)(i)(A).

(C) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);

Response: As the total area of high-value farmland within the site boundary that would be precluded from use as a commercial agricultural enterprise is more than 12 acres, a goal exception will be needed. However, because the Facility falls under the Council's jurisdiction, it is the Council's statutes and rules that govern the goal exception process (i.e., ORS 469.504(2) and OAR 345-022-0030(4), rather than ORS 197.732). See Section 5.5 for the statewide planning goal exception justification.

(D) A study area consisting of lands zoned for exclusive farm use located within one mile measured from the center of the proposed project shall be established and:

(i) If fewer than 80 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits within the study area, no further action is necessary.

(ii) When at least 80 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities within the study area, the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential photovoltaic solar power generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to diminished opportunities to expand, purchase or lease farmland, acquire water rights, or diminish the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area; and

Response: Compliance standards are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.3.g.(3), which mirrors OAR 660-033-0130(38)(i)(D).

(E) The requirements of OAR 660-033-0130(38)(h)(A), (B), (C) and (D) are satisfied.

Response: The requirements of OAR 660-033-0130(38)(f)(A), (B), (C), and (D) are discussed above and in Section 5.2.1.4 in response to MCZO 3.010.K.3.g.(4), which mirrors OAR 660-033-0130(38)(i)(E).

(j) For nonarable lands, a photovoltaic solar power generation facility shall not use, occupy, or cover more than 320 acres. The governing body or its designate must find that the following criteria are satisfied in order to approve a photovoltaic solar power generation facility on nonarable land:

Response: The Facility does not preclude more than 320 acres of non-arable land from use as a commercial agricultural enterprise, and is therefore compliant with this standard.

(A) 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);

Response: See the response to OAR 660-033-0130(38)(h)(E) above.

(B) 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) Siting the project on nonarable soils present on the subject tract would significantly reduce the project's ability to operate successfully; or

(ii) The proposed site is better suited to allow continuation of an existing commercial farm or ranching operation on the subject tract as compared to other possible sites also located on the subject tract, including sites that are comprised of nonarable soils;

Response: Compliance standards are discussed in Section 5.2.1.4 in response to MCZO 3.010.K.h(1), which mirrors OAR 660-033-0130(38)(j)(B).

(C) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);

(D) No more than 20 acres of the project will be sited on arable soils;

Response: As discussed above, the Facility will occupy more than 12 acres of high-value farmland and 20 acres of arable land. Thus, the Facility requires an exception to Statewide Planning Goal 3 (see Section 5.5).

(E) The requirements of OAR 660-033-0130(38)(h)(D) are satisfied;

Response: The requirements of OAR 660-033-0130(38)(h)(D) are discussed above.

(F) If a photovoltaic solar power generation facility is proposed to be developed on lands that contain a Goal 5 resource protected under the county's comprehensive plan, and the plan does not address conflicts between energy facility development and the resource, the applicant and the county, together with any state or federal agency responsible for protecting the resource or habitat supporting the resource, will cooperatively develop a specific resource management plan to mitigate potential development conflicts. If there is no program present to protect the listed Goal 5 resource(s) present in the local comprehensive plan or implementing ordinances and the applicant and the appropriate resource management agency(ies) cannot successfully agree on a cooperative resource management plan, the county is responsible for determining appropriate mitigation measures; and

Response: There are no Goal 5 resources in the Facility site boundary.

(G) If a proposed photovoltaic solar power generation facility is located on lands where, after site specific consultation with an Oregon Department of Fish and Wildlife biologist, it is determined that the potential exists for adverse effects to state or federal special status species (threatened, endangered, candidate, or sensitive) or habitat or to big game winter range or migration corridors, golden eagle or prairie falcon nest sites or pigeon springs, the applicant shall conduct a site-specific assessment of the subject property in consultation with all appropriate state, federal, and tribal wildlife management agencies. A professional biologist shall conduct the site-specific assessment by using methodologies accepted by the appropriate wildlife management agency and shall determine whether adverse effects to special status species or wildlife habitats are anticipated. Based on the

results of the biologist's report, the site shall be designed to avoid adverse effects to state or federal special status species or to wildlife habitats as described above. If the applicant's site-specific assessment shows that adverse effects cannot be avoided, the applicant and the appropriate wildlife management agency will cooperatively develop an agreement for project-specific mitigation to offset the potential adverse effects of the facility. Where the applicant and the resource management agency cannot agree on what mitigation will be carried out, the county is responsible for determining appropriate mitigation, if any, required for the facility.

Response: Professional biologists conducted site-specific assessments using methodologies reviewed and accepted by the ODFW. Based on these surveys, it was determined there will be no adverse effects to special status species or Category 1 wildlife habitats. Exhibit Q provides information about state-listed threatened endangered plant and wildlife species that may be affected by the Facility as required by OAR 345-022-0070. Exhibit P provides information about the fish and wildlife habitats and species, other than the species addressed in Exhibit Q, that could be affected by the Facility. These exhibits also outline the agency consultation that has occurred at various stages of Facility development and measures to avoid, reduce, and mitigate impacts, as necessary.

(k) An exception to the acreage and soil thresholds in subsections (g), (h), (i), and (j) of this section may be taken pursuant to ORS 197.732 and OAR chapter 660, division 4.

Response: As discussed above, the Facility will occupy more than 12 acres of high-value farmland and 20 acres of arable land. Thus, the Facility requires an exception to Statewide Planning Goal 3. For projects under Council jurisdiction, the standards for approving an exception are set forth in ORS 469.504(2)(c) and Council's rule (which mirrors the statute), OAR 345-022-0030(4). The justification for an exception to Statewide Planning Goal 3 is set forth in Section 5.5. The Applicant's demonstration of compliance with the remainder of OAR 660-033-0130(38)(g), (h), (i), and (j) is included above.

(l) The county governing body or its designate shall require as a condition of approval for a photovoltaic solar power generation facility, that the project owner sign and record in the deed records for the county a document binding the project owner and the project owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).

Response: The Applicant understands that the Council will impose a condition to the site certificate requiring that, before beginning construction of the Facility, the certificate holder must record such a document in the deed records of Morrow County.

(m) Nothing in this section shall prevent a county from requiring a bond or other security from a developer or otherwise imposing on a developer the responsibility for retiring the photovoltaic solar power generation facility.

Response: Exhibit X provides information on retiring the Facility and restoring the site. The Applicant understands the implications of the bonding requirements outlined in this criterion.

5.4.3 Applicable Statewide Goals Compliance

> *OAR 345-021-0010(1)(k)(C)(iv) If the proposed facility might not comply with all applicable substantive criteria, identify the applicable statewide planning goals and describe how the proposed facility complies with those goals.*

As discussed in Sections 5.2 and 5.4 of this exhibit, the Facility will occupy more than 12 acres of high-value farmland and more than 20 acres of arable land, and therefore the Facility does not meet the acreage standards under MCZO 3.010(K)(3)(f) and (g) and OAR 660-033-0130(38)(g) and (i). The Applicant demonstrates below that the Facility complies with the Statewide Planning Goals applicable to the Facility, and accordingly requests that the Council exercise its authority to determine compliance with the Council's Division 22 Land Use Standard.

Goal 1, Citizen Involvement:

"To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process."

Goal Compliance: This Goal governs public participation in the land-use process. The Applicant does not propose any changes to the public-participation requirements of local or state law. The Council's application for site certificate rules provides sufficient notice and comment periods to satisfy Goal 1 as it applies to the Facility. The Applicant has complied and will comply with the Council's public-notice standards.

Goal 3 Agricultural Lands:

"To preserve and maintain agricultural lands."

Goal Compliance: This Goal is designed for the protection of agricultural lands. Goal 3 provides that "[a]gricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700." Oregon has adopted land use policies under ORS 215.243 to preserve and maintain agricultural lands, regulate allowed uses in the EFU zone under ORS 215.283, and implement the regulations of OAR Chapter 660, Division 33. An analysis of the Facility's compliance with Statewide Planning Goal 3 and its implementing regulations is provided in Sections 5.4.1 and 5.4.2.

As discussed in Sections 5.4.1 and Section 5.4.2, the Facility will occupy more than 12 acres of high-value farmland or 20 acres of arable land for the commercial solar energy facility. Thus, the Facility requires an exception to Statewide Planning Goal 3. For projects under Council jurisdiction, the standards for approving an exception are set forth in ORS 469.504(2)(c) and the Council's rule (which mirrors the statute), OAR 345-022-0030(4). The justification for an exception to Statewide Planning Goal 3 is set forth in Section 5.5.

Goal 5, Open Spaces, Scenic, Historic and Natural Resources:

"To conserve open space and protect natural and scenic resources."

Goal Compliance: The Facility will be built primarily on existing, cultivated farmlands and will be adjacent to approved and operating energy facilities. It will consist of a solar array and supporting connecting infrastructure, much of which will be buried underground. The Facility is located entirely on private land, none of which is designated as open space. The impacts of the Facility on natural resources such as habitat, scenic resources, and protected and historical areas are discussed in further detail in Exhibits Q, R, L, and S, respectively. There are no Goal 5 resources in the Facility site boundary. Therefore, the Facility complies with Goal 5.

Goal 9, Economic Development*:*

"To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

Goal Compliance: This Goal provides certain guidelines for local governments to follow to stimulate orderly economic growth. In particular, the planning guidelines in the Goal emphasize the use of "geographically appropriate" sites for major facilities and also the expansion and increased productivity of existing facilities. The Facility is sited adjacent to approved and operating energy facilities (see Figure C-3), thus allowing for efficient use of transmission infrastructure, specifically, the 230-kV UEC transmission line that connects the Northwest energy grid to Morrow County to renewable energy facilities. The Facility will utilize Morrow County's solar resource without detriment to other wind or solar projects or land and natural resource uses to provide economic growth and jobs within Morrow County. The existing economic use of Facility land—agriculture—will not be significantly impacted by the Facility. The Facility will be an addition to the County economy rather than a replacement of one economic use with another. Additionally, the landowners' loss of available agricultural land will be compensated by lease payments to each landowner, which can provide a stable source of income over a period of many years for farmers and ranchers. See testimony to this point in the landowner survey responses in Attachment K-1. In addition, the Facility will benefit the local economy in the short term by providing temporary construction-related employment. During construction, construction workers and their employers will purchase goods and supplies, stay in area hotels, and eat at local restaurants, all of these providing an economic benefit to the local and regional economy by supporting area businesses. Development of the Facility will increase economic diversity within Morrow County and offer nonagricultural employment opportunities for local residents. Finally, development of the Facility will result in an increase in annual property tax revenue to Morrow County, which will increase the County's ability to provide roadways, police protection, fire protection and emergency response, and other services to its citizens. Therefore, the Facility complies with Goal 9.

***Goal 11, Public Facilities and Services**:*

"To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development."

Goal Compliance: This Goal requires local governments to coordinate their land-use planning with an analysis of the availability of public facilities and services such as water, sewer, and roads. Exhibit U provides an analysis of impacts of the Facility on public facilities and services. The Facility will not require any new public facilities or services from the county. The Facility will not require public water or sewer facilities from the county. Impacts on public roads will be addressed in a Road Use Agreement, in compliance with all permit requirements. Finally, the Facility will not interfere with the County's ability to provide public services to its citizens. Therefore, the Facility complies with Goal 11.

***Goal 12, Transportation**:*

"To provide and encourage a safe, convenient and economic transportation system."

Goal Compliance: This Goal governs local government decisions regarding transportation facilities. The Facility will neither require the construction of any new public roads nor will it create any long-term conflicts with such facilities in the county. Construction of the Facility will involve certain short-term impacts on several roads in the county (see Exhibit U). Impacts on public roads will be addressed in a Road Use Agreement with the County, in compliance with all permit requirements. However, such short-term impacts are not addressed by Goal 12 or its implementation rules. Therefore, the Facility complies with Goal 12.

***Goal 13, Energy Conservation**:*

"To conserve energy."

Goal Compliance: Statewide Land Use Planning Goal 13 calls for land and uses developed on land to be managed and controlled so as to maximize the conservation of all forms of energy, based on sound economic principles. Furthermore, Goal 13's Planning Guideline No. 5 encourages local land use plans to consider "as a major determinant the existing and potential capacity of the renewable energy sources to yield useful energy output" and calls for land conservation and development actions to "whenever possible…. utilize renewable energy sources."[9]

In accordance with Goal 13, there are a number of state policies and statutory programs that together reflect a consistent state policy of supporting renewable energy development. In 2005, the State of Oregon published a Renewable Energy Action Plan (ODOE 2006). This plan called for significant, additional development of renewable resources, including solar energy. In 2021,

[9] The Applicant is aware of caselaw suggesting that Goal 13 does not *require* counties to develop or facilitate the development of energy facilities. Because that issue is still under review and the Applicant (among other interested parties) believes that Goal 13 is one of many reasons that may justify a statewide planning goal exception, the Applicant has opted to address the Facility's consistency with Goal 13 along with other statewide and county programs and policies that relate to the development of renewable energy. As discussed below, even if Goal 13 cannot be used to justify a Goal 3 exception, the record demonstrates that there are numerous reasons why the statewide policies embodied in Goal 3 should not apply.

Governor Kate Brown signed House Bills 2021, 2165, 2475, and 3141 to address the climate crisis by accelerating the clean energy transition in Oregon by moving to 100 percent clean electricity sources by 2040 (State of Oregon 2021). The Facility will assist the state with its mandate to meet the Renewable Portfolio Standard (RPS) and new clean energy goal.

As detailed in Section 3.2.3, UEC has constructed a new overhead electric transmission line, a green energy corridor, through Morrow County, generally following Bombing Range Road. This transmission line is part of the community's collaborative development of a sustainable utility corridor that minimizes impacts to current and future agriculture usage in the area and consolidate the footprint of facilities that provide the public with utility services. The Facility, as proposed, will directly connect to this transmission line, which terminates adjacent to the Facility substation, thereby providing renewable energy while minimizing farmland impacts.

The MCCP's Goal 13 policies 11 through 16 mirror the planning and implementation guidelines stated under Statewide Planning Goal 13. However, MCCP's Goal 13 policies 1 through 11 go a step further by specifically calling for development of renewable energy in Morrow County. MCCP Goal 13 directs Morrow County to "develop and use renewable energy resources" under Policy 2, to "encourage development of solar and wind resources" under Policy 3, and states that the "County will encourage the development of alternative energy sources in County industries and businesses" under Policy 9. The Facility, as proposed, will utilize solar resources to generate renewable energy. Therefore, the Facility, as proposed, supports all three of these policies and is thus compliant with the MCCP's Goal 13 and well as Statewide Planning Goal 13.

5.5 Statewide Planning Goal Exceptions

> *OAR 345-021-0010(1)(k)(C)(v) If the proposed facility might not comply with all applicable substantive criteria or applicable statewide planning goals, describe why an exception to any applicable statewide planning goal is justified, providing evidence to support all findings by the Council required under ORS 469.504(2).*

As discussed in Sections 5.2 and 5.4 of this exhibit, the Facility will occupy more than 12 acres of high-value farmland and more than 20 acres of arable land, and therefore the Facility does not meet the acreage standards under MCZO 3.010(K)(3)(f) and (g) and OAR 660-033-0130(38)(g) and (i) and requires an exception to Statewide Planning Goal 3 (i.e., Goal 3). The Council may take an exception to Goal 3 for an energy facility under the Council's jurisdiction if the controlling criteria listed under ORS 469.504(2)(c) and OAR 345-022-0030(4)(c) is met. Per the application requirements under OAR 345-021-0010(1)(k)(C)(v), the Applicant provides the following evidence to support the Council's finding that an exception to Goal 3 is justified for the Facility.

ORS 469.504(2) provides that an exception may be taken on any of three grounds:

- That the land is "physically developed to the extent that the land is no longer available for uses allowed by the applicable goal;"
- That the land "is irrevocably committed … to uses not allowed by the applicable goal;" or

- That certain standards are met because the facility is compatible with existing adjacent uses and other relevant factors are met; or what is referred to as a "reasons" exception.

The site boundary is not "physically developed" or "irrevocably committed" within the meaning of the rule. Therefore, the Facility's justification for an exception to Goal 3 is demonstrated under ORS 469.504(2)(c) and OAR 345-022-0030(4)(c). In summary, an exception from Goal 3 protection is warranted because the Facility:

1. Provides reasons to justify why Goal 3 protections should not apply (see Section 5.5.1).
2. Avoids, minimizes, and mitigates potential significant environmental, economic, social, and energy consequences (see Section 5.5.2).
3. Will be made compatible with other adjacent uses through the implementation of best management practices and mitigation measures aimed at strengthening the local agricultural economy (see Section 5.5.3).

5.5.1 Demonstration that a "Reasons" Exception is Appropriate

ORS 469.504(2)(c)(A); OAR 345-022-0030(4)(c)(A) Reasons justify why the state policy embodied in the applicable goal should not apply;

In accordance with OAR 660-015-0000(3), the policy of Goal 3 is:

To preserve and maintain agricultural lands.

In the following discussion, the Applicant provides the following reasons to justify why Goal 3 should not apply to the agricultural lands that will be impacted by the Facility:

1. The Facility is locationally dependent because of its proximity to existing energy infrastructure, the regional grid for interconnection, and major transportation corridors.
2. The Facility does not impact irrigated crops and imposes minimal direct impacts to high value agricultural soils due to lack of available irrigation water.
3. The Facility is a better use of land to preserve existing high-value farmland soils and water supply elsewhere.
4. The Facility will mitigate its impacts to dryland agriculture.
5. The Facility creates local economic benefit.
6. The Facility imposes minimal impacts to resources protected by Council standards.
7. The Facility responds to important state and county goals and priorities.

5.5.1.1 The Facility is locationally dependent.

Locational dependency refers to the unique proximity and interrelatedness of operations of the proposed solar facility and existing energy infrastructure. As described in more detail below, the

Facility is locationally dependent because of its proximity to existing energy infrastructure, the regional grid for interconnection, and major transportation corridors.

- *Proximity to regional transmission grid.* The Facility is locationally dependent upon the existing UEC 230-kV Blue Ridge Transmission Line as it serves as the Facility's interconnection point, has available capacity for the electricity generated by the Facility, and was constructed by UEC explicitly to connect wind and solar developments at the south end of the county to the Northwest grid, delivering renewable energy to a growing market in north Morrow County or beyond. As detailed in Section 3.2.3, UEC has incorporated the concept of a green energy corridor into its own planning efforts to minimize impacts to current and future irrigated agriculture in the area and consolidate the footprint of facilities that provide the public with utility services. The line was sited alongside a collaborative effort to support a green energy corridor in the area and has the potential to deliver enough clean energy to power a city the size of Eugene and Salem combined.
- *Proximity to existing energy infrastructure.* The Facility is locationally dependent to the UEC 230-kV transmission line to allow for efficient use of existing transmission infrastructure. However, the site boundary is also locationally dependent to other existing energy facilities because it consolidates land use impacts to agricultural lands to a specific area rather than spreading these impacts out across a broader area in the County EFU lands. As shown on Figure K-3 and more extensively in Figure C-3 in Exhibit C of the ASC, the Facility is in the vicinity of several other energy facilities including:
    - Overlap with approved and constructed portions of the Wheatridge Renewable Energy Facilities (100 MW of wind, 150 MW of solar);
    - Overlap with the approved 500-kV Boardman to Hemingway Transmission Line Project;
    - Overlap with the existing 1,377-mile Gas Transmission Northwest pipeline system that transports as much as 2.7 billion cubic feet per day of Canadian natural gas to Washington, Oregon, and California (bisects the Grieb's property, Tract 4, see Figure K-3);
    - Adjacent to the existing Orchard Wind Farm;
    - Proximity to the existing Portland General Electric Carty Generating Station (450 MW of natural gas/solar) located northwest of the site boundary (see Figure C-3);
- *Proximity to major transportation corridors/infrastructure.* The Facility is locationally dependent on existing transportation corridors and infrastructure. The site boundary is sited adjacent to OR-207, providing easy access for construction and ongoing maintenance and operations. Other county and state roads in the immediate vicinity include Bombing Range Road, Doherty Road, Sand Hollow Road, Melville Road, and Grieb Lane. The bulk of the site is accessible via unpaved roads. Existing access roads will be utilized to the extent

practicable. Approximately 55 miles of new roads will be constructed to access Facility infrastructure.

There are benefits to siting the Facility close to other energy facilities and associated infrastructure. Co-locating renewable energy facility locations allows for efficient use of transmission infrastructure while consolidating land use impacts and habitat impacts to a specific area, as opposed to spreading these impacts out across a broader patchwork of facilities which will require more infrastructure such as transmission and result in more land use impacts. As detailed in Section 3.2.3, representatives of farms and utilities, officials from Umatilla, Morrow, and Gilliam Counties, as well as state senators expressed support for a single green energy transmission corridor in order to minimize the impact from wind and solar farms on surrounding agricultural land. The Facility, as proposed, will connect to the existing UEC transmission line, thereby providing renewable energy while minimizing farmland impacts.

5.5.1.2 The Facility imposes minimal direct impacts to high-value agricultural soils and land due to lack of available irrigation water.

Section 3.3.1 provides details regarding the existing water rights within the site boundary and the Butter Creek CGWA. Section 3.3.3 provides an analysis of high-value farmland, as defined under ORS 195.300(10). While tracts within the site boundary have place-of-use water rights and meet the definition of "irrigated" under OAR 660-033-0020(9), irrigated agricultural activities under these water rights are currently not feasible. As none of the tracts within the site boundary are currently watered, receive water from a water or irrigation district, or are located within a water or irrigation district, the land within the tracts is not actually irrigated based on those conditions. Seventy-two percent of the site boundary is not within a place-of-use water right, while the areas that have water rights are severely limited in part due to the restrictions in the Butter Creek CGWA and therefore have not been used for irrigated agricultural uses since 1998 (Doherty 38473), 1989 (Grieb 43515), and the 1980s (Doherty 62326). Both the Doherty and Grieb property owners indicate the properties have been in dryland wheat production since the early 1980s, when declining water allocations by OWRD forced the farms into dryland wheat production. The Griebs used some limited allocations of their water right from 1980 to 1999 as supplemental water for the wheat crops. However, the farm has applied no supplemental water to the crops since at least 2017 (Ken and Carri Grieb, personal communication, February 3, 2023). Between energy costs to pump the water and manhour costs to move the wheel lines, the cost to conduct supplemental watering based on limited groundwater allocations did not boost crop production enough to justify the added expense. Additionally, the potential for securing new ground water rights for the Facility is not feasible due to the Butter Creek CGWA, which prohibits OWRD from issuing any new groundwater rights from the basalt groundwater reservoir within the CGWA (see OAR 690-507-0630(4)).

Obtaining a new surface water right for irrigation within the site boundary is also not feasible. OWRD's Water Availability Analysis data for the areas within the site boundary indicate that no surface water is available for new appropriations from nearby streams during the summer months,

when irrigation water would be needed (OWRD 2023). It is theoretically possible that land within the site boundary could be brought into the service area for Columbia Improvement District, the nearest district with existing surface water rights. However, the process to expand Columbia Improvement District's service area and transfer existing surface water rights to the Facility site would be legally complex, would require the Columbia Improvement District to have additional water available to deliver to new customers at the Facility site, and would likely require the development of expensive, additional delivery infrastructure. Likewise, it is theoretically possible that landowners within the Facility site could purchase an existing surface water right from a private water right holder, apply to OWRD to transfer that water right to the Facility site, and develop the physical infrastructure necessary to deliver that water to the Facility site. However, due to the general scarcity of water in the region, this process would be prohibitively expensive. The cost to obtain new surface water rights—either by purchasing an existing water right from a private landowner or through inclusion in the Columbia Improvement District—would need to be less than $150 per acre-foot for an irrigation project to break even (Advisory Committee on Energy and Agriculture in the Umatilla Basin 2017). According to the Columbia River Umatilla Solutions Task Force, three costs dictate economic feasibility of irrigation projects: 1) the capital costs of the infrastructure, 2) the power costs and maintenance, and 3) the cost of obtaining mitigation water from the Columbia River through storage or upstream efficiency projects (Advisory Committee on Energy and Agriculture in the Umatilla Basin 2017).

As noted in Section 3.3, soil classifications in the site boundary are highly dependent on availability of irrigation water. Approximately 64 percent of the site boundary is composed of 71A/B/C Warden silt loam soils, which when not irrigated are classified by the USDA NRCS as land capability Class IV soils that are the lowest of the arable soil classifications. Approximately 20 percent of the site boundary consists of 45B Ritzville silt loam that is Class III if not irrigated. None of the soils in the site boundary have a high-value soils classification (Class I, II, prime, or unique) under a non-irrigation status. Due to the limitations on the existing water rights and the restrictions against additional groundwater appropriations in the Butter Creek CGWA, no irrigation occurs currently nor is it likely to occur in the future in the site boundary and therefore no high-value agricultural soils would be impacted in the site boundary.

Putting aside the physical and economic limitations for irrigation at the Project tracts, even when using the definition of "irrigated" under OAR 660-033-0020(9), less than 50 percent of the total tract areas have Class 1, 2, Prime, and Unique soils (as detailed in Section 3.3.3.1 and Table K-2). Following DLCD guidance, the lands within the site boundary do not meet the definition of high-value farmland under ORS 195.300(10)(a) and ORS 215.710.

