

EXHIBIT U
PUBLIC SERVICES/SOCIOECONOMIC IMPACTS
 OAR 345-022-0010(1)(u)

TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
U.1 ASSUMPTIONS USED TO EVALUATE POTENTIAL IMPACTS.....	1
U.1.1 Employment.....	2
U.1.2 Population and Housing.....	2
U.1.3 Transportation.....	2
U.1.4 Sewers and Sewage Treatment.....	3
U.1.5 Water.....	3
U.1.6 Stormwater Drainage.....	4
U.1.7 Solid Waste Management.....	4
U.1.8 Housing.....	4
U.1.9 Police and Fire Protection.....	4
U.1.10 Health Care.....	4
U.1.11 Schools.....	5
U.2 PUBLIC AND PRIVATE PROVIDERS IN THE ANALYSIS AREA.....	5
U.2.1 Service Providers.....	5
U.3 IMPACTS ON PROVIDERS.....	6
U.3.1 Economic and Demographic Impacts.....	7
U.3.2 Sewers and Sewage Treatment.....	8
U.3.3 Water.....	8
U.3.4 Stormwater Drainage.....	8
U.3.5 Solid Waste Management.....	8
U.3.6 Housing.....	9
U.3.7 Transportation.....	10
U.3.8 Police Protection.....	11
U.3.9 Fire Protection and Emergency Response.....	12
U.3.10 Health Care.....	12
U.3.11 Schools.....	12
U.4 EVIDENCE THAT ADVERSE IMPACTS IDENTIFIED IN SECTION (C) ARE NOT SIGNIFICANT.....	13
U.4.1 Economic and Demographic Impacts.....	13
U.4.2 Sewers and Sewage Treatment.....	13
U.4.3 Water.....	13
U.4.4 Stormwater Drainage.....	13
U.4.5 Solid Waste Management.....	14
U.4.6 Housing.....	14
U.4.7 Transportation.....	14
U.4.8 Police Protection.....	15
U.4.9 Fire Protection and Emergency Response.....	15
U.4.10 Health Care.....	15
U.4.11 Schools.....	15

U.5 PROPOSED MONITORING PROGRAMS 15

U.6 SUMMARY 15

U.7 REFERENCES 16

TABLES

TABLE U-1. ANTICIPATED INCREASE IN TRAFFIC VOLUME FROM CONSTRUCTION ON TRANSPORTATION ROUTES 11

ATTACHMENTS

- U-1 Analysis Area for Public Services and Socioeconomic Impacts
- U-2 Primary Transportation Route

INTRODUCTION

Archway Solar Energy LLC (Applicant) proposes to construct the Archway Solar Energy Facility (Facility) in Lake County, Oregon, with generating capacity of up to 400 megawatts (MW). The Facility may also contain a battery energy component with storage capacity of up to 400 MW and discharge capacity of up to 1,600 megawatt-hours. This Exhibit U provides public services / socioeconomic impacts information as required by Oregon Administrative Rules (OAR) 345-021-0010(u).

OAR 345-021-0010(1)(u) *Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of public and private providers in the analysis area to provide the services listed in OAR 345-022-0110, providing evidence to support a finding by the Council as required by OAR 345-022-0110. The applicant shall include:*

Response: This Exhibit describes the potential adverse impacts of Facility construction and operation on employment, population, housing, and transportation in the analysis area. In accordance with OAR 345-001-0010(57)(b) and the Project Order, the analysis area for public services consists of the area within the Facility site boundary and 10 miles from the Facility site boundary; see Figure U-1.

OAR 345-022-0110 requires that the site certificate application for the proposed energy facility address important public services:

“The Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.”

OAR 345-022-0110, however, is not a directly applicable approval criterion for solar energy facilities and other selected special criteria facilities [see OAR 345-022-0110(2) and (3), 345-015-0310]. While not directly applicable, the Council may still apply the requirements of OAR 345-022-0110(1) as conditions on the Facility’s site certificate. Therefore, this Exhibit is organized in accordance with the application requirements contained in OAR 345-021-0010(1)(u) and provides evidence to support a finding by the Council as required by OAR 345-022-0110.

U.1 ASSUMPTIONS USED TO EVALUATE POTENTIAL IMPACTS

OAR 345-021-0010(1)(u)(A) *The important assumptions the applicant used to evaluate potential impacts.*

Response: The assumptions used to evaluate the potential Facility impacts on public service providers, employment, population, housing, and transportation in the analysis area are described in the following subsections. The Project Order defines the analysis area for Exhibit U as the area within the site boundary (as defined in Exhibit B) and 10 miles from the site boundary.

U.1.1 Employment

U.1.1.1 Construction

Applicant proposes to begin construction by April 1, 2024, and complete construction by December 31, 2025. During construction, the Facility will employ an average of approximately 300 people. An estimated maximum of 600 people may be employed during peak construction.

The majority of the construction workforce will be employees of construction contractors and equipment manufacturing companies, who will be directly contracted to the Applicant. These workers will include those hired for road and solar array foundation construction, substation and electrical transmission construction, solar module installation, and array connection and commissioning. For this analysis, the Applicant conservatively estimates that approximately 20 percent of the construction workers will be hired from Lake County and the remainder will come from outside of Lake County.

U.1.1.2 Operations

Approximately two permanent, fulltime employees will be employed at the Facility as operational personnel involved in day-to-day management of the Facility. To the extent possible, operations and maintenance (O&M) staff will be hired locally with the possible exception of positions that require previous experience at other solar power facilities. Specialized outside contractors might also be required occasionally for tasks that cannot be completed by onsite personnel. Facility operations are anticipated to begin at the beginning of 2026.

U.1.2 Population and Housing

U.1.2.1 Construction

It is expected that population will change very little as a result of Facility construction due its short-term nature. Construction workers will likely choose temporary housing options such as hotels, campgrounds, recreational vehicle (RV) parks, rental houses, or other temporary housing located within a commutable distance, approximately one and a half hours, to the Facility. These accommodations are available in nearby communities including Christmas Valley, Fort Rock, and Silver Lake. Many of the workers are also likely to commute from La Pine or Bend, where more temporary housing and accommodations are available.

U.1.2.2 Operations

If one of the permanent employees is local and the other moves to the area, the local population could increase by 1 more depending on family members.