In hot, dry regions such as Morrow County, irrigation water is critical to agricultural production. As noted in the MCCP's Agricultural Element, irrigation development has enabled Morrow County to become one of the largest potato-producing counties in the nation and has provided the impetus for processing plant construction, increased cattle feeding (potato culls), and increased prosperity in local agribusiness (Morrow County 2013). However, none of the irrigated, highly productive agricultural lands in Morrow County are located within the site boundary. The land in the north end

of Morrow County is irrigated by water from the Columbia and Umatilla rivers and provides much higher agricultural productivity to the county and state than the lands within the site boundary. The value of agricultural land and the amount of agricultural output increases exponentially when irrigation water is secured and applied. For example, according to the 2017 report by the Governor's Advisory Committee on Energy and Agriculture in the Umatilla Basin 2017, dryland wheat grown without irrigation produces agricultural output valued at approximately $100 per acre. However, adding one AF of water to irrigate the land increases that value to $500 per acre. A second AF of irrigation water allows a farmer to grow hay and some vegetables valued at $1,500 per acre. A third AF of water allows production of potatoes, onions, and carrots, which increases value to $5,000 per acre or more after adding processing and international shipment value (Advisory Committee on Energy and Agriculture in the Umatilla Basin 2017). Therefore, lands with irrigation rights adequate to irrigate crops have a higher agricultural value than lands with no irrigation water and the loss of the cultivated lands used for dryland wheat from the Facility is economically de minimis when considering the other available agricultural land in Morrow County.

In summary, the Facility is proposed on farmland with limited productivity, primarily due to the lack of water for irrigation. As the site boundary is not irrigated and is unlikely to acquire adequate groundwater or surface water rights to support irrigation, it imposes minimal direct impacts to high-value agricultural soils and avoids impacts to the highest value agricultural lands (i.e., lands with irrigated crops) in Morrow County.

5.5.1.3 The Facility preserves water supply in the Butter Creek CGWA.

As discussed in Section 3.3.1.1, the site boundary is located in the Butter Creek CGWA. OWRD establishes and administers a "sustainable annual yield" for each subarea within the CGWA, which refers to the total amount of groundwater that all authorized groundwater right holders may pump in that subarea in any given year. Water right holders must request an "allocation" of this total amount on an annual basis. OWRD then allocates available water to requesting water right holders based on the sustainable annual yield of the subarea; the seniority of their water rights; the historical usage of the water right; and whether or not the water user is physically capable of pumping and putting the requested water to beneficial use. The current calculated sustainable annual yield for the West subarea is 5,670 AF.

As further discussed in Section 3.3.1.3, the only water right in the site boundary that has recently requested water and received an allocation in the Butter Creek CGWA is WR 43515.. From 2007 to 2022, the permit holder requested 1,300 to 1,000 AF most years and, in the years where allocation was requested, OWRD allocated 500 AF in each case (OWRD 2022). However, due to the cost of investment in irrigation equipment and labor, the Griebs have not used the full amount of allocated water for irrigation and have not pumped water from either of their permitted wells since 2017.

The sustainable annual yield allocates 500 AF to Grieb Farms but as the Griebs are not using the 500 AF allocation, the sustainable annual yield is provided more buffer from further reductions. If water users collectively pump more in any given year than OWRD has accounted for, the agency then has authority to reduce all water users in the subarea the following year. So, in short, if one

water right holder suddenly uses more water than they have in the past (i.e., if Grieb Farms began using their full 500 AF each year), it could reduce the amount of water allocated to everyone in the subarea in the future and adversely affect all the water users the following year.

As noted in Table K-5, Grieb Farms does not intend to continue farming the land in the site boundary during Facility operations and has no adjacent lands they would farm and use the WR 43515 for limited irrigation. Therefore, the 500 AF historically allocated to Grieb Farms would continue to be unused and would avoid potential adverse effects to the other water users in the subarea.

Furthermore, the Facility is sited to avoid worsening impacts to farmland in the region dealing with drought conditions and limited water supply. In 2021, Oregon experienced one of the worst drought years in state history and researchers suggest drought conditions could become longer and more severe due to climate change, which can lead to economic losses and financial hardships for farmers dealing with damaged soil (Parks 2021). Morrow County officials declared a drought in an April 2021 letter that details negative impacts in agriculture that are projected to continue (*East Oregonian* 2021). The Oregon Governor declared a drought in Morrow County again in March 2022 (State of Oregon 2022). The Facility is intended to utilize the least amount of water feasible during construction and operations. As outlined in Exhibit O, water use for construction is estimated at a maximum of approximately 28.4 to 32.4 million gallons per phase under annual average conditions. Once constructed, the proposed Facility will have a limited need for water and it is assumed that all modules will be washed once per year and require 0.2 gallon per solar module, for a total of approximately 790,000 gallons per year. Exhibit O notes the Applicant may truck the water to the site or obtain water from local licensed providers. Alternatively, water may be obtained from local landowners or other source that has regulatory approval for construction use.

Constructing a solar facility on this site facilitates a higher and better use of the land and concentrates solar development away from more productive, unobstructed farmland that has usable irrigation water rights or access to irrigation district surface water diversions. As detailed in Exhibit O, minimal wastewater or water loss will be generated during operations. Wastewater from domestic and incidental uses at the O&M buildings will be discharged to county-approved septic systems located near the O&M buildings. During periodic washing of solar panels (approximately once per year), washwater will evaporate or infiltrate into the ground. Water from this activity will not be discharged into wetlands, streams, or waterways

5.5.1.4 The Facility will mitigate economic impacts to local agricultural economy.

As noted in Section 3.4.2, the Applicant assessed the potential economic impacts of removing 9,400 acres of arable land from agricultural production. The Facility's economic impact analysis (Attachment K-2, Economic Impact Analysis) modeled the economic impact of the anticipated wheat production loss from the Facility.

As detailed in Section 3.4.3, the Applicant has worked to identify several opportunities to partner with local organizations to support agricultural improvement projects in Morrow County. Each of the program opportunities identified and proposed by the partnering organizations, such as the

Morrow County Soil & Water Conservation District, help mitigate the local impacts of converting land from dryland wheat production to a solar/storage facility. The Applicant believes each of the following programs has a reasonable chance of success. The Applicant will continue to coordinate with ODOE and the various partner organizations to identify a specific agricultural improvement project and develop a formal agreement/plan to execute this work and describe how this work will have economic benefits to the Morrow County agricultural economy commensurate with the economic impacts the Facility will have on the Morrow County agricultural economy.

5.5.1.5 The Facility creates local economic benefits.

Solar energy generation promotes rural economic development by creating jobs and adding to the tax base. The Facility will provide additional benefits in the form of full-time jobs, construction jobs, compensation to landowners via commercial contracts including leases, taxes, and community service fees. Because most of Morrow County is EFU-zoned, these benefits will largely support EFU zoning uses; for example, community service fees potentially being used to improve public infrastructure such as roads traveled by large farming equipment. In addition, the stability of the lease payments will allow farmers to continue their agricultural operations on other areas of their land as discussed above, and as evidenced by the landowner responses in Attachment K-1.

The Facility will generate significant economic benefits for Morrow County. The ECONorthwest Economic Impact Analysis (Attachment K-2) notes the Applicant has entered into a long-term PILOT agreement with Morrow County that provides for fixed payments of $7,000 per MW in lieu of taxes from the Facility over a 17-year period. The combined Facility would generate a net value of $590 million over 40 years.

The ECONorthwest Economic Impact Analysis (Attachment K-2) estimates tax revenues would be distributed to the 13 taxing districts with jurisdiction over the Project site, with the largest shares distributed to Morrow County (37 percent) and the Morrow County School District #1 (34 percent). Estimated property tax payments on the PV facility in Year 18 would support an estimated 40 total (direct, indirect, and induced) jobs in Morrow County and approximately $3.6 million in labor income, with total economic output of approximately $5.2 million. This is a significant gain compared to the current economic impacts of current agricultural activities outlined on Table K-6, which indicates the removal of 9,400 acres of agricultural land would affect 3.9 indirect and 0.4 induced jobs in the Morrow County economy.

Rural areas can have a surplus of renewable energy resources and an abundance of space, while urban areas typically lack sufficient land area for renewable energy development. New energy sources create more and varied power supply, which can mean lower power prices and increased energy reliability.

Moreover, through the Council process for prior solar development Boardman Solar, Morrow County indicated a preference to retain use of lands designated for urban and industrial growth Morrow County stated it “would not want to see some 600 acres of industrial land consumed with a use that is allowed conditionally on farmland. Other industrial uses currently sited within industrial use zones in Morrow County have a stronger beneficial economic impact than a solar energy

development would."[10] Morrow County is predominantly composed of agricultural land with only 2.2 percent of the total County land area zoned for industrial uses. Therefore, to preserve future economic growth and job opportunities, it is not practicable to site solar development within the urban growth boundary in areas reserved for industrial land uses.

Participating landowners are in support of the Facility and have provided testimony (Attachment K-1). The Facility is designed and legally structured such that the cost burden of constructing and maintaining access roads and other facilities will not fall on the landowner and will not increase the costs of farming for participating and non-participating landowners in the vicinity of the Facility. Additionally, each participating landowner will be compensated for the loss of agricultural lands, and the new income stream from lease payments will help to stabilize often fluctuating agricultural income, making farming more viable. In responses to survey questions from the Applicant, landowners indicated that lease payments will help keep the land in the family and provide money to invest in agricultural equipment for continued farming in the Butter Creek area (Attachment K-1).

5.5.1.6 The Facility imposes minimal impacts to other environmental resources.

The Facility is sited to avoid sensitive environmental features, including Washington ground squirrel occupied habitat, FEMA 100-year floodplains, U.S. Fish and Wildlife Service-designated critical habitat, ODFW-designated big game winter ranges, and wetlands and waters. The Facility's environmental consequences are discussed primarily in Exhibit I (Soil Conditions), Exhibit J (Wetlands and Other Jurisdictional Waters), Exhibit L (Protected Areas), Exhibit P (Fish and Wildlife Habitats and Species), Exhibit Q (Threatened and Endangered Species), Exhibit R (Scenic Resources), and Exhibit S (Historic, Cultural, and Archaeological Resources). These exhibits demonstrate that the Facility will avoid and minimize impacts to environmental resources. The Applicant will mitigate for unavoidable impacts to wildlife habitat based on habitat categorization, consistent with ODFW's Habitat Mitigation Policy (see Exhibit P). As detailed in Exhibit R, due to the presence of two culturally important resource areas to the CTUIR within the Facility site boundary and its viewshed, CTUIR has recommended monitoring to protect potential subsurface resources. The Facility, as proposed, is not anticipated to have any significant adverse impacts to soils, wetlands, protected areas, water resources, fish and wildlife habitat and species, threatened and endangered species, scenic and aesthetic resources, and historic, cultural, and archaeological resources.

5.5.1.7 The Facility responds to important state and county goals and priorities.

Oregon's Statewide Planning Goals express the state's policies on land use, which are implemented through the adopted comprehensive plan and the zoning ordinances of the local cities and counties. Statewide Planning Goal 13 encourages local land use plans to consider "as a major determinant the existing and potential capacity of the renewable energy sources to yield useful energy output" and calls for land conservation and development actions to "whenever possible […] utilize renewable energy sources" (see Goal 13, planning guideline No. 5). The MCCP is consistent with the Statewide

[10] Boardman Solar Energy Application for Site Certificate Final Order (February 23, 2018), pg. 97.

Planning Goals, and the MCCP Goal 13: Energy Conservation Element has several policies that mirror the planning and implementation guidelines stated under Statewide Planning Goal 13. However, MCCP's Goal 13 policies 2, 3, and 9 go a step further than the state planning goal by specifically requiring and encouraging the development of renewable energy in the county. These policies are stated in the MCCP, Chapter 13 as follows:

- Policy 2: To conserve energy and develop and use renewable energy resources.
- Policy 3: Encourage development of solar and wind resources.
- Policy 9: The County will encourage the development of alternative energy sources in County industries and businesses.

Policy 2 is not framed as a suggestion, but rather states plainly that it is Morrow County's policy to develop and use renewable energy resources. This Facility, as proposed, responds to all three of these policies by developing Morrow County's renewable solar energy resources and thus meeting the County's need for renewable energy development.

In addition to responding to the County's need for development of renewable energy, the Facility's solar energy generation facilities respond to the RPS, which requires 50 percent of Oregon's electric load to be sourced from new renewable energy by 2040. In 2021, Governor Kate Brown signed House Bills 2021, 2165, 2475, and 3141 to address the climate crisis by accelerating the clean energy transition in Oregon by moving to 100 percent clean electricity sources by 2040.

5.5.2 Evidence that Environmental, Socioeconomic, and Energy Consequences Favor the Exception

ORS 469.504(2)I(B); OAR 345-t022-0030(4)(c)(B) The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility;

This ASC addresses the environmental, economic, social, and energy-related consequences anticipated as a result of the construction and operation of the Facility.

- **Environmental.** First, operation of the Facility will not result in any air emissions or pollutants. Solar energy is an internationally recognized clean, renewable source of energy and considered a non-polluting industry. Second, potential impacts to the area's water quality will be avoided and minimized through the implementation of the Facility's erosion control measures and best management practices, as required by the National Pollutant Discharge Elimination System Construction Stormwater Discharge General permit 1200-C. Third, wind erosion is influenced by wind intensity, vegetative cover, soil texture, soil moisture, the grain size of the unprotected soil surface, topography, and the frequency of soil disturbance. Control measures will be implemented to mitigate wind erosion potential as identified in Exhibit I. Fourth, high-value farmlands and lands dedicated to agricultural use are found throughout the Facility and the surrounding vicinity, such that any chosen

location in the general area will be likely to encompass similar proportions of both high-value farmland and agricultural lands.

Fifth, the region has warmed nearly 2 degrees Fahrenheit since 1900 because of increased greenhouse gas emissions (Dalton et al. 2017). This warming includes warmer waters that affect both river and coastal ecosystems, threatening salmon runs and other important marine and freshwater species. Additionally, in eastern Oregon, large mountain areas have suffered mountain pine beetle infestations, wildfires, or both, causing widespread shifts in forest ecosystems (Dalton et al. 2017). As stated above, recent legislation aims to address the climate crisis by accelerating the clean energy transition in Oregon by moving to 100 percent clean electricity sources by 2040 (State of Oregon 2021). One of the measures identified to accomplish this is through supporting renewable energy development such as solar facilities. Therefore, the Facility contributes to the reduction of greenhouse gas emissions, which may result in a beneficial environmental impact.

Sixth, at the conclusion of the Facility's life, the Facility can be decommissioned and the land returned to its pre-construction state, and thus presents only a temporary change to the land use that is not irrevocably committed to new urbanized use. Per the terms of the lease and consistent with a Retirement Plan approved by the landowners and applicable agencies (see Exhibit X), the land would be restored for future agricultural use. For these reasons, the solar facility will only be a temporary removal of farmland. See Exhibit M for evidence that the Applicant has a reasonable likelihood of obtaining a bond or letter of credit in the amount estimated to be required to restore the site. Additionally, as described earlier, the Facility is a farmland-supportive use that will safeguard soil health by protecting soils from wind and soil erosion and minimizing construction impacts and vegetation under solar panels.

Finally, the Facility's environmental consequences are discussed primarily in Exhibit I (Soil Conditions), Exhibit J (Wetlands and Other Jurisdictional Waters), Exhibit L (Protected Areas), Exhibit P (Fish and Wildlife Habitats and Species), Exhibit Q (Threatened and Endangered Species), Exhibit R (Scenic Resources), and Exhibit S (Historic, Cultural, and Archaeological Resources). These exhibits demonstrate that the Facility will not cause significant adverse environmental consequences. Indeed, by and large, the proposed changes will avoid impacts to such resources altogether. The Applicant will mitigate for unavoidable impacts to wildlife habitat (see Exhibit P). The Facility, as proposed, is not anticipated to have any significant adverse impacts to soils, wetlands, protected areas, water resources, fish and wildlife habitat and species, threatened and endangered species, scenic and aesthetic resources, and historic, cultural, and archaeological resources.

- **Socioeconomic.** The Facility's socioeconomic consequences will not be adverse. The Facility will not have significant adverse impacts on scenic, cultural, historical, archeological, or recreational resources. Exhibit U (Public Services) demonstrates that the Facility will not have significant adverse impacts on community services such as housing, sewer, water supply, waste disposal, health care, education, and transportation. The remote

location of the Facility renders insignificant any other adverse social consequences (i.e., noise and visual impacts). As discussed above, high-value farmland and lands dedicated to agricultural use are found throughout this exhibit's analysis area and are distributed such that any chosen location in the general area will be likely to encompass similar proportions of both high-value farmland and agricultural lands.

As discussed above, the Facility will create jobs and contribute income to Morrow County. These benefits should be measured against the relatively small amount of agricultural activity that will be displaced by the Facility. Viewed over an assumed 5-year construction period, per diem and local construction-related expenditures would support an estimated 473 FTE direct jobs in Morrow County, ranging from 62 in 2030 to 119 in 2028. These direct jobs would be in the accommodation, food and drink, and retail sectors, as well as construction-related sectors, including concrete manufacturing, sand and gravel, and equipment rentals. Per diem and local construction-related expenditures would also support employment, labor income, and economic output in other sectors of the local economy, with indirect impacts estimated to support approximately 50 FTE jobs and induced impacts estimated to support a further 19 FTE jobs over the life of the Facility. Overall, construction is estimated to support a total of approximately 541 jobs in Morrow County and approximately $28.8 million in labor income, with total economic output of approximately $86.9 million (Attachment K-2, Economic Impact Analysis). The Facility will supplement farmers' income with lease payments and without significantly reducing the land base available for farming practices. Similarly, although some farming will be displaced where certain portions of the Facility will be located, the Facility will be compatible with area farming by consulting landowners on placement of solar facilities to minimize obstacles for farm activities. The additional revenues received by the landowner from the project lease and easement payments will provide a steady source of income that will supplement revenues and help ensure that lessor-landowner operations will remain viable.

- **Energy.** As discussed above, the Facility will support the generation of reliable renewable energy for sale to the public and, while doing so, promote the goals of Morrow County, as well as Oregon's RPS and Clean Energy Targets bill (House Bill 2021), imposing additional requirements for certain electricity providers serving electricity in Oregon to reduce the greenhouse gas emissions associated with the electricity they provide. The Facility makes a strong investment and commitment to rural economic development. The Facility, as proposed, will provide a reliable source of electricity with no fuel cost and no associated emissions for at least 40 years. As discussed under Section 5.2.3 (in response to Morrow County Zoning Ordinance Chapter 6.025) of this exhibit and throughout Exhibit K, the Facility will not adversely affect any farming operations in the general area. There are no significant adverse economic consequences of constructing and operating the Facility, as proposed. In addition to Oregon's RPS and clean energy goals, private companies have their own renewable energy procurement policies, which increase the demand for renewable energy in Oregon. These public and private policies are intended to reduce greenhouse gas emissions, mitigate climate impact, and reduce reliance on carbon-based fuels. Solar power

generation, like that proposed with the Facility, helps further these public and private policies and outweighs removing approximately 9,442 acres of agricultural land (4,414 acres of which is considered high-value farmland) for the life of the Facility.

5.5.3 Compatibility with Adjacent Land Uses

OAR 345-022-0030(4)I(C) The proposed facility is compatible with other adjacent uses or will be made compatible through measures designed to reduce adverse impacts.

The Facility will be made compatible with adjacent uses through measures designed to reduce adverse impacts. The impact of the Facility would neither force a significant change in accepted farm practices nor significantly increase the cost of farm practices in the vicinity of the Facility, as outlined in Section 5.2.3 of this exhibit. As discussed in Sections 2.0 and 3.0, the Facility is surrounded by EFU-zoned land (except for a portion of federal land located along the northwest boundary of the analysis area, which is zoned PUB). Because the Facility is not an urbanized use, it does not have urban use characteristics such as traffic, noise, and emissions and will not require urban infrastructure such as water and sewer. As shown on Figure K-4, most of the parcels surrounding the site boundary contain cultivated land. As discussed in Section 3.3., parcels surrounding the Facility are predominantly fallow cropland and winter wheat with smaller swathes of corn, potatoes, and sod/grass seed in areas that have surface water irrigation rights or are within the Columbia Improvement District (USDA 2023).

Landowner testimony indicates they anticipate that the Facility would have no impact to any of their neighbor's ability to expand, purchase, or lease any vacant land available for farming. Figure K-3 demonstrates that approximately one-third of the adjacent parcels are either participating landowners (i.e., Matheny Property LLC) or affiliated with other energy facilities, including the WREF I through III and the proposed Wagon Trail Solar Project, and therefore the Facility will not limit or impact current or future farm activities on the surrounding land and will not diminish the opportunity for neighboring parcels to expand, purchase, or lease any vacant land available for farming. Landowner testimony also provides evidence that the Facility will not make it more difficult for the existing farms in the area (including the tract landowners) to continue operation. Based on survey responses, landowners acknowledge neighbors are involved in wind or solar energy development and have not noticed a difference in the accumulation of weeds on their property as a result of those developments. However, landowners did indicate that dust could be an issue during construction and that road traffic will increase, while they expect the Applicant will adequately address weed management.

The Applicant will contact adjacent landowners as soon as possible once construction time frames have been developed and will consult with landowners when planning the construction schedule to minimize impacts on soils, crops, harvesting, and other activities.

Exhibit I details measures to avoid or minimize adverse impacts on soils. These measures include existing vegetation preservation, soil health protection, erosion control, reclamation and revegetation, and pollutant management. Acres of temporary and permanent disturbance by

disturbance type are identified in Exhibit C. Impacts to soil, such as erosion, resulting from construction activities would be limited through maintaining a Spill Prevention, Control, and Countermeasure Plan implementing a Dust Control Plan prior to construction, implementing erosion and sediment control best management practices included in the final Erosion and Sediment Control Plan, and implementing site restoration practices. Additional details are found in Exhibit I and the Draft Revegetation Plan (see Attachment P-4 in Exhibit P).

A construction traffic management plan will be completed and submitted to the County prior to construction, along with the County road use agreement. More detailed information on the timing of construction and anticipated daily vehicle trips will be available after the Facility design is refined, which will better inform the construction traffic management plan. The traffic management plan, along with coordination with surrounding landowners, will minimize traffic impacts to neighbors and harvest time activities. The Applicant will work with the local weed board or other agricultural community organizations to implement a weed control plan during construction and operation that will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control (see Exhibit P for weed prevention and control measures outlined in the Revegetation and Noxious Weed Plan). Finally, unlike other facilities, this Facility is able to connect to an existing 230-kV transmission line within the Facility site boundary and does not propose a lengthy generation-tie line that would impact neighboring properties.

6.0 Federal Land Management Plans

6.1 Identification of Applicable Land Management Plans – OAR 345-021-0010(1)(k)(D)(i)

There are no applicable federal management plans. Therefore, these standards do not apply.

7.0 Conclusion

The information provided in this exhibit demonstrates the Facility's compliance with all applicable, substantive criteria. Therefore, the Council may find that the Facility, as proposed, meets the Land Use standard set forth in OAR 345-022-0030.