U.1.3 Transportation

A number of transportation routes will be used to access the Facility during construction and operations. These routes will be used to bring Facility components, equipment and materials, water, and workers from outside of the analysis area to the Facility and will include state, county, and private roadways. Primary and alternative transportation routes are depicted on Figure U-2. The following sections describe the transportation routes, truck traffic, and points of origin.

U.1.3.1 Transportation Routes

The primary transportation routes to the site will be from areas to the west of the analysis area, including La Pine, Bend, and Klamath Falls, using US-97 and State Route 31 to reach the Christmas Valley area (refer to Figure U-2). Possible alternative routes to the Christmas Valley area include US-395 from the east, via US-20 to Bend. Since many of the construction workers are expected to commute from areas such as La Pine and Bend, an increase in workers commuting from outside the analysis area would have the potential to increase traffic on the roads within the analysis area during commuting times.

Trucks will access the site from Christmas Valley Highway at either 3 Mile Rd or via the BLM road between sections 14 and 15 of T27S R19E. Applicant has submitted a ROW application to the BLM for use of the aforementioned BLM road.

U.1.3.2 Truck Traffic

During construction, a number of trucks will be accessing the site on the transportation routes. Heavy-duty trucks will be carrying gravel and other materials required for site grading and to improve or construct the access road. Heavy-duty trucks will also provide concrete materials for Facility component foundations and materials for the module blocks themselves. Lighter-duty trucks will be utilized to deliver water to the site for dust control during. Light-duty trucks carrying electrical equipment and materials required for solar panel construction and power transmission also will be necessary. Personal vehicles will also access the Facility and will park in the main temporary staging area.

U.1.3.3 Points of Origin

Local workers will most likely originate in the small nearby towns of the Facility such as Christmas Valley, Silver Lake, Summer Lake, Fort Rock or Wagontire. Up to 80% of construction workers are expected to commute from La Pine and Bend. Other workers may be based in other parts of Oregon or other states and temporarily relocate to these communities.

U.1.4 Sewers and Sewage Treatment

During construction, sewage treatment and handling will be provided by licensed haulers and disposal facilities. No publicly owned treatment works hookups are within the Facility footprint. As such, the sewage services required by the Facility during construction will be related to the handling of sewage from contract portable toilets and wash stations.

During operations, the O&M building to be constructed at the Facility site will be the only facility that discharges sewage waste. The Facility will have a bathroom, kitchen, and utility sink which will drain into an onsite septic system. This private septic system will provide the only sewage treatment for the Facility.

U.1.5 Water

It is estimated that approximately 17.5 million gallons of water will be required for the Facility during construction and up to 34.1 million gallons under worst-case conditions. This includes 8 million gallons for dust control under normal conditions and 33.6 million in worst-case conditions.

During operations, Applicant expects to use up to 500,000 gallons of water per year. Water will primarily be used for solar panel washing activities if deemed necessary. If no panel washing is deemed necessary, the Facility will use up to 165 gallons of water per year during operations for use in the operations and maintenance building.

U.1.6 Stormwater Drainage

No public stormwater systems will be utilized by the Facility. During construction, erosion and sediment control measures developed pursuant to the Facility's 1200-C Construction Stormwater National Pollutant Discharge Elimination System (NPDES) Permit will be applied. Facility components will be designed to maintain existing stormwater drainage patterns. No community/public stormwater collection systems will be utilized for construction or operation of the Facility.

U.1.7 Solid Waste Management

Solid waste generated during construction will include general construction debris, waste concrete, and excavated soil. Excavated soil will be used onsite as fill or transported offsite for reuse. Construction material and office recycling programs will be implemented to the extent practical to reduce the volume of material that will be disposed of as solid waste. Exhibit V provides further information on the Facility's waste management strategy.

U.1.8 Housing

Applicant expects 300 construction workers during construction, and up to 600 during peak construction. As much as possible, Applicant will hire local construction workers from Christmas Valley and surrounding communities of Silver Lake and Fort Rock. Applicant estimates that 20% of construction workforce will be locally hired and 80% will come from commuting communities. Of the commuting construction workers, Applicant expects approximately 50% to bring personal travel trailers and stay in trailer / RV parks. Applicant expects the other 50% of commuting workers to stay in motels, hotels, short-, and long-term rentals in the commuting communities of La Pine and Bend.

During operations of the Facility, the operations and maintenance is expected to employ 2 full time operations and maintenance technicians. If one of the permanent employees is local and the other moves to the area, the local population could increase by 1 more depending on family members.

U.1.9 Police and Fire Protection

The key assumptions for assessing police and fire protection adequacy in the analysis area are the estimates of additional construction and operational personnel and their families who may migrate to the area as a result of the Facility. These assumptions are included in Sections U.1.1 and U.1.2.

U.1.10 Health Care

During construction, Applicant will retain emergency medical technicians on site and will arrange for medical transport during medical emergencies that occur at the Facility. Patients with minor injuries will be treated on site or transported by vehicle to La Pine Community Health Center in the community of Christmas Valley. Patients with moderate injuries will be transported by vehicle to St. Charles Medical Center in Bend. For severe injuries, Applicant may use the services of the Air Ambulance to transport patients to Bend.

The key assumptions for assessing impacts to health care outside of on-site injuries in the analysis area are the estimates of additional construction and operational personnel and their families who may migrate to the area as a result of the Facility. These assumptions are included in Sections U.1.1 and U.1.2.

U.1.11 Schools

The key assumptions for assessing impacts to schools in the analysis area are the estimates of additional construction and operational personnel and their families who may migrate to the area as a result of the Facility. These assumptions are included in Sections U.1.1 and U.1.2. Furthermore, it is assumed that construction work for the Facility will be short-term and temporary.

U.2 PUBLIC AND PRIVATE PROVIDERS IN THE ANALYSIS AREA

OAR 345-021-0010(1)(u)(B) *Identification of the public and private providers in the analysis area that would likely be affected.*

Response: The public and private providers of services for employment, population, housing, and transportation in the analysis area are identified in the following subsections.

U.2.1 Service Providers

Public service providers for the communities in the analysis area that provide the essential governmental services listed in OAR 345-022-0110(1) are described in the subsections below.

U.2.1.1 Sewers and Sewage Treatment

During construction, Applicant will contract a site sanitation service to provide and service portable toilets, with licensed off-site disposal. Several private services exist in Lake and Deschutes Counties, with the most likely service provider being Lakeview Sanitation Inc. During operation, personnel will use restrooms in the operations and maintenance buildings, which will be built during construction of the Facility and will discharge to an approved and permitted onsite septic field.

U.2.1.2 Stormwater Drainage

No service providers are required for stormwater drainage. During construction and operations, numerous best management practices (BMPs), outlined in the Facility erosion and sediment control plan (ESCP) (Attachment I-1 to Exhibit I), will be implemented to minimize erosion and sedimentation that could alter the surrounding stormwater drainages.

U.2.1.3 Solid Waste Management

No community in the analysis area currently provides solid waste management services to the Facility site. Solid waste disposal for the Facility during construction and operations will be provided by private contract with a local commercial hauler or haulers. Lakeview Sanitation Inc. provides residential pick up, commercial container services, septic, and portable toilets. Applicant will coordinate with Lakeview Sanitation Inc. or a similar provider for solid waste generated during construction and operations.

In the case of hazardous waste, the Hazardous Waste Facility at Knott Landfill accepts commercial hazardous waste. Applicant would coordinate with a local commercial hauler or

haulers to provide pickup and delivery of hazardous waste to Knott Landfill. Hazardous waste generated by the facility may include batteries, herbicides, spent oil, and other materials.

U.2.1.4 Housing

An average of about 300 and a maximum of about 600 workers will be expected for construction. 80% of these (240 and 480) are expected to come from outside Christmas Valley and its surrounding communities and will therefore be temporary residents (in-migrants) as a result of construction of the Facility. Therefore, a comparable number of temporary housing units will be needed for the estimated temporary workforce. Motels, hotels, and trailer or RV parking will be the most available housing option for temporary residents. An Internet search identified more than 500 hotel and motel rooms in communities within a commutable distance of approximately an hour and a half from the Facility.

Additionally, over 15 travel trailer and recreational vehicle parks exist within the analysis area and surrounding commutable distance. These recreational vehicle parks are expected to provide temporary housing for at least half (120 to 240) of the expected new construction workers.

U.2.1.5 Police Protection

Local police service in the Facility analysis area is provided by the Lake County Sheriff's Office in Silver Lake, Oregon. Secondary law enforcement is provided by the Oregon State Police located in Lakeview and La Pine, Oregon.

U.2.1.6 Fire Protection

Fire protection in the Facility analysis area is provided by the Christmas Valley Rural Fire Protection District. The Applicant will notify the Fire Protection District of construction plans and phasing, identify the location of and access to Facility structures, and provide mutual assistance in the case of fire within or around the Facility site boundary. The site will be equipped with fire protection equipment in accordance with the Oregon Fire Code.

U.2.1.7 Health Care

Owing to the limited population in the analysis area, there are no hospitals within the analysis area. The local health care center is the La Pine Community Health Center in Christmas Valley, Oregon. The hospital nearest to the Facility is the St. Charles Health System Hospital, a level II trauma center in Bend, Oregon (about 83 miles away by car). 105 miles from the Facility lies the Lake District Hospital. In cases of emergency, the North Lake County Emergency Medical Services provides an ambulance to St. Charles Health System Hospital. The Applicant may also contract Air Ambulance for emergency medical transport from the Table Rock Airport in Christmas Valley.

U.2.1.8 Schools

Communities in and near the analysis area are served by the North Lake School, a single K-12 school serving the towns of Silver Lake, Christmas Valley, and Fort Rock.

U.3 IMPACTS ON PROVIDERS

OAR 345-021-0010(1)(u)(C) *A description of any likely adverse impact to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.*

Response: The following subsections describe any likely adverse impacts on the ability of the providers identified.

U.3.1 Economic and Demographic Impacts

U.3.1.1 Population

The Facility will result in limited in-migration for construction-related employment or permanent O&M employment. The influx of temporary construction-related jobs filled from outside of the analysis area is anticipated to last no more than 18 months. During that time, a positive impact on the local economy is expected as workers will stay at area motels, eat at local restaurants, and purchase amenities such as gas and groceries in the local area.

Of the estimated staff of two permanently employed at the Facility for O&M, qualified local applicants and/or qualified applicants from outside the area will be hired. It is assumed that these workers will live locally. In-migrant operational staff and their families will not have a significant impact on the local population. Assuming conservatively that 50 percent (one) of the O&M positions are filled from outside the analysis area and the average household size is 3.0 (higher than for temporary employees), approximately three new residents could be added to the local population, if all relocate within Christmas Valley. That number is small in comparison to the populations of Christmas Valley and surrounding communities.

U.3.1.2 Economic Activity

Revenue generated for the local economy will benefit public services, including schools and others services Christmas Valley provides for their citizens. Income earned by in-migrant workers will contribute to the local economy indirectly through local purchases. In addition, the Facility itself will purchase goods and services from local and regional businesses: from Facility maintenance services to office equipment, to business services.

The Facility will employ 300 construction workers and up to 600 workers during peak construction. Additionally, 20% (60) of the construction employees are expected to be hired locally from Christmas Valley and the surrounding communities. The Facility will therefore provide at least 60 new jobs to local residents. All of these workers will be contributing to the local economy of Christmas Valley through the consumption of goods and services including food, lodging, gasoline, groceries, and vehicle maintenance. All of this activity will result in a net inflow of dollars into the local economy that will have a beneficial effect beyond that of the new employment.

U.3.1.3 Tax Revenues

Development of the Facility will result in an increase in annual property tax revenue to the state and Lake County. Over 20 years of Facility operation, the Facility is expected to generate over \$400,000,000 in property taxes. In addition, Facility development will raise the value of other properties because of the increase in wages and overall economic activity in the analysis area. The additional tax revenue generated by the existence of the Facility will increase the county's ability to provide roadways, police and fire protection, and other services to its citizens.

U.3.2 Sewers and Sewage Treatment

No adverse impacts are anticipated from Facility construction as sewage service demands will be minimal and temporary. The only sewage services required by the Facility during construction will be related to the handling of sewage from contract portable toilets.