8.0 References

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Figures

Sunstone Solar Project

Figure K-1
Land Use Analysis Area

MORROW COUNTY, OR

- Site Boundary
- Analysis Area (0.5-mile buffer)
- State Highway
- Local Roads
- Existing UEC Transmission Line

Alpine Lane
Doherty Road
Lower Sand Hollow Road
Grieb Lane
Melville Road
Bombing Range Road
Sand Hollow Road
207

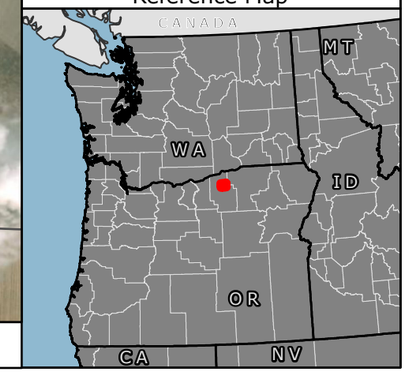
1:40,000 WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

TETRA TECH PINEGATE RENEWABLES

Reference Map



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Sunstone Solar Project

Figure K-2 Zoning

MORROW COUNTY, OR

Alpine Lane
Bombing Range Road
Grieb Lane
Doherty Road
Lower Sand Hollow Road
Melville Road
Sand Hollow Road
207

- Site Boundary
- Analysis Area (0.5-mile buffer)
- State Highway
- Local Roads
- Existing UEC Transmission Line

Morrow County Zoning

- Exclusive Farm Use
- Public

TETRA TECH
PINEGATE RENEWABLES

Reference Map

1:40,000 WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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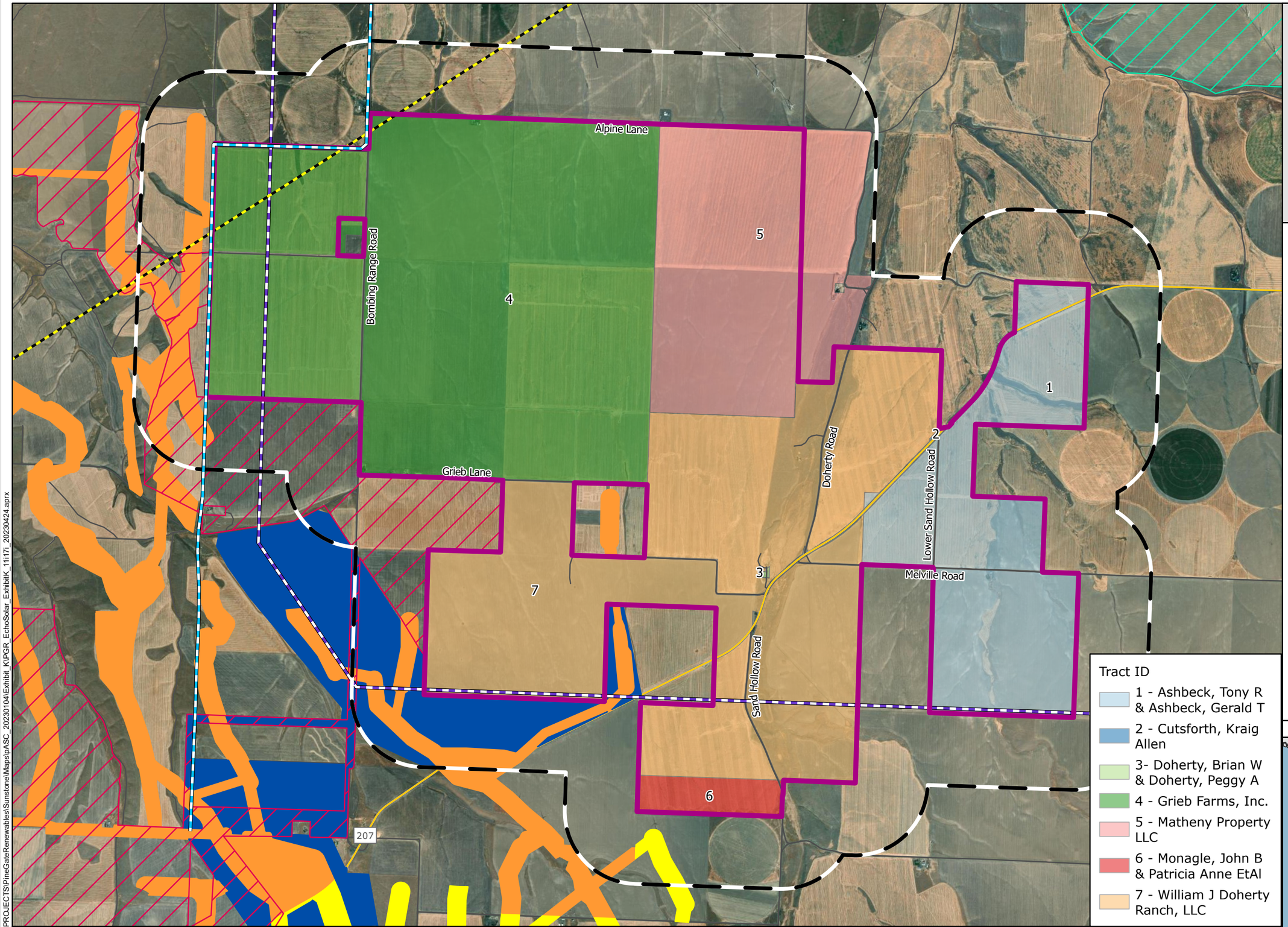
Sunstone Solar Project

Figure K-3 Tracts and Adjacent Facilities

MORROW COUNTY, OR



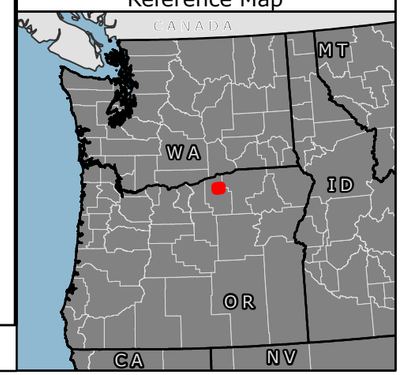
- Site Boundary
- Analysis Area (0.5-mile buffer)
- State Highway
- Local Roads
- Approved 500-kV Boardman to Hemingway Transmission Line
- Existing Gas Transmission Northwest pipeline system
- Existing UEC 230-kv Blue Ridge Line
- Echo Wind Farm
- Proposed Wagon Trail Solar Project
- Wheatridge Renewable Energy Facility I
- Wheatridge Renewable Energy Facility II
- Wheatridge Renewable Energy Facility III

Tract ID

- 1 - Ashbeck, Tony R & Ashbeck, Gerald T
- 2 - Cutsforth, Kraig Allen
- 3- Doherty, Brian W & Doherty, Peggy A
- 4 - Grieb Farms, Inc.
- 5 - Matheny Property LLC
- 6 - Monagle, John B & Patricia Anne EtAl
- 7 - William J Doherty Ranch, LLC

TETRA TECH PINEGATE RENEWABLES

Reference Map



1:40,000 WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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Sunstone Solar Project

Figure K-4
Existing Land Use

MORROW COUNTY, OR

Alpine Lane
Bombing Range Road
Grieb Lane
Doherty Road
Lower Sand Hollow Road
Melvile Road
Sand Hollow Road
207

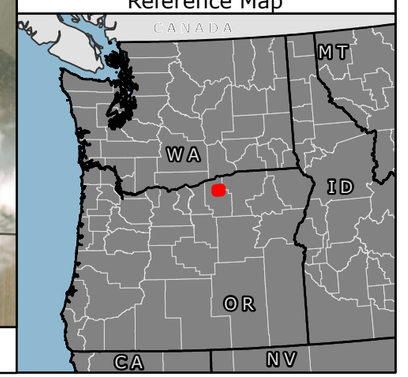
- Site Boundary
- Analysis Area (0.5-mile buffer)
- State Highway
- Local Roads
- Existing UEC Transmission Line
- HVF per Water Right Authorized Place of Use

Existing Land Use

- Cultivated Land (Orchards, Vineyards, Wheat Fields, and Other Row Crop)

TETRA TECH
PINEGATE RENEWABLES

Reference Map



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WGS 1984 UTM Zone 11N
0 0.5 1 2 3 4 Miles
NOT FOR CONSTRUCTION

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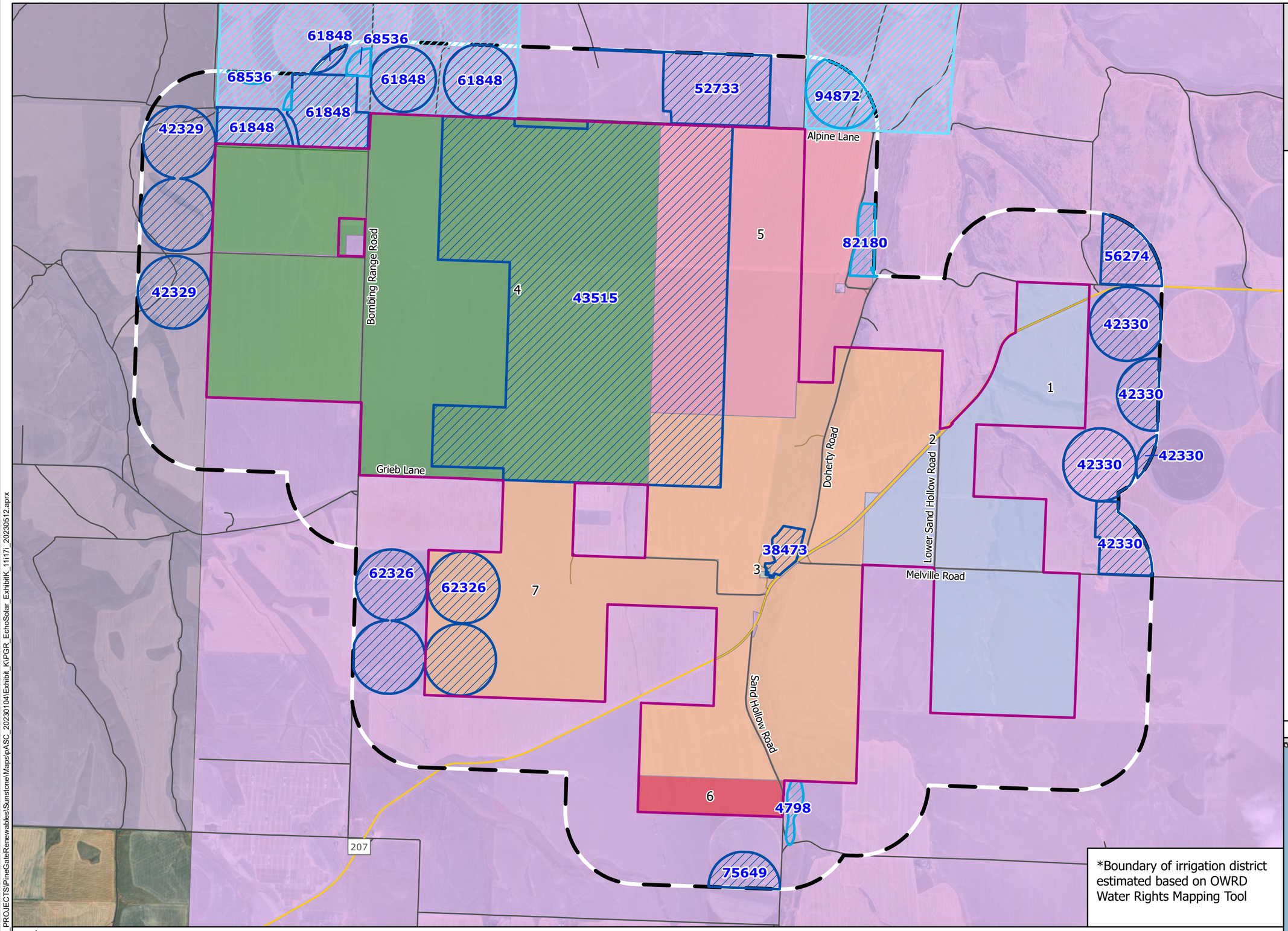
Sunstone Solar Project

Figure K-5.1 Water Rights

MORROW COUNTY, OR



Site Boundary

Analysis Area (0.5-mile buffer)

State Highway

Local Roads

Ground Water Right Authorized Place of Use

Surface Water Right Authorized Place of Use

Columbia Improvement District*

Butter Creek Critical Groundwater Area

Ella Butte Groundwater Restricted Study Area

Tract ID

1 - Ashbeck, Tony R & Ashbeck, Gerald T

2 - Cutsforth, Kraig Allen

3- Doherty, Brian W & Doherty, Peggy A

4 - Grieb Farms, Inc.

5 - Matheny Property LLC

6 - Monagle, John B & Patricia Anne EtAl

7 - William J Doherty Ranch, LLC

TETRA TECH

PINEGATE RENEWABLES

*Boundary of irrigation district estimated based on OWRD Water Rights Mapping Tool

Reference Map

1:40,000

WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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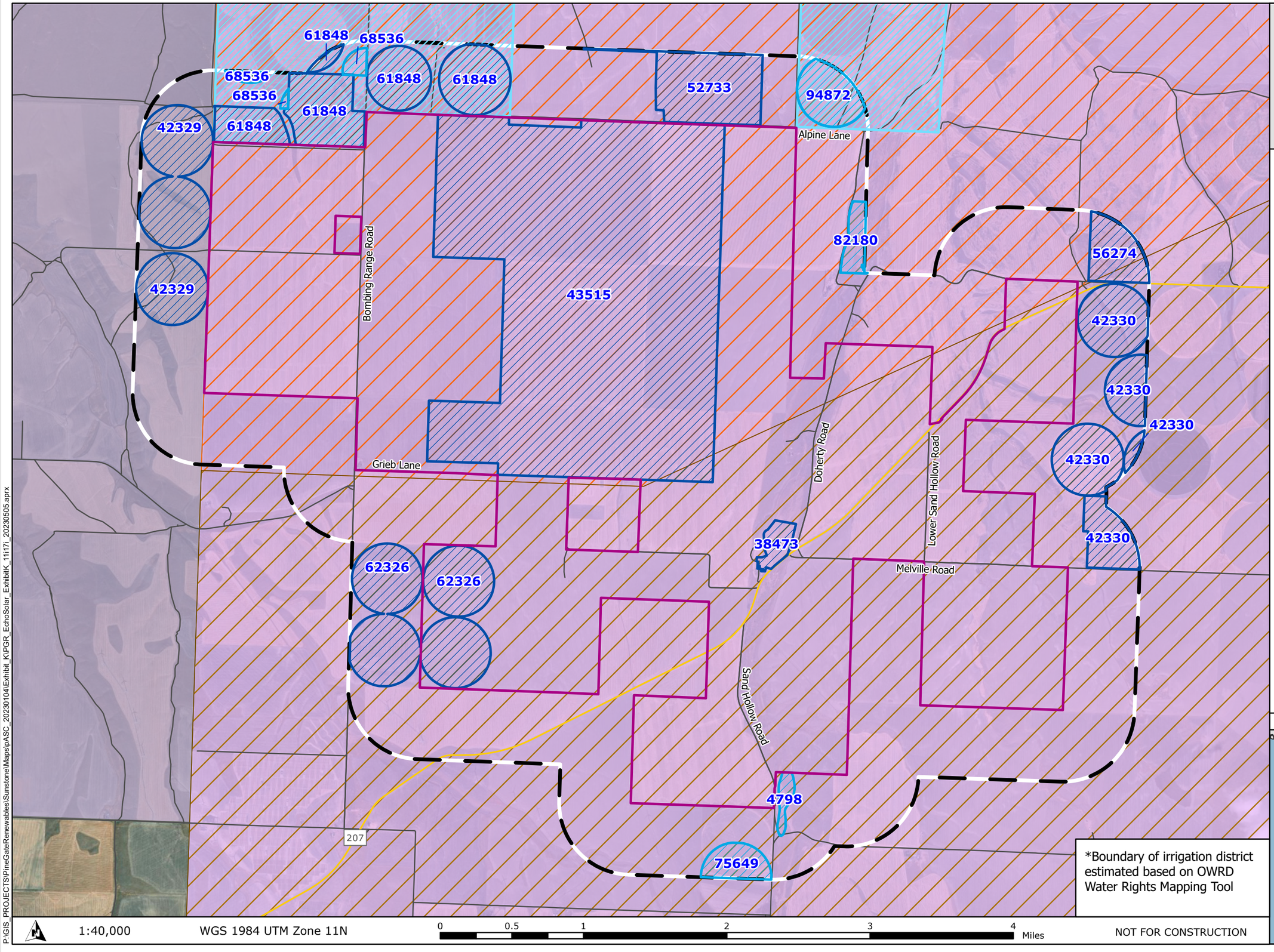
Sunstone Solar Project

Figure K-5.2 Critical Ground Water Areas

MORROW COUNTY, OR



Site Boundary

Analysis Area (0.5-mile buffer)

State Highway

Local Roads

Ground Water Right Authorized Place of Use

Surface Water Right Authorized Place of Use

Columbia Improvement District*

Butter Creek Critical Groundwater Area

Ella Butte Groundwater Restricted Study Area

Groundwater Area Sub Unit

Pine City

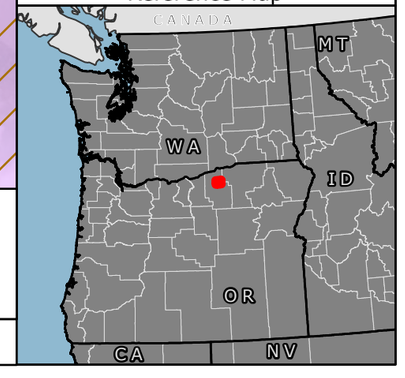
West

TETRA TECH

PINEGATE RENEWABLES

*Boundary of irrigation district estimated based on OWRD Water Rights Mapping Tool

Reference Map



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WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

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Sunstone Solar Project

Figure K-6.1
NRCS Soil Irrigated Capability Classification

MORROW COUNTY, OR

Alpine Lane
Bombing Range Road
Grieb Lane
Doherty Road
Lower Sand Hollow Road
Melville Road
Sand Hollow Road
207

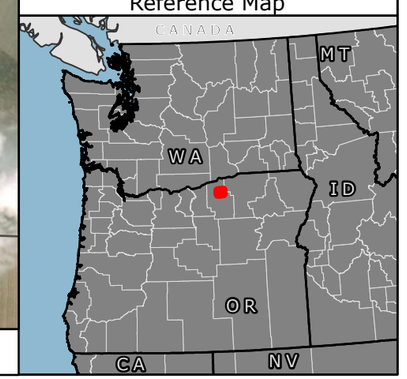
- Site Boundary
- Analysis Area (0.5-mile buffer)
- State Highway
- Local Roads
- Existing UEC Transmission Line

Irrigated Capability Class - Dominant Condition

- 1
- 2
- 3
- 6
- No Irrigated Capability Class

TETRA TECH
PINEGATE RENEWABLES

Reference Map



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0 0.5 1 2 3 4 Miles

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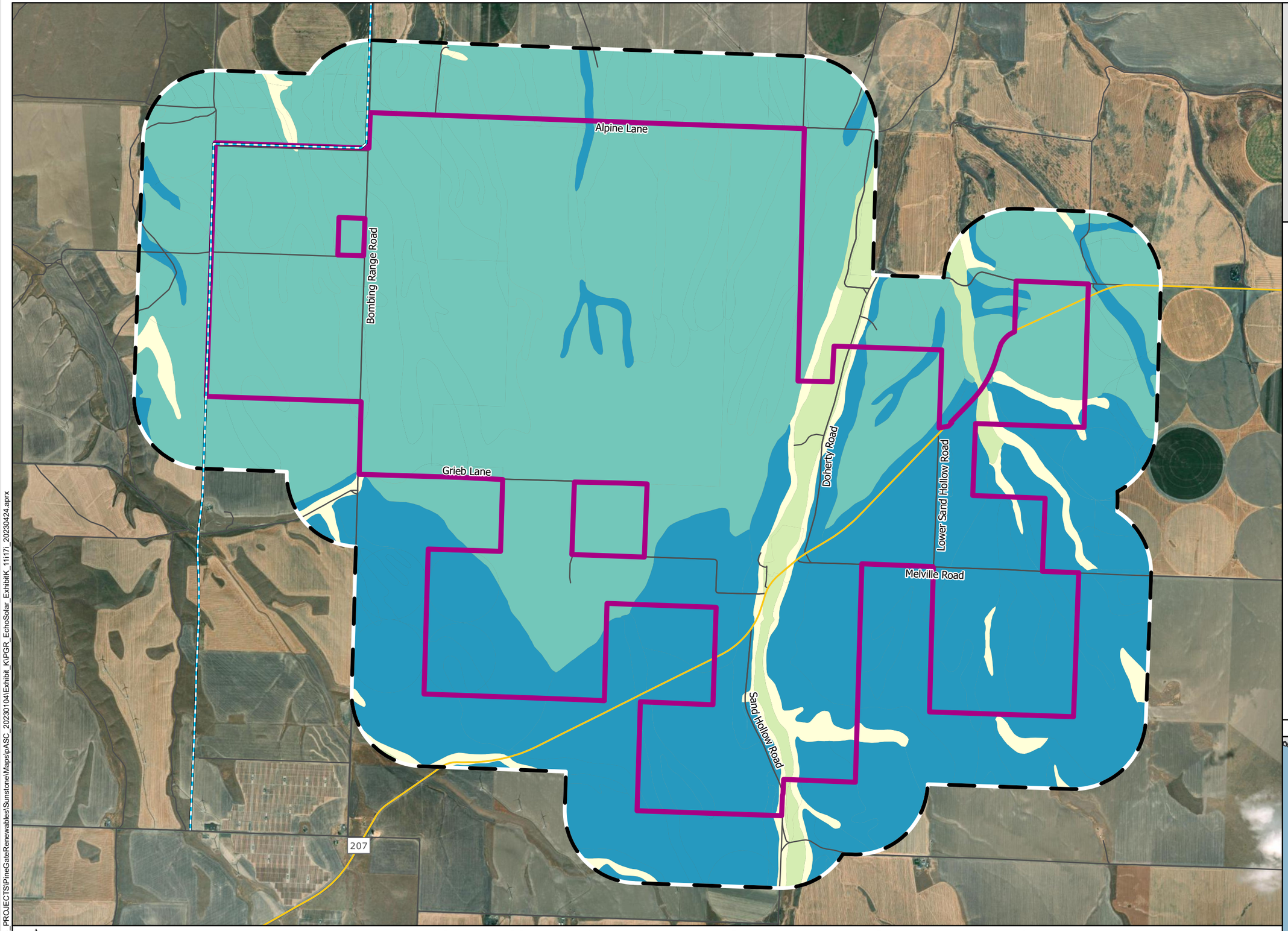
Sunstone Solar Project

Figure K-6.2
NRCS Soil Non-Irrigated Capability Classification

MORROW COUNTY, OR



- Site Boundary
- Analysis Area (0.5-mile buffer)
- State Highway
- Local Roads
- Existing UEC Transmission Line

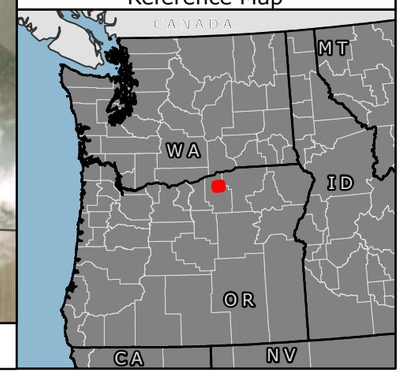
Non-Irrigated Capability Class - Dominant Condition

- 3
- 4
- 6
- 7

TETRA TECH

PINEGATE RENEWABLES

Reference Map



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0 0.5 1 2 3 4 Miles

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Sunstone Solar Project

Figure K-7
High Value Farmland

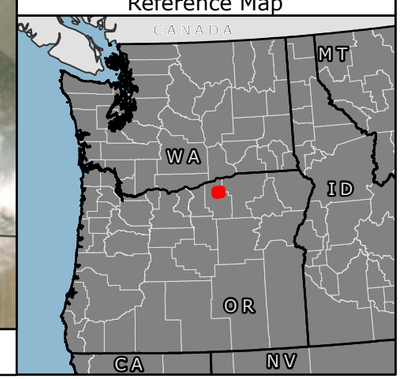
MORROW COUNTY, OR

Alpine Lane
Grieb Lane
Doherty Road
Lower Sand Hollow Road
Melville Road
Bombing Range Road
Sand Hollow Road
207

- Site Boundary
- Analysis Area (0.5-mile buffer)
- Transmission Line (230-kV)
- Switchyard
- Collector Substation
- State Highway
- Local Roads
- Existing UEC Transmission Line
- HVF per Columbia Valley Viticulture Area
- HVF per Water Right Authorized Place of Use

TETRA TECH
PINEGATE RENEWABLES

Reference Map



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Sunstone Solar Project

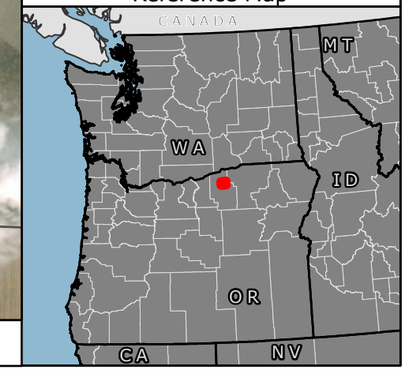
Figure K-8 Arable and Non-Arable Soils

MORROW COUNTY, OR

- Site Boundary
- Analysis Area (0.5-mile buffer)
- Transmission Line (230-kV)
- Switchyard
- Collector Substation
- State Highway
- Local Roads
- Existing UEC Transmission Line
- Arable Land
- Non-Arable Land

TETRA TECH PINEGATE RENEWABLES

Reference Map



Alpine Lane
Grieb Lane
Doherty Road
Lower Sand Hollow Road
Melville Road
Bombing Range Road
Sand Hollow Road
207

1:40,000 WGS 1984 UTM Zone 11N 0 0.5 1 2 3 4 Miles

NOT FOR CONSTRUCTION

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Sunstone Solar Project

Figure K-9
Solar Power Generation on EFU Land within 1-mile from Proposed Project Center

MORROW COUNTY, OR

Alpine Lane
Bombing Range Road
Grieb Lane
Doherty Road
Lower Sand Hollow Road
Melville Road
Sand Hollow Road
207

- Site Boundary
- Analysis Area (0.5-mile buffer)
- Site Boundary Centroid
- 1-mile Study Area Measured from Center of Proposed Facility
- State Highway
- Local Roads
- Existing UEC Transmission Line

Morrow County Zoning
- Exclusive Farm Use
- Public

TETRA TECH
PINEGATE RENEWABLES

Reference Map

1:40,000
WGS 1984 UTM Zone 11N
0 0.5 1 2 3 4 Miles
NOT FOR CONSTRUCTION

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Attachment K-1. Landowner Letters

TETRA TECH

Tony and Gerald Ashbeck

Re: Echo Solar Landowner Survey

Property owner,

This survey/questionnaire is intended to augment the Echo Solar Project agricultural lands assessment with supplementary information about agricultural uses within and adjacent to the Project's site boundary. You have been sent this survey because you were identified as a participating landowner with agricultural uses on your parcels. At your earliest convenience, please review the following requests for information and respond accordingly.

1. List current crop practices (i.e. total acres of land used for dryland wheat, irrigated agriculture, ranching, or other agricultural use):

   The entire Ashbeck Property is in dryland wheat production. They used to run some livestock on the stubble, but they haven't done that for 10 year.

   Irrigation: No never. No water right. Domestic well. Tillage. Split it up.

   Neighboring Property (dryland left over on Cambell Road. AA Farm). Umatilla and Morrow. Dryland wheat. Some irrigated. All dryland in Cambell. 160 acres. Irrigated alfafa and wheat in Umatillia. In Butter Creek critical groundwater. Well and then pump out of the creek.

2. List details about crop schedule (i.e. when do you till, seed, fertilize, and/or spray), and when do you harvest?):

   The Ashbecks put roughly half of their farm in wheat production every year, and they fallow the other half. The Ashbecks typically seed and fertilizer their fields in September, with additional fertilizer applied in March or other times of the year as needed. They harvest in July or August. They till fallow half their land every summer. They spray for weeds every year as needed.

3. With the implementation of the Echo Solar Project, would you continue to farm/ranch lands adjacent to the solar array areas or elsewhere throughout the local area? If yes, would the Project impact farming practices outside of where solar facilities would be located? If yes, how?

   Yes, they will continue to farm leased land in the area, and additional leased ground if it beomes available.

4. With the implementation of the Echo Solar Project, do you have suggestions of how the Project can aid your continued agricultural production? Do you have suggestions for any agricultural activity that could continue within the solar array?

   No.

5. How many direct jobs are currently supported by operations where the Project would be located, and would any be eliminated if the Project is built?

   The Ashebck land in the Echo Solar Project helps support 2 fulltime jobs (Tony and Gerald Ashbeck), with no seasonal help for harvest.

6. Would jobs for your agricultural operations elsewhere be impacted or supported by implementation of the Project? If yes, how?

   No.

7. How would you expect your agricultural operations to be impacted by construction of the Echo Solar Project (i.e. dust, traffic)?

   The Ashbecks expect that dust could be an issue during construction and that road traffic will increase. They expect Echo Solar will adequately address weed management.

8. To what extent, if any, do you anticipate reducing current spending on labor, supplies, and services for agricultural operations due to implementation of the Project?

   The Ashbecks report that their agricultural inputs vary every year, but in recent years they have spent about $60,000 fertilizer, $30,000 seed $20,000-35,000 on fuel. The Ashbecks typically buy their Fertilizer from Morrow County Grain Growers, their seed from PGG or McGreggor and their fuel from Carson in Hermiston.

9. Do you have any information regarding farm practices on neighboring properties and would you anticipate any impact to those practices due to implementation of the Project?

   Many of the Ashbecks neighbors are either already involved in energy production (wind) or are involved in this project. The Ashbecks do not anticipate any impacts to neighboring farm properties.

10. What details can you provide regarding crop yields on your parcel(s)? Can you provide a range of yields over the past 5-10 years?

    On average, the Ashbeck farm produces 40 bushels per acre. Bushells per acre.

11. What details can you provide regarding historic agricultural revenues on your parcel(s) over the past 5-10 years?

    The Ashbecks did not offer specifics on revenue.

12. Does the affected property currently have water rights? If yes, does the permit/certificate holder use the water allocated by the water right, and if so, how?

    The land the Ashbecks farm that is part of the Echo Solar Project has never had a water right associated with it.

13. If the allocated water is not used for irrigation, why is it not used and is there potential to use the water right for irrigation in the future?

    N/A

14. Is there any current consideration or attempt to cancel a water right or transfer a water right to or from the leased land proposed for Project use?

    N/A

15. If no water right, can you confirm for how many years the leased property has not had an associated water right, and if there are known limitations to obtaining a new water right?

    The land the Ashbecks farm that is part of the Echo Solar Project has never had a water right associated with it. The Asbecks do not believe it would be possible to establish a new groundwater water right in the Butter Creek Critical Groundwater Area.

16. If no water right, what steps, if any, have you taken to establish a water right?

    None.

17. In your estimation, how much water do you think you would need to be reasonably certain you could obtain to make more productive agricultural use of your land and justify the necessary capital investment in irrigation infrastructure?

    The Ashbecks have not considered this question as they believe that they cannot a new groundwater water right in the Butter Creek Critical Groundwater Area.

18. Based on your assessment, describe the soil conditions on your parcel(s):

Silt loam. The Ashbecks report that they soil is not bad (likely to blow away) after tillage.

TETRA TECH

Brian Doherty

Re: Echo Solar Landowner Survey

Property owner,

This survey/questionnaire is intended to augment the Echo Solar Project agricultural lands assessment with supplementary information about agricultural uses within and adjacent to the Project's site boundary. You have been sent this survey because you were identified as a participating landowner with agricultural uses on your parcels. At your earliest convenience, please review the following requests for information and respond accordingly.

1. List current crop practices (i.e. total acres of land used for dryland wheat, irrigated agriculture, ranching, or other agricultural use):

   The entire farm is dedicated to dryland wheat farming and no other agricultural operations take place on the farm. The farm has been in dryland wheat production since the early 1980s, when declining water allocations forced the farm into wheat production. The land is farmed on rotation, so roughly half of the farm is harvested every year, while the other half is in summer fallow.

   Doherty does a mix of chemical fallow and till fallow on the farm. Doherty seeds and fertilizes his farm in October. The wheat producing acres are harvested in the summer. In recent years the farm practices no till farming and seeds and fertilizes ground in October for summer harvest in July. He sprays the entire property for weeds at least once a year, and additionally as necessary.

   HISTORIC. The farm originally had 3 center pivot irrigation circles on the west side of the property, each 160 acres. One of those was sold to Rauch, a neighboring farm operation. The other two center pivots were on a well until the state "cut off" their water use in the late 70s or early 80s. Doherty believes the state still does allocate some water to those rights, but says that it is limited as part of the Butter Creek Critical Groundwater area, Pine City Sub area. The two water rights in that area are Certificate 38473 with a priority date of 3/13/1967, and Certificate 62326 with a priority date of 6/24/70. The water right has gone unused for many years but hasn't been canceled as far as I Brian Doherty is aware. Brian Doherty thinks managers still come by and check the flow meter on the well. Before the water was "cut off," the Doherty's grew irrigated potatoes, wheat, and had a rotated pasture. The farm has been in dryland wheat crop production since the early 80s.

2. List details about crop schedule (i.e. when do you till, seed, fertilize, and/or spray), and when do you harvest?):

   Doherty does a mix of chemical fallow and till fallow on the farm. Doherty seeds and fertilizes his farm in October. The wheat producing acres are harvested in the summer. In recent years the farm practices no till farming and seeds and fertilizes ground in October for summer harvest in July. He sprays the entire property for weeds at least once a year, and additionally as necessary.

3. With the implementation of the Echo Solar Project, would you continue to farm/ranch lands adjacent to the solar array areas or elsewhere throughout the local area? If yes, would the Project impact farming practices outside of where solar facilities would be located? If yes, how?

   Doherty will continue to farm his retained, adjacent field south of highway (acres?). He may also lease ground in the area to farm if it becomes available. He also might look into running cattle.

4. With the implementation of the Echo Solar Project, do you have suggestions of how the Project can aid your continued agricultural production? Do you have suggestions for any agricultural activity that could continue within the solar array?

   No.

5. How many direct jobs are currently supported by operations where the Project would be located, and would any be eliminated if the Project is built?

   The farm supports one full time employee, Brian Doherty. Brian also brings in some farm help for month or less to assist with harvest.

6. Would jobs for your agricultural operations elsewhere be impacted or supported by implementation of the Project? If yes, how?

Doherty could invest in new equipment with lease payment from Echo Solar. Otherwise it's unclear how or if Echo Solar could support or impact his farming operations.

7. How would you expect your agricultural operations to be impacted by construction of the Echo Solar Project (i.e. dust, traffic)?

   Brian Doherty expects that dust could be an issue during construction and that road traffic will increase. He is also working with Echo Solar on soil stabilization, reseeding mix recommendations and weed management during construction and operations of the project. He expects Echo Solar will adequately address weed management.

8. To what extent, if any, do you anticipate reducing current spending on labor, supplies, and services for agricultural operations due to implementation of the Project?

   Aside from new equipment purchases, Doherty estimates his annual spending on agriculture inputs (seed, fertilizer, weed spray, fuel) would be reduced by an estimate 75%.

9. Do you have any information regarding farm practices on neighboring properties and would you anticipate any impact to those practices due to implementation of the Project?

   Many of Brian Doherty's neighbors are either already involved in energy production (wind and solar) or are involved in this project. Brian does not anticipate any impacts to neighboring farm properties.

10. What details can you provide regarding crop yields on your parcel(s)? Can you provide a range of yields over the past 5-10 years?

    Brian Doherty estimates his 10 year average wheat production is 32 bushels per acre. In his best years Brian harvests 45 bushels per acre, in his worst years he harvests as little as 12 bushels per acre.

11. What details can you provide regarding historic agricultural revenues on your parcel(s) over the past 5-10 years?

    Brian Doherty offer specific revenues.

12. Does the affected property currently have water rights? If yes, does the permit/certificate holder use the water allocated by the water right, and if so, how?

    Aside from the well the state cut off, the farm has a small water right for a livestock well they used to irrigate some pasture. The Dohertys haven't used if for 35 years. 20 years ago, they rebuilt pump but it wasn't pulling water. Brian Doherty believes that either the well caved in or the well went dry.

13. If the allocated water is not used for irrigation, why is it not used and is there potential to use the water right for irrigation in the future?

    See above.

14. Is there any current consideration or attempt to cancel a water right or transfer a water right to or from the leased land proposed for Project use?

    No.

15. If no water right, can you confirm for how many years the leased property has not had an associated water right, and if there are known limitations to obtaining a new water right?

    Brain Doherty believes it is impossible to establish a new groundwater right for irrigation in the Butter Creek Critical Groundwater Area.

16. If no water right, what steps, if any, have you taken to establish a water right?

Brain Doherty believes it is impossible to establish a new groundwater right for irrigation in the Butter Creek Critical Groundwater Area.

17. In your estimation, how much water do you think you would need to be reasonably certain you could obtain to make more productive agricultural use of your land and justify the necessary capital investment in irrigation infrastructure?

    Brian Doherty hasn't really considered this question, as he believes it is impossible to establish a new groundwater right for irrigation in the Butter Creek Critical Groundwater Area.

18. Based on your assessment, describe the soil conditions on your parcel(s):

    Brian believes most of the soil on his property is silt loam, with a ph pretty close to 7.

TETRA TECH

Ken and Carri Grieb

Re: Echo Solar Landowner Survey

Property owner,

This survey/questionnaire is intended to augment the Echo Solar Project agricultural lands assessment with supplementary information about agricultural uses within and adjacent to the Project's site boundary. You have been sent this survey because you were identified as a participating landowner with agricultural uses on your parcels. At your earliest convenience, please review the following requests for information and respond accordingly.

1. List current crop practices (i.e. total acres of land used for dryland wheat, irrigated agriculture, ranching, or other agricultural use):

   Ken and Carri Grieb, and Grieb Farms Inc. own a combined total of approximately 4,400 acres, all dedicated to dryland wheat production (aside from 3 residences, shop buildings, etc.). The farm has been in dryland wheat production since the early 1980s, when declining water allocations forced the farm into wheat production. The land is farmed on rotation, so roughly 2,200 acres are harvested in any given year, and 2,200 acres are in summer fallow. The farm has applied no supplemental water to the crops since at least 2017.

2. List details about crop schedule (i.e. when do you till, seed, fertilize, and/or spray), and when do you harvest?):

   In recent years the farm practices no till farming and seeds and fertilizes ground in October for summer harvest in July. The entire farm, both seeded and fallow ground, is sprayed for weeds in late March or April. The fallow ground often needs to be sprayed again for weeds in the summer.

3. With the implementation of the Echo Solar Project, would you continue to farm/ranch lands adjacent to the solar array areas or elsewhere throughout the local area? If yes, would the Project impact farming practices outside of where solar facilities would be located? If yes, how?

   No, as currently planned, the Griebs will not own any land adjacent to the proposed facility.

4. With the implementation of the Echo Solar Project, do you have suggestions of how the Project can aid your continued agricultural production? Do you have suggestions for any agricultural activity that could continue within the solar array?

   N/A.

5. How many direct jobs are currently supported by operations where the Project would be located, and would any be eliminated if the Project is built?

   Ken and Carri administer the farm and take care of all business aspects, which equates to a single full-time position. The farm also employees one full-time employee. The farm does not hire seasonal workers at harvest. So, the farm supports two full-time positions.

6. Would jobs for your agricultural operations elsewhere be impacted or supported by implementation of the Project? If yes, how?

   N/A

7. How would you expect your agricultural operations to be impacted by construction of the Echo Solar Project (i.e. dust, traffic)?

   N/A

8. To what extent, if any, do you anticipate reducing current spending on labor, supplies, and services for agricultural operations due to implementation of the Project?

   Ken and Carri Grieb and Grieb Farms Inc. buy the majority of their agricultural products and inputs from Morrow County Grain Growers (MCGG). The farming operation also buys a lesser amount of agricultural input products from Sand Hollow Ag Supply. In 2022, Ken and Carri Grieb and Grieb Farms Inc. spent a combined total of $266,709 with MCGG. In 2022, total fuel purchases for the farm we about $66,000, seed purchases were about $51,000, fertilizer and chemical purchases were about $180,000.

9. Do you have any information regarding farm practices on neighboring properties and would you anticipate any impact to those practices due to implementation of the Project?

   Many of the Griebs neighbors are involved in wind or solar energy development. The Griebs have not noticed a difference in the number of weeds on their property from those energy projects and do not expect this project to have such an effect. The Griebs do expect dust during construction will need to be mitigated and monitored, and that traffic will increase until construction is completed.

10. What details can you provide regarding crop yields on your parcel(s)? Can you provide a range of yields over the past 5-10 years?

    The Grieb farm ranges in its productivity from 20 to 60 bushels of wheat per acre. Most years the farm produces 30-40 bushels of wheat per acre. In a bad year the farm can produce as little as 20 bushels of wheat per acre. In the farms very best year, it produced 60 bushels per acre.

11. What details can you provide regarding historic agricultural revenues on your parcel(s) over the past 5-10 years?

    Recent wheat harvest on the Grieb Property have been 89,000 bushels in 2022, 38,000 bushels in 2021, 57,000 bushels in 2020, and 24,000 bushels in 2019. Ken and Carri Grieb and/or Grieb Farms Inc. have collected crop insurance payments 17 times since 2000.

12. Does the affected property currently have water rights? If yes, does the permit/certificate holder use the water allocated by the water right, and if so, how?

    The Griebs report that they have two water rights listed, but only one right is associated with a working well. MORR 412 is the right associated with the working "well 2." The other well ("well 1") is capped and has no power run to it for pumping. "Well 2" is probably capable of producing 900-1,000 gallons per minute with a 400-horsepower pump. The well and water right have not been used for 7 to 8 years. When it was last used, the Griebs ran 80' x 80' water lines to water supplement the wheat crop. In a dry year the Griebs report that the supplemental water hardly helped at all, "just kept it alive." On average the Griebs guessed the supplemental watering could boost productivity of their wheat crop 10–50%. The Griebs have considered investing in center pivots, but 900 gallons per minute is barely enough to run one pivot. They also worry about their water allocation, which in the past 10 years or more has always been only 500 acre feet, of the 1,000 they request.

13. If the allocated water is not used for irrigation, why is it not used and is there potential to use the water right for irrigation in the future?

    Between energy costs to pump the water and manhour costs to move the wheel lines, the cost to irrigate did not boost crop production enough to justify the added expense. yields. Yes, the Griebs believe there is potential to use the water right in the future.

14. Is there any current consideration or attempt to cancel a water right or transfer a water right to or from the leased land proposed for Project use?

    When the project is fully permitted and ready to construct, the Griebs are selling their property to Echo Solar, LLC. Any valid water rights will transfer to Echo Solar, LLC upon the sale.

15. If no water right, can you confirm for how many years the leased property has not had an associated water right, and if there are known limitations to obtaining a new water right?

These are the only water rights associated with the farm. The Griebs do not believe they have any hope for a new water right, as the farm in the Butter Creek Critical Groundwater Area.

16. If no water right, what steps, if any, have you taken to establish a water right?

N/A

17. In your estimation, how much water do you think you would need to be reasonably certain you could obtain to make more productive agricultural use of your land and justify the necessary capital investment in irrigation infrastructure?

At minimum the Griebs estimate that they would need to be allocated 1,000 acre feet every year to justify investing in center pivot irrigation. They would also likely need to invest in pumping equipment to get flows above 900-1,000 gallons per minute.

18. Based on your assessment, describe the soil conditions on your parcel(s):

The Griebs believe the soil on their property is sandy loam, or silt loam. When they till it the report needing to be very careful about the conditions or it will blow off.

TETRA TECH

Shane Matheny

Re: Echo Solar Landowner Survey

Property owner,

This survey/questionnaire is intended to augment the Echo Solar Project agricultural lands assessment with supplementary information about agricultural uses within and adjacent to the Project's site boundary. You have been sent this survey because you were identified as a participating landowner with agricultural uses on your parcels. At your earliest convenience, please review the following requests for information and respond accordingly.

1. List current crop practices (i.e. total acres of land used for dryland wheat, irrigated agriculture, ranching, or other agricultural use):

   Shane Matheny currently farms 1,620 acres south of Alpine Road. 1,280 acres of that land is part of the Echo Solar Project. All of the land is currently farmed as dryland wheat.

2. List details about crop schedule (i.e. when do you till, seed, fertilize, and/or spray), and when do you harvest?):

   The land is farmed on a yearly rotation, split between a "north field" of 900 acres and a "south field" of 720 acres. Each year one field is summer fallowed, and the other field is harvested.

   The field in production for summer harvest is seeded and fertilized in October. The crop is usually harvested in July.

   The entire farm, both seeded and fallow ground, is sprayed for weeds in late March or April.

   The fallow ground often needs to be sprayed again for weeds in the summer.

3. With the implementation of the Echo Solar Project, would you continue to farm/ranch lands adjacent to the solar array areas or elsewhere throughout the local area? If yes, would the Project impact farming practices outside of where solar facilities would be located? If yes, how?

Shane Matheny will continue to farm 340 acres directly adjacent to the Echo Solar Project. He will probably seed and harvest the entire 340 acres in a single year, and then summer fallow it the next year.

Shane will also continue to farm land in the Butter Creek area that he and his uncle lease. Shane and his uncle are currently planning on taking 900 acres out of CRP to be put into active wheat production.

4. With the implementation of the Echo Solar Project, do you have suggestions of how the Project can aid your continued agricultural production? Do you have suggestions for any agricultural activity that could continue within the solar array?

   The project won't directly aid in Shane Matheny's continued agricultural production, but lease payments will help keep the land in the family and provide money to invest in agricultural equipment for continued farming in the Butter Creek area.

5. How many direct jobs are currently supported by operations where the Project would be located, and would any be eliminated if the Project is built?

   The farm 1,620 acre farm employees one, Shane Matheny, full time. Once Echo Solar is constructed, Shane will continue to farm 340 acres of the farm. The 1,620 acre farm also employees several seasonal farm help at harvest for one month. Taken into account the inefficiencies of farming a smaller area, the farm 340 acre farm will probably still employ one half time equivalent employee.

6. Would jobs for your agricultural operations elsewhere be impacted or supported by implementation of the Project? If yes, how?

   No. Shane doesn't expect any impacts to his operation outside of the aforementioned monetary support from lease payments, and farming .

7. How would you expect your agricultural operations to be impacted by construction of the Echo Solar Project (i.e. dust, traffic)?

   Shane Matheny expects that dust could be an issue during construction and that road traffic will increase. He is also working with Echo Solar on soil stabilization, reseeding mix recommendations and weed management during construction and operations of the project. He expects Echo Solar will adequately address weed management.

8. To what extent, if any, do you anticipate reducing current spending on labor, supplies, and services for agricultural operations due to implementation of the Project?

   Agricultural inputs (seed, fertilizer, weed spray fuel, etc.) will be reduced in proportion to the size of the project. The project lease payments might also allow Shane to invest in new equipment.

9. Do you have any information regarding farm practices on neighboring properties and would you anticipate any impact to those practices due to implementation of the Project?

   Many of Shane Matheny's neighbors are either already involved in energy production (wind) or are involved in this project. Shane does not anticipate any impacts to neighboring farm properties.

10. What details can you provide regarding crop yields on your parcel(s)? Can you provide a range of yields over the past 5-10 years?

    The 10-year average wheat yield off of the 1,620-acre farm where Echo Solar will locate (on as much as 1,280 acres of it) is 38 bushels per acre. The farms best years are as high as 60 bushels per acre and as low as 20 bushels per acre.

11. What details can you provide regarding historic agricultural revenues on your parcel(s) over the past 5-10 years?

Prices for wheat have been as low as $5-$6 per bushel to $8.40 per bushel currently. Some years Shane will sell as much as 40% of his crop before its harvested. Shane usually likes to sell his crop by November, but some years Shane will store a small amount of his crop with Morrow County Grain Growers at a cost of 3 cents per bushel, per month, for sale in winter or spring months. When he sells it, he always must pay transportation costs in the range of 50 -.60 cents per bushel to get it to Portland.

12. Does the affected property currently have water rights? If yes, does the permit/certificate holder use the water allocated by the water right, and if so, how?

    No. the affected property does not have a water right. The Matheny's don't believe it is possible to establish a groundwater right in their area within the Butter Creek Critical Groundwater Area.

13. If the allocated water is not used for irrigation, why is it not used and is there potential to use the water right for irrigation in the future?

    N/A

14. Is there any current consideration or attempt to cancel a water right or transfer a water right to or from the leased land proposed for Project use?

    N/A

15. If no water right, can you confirm for how many years the leased property has not had an associated water right, and if there are known limitations to obtaining a new water right?

    The property has never had a water right, to Shane Matheny's knowledge.

16. If no water right, what steps, if any, have you taken to establish a water right?

No attempt has ever been made to establish a water right, to Shane Matheny's knowledge.

17. In your estimation, how much water do you think you would need to be reasonably certain you could obtain to make more productive agricultural use of your land and justify the necessary capital investment in irrigation infrastructure?

    Shane Matheny has not considered this question, as he believes a water right is not possible to establish.

18. Based on your assessment, describe the soil conditions on your parcel(s):

    Worden Silt Loam. Shane Matheny says he needs to watch it, if he tills it up too much it'll blow away.

Attachment K-2. Economic Impact Analysis

Sunstone Solar Project

Economic and Agricultural Impact Analysis

June 2023

Prepared for: Tetra Tech, Inc.

Draft Report

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Acknowledgements

For over 40 years ECONorthwest has helped its clients make sound decisions based on rigorous economic, planning, and financial analysis. For more information about ECONorthwest: www.econw.com.

ECONorthwest prepared this report for Tetra Tech, with the support of Tetra Tech staff and input from staff of Pine Gate Renewables LLC. ECONorthwest is responsible for the content of this report. That assistance notwithstanding, the staff at ECONorthwest prepared this report based on their knowledge of economics and economic tools and models, natural resources, and energy, and on information derived from government agencies, private statistical services, the reports of others, interviews of individuals, and other sources believed to be reliable. Any statements nonfactual in nature constitute the authors' current opinions, which may change as more information becomes available.

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Executive Summary

Sunstone Solar, LLC (Sunstone Solar), a subsidiary of Pine Gate Renewables, LLC (PGR), is proposing to construct and operate the Sunstone Solar Project (Project or Facility), an up to 1,200 megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy generation facility in Morrow County, Oregon (Table 1). The Project also includes two interconnection switchyards, six collector substations, up to four operations and maintenance (O&M) buildings, and other structures including overhead transmission lines, roads, perimeter fencing, and gates. It may also include a distributed battery energy storage system (BESS). PGR is presently seeking to permit a range of PV and related or associated technology within the Project site boundary to allow for micrositing flexibility. For the purposes of analysis, PGR has developed a representative development scenario that assumes the Project would be built in six overlapping phases of 200 MW each, with construction anticipated to start in April 2026.

This report prepared on behalf of PGR assesses the economic and fiscal impacts of the Project, with results reported separately for the PV solar energy generation facility and the BESS. Regional economic impacts are assessed for Morrow County in terms of employment, labor income, and economic output using the IMPLAN economic modeling package, with separate analyses presented for construction and operation. The fiscal impact analysis estimates local tax revenues that would be expected to accrue over the operating life of the Project. In addition, the report addresses the potential effects of the Project on the local agricultural economy, with impacts assessed at the county level for Morrow County, Oregon.

Economic Impact Analysis

Construction

Construction of each 200 MW project phase of the PV facility would directly employ an estimated average of 170 workers on-site over its 21-month construction period, with an anticipated peak of 300 workers. The BESS facility would add an additional 140 workers per phase, for a total peak combined workforce of 440. Based on the small supply of existing workers in similar occupations and in the absence of contractual agreements, for the purposes of this analysis, we assume that the entire construction workforce would come from outside Morrow County, with no Morrow County residents directly employed in construction. Per diem spending by construction workers temporarily relocating to the county and local construction-related expenditures for items including concrete, gravel, water, fencing, fuel, and light equipment rentals would, however, support local economic activity during the overall 5-year construction period.

Viewed over the assumed 5-year construction period, per diem and local construction-related expenditures would support an estimated 473 FTE direct jobs in Morrow County, ranging from 62 in 2030 to 119 in 2028. These direct jobs would be in the accommodation, food and drink, and retail sectors, as well as construction-related sectors, including concrete manufacturing, sand

and gravel, and equipment rentals. Per diem and local construction-related expenditures would also support employment, labor income, and economic output in other sectors of the local economy, with indirect impacts estimated to support approximately 50 FTE jobs and induced impacts estimated to support a further 19 FTE jobs over the five-year construction period (Table ES-1). Overall, construction is estimated to support a total of approximately 541 jobs in Morrow County and approximately $28.8 million in labor income, with total economic output of approximately $86.9 million (Table ES-1).

Table ES-1. Estimated Construction Impacts in Morrow County
Source: IMPLAN 2022, ECONorthwest

Impact Measure	Impact Type	2026	2027	2028	2029	2030
Employment	Direct	80.2	116.0	118.8	95.9	61.6
	Indirect	7.5	13.6	14.1	10.2	4.3
	Induced	2.9	5.2	5.3	3.9	1.7
	Total	**90.6**	**134.8**	**138.3**	**110.0**	**67.6**
Labor Income ($ million)	Direct	$3.8	$6.3	$6.5	$4.9	$2.4
	Indirect	$0.6	$1.1	$1.1	$0.8	$0.3
	Induced	$0.1	$0.3	$0.3	$0.2	$0.1
	Total	**$4.5**	**$7.6**	**$7.9**	**$5.9**	**$2.9**
Output ($ million)	Direct	$10.7	$19.5	$20.2	$14.5	$6.1
	Indirect	$1.7	$3.3	$3.4	$2.4	$0.9
	Induced	$0.6	$1.1	$1.2	$0.8	$0.4
	Total	**$13.0**	**$23.9**	**$24.8**	**$17.8**	**$7.4**

Notes:
1/ **Direct jobs as shown here are not on-site construction jobs. Rather, they represent employment in those sectors where per diem and local construction-related expenditures would occur, including accommodation, food and drink, retail,** concrete manufacturing, sand and gravel, and equipment rentals.
2/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
3/ Labor income and economic output are expressed in millions of Year 2023 dollars.

Operation

Operation of the PV facility and the BESS would provide long-term economic benefits to Morrow County. Following completion of all six phases of the PV facility, an estimated 42 workers, including solar operation staff, and vegetation contractors would be employed on site (Table ES-2). Overall, operation of all six phases of the PV facility is estimated to support approximately 47 total (direct, indirect, and induced) jobs in Morrow County and approximately $3.2 million in labor income, with total economic output of approximately $20 million (Table ES-2). These would be annual impacts that would continue over the 40-year operating life of the Project. Operation of the BESS facility could increase these impacts substantially.