The O&M building to be constructed at the Facility site will have a bathroom, kitchen, and utility sink which will drain into an onsite private septic system. No other sewage treatment will be needed for Facility operations.

U.3.3 Water

It is estimated that approximately 17.5 million gallons of water will be required for the Facility during construction and 0.5 million gallons per year may be required for module washing during operations. Water for construction and module washing will be purchased from the Christmas Valley Municipal Water District or from Simplot, the underlying landowner. Both Simplot and the Christmas Valley Municipal Water District have existing municipal water right as demonstrated in Exhibit O.

Kitchen and bathroom facilities will be installed in the O&M building. Nominal amounts of water will be needed for domestic purposes (handwashing, drinking, toilets). During operations, water will be withdrawn from a new well that produces fewer than 5,000 gallons per day. Given that the operational needs of the Facility represent an insignificant fraction of the total municipal water use in the analysis area, existing water rights will not be detrimentally affected, and sufficient water is available for the intended uses. Accordingly, no adverse impacts on water use are anticipated.

U.3.4 Stormwater Drainage

During construction, application of the erosion and sediment control measures developed pursuant to the Facility's 1200-C Construction Stormwater NPDES Permit, as described in Section U.4.4, will prevent adverse impacts related to construction of these facilities. Facility components will be designed to maintain existing stormwater drainage patterns. Exhibit E discusses the 1200-C permit in greater detail. A copy of the permit application is located in Attachment I-1 to Exhibit I.

Through proper site design and the other procedures described in Section U.4.4, no adverse impacts on stormwater drainage are anticipated during operations.

U.3.5 Solid Waste Management

Solid waste generated during construction will include general construction debris, waste concrete, and excavated soil. Excavated soil will be used onsite as fill or transported offsite for reuse. Construction material and office recycling programs will be implemented to the extent practical to reduce the volume of material that will be disposed of as solid waste. General construction debris will be collected by a local contractor and transported to a municipal waste landfill in Lake County or Deschutes County. As described in Exhibit G, minimal construction waste will require offsite disposal. In addition, only minimal amounts of solid waste will be generated by the Facility during operations. The selected landfills for waste disposal have sufficient capacity to handle the needs of the Facility.

Since solid waste disposal for the Facility during construction and operations will be provided through a private contract with a local commercial hauler or haulers (Exhibit V), service to the

Facility is not anticipated to disrupt services already being provided in the surrounding communities.

U.3.6 Housing

While it is not known where the new temporary residents associated with construction of the Facility will settle and what type of housing they will select, motels, hotels, and trailer or RV parking will be the most available housing option for temporary residents. More than 500 hotel and motel rooms are available in communities within a commutable distance, and additional 13 private RV campgrounds were identified within a commutable distance to the Facility. Lodging vacancy rates in Eastern Oregon were estimated at approximately 53 percent (City of Hermiston, 2013). Considering similar occupancy rates during the construction phase of the Facility, adequate supplies are available in relation to the number of temporary workers.

Hotels and Motels within 1 hour of the facility:

- Christmas Valley Desert Inn
- Christmas Valley Lakeside Terrace motel
- Silver Lake Mercantile and Motel
- The lodge at Summer Lake
- Summer Lake Hot Springs Resort
- Highlander Motel
- Best Western Newberry Station
- Paisley Sage Rooms

RV facilities:

- Christmas Valley Lakeside Terrace
- R&R Mobile Home Park
- The Waterin Hole Tavern and RV Park
- Rockhorse Park at Horse Ranch
- Elaine's RV Park
- Ana Reservoir RV Park
- Summer Lake Hot Springs
- Roundup Travel Trailer Park
- Highlander RV Park

- Hidden Pines RV Park
- Whispering Pines RV Park
- River View Trailer Park
- Cascade Meadows RV Park

Permanent housing for up to two new households may be required when operations begin. Given the limited number of new housing required and the general availability of housing opportunities, no significant adverse impacts on the ability of communities to provide housing are anticipated from Facility operations.

U.3.7 Transportation

It is anticipated that roadways within the analysis area will safely accommodate Facility construction traffic. During construction, up to 300 two way trips will occur to and from the site per day. It is expected that all of these trips will occur on the primary transportation route along Christmas Valley Highway from the West. Site visits in 2022 have identified sparse traffic through Christmas Valley. While the temporary construction will increase traffic through Christmas Valley, the existing roadways have adequate capacity to handle anticipated traffic levels during construction.

During operations, an estimated 2 full time operations workers will travel to and from the facility daily. The increased traffic from facility operations will not affect the existing road infrastructure.

U.3.7.1 Construction Traffic Volumes

Facility construction will temporarily increase the traffic volume on roads within the analysis area, specifically the transportation routes. Construction is not expected to cause an increase in the potential of traffic safety impacts on surrounding roadways, because construction traffic will be managed to minimize impacts. Given the low traffic volumes on the roads used to access the Facility, it is unlikely that safety of these roads will be impacted. In addition, the pavement conditions of the primary transportation route are fair to good, which will minimize the potential for traffic safety impacts. Vehicle size and weight may be of concern where roadways are designed for less than the legal load limit of 80,000 pounds. To mitigate concerns about oversized loads, any oversized components will be transported by oversized transportation trucks, legal loads, and trucks. Additional oversized vehicles will transport large construction operating equipment (e.g., cranes, bulldozers). Applicant will consult with ODOT before construction to identify roadway segments or bridges that should be restricted for construction traffic, and to obtain any heavy haul permits required to allow transport of oversized loads.

To calculate the impacts on traffic volumes on the primary transportation routes, the Applicant assumed 4 to 6 months of peak construction activity, with 22 days of construction per month. During peak construction, an estimated 45 daily trucks will be put in use each day, for an estimated total of 90 truck trips per day (45 trucks making one inbound trip and one outbound trip). Truck trips will include construction equipment and material deliveries. Approximately 600 workforce personnel will be required during the peak of construction. Assuming these workers carpool in two- and three-person carpools, roughly 250 workforce vehicles will arrive and depart the site each day. Combining truck trips and workforce trips, up to 300 construction vehicles (or 600 one-way trips) per day will be added to the background traffic patterns along the primary

transportation route. This estimate is conservative, as truck trips and workers may not all be on the road at one given time, and the construction workforce will be distributed throughout a commutable distance from the Facility.