Table ES-2. Estimated Operation Impacts for All Six Phases (PV Only)
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)[1/]	Labor Income ($ million)[2/]	Output ($ million)[2/]
Direct	42.0	$2.45	$15.71
Indirect	5.1	$0.64	$3.47
Induced	1.3	$0.10	$0.40
Total	**46.6**	**$3.18**	**$19.57**

Notes:

1/ Jobs are full-time equivalent (FTE) for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in millions of Year 2023 dollars.

Fiscal Impact Analysis

Sunstone Solar has entered into a long-term Payment in Lieu of Taxes (PILOT) agreement with Morrow County that provides for fixed payments of $7,000 per MW in lieu of taxes from the Facility over a 17-year period. PILOT payments would be staggered based on the year each 200 MW phase comes online, increasing to $8.4 million per year in Year 4 for all six phases.[1] Following expiration of the PILOT agreement, property tax payments on the PV facility would increase to an estimated $14 million in Year 18, with an estimated total net value of $300 million generated over the 40-year operating life of the Project. With the BESS facility property tax payments would increase to $37.4 in Year 18 and the combined Project would generate a net value of $590 million over 40 years.

Estimated tax revenues would be distributed to the 13 taxing districts with jurisdiction over the Project site, with the largest shares distributed to Morrow County (37 percent) and the Morrow County School District #1 (34 percent). Assuming a corresponding increase in spending, estimated property tax revenues generated from the PV facility in Year 4 would support an estimated 22 total (direct, indirect, and induced) jobs in Morrow County and approximately $2.0 million in labor income, with total economic output of approximately $2.8 million (Table ES-3). Estimated property tax payments on the PV facility in Year 18 would support an estimated 40 total (direct, indirect, and induced) jobs in Morrow County and approximately $3.6 million in labor income, with total economic output of approximately $5.2 million.

Table ES-3. Estimated Economic Impacts of Increased Property Tax Revenues, Year 4
Source: IMPLAN 2022, ECONorthwest

Impact[1/]	Employment (FTE)[2/]	Labor Income ($ million)[3/]	Output ($ million)[3/]
Direct	18.3	$1.74	$2.06
Indirect	2.6	$0.17	$0.51
Induced	1.1	$0.06	$0.25
Total	**22.0**	**$1.97**	**$2.82**

Notes:
1/ Estimated impacts are based on increases in non-education tax revenues that are assumed to result in corresponding increases in spending. Increases in tax payments to school taxing districts are assumed to have no impact on local spending because of the equalization formula used to distribute state education funds.
2/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
3/ Labor income and economic output are expressed in millions of Year 2023 dollars.

[1] During the PILOT agreement under the rules established in Oregon Senate Bill 154, the analysis assumes fixed payments would remain the same regardless of whether the BESS facility is constructed with the PV facility because they are capped at $7,000 per MW.

Agricultural Impact Analysis

Construction and operation of the Project would remove approximately 9,400 acres from agricultural production. This land is presently used for dryland winter wheat production and farmed on rotation, with approximately 4,700 acres planted and harvested each year. This total represents approximately 3.7 percent of harvested winter wheat acres in Morrow County (based on 10-year annual average values). Viewed as a share of agricultural commodity sales in Morrow County in 2017, using data from the 2017 Agricultural Census, harvest of 4,700 acres of winter wheat represents 0.5 percent and 0.2 percent of total crop and agricultural sales, respectively.

Removal of 9,400 acres of agricultural land would have impacts on the local agricultural economy due to the associated reduction in local spending. Based on the estimated annual agricultural output (using 10-year annual average values), removal of the site from cultivation would reduce spending in sectors related to agriculture, including wholesale trade and support activities for agriculture and forestry. This change in spending would affect about 4 jobs in the Morrow County economy (indirect and induced employment in Table ES-4) and about $300,000 in labor income per year.

The direct jobs shown in Table ES-4 are current employment estimates provided by the participating landowners and consist of their labor and one full-time worker employed by one of the farms. This full-time job would be lost and one of the landowners (a married couple) plans to retire from farming. The other landowners have indicated that they would continue to farm locally.

Table ES-4. Economic Impacts of Current Agricultural Activities on the Project Site
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)[1/]	Labor Income ($ million)[2/]	Output ($ million)[2/]
Direct	6.0	$0.47	$1.17
Indirect	**3.9**	**$0.29**	**$0.48**
Induced	**0.4**	**$0.02**	**$0.10**
Total	10.3	$0.79	$1.75

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed millions of Year 2023 dollars.

Most of the indirect jobs that reduced agricultural production would impact (3.1 of the 3.9 FTEs shown in Table ES-4) are in support activities for agriculture and forestry, which was the second largest sector by employment in Morrow County in 2021. A potential reduction of 3.1 jobs represents approximately 0.4 percent of existing employment in this sector and about 0.2 percent of total agricultural jobs in Morrow County.

1. Introduction

Sunstone Solar, LLC (Sunstone Solar), a subsidiary of Pine Gate Renewables, LLC (PGR), is proposing to construct and operate the Sunstone Solar Project (Project or Facility), an up to 1,200 megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy generation facility in Morrow County, Oregon (Figure 1). The Project also includes two interconnection switchyards, six collector substations, up to four operations and maintenance (O&M) buildings, and other structures including overhead transmission lines, roads, perimeter fencing, and gates. It may also include a distributed battery energy storage system (BESS). The Project will connect with the existing Umatilla Electric Cooperative (UEC) 230-kV Blue Ridge Transmission Line via the two interconnection switchyards which will be located within the solar array fence line area. PGR is presently seeking to permit a range of photovoltaic and related or associated technology within the Project site boundary to allow for micrositing flexibility. For the purposes of analysis, PGR has developed a representative development scenario that assumes the Project would be built in six overlapping phases of 200 MW each, with construction anticipated to start in April 2026.

This report prepared on behalf of PGR assesses the economic and fiscal impacts of the Project. Regional economic impacts are assessed for Morrow County in terms of employment, labor income, and economic output using the IMPLAN economic modeling package, with separate analyses presented for construction and operation and impacts of the PV facility shown separately from the combined PV and BESS facility. The fiscal impact analysis estimates local tax revenues that would be expected to accrue over the operating life of the Project. In addition, the report addresses the potential effects of the Project on the local agricultural economy, with impacts assessed at the county level for Morrow County, Oregon.

Regional Demographic and Economic Overview

Population

Located in northcentral Oregon, Morrow County is bordered to the north by the Columbia River and the State of Washington. Approximately 2,031 square miles in size, most of the county (about 87 percent) is agricultural land (U.S. Census Bureau 2023, U.S. Department of Agriculture [USDA] 2017). Morrow County had a total estimated population of 12,315 in 2022, ranking 29 out of the 36 counties in Oregon in terms of population (Portland State University 2023). The county is sparsely populated with a population density of 6.1 people per square mile, well below the corresponding state and national averages, which were 44.2 and 94.3 people per square mile, respectively (U.S. Census Bureau 2023). There are five incorporated communities in Morrow County (Boardman, Heppner, Ione, Irrigon, and Lexington), which together account for almost two-thirds (65 percent) of the population (Table 1).

Figure 1. Project Location

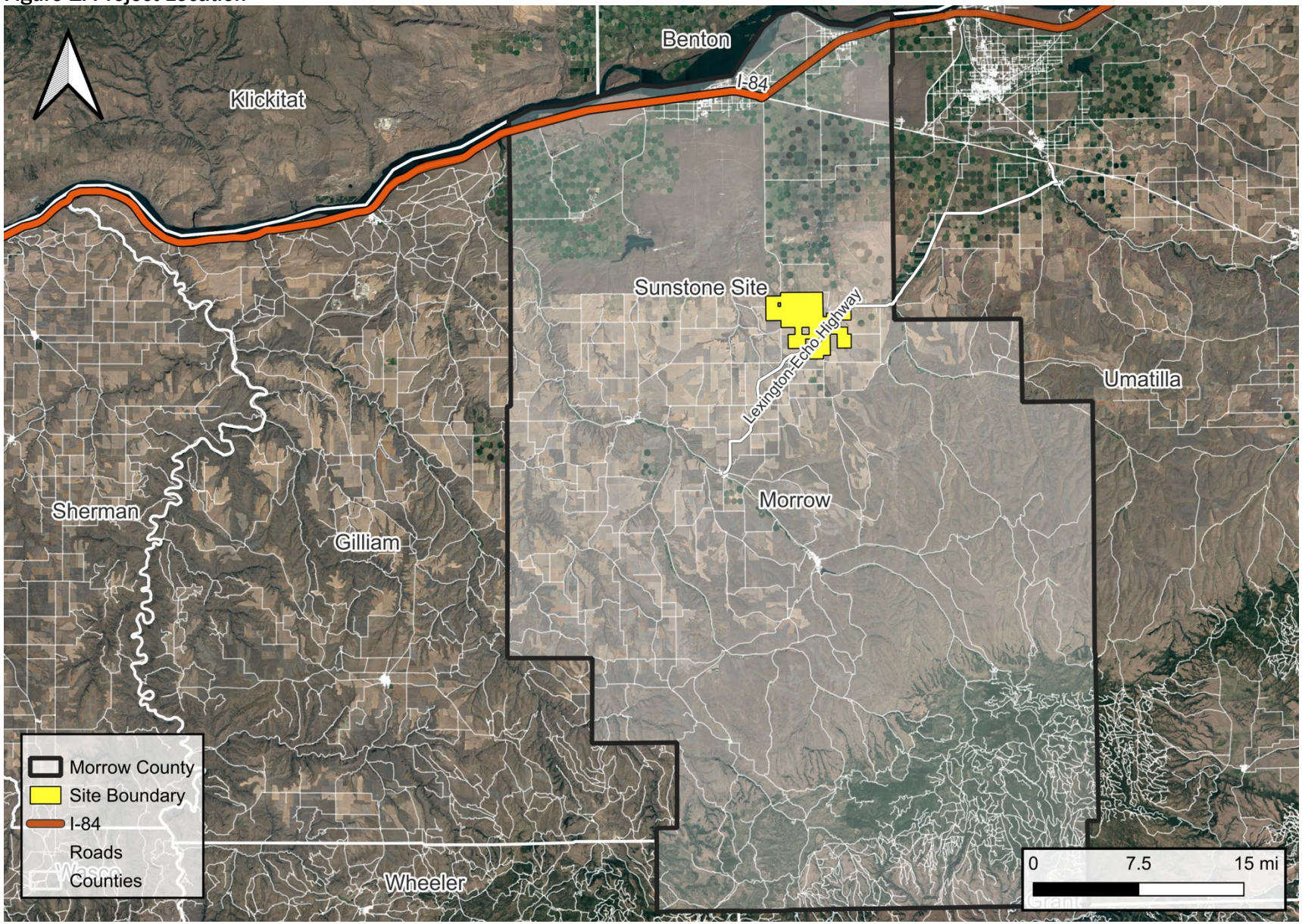


Table 1. Population
Source: Portland State University 2023

Geographic Area	2022		Change 2010 to 2022	
	Estimated Population	Percent of Total	Net Change	Percent Change
Morrow County	**12,315**	**100%**	**1,142**	**10.2%**
Boardman	4,116	33%	896	27.8%
Heppner	1,182	10%	-109	-8.4%
Ione	343	3%	14	4.3%
Irrigon	2,067	17%	241	13.2%
Lexington	238	2%	0	0.0%
Unincorporated	4,369	35%	100	2.3%

The overall county population has increased over the past decade, with most of the growth occurring in Boardman and Irrigon in the north part of the county. The communities in the central part of the county saw more modest increases or lost population over the same period (Table 1).

Employment and the Economy

The local economy in Morrow County has traditionally been dominated by agriculture, which accounts for about 17 percent of local jobs compared to 3 percent statewide. Manufacturing is the single largest sector in terms of employment, accounting for 21 percent of local jobs compared to 8 percent statewide (Table 2). Most employment in manufacturing in Morrow County is food manufacturing, which employed 1,700 people in 2021 (Fridley 2022). Food manufacturers include Columbia River Processing and Lamb Weston.

This report uses IMPLAN input-output software to assess the effects of the Project on the regional economy. Using data compiled from various sources, including the Bureau of Labor Statistics (BLS) Census of Employment and Wages (CEW), Census Bureau County Business Patterns (CBP), and Bureau of Economic Analysis (BEA) Regional Economic Accounts (REA), the IMPLAN model divides the economy into 546 sectors including government, households, farms, and other industries. Detailed estimates are provided for a series of measures including employment, labor income, output, and value added for each sector (see Section 2).[2]

[2] IMPLAN compiles employment estimates from several different sources and, as a result, IMPLAN job estimates are often larger than those reported by other sources. However, in some cases, reported IMPLAN employment values are smaller than values reported by another source (IMPLAN 2023). The latter is the case here. The total number of jobs estimated by IMPLAN (7,943) is lower than the corresponding total reported by the Bureau of Economic Analysis (8,415) (see Tables 2 and 3).

Table 2. Employment by Economic Sector, 2021

Source: U.S. Bureau of Economic Analysis 2022

Economic Sector[1/]	Morrow County		Oregon	
	Employment	Percent of Total	Employment	Percent of Total
Agriculture	1,399	17%	69,840	3%
Utilities	104	1%	5,199	0%
Construction	136	2%	150,262	6%
Manufacturing	1,801	21%	201,963	8%
Wholesale trade	138	2%	81,845	3%
Retail trade	370	4%	259,680	10%
Transportation and warehousing	199	2%	123,175	5%
Finance and insurance	79	1%	101,551	4%
Real estate	179	2%	125,673	5%
Administrative and waste services	302	4%	129,993	5%
Educational services	9	0%	49,509	2%
Health care and social assistance	334	4%	308,939	12%
Other services	219	3%	125,429	5%
Government	1,043	12%	287,968	11%
Other sectors[2/]	2,103	25%	538,428	21%
Total employment	**8,415**	**100%**	**2,559,454**	**100%**

Notes:
Na – not applicable
1/ Employment estimates include self-employed individuals. Employment data are by place of work, not place of residence, and, therefore, include people who work in the area but do not live there. Employment is measured as the average annual number of jobs, both full- and part-time, with each job counted at full weight.
2/ The other sectors category consists of seven sectors where data are not shown for Morrow County to avoid disclosure of confidential information: forestry, fishing, and related activities; mining, quarrying, and oil and gas extraction; information; professional, scientific, and technical services; management of companies and enterprises; arts, entertainment, and recreation; and accommodation and food services.

Table 3 lists the top 20 industries in terms of their employment contribution to the Morrow County economy. Labor income and output estimates are also provided by sector in Table 3. Output is a measure of the total goods and services a given industry uses and produces and is closely related to sales. Frozen fruits, juices and vegetables manufacturing, the largest sector by employment, accounted for almost 1,400 jobs, 17 percent of total employment. Support activities for agriculture and forestry and vegetable and melon farming were the next largest employers. Other agricultural and related manufacturing sectors in the top 20, include all other crop farming, cheese manufacturing, dairy cattle and milk production, and beef cattle ranching and farming (Table 3). Grain farming, including wheat, was the 19th largest employer in the county, accounting for 89 jobs, approximately 1 percent of total county employment (Table 3). Agricultural activities alone, excluding food manufacturing, accounted for 2,070 jobs, slightly more than one-quarter (26 percent) of total employment in 2021, with combined economic output of $591 million (IMPLAN 2022).

Amazon is also a major local employer, currently operating four large data centers in Morrow County, with plans for as many as five more (Rogoway 2022). Data processing, hosting, and related services was the sixth largest sector by employment in 2021, accounting for 339 jobs, 4 percent of local employment (Table 3).

Table 3. Top 20 Industries by Employment, 2021

Source: IMPLAN 2022

IMPLAN Sector	Description	Total Employment[1/]	Labor Income ($ Million)	Total Output ($ Million)
77	Frozen fruits, juices and vegetables manufacturing	1,381	$91.6	$794.4
19	Support activities for agriculture and forestry[2/]	816	$43.4	$39.4
3	Vegetable and melon farming	434	$55.3	$132.7
542	Employment and payroll of local govt, education	427	$33.9	$40.2
10	All other crop farming[3/]	389	$24.5	$42.4
436	Data processing, hosting, and related services	339	$41.0	$209.8
544	Employment and payroll of local govt, other services	209	$16.9	$20.1
82	Cheese manufacturing	195	$13.6	$203.9
469	Management of companies and enterprises	165	$22.5	$42.7
475	Investigation and security services	152	$5.9	$10.0
543	Employment and payroll of local govt, hospitals and health services	151	$17.6	$20.7
447	Other real estate	129	$7.3	$26.1
12	Dairy cattle and milk production	125	$25.7	$183.3
11	Beef cattle ranching and farming	104	$39.7	$102.2
16	Commercial logging	103	$8.4	$12.6
408	Retail - Gasoline stores	100	$3.6	$12.6
486	Outpatient care centers	94	$6.9	$10.5
417	Truck transportation	94	$6.4	$17.8
2	Grain farming[4/]	89	$28.2	$75.5
510	Limited-service restaurants	88	$2.7	$9.8
	Subtotal Top 20 Sectors	**5,584**	**$495.1**	**$2,006.5**
	Other Sectors	2,359	$170.4	$811.9
	Grand Total	**7,943**	**$665.5**	**$2,818.4**

Note:

1/ IMPLAN jobs include all full-time, part time, and temporary positions.

2/ IMPLAN Sector 19 – Support activities for agriculture and forestry includes a wide range of agricultural services, including crop dusting, crop spraying, cultivation services, machine harvesting of grain, hay mowing, and livestock breeding services, as well as forestry-related services, including timber cruising, forest thinning, and reforestation services.

3/ IMPLAN Sector 10 – All other crop farming includes hay farming (e.g., alfalfa hay, clover hay, grass hay), hop, mint, and tea farming.

4/ IMPLAN Sector 2 – Grain farming includes wheat, corn, dry beans, and dry peas.

2. Economic and Fiscal Impact Analysis

Economic Impact Analysis

The economic impact of the Project would occur in two stages: 1) the initial construction stage (which would be phased); and 2) following construction, the operations stage. This report assesses both stages using IMPLAN input-output software tailored for use in Morrow County. Impacts are assessed using IMPLAN data for 2021, the most recent year for which data are available. Construction and operation of the proposed Project would generate economic benefits in the regional economy through direct expenditures for materials and services, as well as new payroll income. In addition to assessing the effects of Project construction and operation, IMPLAN is also used in the following analysis to assess the potential economic impacts of increased property tax revenues and removal of the Project site from agricultural use (see Section 3).

Economic Impact Model (IMPLAN)

IMPLAN is a regional input-output model widely used to assess the economic impacts of energy and many other types of projects. The IMPLAN model divides the economy into 546 sectors, as noted above, including government, households, farms, and other industries, and models the linkages between the various sectors. The linkages are modeled through input-output tables that account for all dollar flows between different sectors of the economy. The economic relationships modeled by IMPLAN allow the user to estimate the overall change in the economy that would result from construction and operation of a proposed project. The dollars spent on project construction and operation within the selected analysis area (Morrow County, in this case) are analyzed to determine the total economic impact within that area. The direct investments in project construction and operation trigger successive rounds of spending that result in an overall increase in employment, labor income, and economic output in the local economy.

Impact Types

Economic multipliers derived from the model are used to estimate total economic impacts. Total economic impacts consist of three components: direct, indirect, and induced impacts.

- The *direct* impact component consists of expenditures made specifically for the proposed project, such as construction labor and materials. These direct impacts generate economic activity elsewhere in the local economy through the multiplier effect, as initial changes in demand "ripple" through the local economy and generate indirect and induced impacts.
- *Indirect* impacts are generated by expenditures on goods and services by suppliers who provide goods and services to the construction project. Indirect effects are often referred to as "supply-chain" impacts because they involve interactions among businesses.

- *Induced* impacts are generated by the spending of households associated either directly or indirectly with the proposed project. Workers employed during construction, for example, will use their income to purchase groceries and other household goods and services. Workers at businesses that supply the project during construction or operation will do the same. Induced effects are also referred to as "consumption-driven" impacts.

Impact Measures

Impacts are assessed using the following measures that are reported by the IMPLAN model:

- *Output* – the value of goods and services produced, which serves as a broad measure of economic activity.
- *Jobs* – measured as the average number of employees engaged in full- or part-time work. Model outputs are adjusted to full-time equivalents (FTEs) using coefficients provided by IMPLAN.[3]
- *Personal income* (or labor income) – expressed as the sum of employee compensation and proprietary income.
  - Employee compensation (wages) includes workers' wages and salaries, as well as other benefits such as health, disability, and life insurance; retirement payments; and non-cash compensation; expressed as total cost to the employer.
  - Proprietary income (business income) represents the payments received by small-business owners or self-employed workers.

Limitations of Input-Output Models

Input-output models are static models that measure inputs and outputs of an economy at a point in time. With this information and the balanced accounting structure of an input-output model, an analyst can: 1) describe an economy in a single time-period, 2) introduce a change to the economy, and then 3) evaluate the economy after it has accommodated that change.

This type of "partial equilibrium" analysis permits comparison of the economy in two separate states but does not describe how the economy moves from one equilibrium to the next. In partial equilibrium analysis, the researcher assumes that all other relationships in the economy remain the same (other than the initial changes in spending levels).

Contrary to dynamic models, static models assume that there are no changes in wage rates, input prices, and property values. In addition, underlying economic relationships in input-output models are assumed to remain constant; there are no changes in the productivity of labor and capital, and no changes in population migration or business location patterns.

[3] Each FTE job equates to one full-time job for one year or 2,080-hour units of labor. Part-time or temporary jobs constitute a fraction of a job. For example, if an engineer works just 3 months on a solar project, that would be considered one-quarter of an FTE job.

Input-output models are best suited to understand the impacts of small to medium sized projects (relative to the size of the markets or sectors being affected), when projects are unlikely to affect the underlying supply or demand functions (USDA NRCS 2014).

Impact Sources

Construction

Project construction is expected to occur in a series of phases. Options for construction phasing for the Facility include six sequential and/or overlapping phases, or fewer phases based on concurrent construction of multiple blocks. For the purposes of analysis, PGR assumes that the Project will be constructed in six overlapping phases of approximately 200 MW each, with each construction phase lasting 21 months. Two primary interconnection switchyards will be built at the points of interconnection, either sequentially or concurrently and each 200 MW phase will have an associated collector substation that will be constructed as part of that phase. If the distributed BESS is built, the analysis assumes it would be installed concurrently with each 200 MW phase of solar arrays. The analysis also evaluates impacts of the PV facility alone. Power will be transported from the supporting substations to the primary interconnection switchyards via 230-kV overhead transmission lines. Up to four operations and maintenance buildings will be constructed associated with the relevant block phases.

PGR estimates that construction of Phase 1 will directly employ an average of approximately 185 workers on-site over the 21-month construction period. On-site construction employment for Phase 1 would follow a bell-shaped curve, peaking near the middle of the construction period with up to 315 workers employed on-site at the same time. In addition, installation of the battery energy storage system would directly employ an average of approximately 140 workers on-site over a 12-month period, which would result in a combined on-site peak of approximately 455 workers. On-site workers will include electricians, laborers, foremen, equipment operators, and construction managers. Phases 2 through 6 would each follow the same 21-month construction schedule and employ similar estimated numbers of workers as Phase 1, including the estimated 140 workers associated with battery installation.

Construction of all six phases is expected to take place over a 5-year period. Construction is anticipated to start in April 2026, with the first 200 MW phase coming online in 2027, followed by Phases 2 and 3 in 2028, Phases 4 and 5 in 2029, and Phase 6 in 2030.

Construction costs for this analysis were provided by PGR. Specialized materials and equipment (solar modules, inverters, electrical components, and mounting) account for the largest share of the overall construction cost for solar facilities, with these categories together typically accounting for more than half of the total installed cost. None of the Project expenditures for these specialized materials and equipment are expected to occur in Morrow County. Similarly, specialized materials and equipment (battery, battery central inverter, and electrical and structural components) account for a large share of overall BESS construction costs. PGR anticipates that the battery energy storage system for each phase will be installed by

the manufacturer with pre-assembled cabinets transported to the Project site. As with the solar facilities, none of the expenditures for specialized materials and equipment for the BESS are expected to occur in Morrow County.

Decisions regarding hiring and local purchasing will be made in conjunction with the Engineering, Procurement, and Construction (EPC) contractor or contractors that PGR hires to build the project. However, based on past project experience, purchases that could occur in Morrow County include construction-related expenditures on concrete, gravel, water, fencing, fuel, and light equipment rentals. These expenditures would result in secondary impacts elsewhere in the local economy. Estimates of potential local spending were developed for this analysis based on inputs provided by PGR.

Installation labor-related expenditures that occur in Morrow County would also result in secondary economic impacts elsewhere in the local economy. Installation labor expenditures in this context refer to wage and salary payments to construction workers employed directly on-site. Payments to construction workers who normally reside in Morrow County would support local businesses as workers and their families purchase goods and services locally. Workers temporarily relocating to the county for the duration of their on-site employment will also spend money locally. Local expenditures by these workers were estimated using per diem payment information and assigned to the appropriate economic sectors in IMPLAN, primarily those related to lodging/housing, food, transportation, and incidentals. Per diem rates were estimated based on 2023 per diem rates established by the General Services Administration for the State of Oregon (General Services Administration 2023).

A separate workforce and housing availability analysis developed for the Project provides information about regional labor market conditions and the potential to hire local labor to construct the project (see *Sunstone Solar Project: Workforce Housing and Availability*). This analysis estimated labor demand by occupation and reviewed the corresponding supply in Morrow County and the surrounding labor market shed, which includes counties in Oregon and Washington. The study found that while there is a large construction workforce within daily commuting distance of the Project, there are limited numbers of workers presently employed in the target occupations in Morrow County, reflecting the relatively small size of the Morrow County labor market (ECONorthwest 2023). Based on this finding and in the absence of contractual agreements, we assume in the following analysis that the construction workforce will come entirely from outside Morrow County.

This workforce will likely include workers who normally reside within daily commuting distance of the Project site and will commute to and from their homes each day, as well as workers who will temporarily relocate to the Project vicinity for the duration of their employment. Based on the existing supply of temporary housing resources in Morrow County, for the purposes of this analysis we assume that 100 workers employed during Project construction will find temporary accommodation (rental housing and apartments, hotel/motel rooms, RV hookups) in Morrow County for the total duration of construction. Only estimated

per diem expenditures by those workers assumed to stay in Morrow County are included in the following analysis.

Operation

Once construction is complete, operation and maintenance of the Project will continue to contribute to the local economy. The Project will provide direct operation-related employment and Project-related operation expenditures will generate secondary (indirect and induced) economic benefits. Following completion of all six Project phases, PGR anticipates that a total of 40 personnel will be employed on-site at the Facility. On-site personnel will include a facility manager, solar technicians, administrative support, and vegetation contractors. In addition, the BESS manufacturer that PGR is using to develop the battery storage portion of the Project has indicated that each phase will require an estimated 22 battery employees on-site, for a total of 132 on-site workers following completion of all six phases.[4] All of these workers are assumed to reside in Morrow County. Typical local operation-related expenditures include vehicle-related expenditures, such as fuel costs, replacement parts and equipment, and miscellaneous supplies.

Economic Impacts

Construction

The estimated impacts of per diem and local construction-related expenditures are summarized for Morrow County in Table 4. These estimates are one-time impacts that would occur over the anticipated 5-year construction period. Estimates are presented for each year. Job estimates are presented in FTEs or job-years, with each identified job representing 12 months (2,080 hours) of employment. Per diem-spending related impacts are assumed to be consistent across the five years based on the assumption that 100 construction workers will stay in Morrow County for the entire period. This estimate is based on housing availability and assumes that workers will first seek housing closer to the Project site. Local construction-related expenditures are estimated by phase and distributed across the 5-year period based on the representative development scenario developed by PGR.

Construction of each 200 MW project phase of the PV facility would directly employ an estimated average of 170 workers on-site over its 21-month construction period, with an anticipated peak of 300 workers. The BESS facility would add an additional 140 workers per phase, for a total peak combined workforce of 440. Based on the small supply of existing workers in similar occupations and in the absence of contractual agreements, we assume that the entire construction workforce will come from outside Morrow County, with no Morrow County residents directly employed in construction. Therefore, it is important to note that the direct employment estimates shown in Table 4 are not construction jobs. Rather, they represent employment in those sectors where per diem and local construction-related expenditures would

[4] This estimate is based on manufacturer specifications that require 1 on-site employee per 184 containers. As modeled, the current representative layout requires 4,021 containers per phase, which results in an estimated 22 on-site battery technicians for each phase.

occur. The direct jobs associated with per diem expenditures, for example, are primarily in the accommodation, food and drink, and retail sectors, reflecting the estimated distribution of worker expenditures.

Viewed over the assumed 5-year construction period, per diem and local construction-related expenditures would support an estimated 473 FTE direct jobs in Morrow County, ranging from 62 in 2030 to 119 in 2028. These direct jobs would be in the accommodation, food and drink, and retail sectors, as well as construction-related sectors, including concrete manufacturing, sand and gravel, and equipment rentals. Per diem and local construction-related expenditures would also support employment, labor income, and economic output in other sectors of the local economy, with indirect impacts estimated to support approximately 50 FTE jobs and induced impacts estimated to support a further 19 FTE jobs over the life of the Project (Table 4). Overall, construction is estimated to support a total of approximately 541 jobs in Morrow County and approximately $28.8 million in labor income, with total economic output of approximately $86.9 million (Table 4).

Table 4. Estimated Construction Impacts
Source: IMPLAN 2022, ECONorthwest

Impact Measure	Impact Type	2026	2027	2028	2029	2030
Employment	Direct	80.2	116.0	118.8	95.9	61.6
	Indirect	7.5	13.6	14.1	10.2	4.3
	Induced	2.9	5.2	5.3	3.9	1.7
	Total	**90.6**	**134.8**	**138.3**	**110.0**	**67.6**
Labor Income	Direct	$3,753,161	$6,274,635	$6,476,353	$4,862,609	$2,441,995
	Indirect	$605,289	$1,100,937	$1,140,589	$823,374	$347,552
	Induced	$149,071	$263,337	$272,479	$199,348	$89,652
	Total	**$4,507,521**	**$7,638,909**	**$7,889,420**	**$5,885,331**	**$2,879,199**
Output	Direct	$10,650,350	$19,494,297	$20,201,813	$14,541,686	$6,051,497
	Indirect	$1,741,164	$3,314,028	$3,439,857	$2,433,224	$923,275
	Induced	$629,085	$1,112,317	$1,150,976	$841,707	$377,803
	Total	**$13,020,598**	**$23,920,642**	**$24,792,646**	**$17,816,617**	**$7,352,575**

Notes:
1/ **Direct jobs as shown here are not on-site construction jobs. Rather, they represent employment in those sectors where per diem and local construction-related expenditures would occur, including accommodation, food and drink, retail, concrete manufacturing, sand and gravel, and equipment rentals.**
2/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
3/ Labor income and economic output are expressed in Year 2023 dollars.

The preceding analysis assesses regional economic impacts for Morrow County only. Morrow County is part of a larger function economic region and looking at impacts to the county alone captures only part of the regional economic impacts that would occur from Project construction. This is especially the case because the analysis assumes that none of the construction workforce would be hired from within the county, only a share of non-local workers would stay in the county, and captures on part of the construction-related expenditures that would likely occur within one hour of the Project.

Operation

Estimated Phase 1 operation impacts for the PV facility are summarized for Morrow County in Table 5. These estimates are for Phase 1 for the first year following installation. At this point, up to 7 full-time employees would be employed on-site to operate and maintain Phase 1 of the Project, including site management, operating technicians, and vegetation contractors. All these workers are assumed to reside in Morrow County. Operation and maintenance of the Project would also support employment, labor income, and economic output in other sectors of the local economy. Indirect and induced impacts are estimated to support approximately 1 job, (Table 5). Overall, operation of Phase 1 is estimated to support approximately 8 total (direct, indirect, and induced) jobs in Morrow County and approximately $531,000 in labor income, with total economic output of approximately $3.3 million (Table 5).

Table 5. Estimated Phase 1 Operation Impacts (PV Only)
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	7.0	$407,544	$2,617,603
Indirect	0.9	$107,334	$577,523
Induced	0.2	$15,882	$66,868
Total	**7.8**	**$530,760**	**$3,261,993**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

In addition, the battery storage part of the Project would require an estimated 22 employees on site for each phase. Combined, operation Phase 1 of the PV and BESS facilities is estimated to support approximately 37 total (direct, indirect, and induced) jobs in Morrow County and approximately $3.6 million in labor income, with total economic output of approximately $21.6 million (Table 6).

Table 6. Estimated Phase 1 Operation Impacts (PV and BESS Combined)
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	29.0	$2,757,298	$17,322,814
Indirect	5.9	$707,393	$3,806,194
Induced	2.0	$106,845	$449,850
Total	**36.7**	**$3,571,536**	**$21,578,857**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

These estimated impacts are for Phase 1 only. The addition of subsequent phases will lead to a commensurate increase in operation impacts. Following completion of all six phases of the PV portion of the project alone, an estimated 42 workers, including solar operation staff and vegetation contractors would be employed on site (Table 7). Operation of all six phases is estimated to support approximately 47 total (direct, indirect, and induced) jobs in Morrow

County and approximately $3.2 million in labor income, with total economic output of approximately $19.6 million per year (Table 7).

Table 7. Estimated Annual Operation Impacts for All Six Phases (PV Only)
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	42.0	$2,445,264	$15,705,618
Indirect	5.1	$644,006	$3,465,135
Induced	1.3	$95,291	$401,207
Total	**46.6**	**$3,184,561**	**$19,571,960**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

The PV and BESS facilities combined would employ an estimated 173 workers on site during operation with the addition of 132 battery technicians to maintain the BESS facility (Table 8). Operation of all six phases of the PV and BESS is estimated to support approximately 220 total (direct, indirect, and induced) jobs in Morrow County and approximately $21.5 million in labor income, with total economic output of approximately $129 million per year (Table 8).

Table 8. Estimated Annual Operation Impacts for All Six Phases (PV and BESS Combined)
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	173	$16,543,788	$103,936,882
Indirect	35.4	$4,244,360	$22,837,164
Induced	12.0	$641,069	$2,699,098
Total	**220.2**	**$21,429,216**	**$129,473,144**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

Fiscal Impact Analysis

The proposed Sunstone Solar Project would generate significant economic benefits for Morrow County. As noted in the Oregon Department of Energy's (ODOE's) memorandum dated October 5, 2021, local economic benefits associated with a proposed solar facility typically include lease payments to underlying landowners, direct economic benefits to local governments, and various other direct and indirect benefits to the local economy (ODOE 2021a). The following assessment estimates the direct benefits to local governments that would be generated in the form of property tax revenues.

Fee in Lieu of Property Taxes for Solar Projects

In 2015, the Oregon legislature passed an act temporarily authorizing counties to enter into a Fee in Lieu of Property Taxes agreement with solar project owners. Under this type of agreement, a solar project may be exempt from property taxes for up to 20 years, contingent on the annual payment to the county of a flat fee of $7,000 per MW of nameplate capacity. Initially set to expire in January 2022, the passage Oregon Senate Bill 154 (effective September 25, 2021)

extended the expiration date to January 2028 and modified the fee amount from $7,000 per MW per year to a range of $5,500 to $7,000 per MW. The bill also clarified that the fees shall be apportioned and distributed among the taxing districts that have jurisdiction over the property (ODOE 2021b). Sunstone Solar entered into a long-term Payment in Lieu of Taxes (PILOT) agreement with Morrow County in November 2022. The agreement provides for fixed payments in lieu of taxes from the Facility over a 17-year period at the maximum value of $7,000 per MW.

Overview of Oregon Property Taxes

Property taxes are one of the most important sources of revenue for the public sector in Oregon, helping to support police, fire protection, education and other services provided by local taxing districts. More than 1,200 districts impose property taxes in Oregon, including K-12 Schools and Education Special Districts (ESDs), cities, counties, and community colleges, as well as other special districts, such as fire, road, library, hospital, and park special districts.

The total amount of property tax due is based on the assessed value of the property and the combined tax rates of the local taxing districts with taxing authority over the property. Property assessment involves identifying and assigning a value to taxable property. Most property is assessed by county assessors, but some types of property, including public utilities and large industrial properties, are assessed by the Oregon Department of Revenue. Local taxing districts combine to form Tax Code Areas, which represent unique combinations of overlapping taxing districts. The resulting combined levy or millage rate varies by tax code area. The levy or millage rate, which determines the amount an individual property owner owes, is expressed as a dollar amount per $1,000 assessed value. A jurisdiction with a levy rate of 10 mills, for example, imposes tax at the rate of $10 per $1,000 of property value.

In Oregon, a property's assessed value is the lower of its real market value (RMV) or maximum assessed value (MAV). RMV is typically the price a willing buyer would pay to a willing seller. First established in the 1997-98 tax year, MAV is a taxable value limit established for each property. Statewide Measure 50, passed in 1997, limits the rate of growth of property value subject to taxation based on the MAV, with the annual growth rate limited to 3 percent, unless there are changes to the property, such as the addition of a new structure, improvement to an existing structure, or subdivision or partition of the property (Oregon Department of Revenue 2023).[5]

The Oregon Constitution also limits the amount of property taxes that can be collected from each individual property. Measure 5 passed in 1990, divided taxes into education and general government categories, and limits the amounts that can be collected to $5 per $1,000 RMV for school taxes and $10 per $1,000 RMV for general government taxes. In cases where taxes in

[5] For new property the share of RMV subject to tax is estimated using the changed property ratio (CPR), which is based on the ratio of the average MAV to the average RMV for similar property in the area (Oregon Department of Revenue 2018). The CPR for industrial property in Morrow County in 2022 was 100, meaning that new industrial property is assessed at 100 percent of RMV (Morrow County 2022).

either category exceed the limit for a property, the taxes are reduced or "compressed" until the limit is reached. (Oregon Department of Revenue 2020, 2023).

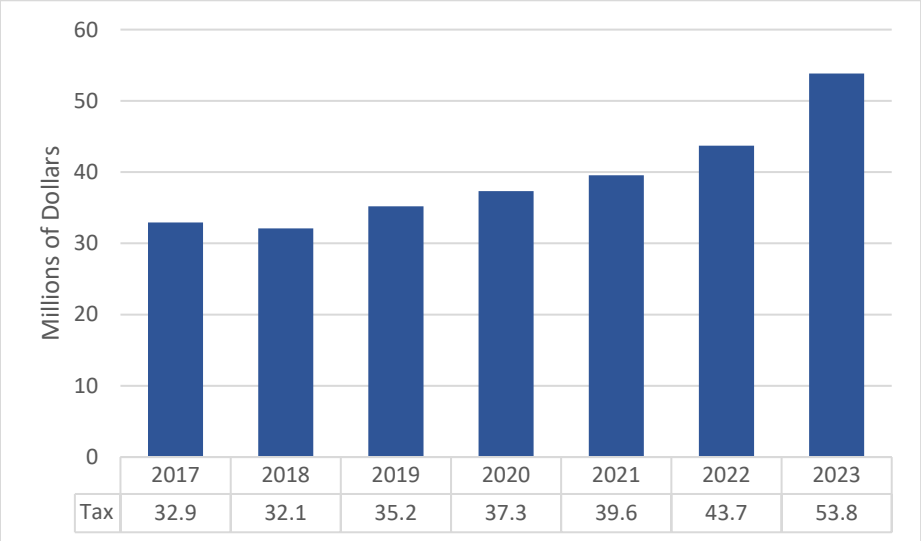
Passage of Measures 5 and 50 caused a substantial change in Oregon's school funding system by limiting property taxes for schools, which caused a shift in funding from local property taxes to the state general fund (Oregon Legislative Revenue Office 2020). Following passage of Measure 5, the state legislature adopted a K-12 equalization formula that substantially reduced local control over school funding. The equalization formula is designed to ensure financial equity among school districts, with each school district receiving an allocation per student in combined state and local funds. This distribution formula requires that any increase in property tax revenues be offset by a decrease in state funding. As summarized by the Oregon Legislative Revenue Office (2020, p. 3):

> *In effect, the formula converts local school revenue resources into part of available statewide funds for all schools. It does not matter what a district receives in property taxes or other local revenues. The only revenue that matters is the statewide sum of state and local dollars. This statewide sum, minus statutorily listed expenditures from state fund, is commonly called the formula revenue available for distribution.*

Morrow County Property Tax Revenues

Total property tax revenues are summarized for Morrow County from 2017 to 2023 in Figure 2. There were 46 taxing districts in Morrow County in 2023, which together imposed $53.8 million in property taxes after "compression," which reduced total estimated revenues by approximately $1.5 million (Morrow County 2023a). Morrow County and Morrow County School District #1 were the largest recipients of countywide property revenues, receiving about 29 percent and 26 percent of the total, respectively.

Figure 2. Property Tax Revenues in Morrow County, 2017 to 2023
Source: Morrow County 2023a



Note:
1/ Data are not adjusted for inflation.

Table 9 identifies the eight largest property taxpayers in Morrow County in 2022-23. Amazon Data Services, Inc. (Amazon) was by far the largest taxpayer accounting for more than one-third (38 percent) of total property tax revenues. The other seven taxpayers identified by name in Table 9 together accounted for 25 percent of property tax revenues, with all other taxpayers accounting for a combined 36 percent, less than the amount paid by Amazon. The noticeable increase in total revenues from 2022 to 2023 shown in Figure 2 reflects an increase in the amount paid by Amazon from $11.5 million in 2021 to $20.7 million in 2022-23 (Morrow County 2023b).

Table 9. Morrow County 2022-23 Top Taxpayers
Source: Morrow County 2023b

Name	2022-23 Tax ($ million)	Percent of Total
Amazon Data Services, Inc	$20.69	38%
Avista Corporation	$3.34	6%
Threemile Canyon Farms, LLC	$3.14	6%
Lamb Weston, Inc	$2.55	5%
Portland General Electric Co	$2.15	4%
Gas Transmission Northwest Corp	$1.21	2%
Columbia River Processing, Inc	$0.75	1%
Port Of Morrow	$0.52	1%
Other	$19.49	36%
Total	**$53.84**	**100%**

Sunstone Solar Project Site

The Project site consists of approximately 10,960 acres distributed across 23 tax lots. All but one of the 23 tax lots are fully located within the Project site boundary, with three-quarters (75 percent) of the other lot included. Eight of the tax lots include improvements. Adjusting the amount due based on the share of each tax lot within the Project site boundary, the combined 2022 tax due for the total acres that comprise the Project site (including existing improvements) was $40,128 (Morrow County 2023c).

There are more than 60 Tax Code Areas in Morrow County (Morrow County 2023d). The Project site is located in two Tax Code Areas, with most of the Project site (85 percent) located in Tax Code Area 507 and the remaining 15 percent located in Tax Code Area 3502. Tax Code Area 507 includes 12 taxing districts with a combined levy or millage rate of 12.46 for 2022-2023. Tax Code Area 3502 includes the same 12 taxing districts plus one more (Ione-Lexington Cemetery) and had a combined millage rate of 12.70 for 2022-2023 (Morrow County 2023d).

Fiscal Impacts

The following assessment provides an estimate of the property tax revenues that would be generated by the Sunstone Solar Project. Estimates are also provided for a without-Project scenario, which assumes that the Project is not developed. The assessment is based on the following assumptions:

- Project construction would take place in six phases with Phase 1 coming online in 2027, followed by Phases 2 and 3 in 2028, Phases 4 and 5 in 2029, and Phase 6 in 2030. Year 1 in the following analysis is the first year the Project pays property tax, which is assumed to occur when Phase 1 comes online.
- Sunstone has entered into a long-term PILOT agreement that provides for fixed payments in lieu of taxes from the facility over a 17-year period at a value of $7,000 per MW. This agreement is assumed be in place for the first 17 years of Project operation starting in 2028 (Year 1).
- Estimates are for a 40-year operating life. Assessed values for the with-Project scenario are assumed to depreciate over this period, with each phase depreciating to 20 percent of its original value by Year 25 following installation.
- The Project has an initial assessed value of $1,033 million per phase for a total installed cost/initial assessed value of $6,199 million.
- Tax revenues for the with-Project scenarios following expiration of the PILOT agreement are estimated using a weighted mill rate based on the share of total acres in each tax code area. For the without-Project scenario, tax revenue estimates are based on the current assessed values and mill rates by tax code area. Assessed values for the without-Project scenario are assumed to increase at a rate of 3 percent per year.
- Tax revenues are apportioned and distributed among the taxing districts that have jurisdiction over the site boundary.

The results of this assessment are summarized in Table 10, which shows estimated payments to Morrow County under the without- and with-Project scenarios in 5-year annual averages for the assumed 40-year operating life of the Project (PV alone, BESS, and PV and BESS combined). PILOT payments are assumed to be staggered based on the year that each phase comes online. PILOT payments would begin at $1.4 million in Year 1, increasing to $4.2 million in Year 2, $7.0 million in Year 3, and $8.4 million in Year 4. Payments would then remain at $8.4 million per year through Year 17.

Estimated tax revenues would increase following expiration of the PILOT in Year 17, assuming that the Project would be taxed based on assessed value and applicable millage rates. Following expiration of the PILOT agreement, property tax payments on the PV facility would increase to an estimated $14 million in Year 18. With the BESS facility property tax payments would increase to $37.4 in Year 18 (Table 10).

Table 10. Annual Average Estimated Tax Revenues by Scenario (in millions of dollars)

	Estimated Property Tax Revenues ($ million)			
		With-Project		
Years	Without-Project	PV Only	Plus BESS	PV Plus BESS Combined
1 to 5	0.046	5.880		5.880
6 to 10	0.054	8.400		8.400
11 to 15	0.062	8.400		8.400
16 to 17	0.069	8.400		8.400

18 to 20	0.074	13.106	21.793	34.899
21 to 25	0.084	9.231	15.350	24.582
26 to 30	0.097	6.002	9.981	15.984
31 to 35	0.112	5.841	9.713	15.554
36 to 40	0.130	5.841	9.713	15.554

Under the without-Project scenario, the 23 tax lots that encompass the Project area would generate an annual average of $46,000 in property tax revenues for Years 1 to 5 and an estimated total of $3.3 million in property tax revenues over the next 40 years. The with-Project scenario for the PV alone would in contrast generate an estimated $304 million. The BESS would generate an additional $289 million, for a combined total of approximately $593 million over the 40-year operating life of the Project and a total net increase (subtracting the without-project revenue over 40 years) of approximately $590 million (Table 11).

Estimated tax revenues, including those generated under the PILOT agreement, are assumed to be distributed to the taxing districts that comprise Tax Code Areas 507 and 3502 in accordance with their established levies (which combined make up the millage rate for each area). In 2022-23, payments to the 13 taxing districts that comprise the two Tax Code Areas together were approximately $41.1 million, with payments to Morrow County and Morrow County School District #1 accounting for 37 percent and 34 percent of the combined total, respectively.

Estimated property tax revenues for the first full year of operation (Year 4), the first year following expiration of the PILOT agreement (Year 18), and the assumed operating life of the Project (40 years) are shown by taxing district in Table 11. Revenues for the PV and BESS facilities are shown separately and combined. Estimated property tax revenues for each period are net estimates (with-Project estimates minus the corresponding without-Project numbers). The estimated combined tax payments in Year 4 ($8.35 million) are equivalent to about 20 percent of total payments to these districts in 2022-23 ($41.1 million). This estimated total ($8.35 million) would make the Project the second largest taxpayer in Morrow County in 2022-23 (see Table 9).

Table 11. Current and Estimated Net Tax Revenues by Taxing District (in millions of dollars)

Source: Morrow County 2023, ECONorthwest

Taxing District[1/]	Mill Rate[1/]	Tax Revenues (2022-23) ($ million)[2/]	Estimated Net Property Tax Revenues ($ million)[3/]						
				PV Only[4/]		Plus BESS[5/]		PV Plus BESS Combined[4/]	
			Year 4	Year 18	Over a 40-Year Operating Period	Year 18	Over a 40-Year Operating Period	Year 18	Over a 40-Year Operating Period
101 Morrow County	4.1347	15.36	2.72	4.56	97.94	7.62	94.15	12.18	192.09
516 Umatilla Morrow Radio & Data District	0.1700	0.63	0.11	0.19	4.03	0.31	3.87	0.50	7.90
617 Health District	0.6050	2.24	0.40	0.67	14.33	1.11	13.78	1.78	28.11
618 Health District Local Option	0.3900	1.24	0.26	0.43	9.24	0.72	8.88	1.15	18.12
630 Port of Morrow	0.0841	0.31	0.06	0.09	1.99	0.15	1.91	0.25	3.91
640 Ione RFD	0.7385	0.19	0.49	0.81	17.49	1.36	16.82	2.18	34.31
644 Ione-Lexington Cemetery	0.2401	0.07	0.16	0.26	5.69	0.44	5.47	0.71	11.15
646 Willow Creek Park	0.3813	0.20	0.25	0.42	9.03	0.70	8.68	1.12	17.71
650 Morrow Unified Recreation District	0.4560	1.69	0.30	0.50	10.80	0.84	10.38	1.34	21.18
652 Morrow County School District #1	4.0342	13.81	2.65	4.45	95.56	7.43	91.86	11.88	187.42
654 Intermountain ESD	0.6156	2.24	0.40	0.68	14.58	1.13	14.02	1.81	28.60
658 Blue Mountain CC	0.6611	2.40	0.43	0.73	15.66	1.22	15.05	1.95	30.71
659 Blue Mountain CC Bonds	0.1886	0.71	0.12	0.21	4.47	0.35	4.29	0.56	8.76
Total	**12.6992**	**41.10**	**8.35**	**14.00**	**300.81**	**23.40**	**289.17**	**37.41**	**589.97**

Notes:

1/ The Project site is located within Tax Code Areas 502 and 3502. The taxing districts and mill rates are the same for both areas, except that Tax Code Area 3502 also includes the Ione-Lexington Cemetery. Total mills are for Area 3502. The combined mill rate for Area 502 is 12.4591 (the above total [12.6992] less Ione-Lexington Cemetery [0.2401]).

2/ Tax revenues for 2022-23 exclude losses due to Measure 5. Taxing district 101 Morrow County, for example, lost $296,558 due to "compression."

3/ Property tax revenues by taxing district are estimated based on a weighted mill rate that reflects the relative shares of the two Tax Code Areas.

4/ Estimated property tax revenues for PV Only and PV plus BESS Combined are net estimates: with-Project estimates minus the corresponding without-Project numbers.

5/ Estimated property tax revenues for Plus BESS are the incremental addition that would occur if BESS were included as part of the Project.

Viewed by individual fund, Morrow County and Morrow County School District #1 will receive the largest shares of funds, followed by the Ione Rural Fire Department (RFD), Blue Mountain Community College (CC), and the Intermountain Education Special District (ESD).

Activities that are financed by tax revenues in Morrow County include roads, law enforcement, public health, public works, land use planning, assessment and taxation, district attorney, juvenile services, and general administration. The Ione Rural Fire Protection District (RFPD) provides wildland and structural firefighting services, and also responds to medical emergencies, motor vehicle accidents, rescue calls, and hazardous materials incidents within its jurisdiction.[6] The Ione RFPD covers an area of about 925 square miles composed primarily of grass and agricultural lands (Morrow County Planning Department 2019). Increased funding for the Ione RFPD could indirectly benefit agricultural activities through the provision of additional funds for wildland firefighting.