Based on data presented in Table U-3, average daily traffic volumes on highway 97 and highway 31 (primary transportation route) just west of the Facility are approximately 8,200 and 1,100 vehicles per day. If construction vehicles originate west of the Facility, average daily traffic could increase by up to 600 trips per day with construction trips. Both of these highways have sufficient infrastructure to support this increase in traffic.

Because traffic on Christmas Valley Highway is significantly lower than highway 97 or 31, it will likely see a higher relative increase in daily traffic volumes. Backups and delays of a temporary nature may occur during the delivery of large components as a result of truck size, weight, and maneuverability. Large delivery trucks will be concentrated over a smaller duration within the overall construction schedule (e.g., approximately 4 to 6 months during peak construction), limiting the time period over which delays would occur. In addition, the arrival of large delivery trucks will likely be spread out over the course of the day, thereby minimizing delays resulting from each truck's transit over surrounding roads. Lake County does not maintain traffic volume data for this area of public or private roads. However, based on the rural nature of the area, existing volumes are assumed to be small.

Construction traffic volumes generated by the Facility represent a minimal increase in traffic over State Highway average daily volumes. The increase on Christmas Valley Highway could be significant but temporary in duration and will have no permanent traffic impacts.

Table U-1. Anticipated Increase in Traffic Volume from Construction on Transportation Routes

Highway	Location	Milepost	Number of Lanes	2015 Average Daily Traffic	Estimated Average Daily Traffic Including Construction
Primary Transportation Route^a					
US97	La Pine	169.58	2, divided	8,200	8,800
US30	La Pine	0.20	2, divided	1,100	1,700

^a Oregon Department of Transportation, 2018 Traffic Volume Tables.

During facility operations, an estimated two full time employees will work at the facility. These two employees will generate up to four daily trips and will not have an impact on the traffic over any of the transportation routes.

Air travel to the facility is not expected during construction or operations. Should specialized workforce members need to fly to the site, these personnel would most likely fly into commercial airports such as Portland, or Bend. Components will be delivered by truck and not by air.

U.3.8 Police Protection

The Lake County Sheriff's Office has an office in Silver Lake and an annex in the town of Christmas Valley, and the Oregon State Police have offices in La Pine and Lakeview. Both the Lake County Sheriff Office and the Oregon State Police provide traffic safety and law

enforcement services in the analysis area. The Applicant expects 80% of the workforce to commute from La Pine or Bend. Both La Pine and Bend are much larger communities than the analysis area, and able to provide the necessary services to the population increase. The remaining 20% (60-120) of construction workers are expected to stay in the analysis area. This smaller group is within the service capabilities of the Lake County Sherriff Office and the Oregon State Police. Therefore, the Facility will not have a significant adverse impact on the ability of local communities to provide police protection or law enforcement services.

U.3.9 Fire Protection and Emergency Response

During Facility construction, there could be some risk of accidental grass fires on the site. Therefore, measures taken to prevent fires during construction will include construction vehicles using established roads to keep vehicles away from dry grassland areas, using diesel vehicles whenever possible (to prevent potential ignition by catalytic converters), avoiding idling vehicles in grassy areas, and keeping cutting torches and similar equipment away from grass. Additional measures of watering roads and other site areas will be taken for both fire prevention and dust control.

Potential fire hazards from operation of the Facility include the possibility of electrical fire, in which case the fire will be monitored to ensure it does not spread, but it will not be extinguished. The risk of electrical fire is low, and the facility was designed to meet all applicable sections of the National Electric Code and Institute of Electrical and Electronics Engineers code.

The primary service fire protection and emergency response personnel will likely provide is to be first responders to injured or sick workers and transport to local hospitals.

The relatively small number of new temporary and permanent residents is not anticipated to place significant new demands on the fire protection forces that serve the area. For the reasons provided above, the Facility will not have an impact on the ability of surrounding communities to provide fire protection during construction or operations.

U.3.10 Health Care

The small number of new temporary and permanent residents is not expected to place significant new demands on routine health care services. Furthermore, impacts on local health care services will be minimized by careful management of site health and safety risks. To reduce the potential for health and safety risks, the Applicant will require that onsite construction contractors prepare site health and safety plans before they begin construction activities. Each plan will inform employees and others what to do in case of emergencies. Plans will include locations of fire extinguishers, important telephone numbers, and first aid techniques. Nearby hospital names, addresses, and contact information will be listed. The plans will be maintained during construction and operations.

Additional preventive measures could be included, such as briefings with local hospitals and emergency service providers, identification of an emergency helicopter or aircraft landing area, and coordination with local fire officials. Furthermore, the small number of new temporary and permanent residents is not expected to place significant new demands on the health care facilities that serve the area.

U.3.11 Schools

Construction work for the Facility will be short-term and temporary with peak construction occurring during the summer months. Therefore, no new students are anticipated in association

with Facility construction. As a result, during operations, up to two new permanent households may result from the Facility, an estimated maximum of four new schoolchildren (assuming two children per household) could move to the analysis area. Actual impacts on schools will depend on the housing choices of new residents with children, which is unknown. Given that new residents may settle in a dispersed area, the relatively small number of anticipated new schoolchildren, and the number of schools available, it is unlikely that any one school will receive more new students than could be accommodated.

U.4 EVIDENCE THAT ADVERSE IMPACTS IDENTIFIED IN SECTION (C) ARE NOT SIGNIFICANT

OAR 345-021-0010(1)(u)(D) Evidence that adverse impacts described in (C) are not likely to be significant, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts.

U.4.1 Economic and Demographic Impacts

Jobs created by the Facility, both new temporary construction jobs and new operations jobs created, will provide additional economic growth to the County and local community. Similarly, new temporary and permanent populations will represent a small fraction of total population of the communities in which they reside. Because the Facility in operations will employ an estimated two people full time, the Facility and related jobs will not directly affect the employment base of a specific city or town. The jobs created by the Facility will result in short-term and long-term benefits to overall employment in the analysis area.

U.4.2 Sewers and Sewage Treatment

As discussed in Section U.3.2, the Facility will have no significant adverse impact on the ability of any community in the area to provide sewers or sewage treatment and no mitigation measures are proposed.