Economic Impacts of Increased Tax Revenues

The estimated tax revenues shown by Taxing District in Table 11 would in most cases be a significant additional source of revenue that the affected local jurisdictions would otherwise not receive. This would be the case for the non-education taxing districts. The situation is more complicated for the education-related taxing districts (Morrow County School District, Intermountain ESD, and Blue Mountain CC) due to the equalization formula Oregon uses to ensure financial equity among school districts (see the above discussion). The application of this formula suggests that estimated education-related tax revenue gains shown in Table 11 would be offset by a corresponding decrease in state funding, with no net gain to Morrow County.

For the purposes of this analysis, we assume that only non-education tax revenues would represent a net gain to local taxing districts.[7] Using IMPLAN, we modeled the economic impacts for Morrow County based on a corresponding increase in spending for Year 4 and Year 18, the first full year of operation and the first full year following expiration of the PILOT agreement, respectively. Estimated increases in education-related revenues were assumed to have no effect on local government spending.

Estimated property tax revenues generated in Year 4 would support an estimated 23 total (direct, indirect, and induced) jobs in Morrow County and approximately $2.1 million in labor income, with total economic output of approximately $3.1 million (Table 12). Following the anticipated expiration of the PILOT agreement in Year 17, there would be a substantial increase in estimated Project-related tax revenues in Year 18. The PV facility alone would support an estimated 40 total (direct, indirect, and induced) jobs in Morrow County, $3.6 million in labor income, and $5.2 million in output (Table 13). The PV and BESS portions of the project combined would generate property tax revenues that would support an estimated 106 total

[6] The Ione RFPD is identified as 640 Ione RFD in Table 11.

[7] The non-education taxing districts included in this analysis are: 101 Morrow County, 516 Umatilla Morrow Radio & Data District, 516 Umatilla Morrow Radio & Data District, 618 Health District Local Option, 630 Port of Morrow, 640 lone RFD, 644 lone-Lexington Cemetery, 646 Willow Creek Park, and 650 Morrow Unified Recreation District.

(direct, indirect, and induced) jobs in Morrow County and approximately $9.6 million in labor income, with total economic output of approximately $14 million (Table 14).

Table 12. Estimated Economic Impacts of Increased Property Tax Revenues, Year 4
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	19.2	$1,868,640	$2,213,761
Indirect	3.0	$208,374	$628,469
Induced	1.1	$64,159	$270,143
Total	**23.3**	**$2,141,173**	**$3,112,374**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

Table 13. Estimated Economic Impacts of Increased Property Tax Revenues PV Only, Year 18
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	32.3	$3,132,719	$3,711,305
Indirect	5.2	$349,332	$1,053,610
Induced	2.1	$107,561	$452,887
Total	**39.6**	**$3,589,613**	**$5,217,801**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

Table 14. Estimated Economic Impacts of Increased Property Tax Revenues PV Plus BESS, Year 18
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)	Labor Income	Output
Direct	86.2	$8,368,833	$9,914,482
Indirect	14.0	$933,216	$2,814,642
Induced	5.6	$287,342	$1,209,854
Total	**105.8**	**$9,589,391**	**$13,938,978**

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in Year 2023 dollars.

3. Agricultural Impact Analysis

Construction and operation of the Project would remove approximately 9,400 acres from agricultural production. This land is presently used for dryland winter wheat production and farmed on rotation. The following assessment considers the conversion of the acres to solar development as a share of harvested acres and agricultural sales and estimates the secondary (indirect and induced) impacts that a corresponding reduction in farm spending would have on the local economy.

State and Local Overview

Most of the land in Morrow County is farmland. In 2017, the most recent available agricultural census identified 1,126,101 acres in farms, approximately 87 percent of the land in the county (USDA 2017, U.S. Census Bureau 2023). A total of 375 farms operated in the county in 2017, with an average farm size of 3,003 acres. Just under half (45 percent) of the farmland in Morrow County (511,874 acres) is cropland, with 54 percent (275,833 acres) of total cropland harvested in 2017 (Table 15). From 2012 to 2017, both the number of farms and land in farms decreased in Morrow County, with 26 fewer farms and 39,025 acres fewer acres in farms, resulting in an increase in average farm size from 2,905 acres to 3,003 acres (Table 15). Ninety-three percent of farms in Morrow County were family-owned in 2017 (USDA 2017).

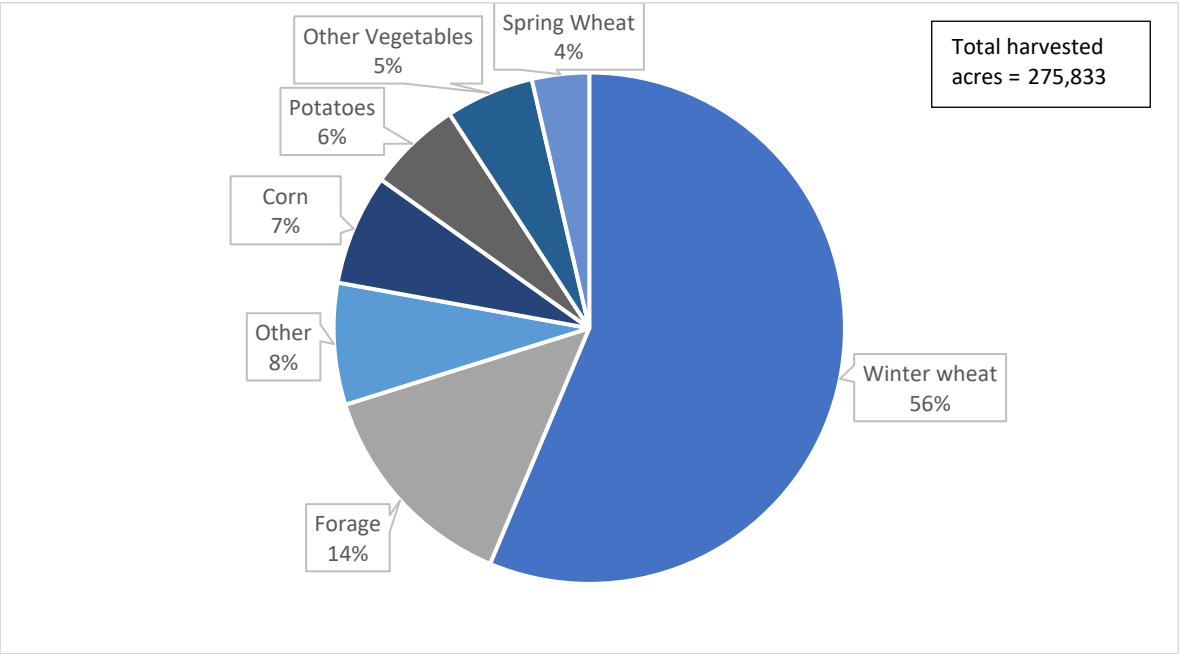
Table 15. Land in Farms and Selected Crops Harvested in Morrow County, 2012 and 2017
Source: USDA 2012, 2017

Item	2017		2012	
	Number of Farms	Acres	Number of Farms	Acres
Total Farms/Land in Farms	375	1,126,101	401	1,165,126
Total Cropland	257	511,874	305	486,433
Harvested cropland	182	275,833	193	248,356
Irrigated land	190	111,486	188	65,637
Selected crops harvested				
Wheat for grain, all	107	165,386	96	144,249
Winter wheat for grain	105	155,414	91	126,928
Forage	92	38,113	98	25,696
Vegetables harvested for sale	13	31,767	15	20,351
Potatoes	10	16,362	5	8,544

Cultivated and Harvested Crops

Viewed in terms of acres, the primary crop grown in Morrow County is wheat for grain, specifically winter wheat (Table 15, Figure 3). Winter wheat accounted for more than half (56 percent, 155,414 acres) of total harvested acres in 2017, followed by land used for forage (hay and haylage, grass silage, and greenchop) (14 percent, 38,113 acres), and vegetables harvested for sale (12 percent, 31,767 acres). Potatoes were the main vegetable harvested for sale, accounting for slightly more than half (52 percent) of total acres of vegetables harvested for sale. Other vegetables harvested for sale include onions and sweet corn, which made up 28 percent and 12 percent of total acres of vegetables harvested for sale in 2017, respectively (USDA 2017).

Figure 3. Selected Crops Harvested in Morrow County, 2017 (acres)
Source: USDA 2017



Approximately 10 percent (111,486 acres) of the farmland in Morrow County is irrigated (Table 16). Most irrigated land (96 percent) was identified as harvested cropland in 2017, with pastureland and other land making up the remaining 4 percent. Irrigated land accounted for 39 percent of total harvested cropland in 2017 (Table 16). More than half (61 percent) of harvested irrigated cropland was forage (32 percent) and vegetables harvested for sale (29 percent), and most of the land harvested for these crops was irrigated (Table 16). Winter wheat accounted for 9 percent of the irrigated total in 2017 and just 6 percent of harvested winter wheat acres were irrigated (Table 16).

Table 16. Harvested Cropland and Selected Irrigated Crops in Morrow County, 2017
Source: USDA 2017

Harvested Cropland	Harvested Acres	Irrigated Acres	Percent of Harvested Acres Irrigated	Percent of Irrigated Harvested Total
Total	275,833	106,511	39%	100%
Selected Irrigated Crops				
Forage	38,113	33,731	89%	32%
Vegetables harvested for sale	31,767	30,930	97%	29%
Wheat for grain, all	165,386	11,771	7%	11%
Winter wheat for grain	155,414	9,924	6%	9%
Corn for grain	19,338	10,486	54%	10%

Livestock

Morrow County ranked number one in Oregon in livestock sales in 2017. According to the 2017 Agricultural Census, 133 farms sold a combined total of 163,150 cattle and calves in that year. In addition, 27 farms had an estimated 2,877 sheep (USDA 2017).

Economic Output and Employment

Sales by agricultural commodity group in Morrow County in 2017 are summarized in Table 17. Total sales were estimated at $596.5 million, with livestock accounting for more than two-thirds (68 percent) of the total. Cattle and cows (39 percent) and milk from cows (28 percent) made up almost all of the livestock total. Crops accounted for less than one-third of total value in 2017. Wheat, which made up 60 percent of harvested cropland in 2017, accounted for just 6 percent of total sales and 17 percent of crop sales (Tables 16 and 17). Vegetables, melons, potatoes, and sweet potatoes, which accounted for just 12 percent of harvested cropland, made up slightly more than half (51 percent) of crop sales and 16 percent of total sales (Tables 16 and 17).

Table 17. Sales by Commodity Group in Morrow County, 2017
Source: USDA 2017

Commodity Group	Sales ($ million)	Percent of Total Sales	Percent of Crop Sales
Crops	**$190.7**	**32%**	**100%**
Grains, oilseeds, dry beans, dry peas	$66.3	11%	35%
Corn	$32.9	6%	17%
Wheat	$33.1	6%	17%
Vegetables, melons, potatoes, sweet potatoes	$97.3	16%	51%
Other crops and hay	$25.3	4%	13%
Livestock	**$405.7**	**68%**	**–**
Cattle and calves	$234.2	39%	--
Milk from cows	$168.9	28%	--
Other livestock, poultry, and aquaculture	$2.7	0%	--
Total sales	**$596.5**	**100%**	**–**

Data compiled by IMPLAN provides additional perspective on the agricultural economy in Morrow County. In 2021, an estimated total of 2,070 people were employed in agriculture, with a combined total output of $591 million (Table 18). Support activities for agriculture and forestry, the second largest sector by employment in Morrow County (see Table 3), accounted for 816 jobs in 2021, approximately 40 percent of total agricultural employment (Table 18). Vegetable and melon farming followed by all other crop farming were the next largest agricultural employers. Grain farming, which includes wheat, corn, dry beans, and dry peas, accounted for 89 jobs, about 4 percent of total agricultural employment in Morrow County in 2021 (Table 18, Figures 4 and 5).

Table 18. Employment, Labor Income, and Economic Output by Agricultural Sector in Morrow County, 2021
Source: IMPLAN 2022

IMPLAN Sector	Description	Total Employment[1/]	Labor Income ($ Million)	Total Output ($ Million)
19	Support activities for agriculture and forestry[2/]	816	$43.4	$39.4
3	Vegetable and melon farming	434	$55.3	$132.7
10	All other crop farming[3/]	389	$24.5	$42.4
12	Dairy cattle and milk production	125	$25.7	$183.3
11	Beef cattle ranching and farming	104	$39.7	$102.2
16	Commercial logging	103	$8.4	$12.6
2	Grain farming[4/]	89	$28.2	$75.5
na	Other agriculture[5/]	10	$2.4	$3.4
	Total	**2,070**	**$227.7**	**$591.4**

Notes:
1/ IMPLAN jobs include all full-time, part time, and temporary positions.
2/ IMPLAN Sector 9 – Support activities for agriculture and forestry includes a wide range of agricultural services, including crop dusting, crop spraying, cultivation services, machine harvesting of grain, hay mowing, and livestock breeding services, as well as forestry-related services, including timber cruising, forest thinning, and reforestation services.
3/ IMPLAN Sector 10 – All other crop farming includes hay farming (e.g., alfalfa hay, clover hay, grass hay), hop, mint, and tea farming.
4/ IMPLAN Sector 2 – Grain farming includes wheat, corn, dry beans, and dry peas.
5/ Other agriculture as defined here includes several IMPLAN sectors, including Fruit farming; Greenhouse, nursery, and floriculture production; and Animal production other than cattle and poultry and eggs.

Figure 4. Agricultural Employment in Morrow County by Sector, 2021
Source: IMPLAN 2022

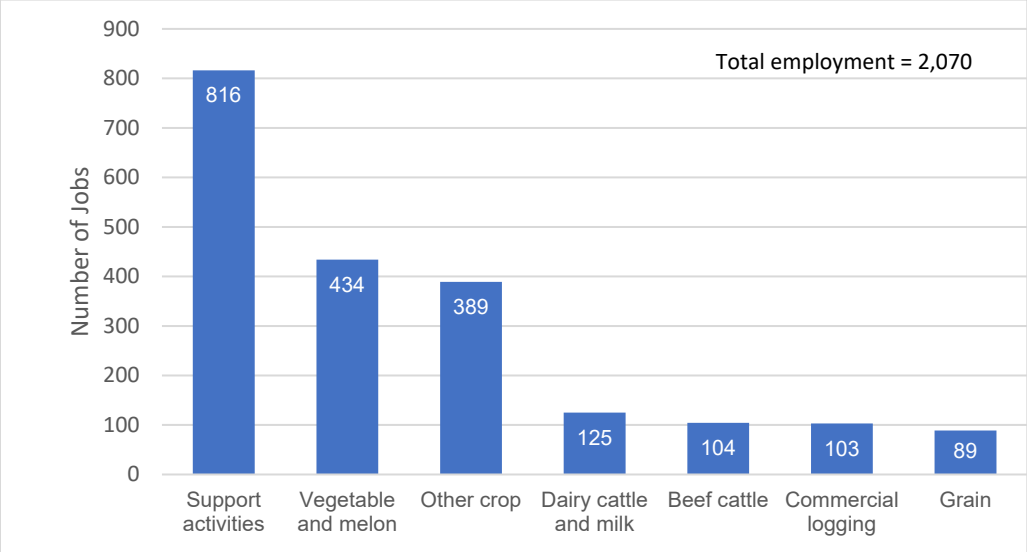
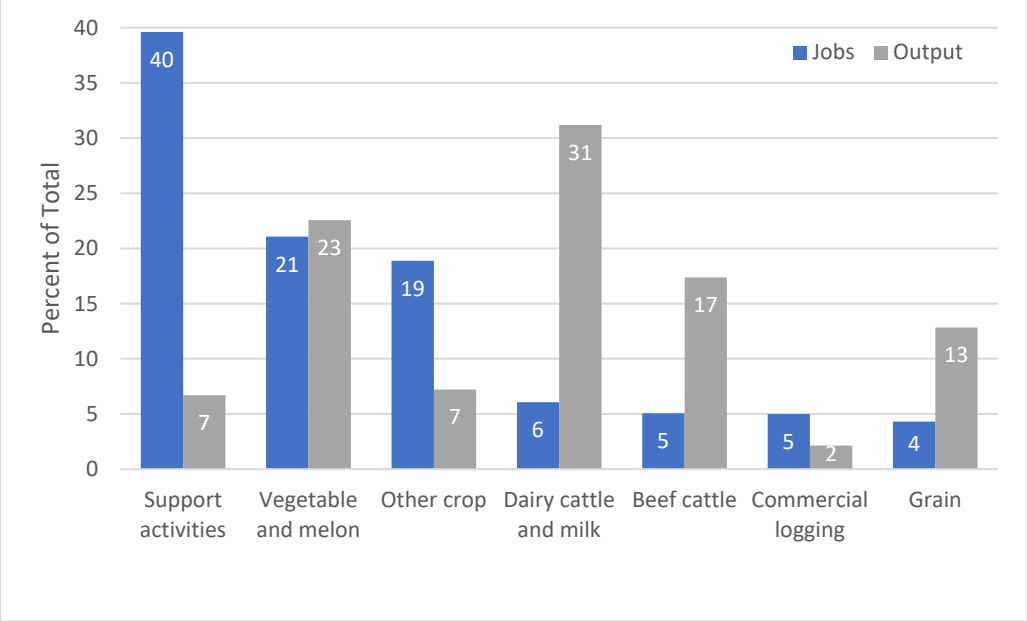
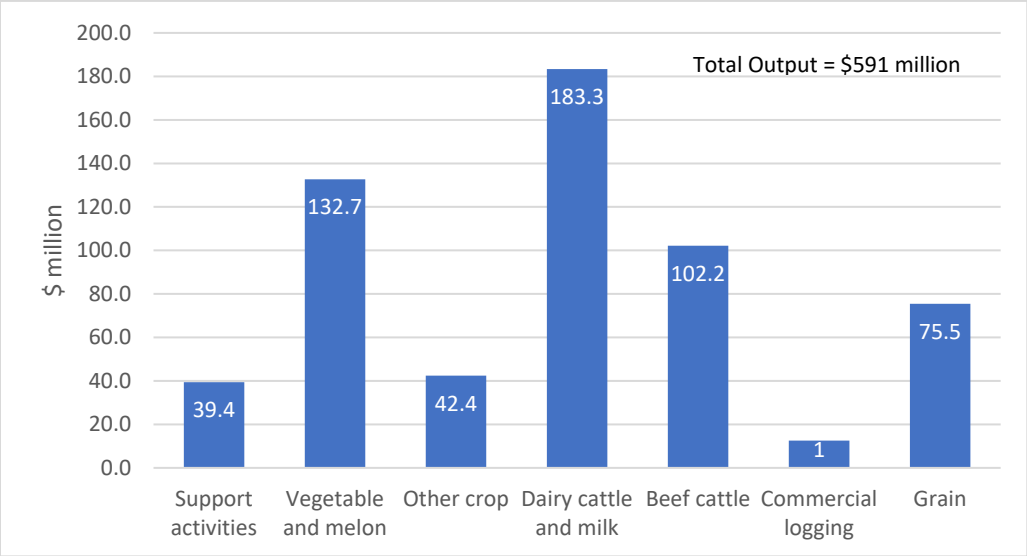


Figure 5. Agricultural Employment and Output in Morrow County by Sector, 2021 (percent)
Source: IMPLAN 2022



Viewed in terms of economic output, dairy cattle and milk was the largest agricultural sector, with $183 million in output in 2021, almost one-third (31 percent) of total agricultural output. Vegetable and melon farming followed by beef cattle were the next largest agricultural sectors from an economic output perspective. Grain farming contributed an estimated $75.5 million in sales, about 13 percent of total agricultural output in Morrow County in 2021 (Table 18, Figures 5 and 6).

Figure 6. Output in Morrow County by Agricultural Sector, 2021 (in millions of dollars)
Source: IMPLAN 2022



Winter Wheat Production and Value

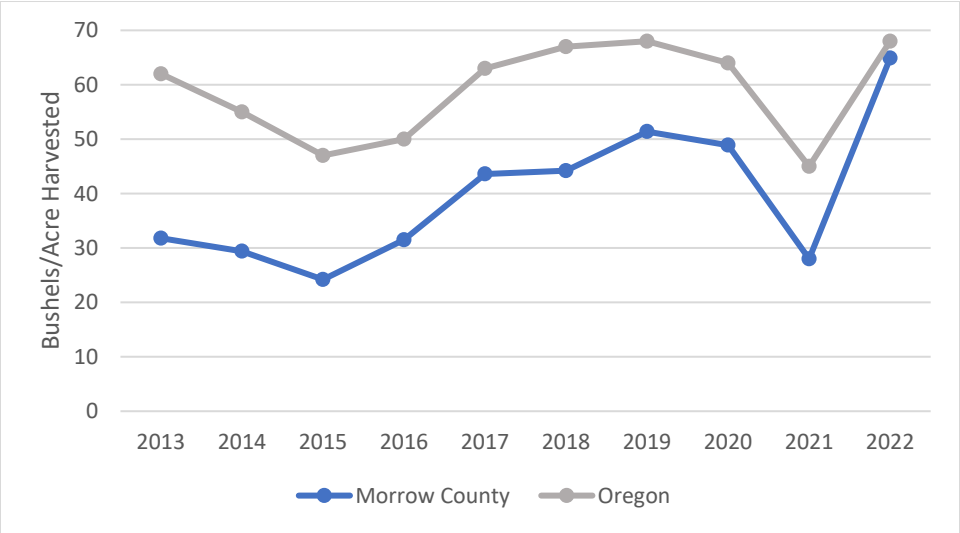
Winter wheat yields vary by location and from year-to-year. Annual average yields in bushels per acre over the last decade are shown for Morrow County and the State of Oregon in Table 19 and Figure 7. Yields in both areas have followed similar trends over the last decade, with yields in Morrow County consistently lower than the state average. Average annual yields from 2013 to 2022 were 39.8 bushels/acre in Morrow County and 58.9 bushels/acre in Oregon. Morrow County yields over this period were on average 19.1 bushels/acre lower, equivalent on average to about two-thirds (66 percent) of the corresponding statewide values. Average yields dropped sharply in both areas in 2021 due to poor growing conditions, but more than rebounded in 2022, especially in Morrow County where the average yield more than doubled from 2021 to 2022, increasing from 28 bushels/acre to 64.9 bushels/acre (Table 19, Figure 7).

Table 19. Average Annual Yield for Winter Wheat (Bushels/Acre), 2013-2022
Source: USDA 2023a

Year	Morrow County	Oregon	Difference
2013	31.8	62.0	30.2
2014	29.4	55.0	25.6
2015	24.2	47.0	22.8
2016	31.5	50.0	18.5
2017	43.6	63.0	19.4
2018	44.2	67.0	22.8
2019	51.4	68.0	16.6

2020	48.9	64.0	15.1
2021	28.0	45.0	17.0
2022	64.9	68.0	3.1
2013-2022 Average	**39.8**	**58.9**	**19.1**

Figure 7. Average Annual Yield for Winter Wheat (Bushels/Acre)
Source: USDA 2023a



The average annual winter wheat yields discussed in this section include both irrigated and dryland harvested acres. Irrigated land accounted for 8.2 percent of winter wheat acres harvested in Oregon in 2017. In Morrow County, irrigated land accounted for 9,924 acres or 6.4 percent of the total 155,414 winter wheat acres harvested (Table 16). According to the 2017 Agricultural Census, average winter wheat yields in Oregon for irrigated land were 106.1 bushels/acre compared to 53.9 bushels per acre for unirrigated land. These data were not available at the county level.

Average annual prices for winter wheat in Oregon are presented per bushel for 2013 to 2022 in Table 20. Table 20 also shows total statewide winter wheat acres harvested, production in bushels, and the total value of production. Winter wheat acres harvested ranged from 690,000 to 785,000 over this period, with an annual average of 723,000 acres. Values per bushel ranged from a low of $4.64 in 2017 to a high of $10.03 in 2022, with a weighted annual average of $6.61 (Table 20, Figure 8). The total annual value of production averaged $281.6 million over the same period.

Table 21 presents total winter wheat acres harvested, production in bushels, and the total value of production for Morrow County. Values are annual estimates for the last decade (2013 to 2022). Winter wheat acres harvested ranged from 120,500 to 135,500 over this period, with an annual average harvest of 127,900 acres. State average prices per bushel were used to estimate the total value of winter wheat production in Morrow County, which ranged from $24.2 million to $62.7 million, with an annual average of $30.8 million (Table 21).

Table 20. Winter Wheat Acres Harvested, Total Production, Average Price per Bushel, and Total Value of Production in Oregon, 2013 to 2022

Source: USDA 2023a, 2023b

Year	Acres Harvested (1,000s)	Total Production (1,000 Bushels)	Average Price/Bushel ($)[1/]	Total Value of Production ($ million)[1/]
2013	780	48,360	$7.29	$352.5
2014	740	40,700	$7.49	$304.9
2015	735	34,545	$6.99	$241.4
2016	710	35,500	$6.00	$212.9
2017	690	43,470	$4.75	$206.5
2018	695	46,565	$4.64	$216.0
2019	730	49,640	$5.51	$273.7
2020	725	46,400	$5.68	$263.5
2021	705	31,725	$7.98	$253.3
2022	720	48,960	$10.03	$490.8
2013-2022 Average[2/]	**723**	**42,587**	**$6.61**	**$281.6**

Notes:
1/ Dollars are not adjusted for inflation.
2/ The average price per bushel for 2013-2022 is a weighted average.

Figure 8. Total Winter Wheat Production and Average Price per Bushel in Oregon, 2013 to 2022

Source: USDA 2023a, 2023b

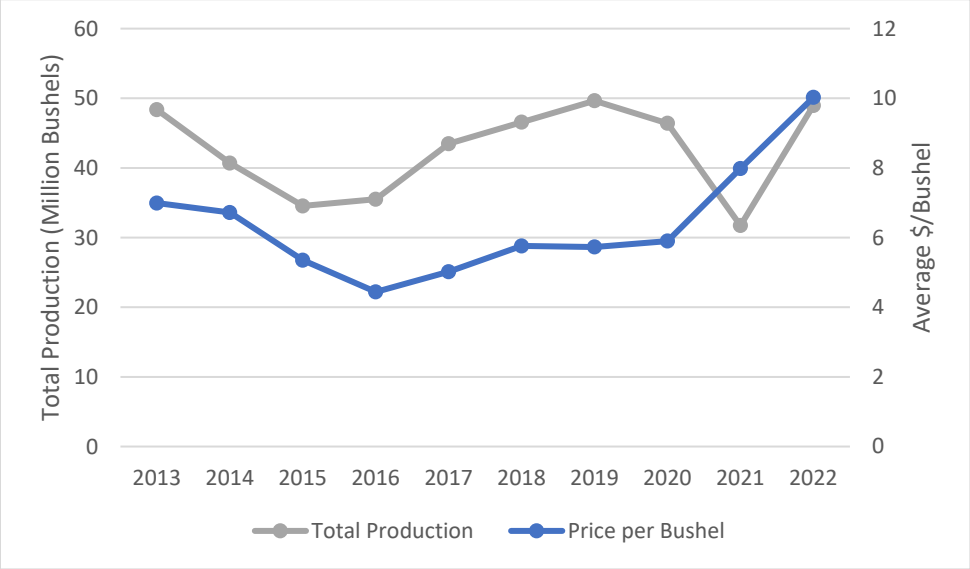


Table 21. Winter Wheat Acres Harvested, Total Production, and Total Value of Production in Morrow County, Oregon, 2013 to 2022

Sources: USDA 2023a, 2023b

Year	Acres Harvested (1,000s)	Total Production (1,000 Bushels)	Total Value of Production ($ million)[1/]
2013	133.5	4,486	$32.7
2014	124.0	3,410	$25.5
2015	123.8	3,479	$24.3
2016	120.5	4,157	$24.9
2017	129.0	5,444	$25.9
2018	128.0	5,222	$24.2
2019	135.5	6,260	$34.5
2020	134.0	5,092	$28.9

2021	120.5	3,037	$24.2
2022	130.0	6,253	$62.7
2013-2022 Average[3/]	**127.9**	**4,684**	**$30.8**

Note:
1/ Total value of production is estimated based on average annual prices per bushel in Oregon (see Table 20). Dollars are not adjusted for inflation.

Project Area Overview

Land cover and crop use is shown for the Project site and the surrounding 1-mile area in Figure 9. This information was compiled from the USDA Cropland Data Layer (CDL) on CropScape.[8] Using satellite imagery, the Cropland Data Layer Program provides a geo-referenced, crop-specific land cover map for the continental United States. The land cover map is updated annually. Figure 9 uses data from 2022, the most recent year available. Review of these data suggests that in 2022, 94 percent of the Project site was either cultivated for winter wheat (47 percent) or fallow (47 percent). Review of CDL information from preceding years suggests that these uses alternate from year-to-year, with land actively cultivated for winter wheat one year, left fallow the next. Land cover on the remaining 6 percent of the site included grass/pasture and shrubland (Figure 9).

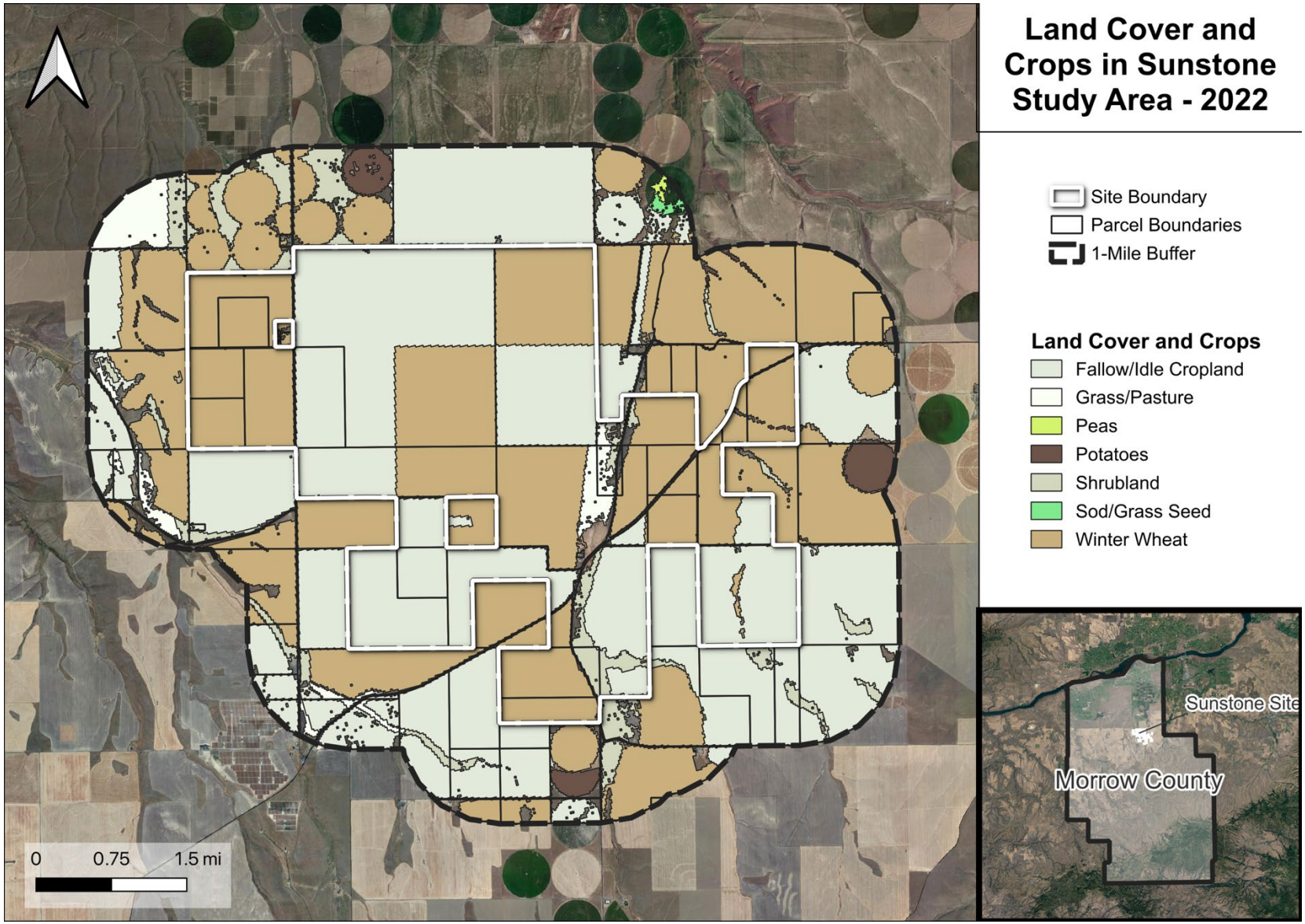
Survey of Landowners

There are a total of four property owners operating agricultural uses on land tracts located in the Project site boundary. In support of the Application for Site Certificate (ASC) process, the PGR team surveyed the four main landowners, who together own about 98 percent of the land within the Project site boundary. The survey consisted of a questionnaire designed to elicit information to support the agricultural land use analysis in Exhibit K to the ASC. [9] Review of this information indicates that as suggested by the CDL information, all farmland within the Project site boundary is dedicated to dryland wheat production and farmed on rotation.

[8] https://data.nal.usda.gov/dataset/cropscape-cropland-data-layer

[9] Developed by Tetra Tech, the questionnaire was administered and completed by Jeff Fox of Gallatin Power Partners, LLC. Key results from the survey are included in a summary table provided in Appendix A to this report.

Figure 9. Land Cover and Crops in the Project Area, 2022
Source: USDA 2023c



Roughly half of each farm is planted and harvested in any given year, with the other half left in summer fallow. Figure 9 shows the overall pattern of cultivated versus fallow acres in 2022. Crop practice and schedule information provided by the surveyed landowners is summarized further in Appendix A.

Crop Yields

Information on crop yields provided by the surveyed landowners is summarized in Table 22. This information is generally consistent with the Morrow County average annual yield over the past 10 years, which was 39.8 bushels/acre (Table 19). One landowner (Grieb) also provided total yield information for the past four years. Assuming approximately 2,200 acres were harvested each year, as indicated by the landowner, yields on the Grieb property ranged from about 11 to 40 bushels/acre and were below the corresponding Morrow County averages for these four years (Table 23).

Table 22. Project Site Average Winter Wheat Yields
Source: 2023 Sunstone Solar landowner surveys (see Appendix A)

	Bushels per Acre		
Landowner	Average	Low	High
Grieb	30-40	20	60
Doherty	32	12	45
Matheny	38	20	60
Ashbeck[1/]	40	-	-

Note:
1/ Low and high ranges were not provided for the Ashbeck property.

Table 23. Annual Winter Wheat Yield Comparison
Source: 2023 Sunstone Solar landowner surveys (see Appendix A), USDA 2023a

	Grieb Property			
Year	Acres Harvested	Total Production (Bushels)	Annual Yield (Bushels/Acre)	Morrow County Average (Bushels/Acre)
2019	2,200	24,000	11	51
2020	2,200	57,000	26	49
2021	2,200	38,000	17	28
2022	2,200	89,000	40	65
2019-2022 Average			**24**	**48**

According to one of the surveyed landowners, prices for wheat in recent years have ranged from as low as $5 to $6 per bushel to a current price of $8.40 (Appendix A). These identified prices are generally consistent with the statewide annual average values summarized in Table 20.

Local Expenditures

Two of the surveyed landowners provided information on current local spending (see Appendix A). Both landowners identified local spending for fuel, seed, and fertilizer and chemicals. Identified local suppliers include Morrow County Grain Growers, Sand Hollow

Agricultural Supply, McGregor Seed, and Carson in Hermiston. Viewed on a per acre basis, this spending ranged from approximately $135 to $152 per planted acre.

Farm Employment

Farming operations on the Project site currently provide employment for the landowners, all of whom farm the land themselves (Appendix A). In addition, one of the landowners (Grieb) employs one full-time worker. Two of the landowners noted that they also employ seasonal help for a month or less during harvest. Together, farming operations on the Project site support approximately 6 FTE positions.

Value of Agricultural Production

The land use analysis prepared in support of Exhibit K for the ASC estimates that construction and operation of the Project would remove approximately 9,400 acres from dryland wheat production. For the purposes of analysis, we assume that approximately half of this total (4,700 acres) is planted and harvested each year, with the other half left fallow. For the average annual yield (bushels/acre), we use two sets of estimates. The first set of estimates uses the average yield values provided by the surveyed landowners, which results in a weighted average of 35.2 bushels/acre. The second set uses the 10-year average annual yield for Morrow County (39.8 bushels/acre) (Table 19). Both averages are higher than the reported annual yields for the Grieb property for 2019 to 2022, which averaged 24 bushels per acre (Table 23) and represent a higher end range for the purposes of analysis.

Using these average yields and the 10-year average annual price per bushel for Oregon ($6.61) results in estimated average values of $233 to $263 per acre. If half of the land used for dryland wheat production is harvested each year (4,700 acres) and applying these per acre values results in total annual estimated values of $1.09 million to $1.24 million (Table 24).

Table 24. Estimated Value of Agricultural Production

Measure	Low[1/]	High[1/]
Acres Harvested	4,700	4,700
Average Bushel/Acre	35.2	39.8
Average Value/Acre[2/]	$233	$263
Total Production (1,000s Bushels)	165	187
Total Production Value ($1,000)	$1,094	$1,236

Notes:
1/ The low and high estimates use average bushels/acre from the landowner survey (low) and the 10-year average for Morrow County (high). Note that the Morrow County average includes irrigated and non-irrigated land.
2/ Average value per acre is estimated using the average annual price per bushel for Oregon for 2013 to 2022.

Agricultural Impacts

Winter Wheat Production and Value

From 2013 to 2023, an annual average of 127,900 acres of winter wheat was harvested in Morrow County, resulting in total estimated average annual revenues of $30.8 million (Table 21). Statewide, an annual average of 723,000 acres of winter wheat was harvested, with average annual revenues of $281.6 million (Table 20). Viewed as a share of these totals, the acres that would be removed from production represent 3.7 percent and 0.7 percent of the average annual acres of winter wheat harvested in Morrow County and Oregon, respectively. Viewed as a share of annual average revenue, the midpoint of the estimated value of production on the Project site ($1.165 million) is equivalent to 3.8 percent and 0.4 percent of the estimated values in Morrow County and Oregon, respectively (Table 25).

Table 25. Affected Agricultural Production as a Share of County and State Winter Wheat Totals

Area	2013-2022	
	Average Acres Harvested	Average Value of Production ($000)
Morrow County	127,880	30,793
Oregon	723,000	281,554
Affected Values	4,700	$1,165
As a Percent of Total		
Morrow County	3.7%	3.8%
Oregon	0.7%	0.4%

Economic Output and Employment

Total sales by agricultural commodity group are summarized in Table 17. These data from the 2017 Agricultural Census provide a comprehensive picture of agricultural sales in Morrow County for that year. In addition, employment, labor income, and economic output are summarized by agricultural sector in Table 18. This second set of data is from the 2021 IMPLAN model for Morrow County and information is summarized by IMPLAN economic sector, as indicated in the table. These two sources of information each provide a comprehensive picture of the agricultural economy in Morrow County and are both used as a baseline for the following assessment.

As shown in Table 17, the 2017 Agricultural Census estimated total sales of $596.5 million in Morrow County, with livestock accounting for more than two-thirds (68 percent) of the total value. Crops made up the remaining 32 percent of sales. Total wheat sales were $33.1 million, approximately 17 percent of crop sales and just 6 percent of total sales (Table 17). The average yield for winter wheat in Morrow County in 2017 was 43.6 bushels/acre (Table 19) and the average annual price per bushel in Oregon was $4.75 (Table 20). If 4,700 acres were

harvested on the Project site in 2017 and using these average values results in total estimated sales of $973,000. [10] This estimated value represents 2.9 percent of total wheat sales in Morrow County in 2017 and just 0.5 percent and 0.2 percent of total crop and agricultural sales, respectively.

Taking the area within the Project site boundary out of agricultural production would have impacts to the local agricultural economy due to the associated reduction in local spending. Landowners currently purchase fuel, seed, and fertilizer and chemicals from local suppliers including Morrow County Grain Growers, Sand Hollow Agricultural Supply, and McGregor Seed (see Appendix A). Using IMPLAN, we modeled the economic impacts for Morrow County based on an estimated reduction in annual output of $1.165 million in the grain sector. This estimated reduction is based on 10-year average values and is the midpoint between the two estimates shown in Table 24.

Table 26 shows the local economic activity supported by current agricultural operations based on estimated output of $1.165 million and employment information provided by the participating landowners (Appendix A). These are annual impacts and removal of the project site from production would result in a corresponding annual reduction in economic activity in the following ways:

- The direct impact represents the gross value of production that the farmers would no longer receive from producing wheat, and the associated employment and labor income of farmers and their employees. The direct employment number shown in Table 26 is based on information provided by the landowners and includes the participating landowners and the one full-time worker presently employed on the Grieb farm. One of the landowners, the Griebs, have indicated that they would cease farming resulting in a loss of two FTE jobs, including the full-time worker they presently employ. The other three landowners have indicated that they would continue to farm elsewhere locally if the Sunstone Solar Project is built. In other words, only two of the direct jobs shown in Table 26 would be lost if the Project were to go forward.
- The indirect impact represents economic activity supported by the agricultural production on the project site. This includes spending on inputs like seeds, fertilizer, and fuel and contract services, which could include harvesting or spraying. This supports 3.9 indirect jobs associated with $287,000 in labor income. When agricultural production on the site stops, the presumption is that this spending no longer occurs and this amount of FTE, labor income, and output would be lost. This may or may not translate into reductions in individual employment positions (jobs).

[10] This total value ($973,000) is based on the average yield and value per bushel for 2017 (as noted in the text) and is used to compare the potential removal of 4,700 acres with commodity sales from 2017. The values shown in Table 24 and used in the analyses reported in Tables 25 and 26, are based on 10-year average annual values and represent a range of impacts.

- Induced impacts are generated by the spending of households associated either directly or indirectly with ongoing agricultural operations within the Project site boundary. Assuming this income is no longer earned, it is not available to spend and would also represent lost economic activity when agricultural production on site stops.

Table 26. Economic Impacts of Current Site Boundary Agricultural Activities
Source: IMPLAN 2022, ECONorthwest

Impact	Employment (FTE)[1/]	Labor Income ($ million)[2/]	Output ($ million)[2/]
Direct	6.0	$473,378	$1,165,000
Indirect	**3.9**	**$287,834**	**$478,566**
Induced	0.4	$24,802	$104,563
Total	10.3	$786,014	$1,748,129

Notes:
1/ Jobs are FTE for a period of one year (1 FTE = 2,080 hours).
2/ Labor income and economic output are expressed in millions of Year 2023 dollars.

While all the economic activity represented in Table 26 arises from agricultural production on the project site, the indirect impacts (bolded) most closely reflect economic activity in the agricultural sector in Morrow County supported by this production, which would be lost when the project is built.[11] Most of the indirect jobs (3.1) supported by site-related expenditures are in IMPLAN Sector 19 – Support activities for agriculture and forestry, which was the second largest employer in Morrow County in 2021, with an estimated 816 workers (Table 3). **A potential reduction of 3.1 jobs represents approximately 0.4 percent of existing employment in this sector and about 0.1 percent of total agricultural jobs in Morrow County.**

The remaining indirect employment (0.8 FTE) is distributed across multiple IMPLAN sectors, including wholesale, other nondurable goods, and gasoline stores. These jobs supported elsewhere in the local economy do not necessarily translate into individual positions. A reduction in demand could, for example, result in a reduction in hours worked or reduced overtime, without resulting in job loss. The estimated 0.4 job arising from the induced impacts consists of employment distributed over a range of different economic sectors.

[11] Constructing and operating the project would generate much larger levels of economic activity, as documented elsewhere in this report, but construction-and operation spending would not likely occur in the agricultural sector. This results in a distributional shift in economic activity with potential losses in this sector while other sectors experience gains.

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Table A-1. Selected Landowner Questionnaire Responses

Source: 2023 Sunstone Solar landowner surveys

	1	2	5
Owner	**Crop Practices**	**Crop Schedule**	**Direct Jobs**
Grieb	Ken and Carri Grieb, and Grieb Farms Inc. own a combined total of approximately 4,400 acres, all dedicated to dryland wheat production (aside from 3 residences, shop buildings, etc.). The farm has been in dryland wheat production since the early 1980s, when declining water allocations forced the farm into wheat production. The land is farmed on rotation, so roughly 2,200 acres are harvested in any given year, and 2,200 acres are in summer fallow. The farm has applied no supplemental water to the crops since at least 2017.	In recent years the farm practices no till farming and seeds and fertilizes ground in October for summer harvest in July. The entire farm, both seeded and fallow ground, is sprayed for weeds in late March or April. The fallow ground often needs to be sprayed again for weeds in the summer.	Ken and Carri administer the farm and take care of all business aspects, which equates to a single full-time position. The farm also employs one full-time employee. The farm does not hire seasonal workers at harvest. So, the farm supports two full-time positions.
Doherty	The entire farm is dedicated to dryland wheat farming and no other agricultural operations take place on the farm. The farm has been in dryland wheat production since the early 1980s, when declining water allocations forced the farm into wheat production. The land is farmed on rotation, so roughly half of the farm is harvested every year, while the other half is in summer fallow.	Doherty does a mix of chemical fallow and till fallow on the farm. Doherty seeds and fertilizes his farm in October. The wheat producing acres are harvested in the summer. In recent years the farm practices no till farming and seeds and fertilizes ground in October for summer harvest in July. He sprays the entire property for weeds at least once a year, and additionally as necessary.	The farm supports one full time employee, Brian Doherty. Brian also brings in some farm help for a month or less to assist with harvest.
Matheny	Shane Matheny currently farms 1,620 acres south of Alpine Road. 1,280 acres of that land is part of the Echo Solar Project. All the land is currently farmed as dryland wheat.	The land is farmed on a yearly rotation, split between a “north field” of 900 acres and a “south field” of 720 acres. Each year one field is summer fallowed, and the other field is harvested. The field in production for summer harvest is seeded and fertilized in October. The crop is usually harvested in July. The entire farm, both seeded and fallow ground, is sprayed for weeds in late March or April. The fallow ground often needs to be sprayed again for weeds in the summer.	The farm 1,620-acre farm employs one, Shane Matheny, full time. Once Echo Solar is constructed, Shane will continue to farm 340 acres of the farm. The 1,620-acre farm also employees several seasonal farm help at harvest for one month. Taken into account the inefficiencies of farming a smaller area, the farm 340-acre farm will probably still employ one half time equivalent employee.
Ashbeck	The entire Ashbeck Property is in dryland wheat production. They used to run some livestock on the stubble, but they haven’t done that for 10 years.	The Ashbecks put roughly half of their farm in wheat production every year, and they fallow the other half. The Ashbecks typically seed and fertilizer their fields in September, with additional fertilizer applied in March or other times of the year as needed. They harvest in July or August. They till fallow half their land every summer. They spray for weeds every year as needed.	The Ashbeck land in the Echo Solar Project helps support 2 fulltime jobs (Tony and Gerald Ashbeck), with no seasonal help for harvest.

Table A-1. Selected Landowner Questionnaire Responses (continued)
Source: 2023 Sunstone Solar landowner surveys

	8	10	11
Owner	**Current Spending**	**Crop Yields**	**Agricultural Revenues**
Grieb	Ken and Carri Grieb and Grieb Farms Inc. buy the majority of their agricultural products and inputs from Morrow County Grain Growers (MCGG). The farming operation also buys a lesser amount of agricultural input products from Sand Hollow Ag Supply. In 2022, Ken and Carri Grieb and Grieb Farms Inc. spent a combined total of $266,709 with MCGG. In 2022, total fuel purchases for the farm we about $66,000, seed purchases were about $51,000, fertilizer and chemical purchases were about $180,000.	The Grieb farm ranges in its productivity from 20 to 60 bushels of wheat per acre. Most years the farm produces 30-40 bushels of wheat per acre. In a bad year the farm can produce as little as 20 bushels of wheat per acre. In the farms very best year, it produced 60 bushels per acre.	Recent wheat harvest on the Grieb Property have been 89,000 bushels in 2022, 38,000 bushels in 2021, 57,000 bushels in 2020, and 24,000 bushels in 2019. Ken and Carri Grieb and/or Grieb Farms Inc. have collected crop insurance payments 17 times since 2000.
Doherty	Aside from new equipment purchases, Doherty estimates his annual spending on agriculture inputs (seed, fertilizer, weed spray, fuel) would be reduced by an estimate 75%.	Brian Doherty estimates his 10-year average wheat production is 32 bushels per acre. In his best years Brian harvests 45 bushels per acre, in his worst years he harvests as little as 12 bushels per acre.	Brian Doherty [did not] offer specific revenues.
Matheny	Agricultural inputs (seed, fertilizer, weed spray fuel, etc.) will be reduced in proportion to the size of the project. The project lease payments might also allow Shane to invest in new equipment.	The 10-year average wheat yield off of the 1,620-acre farm where Echo Solar will locate (on as much as 1,280 acres of it) is 38 bushels per acre. The farms best years are as high as 60 bushels per acre and as low as 20 bushels per acre.	Prices for wheat have been as low as $5-$6 per bushel to $8.40 per bushel currently. Some years Shane will sell as much as 40% of his crop before its harvested. Shane usually likes to sell his crop by November, but some years Shane will store a small amount of his crop with Morrow County Grain Growers at a cost of 3 cents per bushel, per month, for sale in winter or spring months. When he sells it, he always must pay transportation costs in the range of 50 -.60 cents per bushel to get it to Portland.
Ashbeck	The Ashbecks report that their agricultural inputs vary every year, but in recent years they have spent about $60,000 fertilizer, $30,000 seed $20,000-35,000 on fuel. The Ashbecks typically buy their Fertilizer from Morrow County Grain Growers, their seed from PGG or McGreggor and their fuel from Carson in Hermiston.	On average, the Ashbeck farm produces 40 bushels per acre	The Ashbecks did not offer specifics on revenue.

Attachment K-3. Morrow County Board of Commissioners PILOT Agreement

MORROW COUNTY

BOARD OF COMMISSIONERS

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David Sykes, Chair
Jeff Wenholz, Commissioner
Roy Drago Jr., Commissioner

June 21, 2023

Oregon Energy Facility Siting Council
550 Capitol Street N.E., First Floor
Salem, OR 97301

RE: Pine Gate Renewable's Proposed Sunstone Solar Project in Morrow County

To whom it may concern,

The Morrow County Board of Commissioners is committed to fostering growth and development in the County. A diversified local economy is important and Morrow County has seen growth in various industries, including renewable energy.

On November 2, 2022, Morrow County entered into a 17-year Payment-in-Lieu-of-Taxes (PILOT) Agreement for this project. When all six phases of the facility are online, the payments are expected to total $8.4 million annually. It is anticipated over the course of 40 years, the combined total of real property taxes, PILOT payments and statutory tax payments at the expiration of the agreement, will be approximately $376 million. These funds will contribute to important areas of development in Morrow County.

While the Board is supportive of the financial opportunities with the project, we continue to recognize and support the official regulatory permitting process of the Energy Facility Siting Council (EFSC) process, as well as other state and local agencies. We also remain committed to serving as the local forum for citizen input, serving in the capacity as Special Advisory Group (SAG) appointed by EFSC.

Thank you for your consideration of this project.

Sincerely,

David Sykes
Chair

Jeff Wenholz
Commissioner

Roy Drago Jr.
Commissioner