U.4.3 Water

As discussed in Section U.3.3, the Christmas Valley Municipal Water District will supply adequate water for the Facility without impairing supply to existing users. Therefore, no significant adverse impacts were identified and no mitigation measures are proposed.

U.4.4 Stormwater Drainage

New roads constructed as part of the Facility will be designed to maintain existing drainage patterns. Construction of roads, Facility foundations, and other related or supporting facilities will be regulated by an ESCP and 1200-C Construction Stormwater NPDES Permit that will require BMPs to minimize erosion and control sedimentation (see Exhibit I).

Erosion and sediment control BMPs will be implemented during all aspects of construction. BMPs will be selected to minimize and eliminate erosion, rather than controlling sedimentation after erosion has already occurred. Exhibit I contains the ESCP that will be implemented during construction of the Facility. Key BMPs presented in the ESCP are as follows:

- Preserve natural vegetation to the extent feasible.
- Establish vegetative buffer strips between the areas affected by construction activities and any receiving waters. Use vegetative buffers in conjunction with silt fence installation.
- Install sediment fence or straw wattles downgradient from land-disturbing activities.
- Stabilize disturbed areas mulching.

- Install check dams and sediment traps in drainages and roadside conveyances to capture sediment and minimize stormwater velocity.
- Using surface roughening techniques in conjunction with mulching disturbed areas.
- Reseed disturbed areas as final stabilization.
- Implement good housekeeping practices, such as using dedicated construction/ equipment staging areas, and proper stockpile management, such as covering stockpiles with mulch or plastic sheeting.
- Perform concrete washout in dedicated areas.

Proper implementation and updating of the ESCP with upgraded BMPs, as needed, will minimize erosion and the potential for sediment transport. The Facility will not alter existing drainage patterns, in the surrounding areas directly adjacent to where the Facility is located.

During operations, the majority of the BMPs outlined above are not applicable because an industrial stormwater permit is not required for operations at this Facility and because construction activities requiring erosion and sediment control will be complete. However, adherence to site design and implementation of several good housekeeping BMPs during site operation will minimize erosion and mobilization of sediment. These practices include restoring the site in accordance with the Revegetation Plan required as part of the site certificate. No adverse impacts on the ability of any community to provide stormwater drainage are anticipated from Facility operations.

U.4.5 Solid Waste Management

As discussed in Section U.3.5, the Facility will generate minimal waste and use private contractors to haul waste. Services already being provided in the surrounding communities will not be disrupted by the Facility. Therefore, no significant adverse impacts were identified and no mitigation measures are proposed.

U.4.6 Housing

As discussed in Section U.3.6, no significant adverse impacts on the ability of communities to provide housing are anticipated. Therefore, no significant adverse impacts were identified and no mitigation measures are proposed.

U.4.7 Transportation

Traffic volumes will increase on roadways surrounding the Facility during construction. However, taking into account the mitigation measures described here, significant adverse impacts on traffic safety and transportation are not anticipated. Numerous practices will be implemented to ensure that roadway safety will not be negatively affected. As a result of low traffic volumes on roads near the Facility in Christmas Valley, the travel times will not increase after completion of Facility construction and because of operations staff. Although there may be short delays experienced during construction (as a result of slow-moving delivery trucks or trucks entering and exiting the Facility), the delays are likely to be temporary and limited to Christmas Valley Highway and will be mitigated with the following practices:

- Install and maintain temporary road signage and warnings such as “Equipment on Road,” “Truck Access,” or “Road Crossings” at locations where trucks are expected to slow down or enter/exit a public roadway, in accordance with Chapter 3, Page 93 of the ODOT *Traffic Control Plans Design Manual* (ODOT, 2016c).

- Implement advance signage, where possible, in accordance with Chapter 3, Page 62 and Chapter 3, Page 84 of the ODOT *Traffic Control Plans Design Manual* (ODOT, 2016c).
- Use pilot cars for slow or oversize loads per Oregon Administrative Rule 734-082-0035.
- Encourage and promote carpooling of the construction workforce, and provide high-occupancy vans or buses to transport workers to the site.
- Use flag personnel to minimize the potential for accidents during large deliveries, in accordance with Chapter 3, Page 102-107 of the ODOT *Traffic Control Plans Design Manual* (ODOT, 2016c).
- At all times during construction, maintain at least one travel lane at entrance and exit points onto public roads.

Traffic impacts during Facility operation are not anticipated. Operational trips including employees traveling to work in their personal vehicles, and specialized personnel who may travel in light-duty trucks. Delivery trucks may also access the site on occasion, but are not anticipated to occur daily. In addition, no increase in air traffic is anticipated as a result of Facility construction or operation. Therefore, the Applicant anticipates no significant adverse impacts on the transportation network during Facility operation.

U.4.8 Police Protection

As described in Section U.3.8, the small number of new temporary and permanent residents is not anticipated to place significant new demands on law enforcement agencies in the area or result in any adverse impacts. Therefore, no mitigation measures are proposed.

U.4.9 Fire Protection and Emergency Response

As described in Exhibit B and Section U.3.9 of this Exhibit, Facility fire protection measures will minimize the risk of potential grass fires and the Facility will not have an adverse impact on the ability of local communities to provide fire protection and emergency response services.

U.4.10 Health Care

As described in Section U.3.10, no significant impacts on health care services are anticipated. Therefore, no mitigation measures are proposed.

U.4.11 Schools

As described in Section U.3.11, no significant adverse impacts on the ability of communities to provide school services are anticipated as a result of Facility construction or operation.

U.5 PROPOSED MONITORING PROGRAMS

OAR 345-021-0010(1)(u)(E) *The applicant's proposed monitoring program, if any, for impacts to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.*

Response: The Applicant is not proposing a monitoring program related to any of its impacts because the impacts will not be significant.

U.6 SUMMARY

The evidence provided in this Exhibit demonstrates that the Facility will not result in a significant adverse impact on the ability of the communities in the analysis area to provide the following

services: sewers and sewage treatment, water, stormwater drainage, solid waste management, housing, transportation and traffic safety, police protection, fire protection and emergency response, health care, and schools.

U.7 REFERENCES

Oregon Department of Transportation (ODOT) Transportation Volume Tables
https://www.oregon.gov/odot/Data/Documents/TVT_complete_2018.pdf

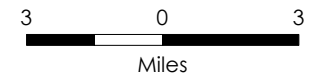
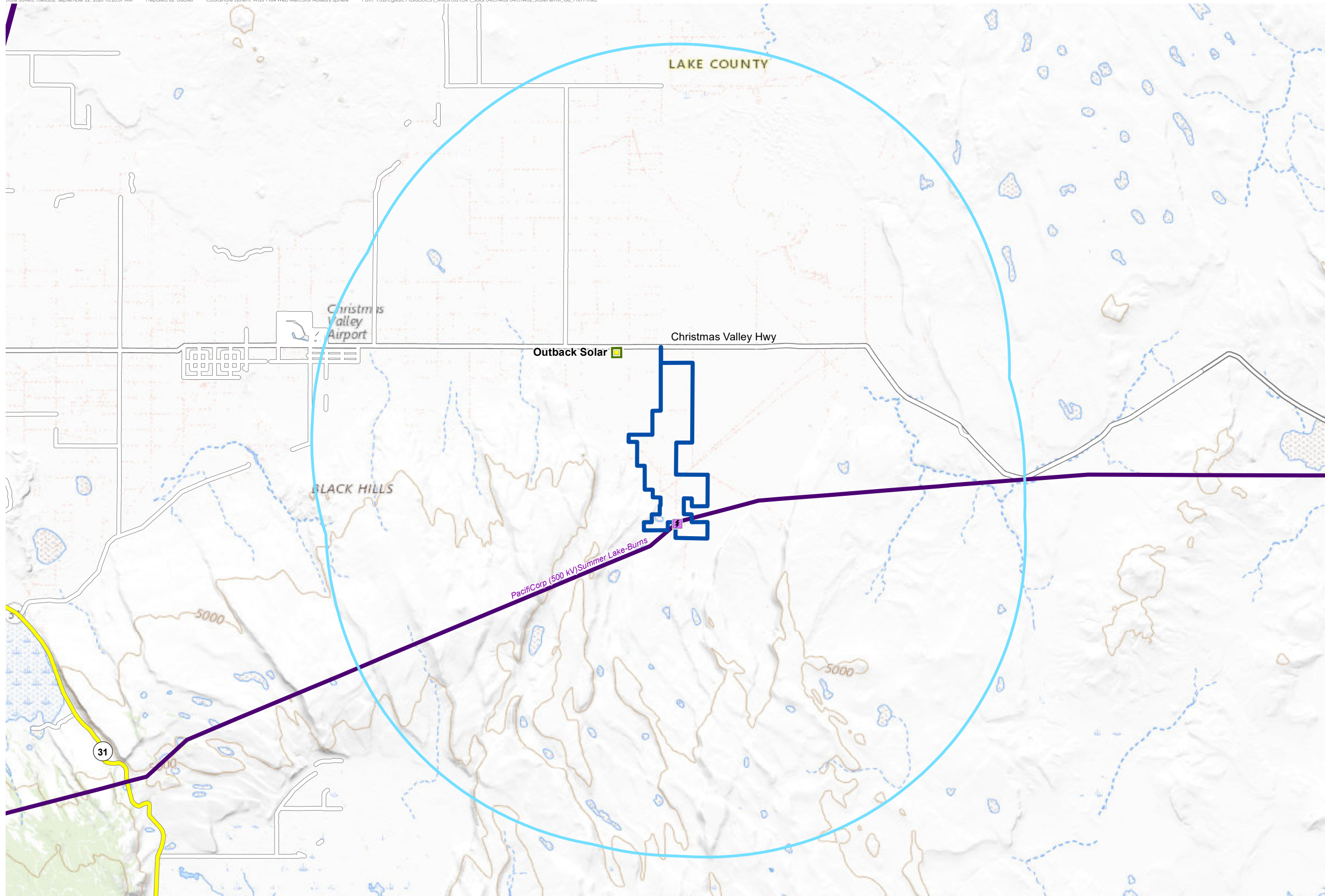
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Rvparkfinder.com. RV Parks: Oregon.
<http://www.rvparkfinder.com/index1.php?st=Oregon&c=US>.

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Lake County Landfill
https://www.lakecountyor.org/government/land_fill.php



Legend

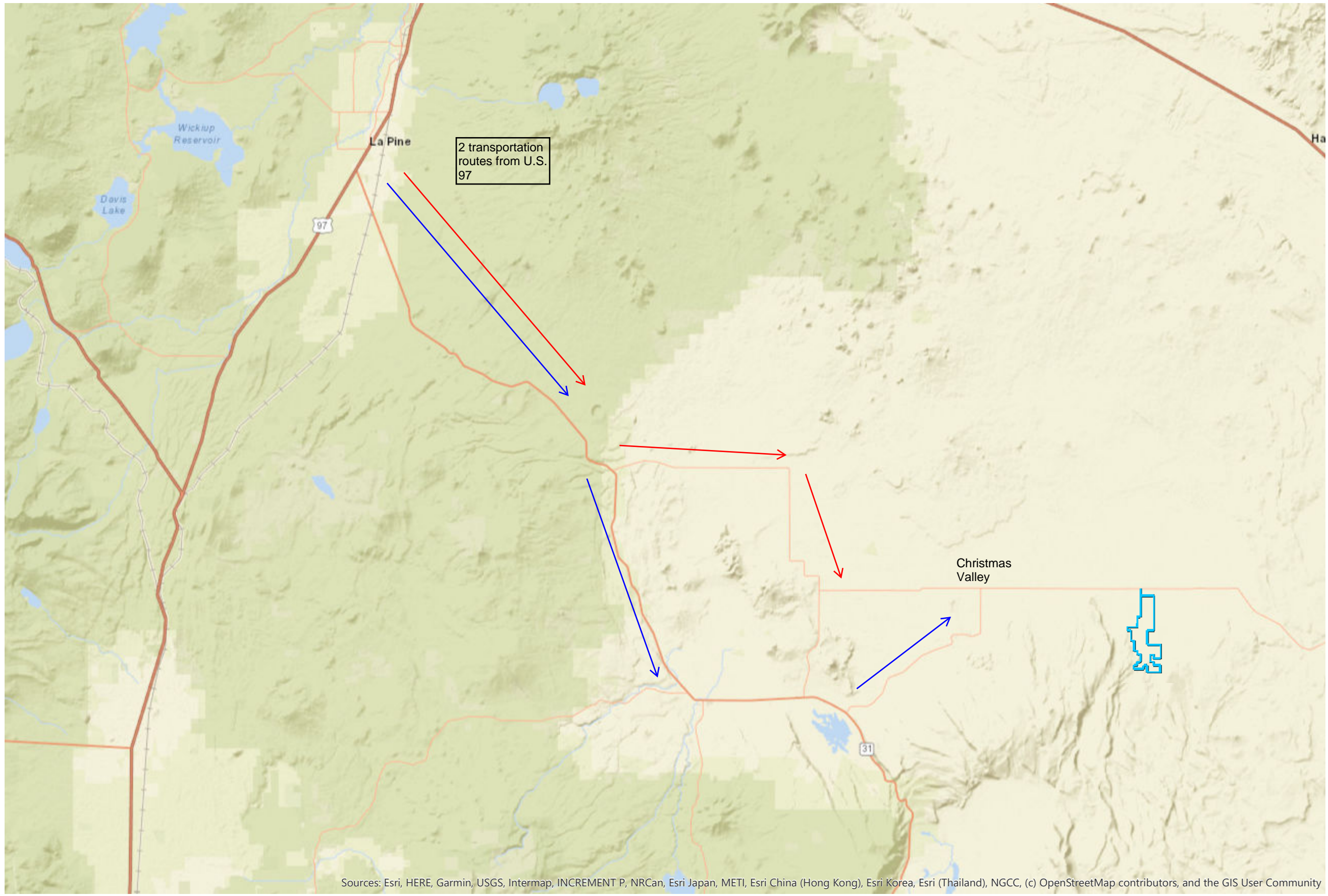
- Solar Power Generation Plant
 - POI Substation
 - Site Boundary
 - 10 mile radius around Site
 - Existing 500kV PacifiCorp Burns-Summer Lake
- Road Classification**
- US/State Route
 - County Road

Figure U-I Analysis Area

Archway Solar Energy Facility | Lake County, Oregon

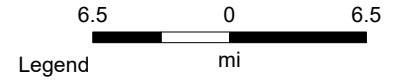
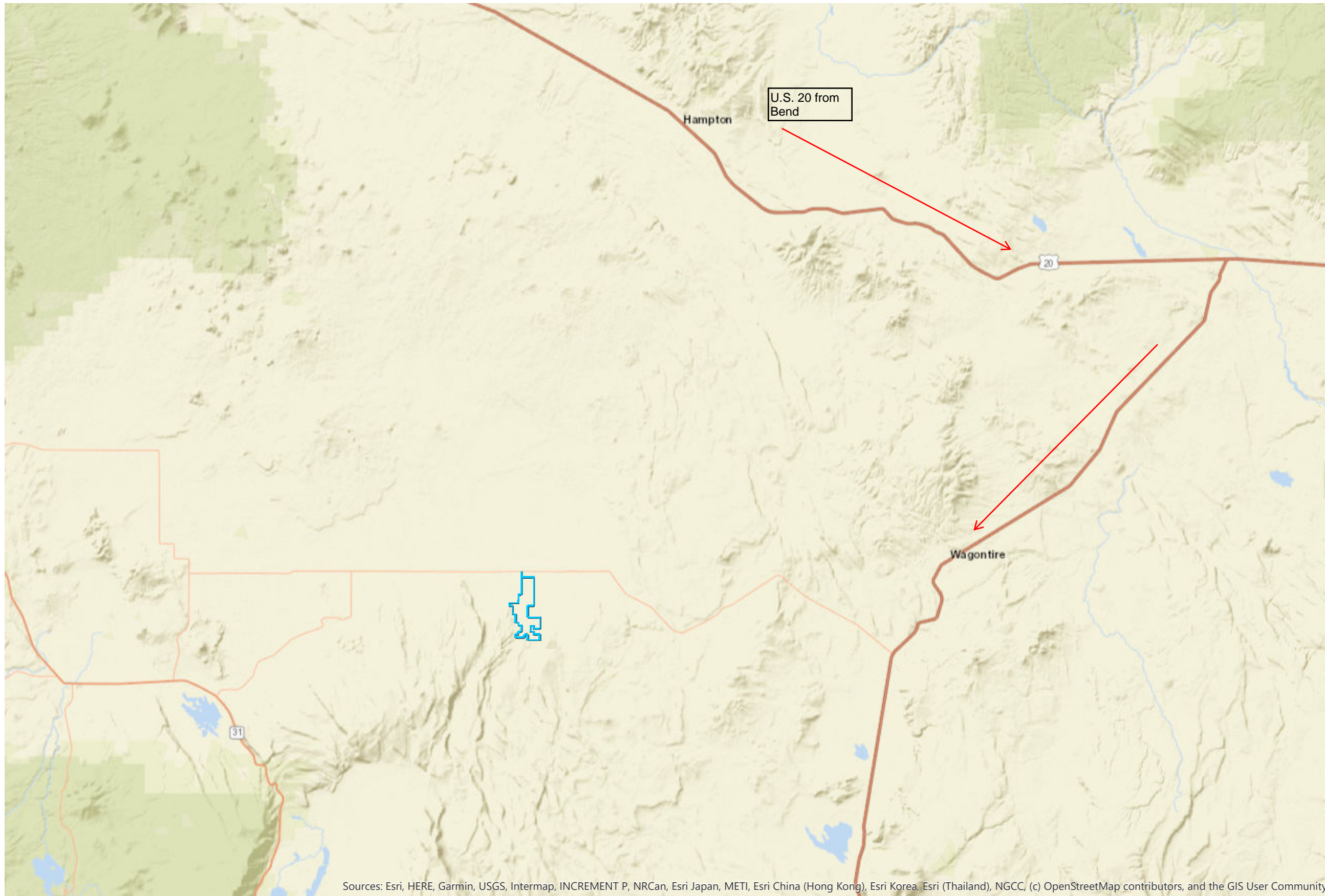
Rev. 00





U-2 Transportation Map

June 16, 2022



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

U-2 Alternate Transportation Map

June 16, 2022

