EXHIBIT L
IMPACTS ON PROTECTED AREAS

OAR 345-021-0010(1)(L)

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ATTACHMENTS

TABLE

FIGURES

L.1 PROTECTED AREAS INVENTORY

In accordance with OAR 345-001-0010(57)(e), the analysis area for Protected Areas consists of the area within the Boardman Solar Energy Facility (Facility) site boundary and 20 miles from the Facility site boundary. Figure L-1 shows the analysis area for Protected Areas. No Protected Areas are located within the site boundary.

Protected Areas in the analysis area are inventoried in Table L-1. Table L-1 shows the approximate distance from the Facility to the closest point of the Protected Area boundary, and the direction of each Protected Area from the Facility. A total of 16 categories of Protected Area designations are identified in OAR 345-022-0040(1). The inventory of Protected Areas conducted for this Exhibit was based on a review of available geographic information system data, maps, and other information pertaining to the relevant OAR categories.

OAR 345-021-0010(1)(L) *Information about the proposed Facility's impact on Protected Areas, providing evidence to support a finding by the Council as required by OAR 345-022-0040, including:*

Response: OAR 345-021-0010(1)(L) requires that the Application for Site Certificate for a proposed energy facility address impacts on the Protected Areas defined in OAR 345-022-0040(l)(a)-(p). According to OAR 345-022-0040(1), for an energy facility located outside any defined Protected Area, the Council must find that, "*taking into account mitigation, the design, construction and operation of the Facility are not likely to result in significant adverse impact to the areas listed [in OAR 345-022-0040(1)(a)-(p)]*" before issuing a site certificate.

As shown on Figure L-1, the proposed Facility is located outside the Protected Areas defined in OAR 345-022-0040(1)(a)-(p). Therefore, to address OAR 345-022-0040 and demonstrate that the Facility will not result in significant adverse impacts on Protected Areas, Boardman Solar Energy LLC (Applicant) has undertaken a systematic analysis of potential Facility impacts on Protected Areas within 20 miles of the proposed Facility site boundary. The results of this analysis are presented in accordance with OAR 345-021-0010(1)(L), and provide evidence to support a finding by the Council as required by OAR 345-022-0040.

The Facility 115-kilovolt (kV) transmission line will be located adjacent to, and within 500 feet of the existing Portland General Electric 230-kV transmission line for the Facility transmission line's entirety between the Facility substation and the point of interconnection along the Bonneville Power Administration Boardman-Alkali 115-kV transmission line. Therefore, per OAR 345-022-0040(3), the provisions of OAR 345-022-0040(1) do not apply to the Facility transmission line and it is not included in the analysis of Protected Areas.

L.2 LIST OF PROTECTED AREAS AND MAP OF LOCATION

OAR 345-021-0010(1)(L)(A) *A list of the Protected Areas within the analysis area showing the distance and direction from the proposed Facility and the basis for protection by reference to a specific subsection under OAR 345-022-0040(1).*

Response: The analysis area for impacts on Protected Areas includes the area within the Facility site boundary and the area within 20 miles of the Facility site boundary in accordance with OAR 345-001-0010(2) and 345-001-0010(59)(e). Table L-1 lists the Protected Areas in the analysis area and the specific OAR 345-022-0040(1)(a-p) rule reference for each area. Because the transmission line is not subject to OAR 345-022-0040(1), each Protected Area's approximate distance and direction (north, south, east, or west) from the Facility site boundary as presented in Table L-1, includes all Facility components, but excludes the transmission line and its associated portion of the site boundary.

Table L-1. Protected Areas within the 20-Mile Analysis Area

Protected Area	Approximate Distance from the Facility to the Closest Point of the Protected Area Boundary (miles)	Direction from Facility	Basis for Protection (OAR 345-022-0040(1) Subsection)[a]
Willow Creek Wildlife Area	0.5[b]	West	*(p) State wildlife areas and management areas*
Horn Butte Area of Critical Environmental Concern	2.1	West	*(o) Bureau of Land Management areas of critical environmental concern*
Crow Butte State Park[c]	5.5	Northeast	*(h) State parks and waysides…*
Arlington Wayside	6.3	West	*(h) State parks and waysides…*
Umatilla National Wildlife Refuge	6.1	Northeast	*(d) National and state wildlife refuges,*
Boardman Research Natural Area	11.8	Southeast	*(o) Bureau of Land Management areas of critical environmental concern*
Coyote Springs Wildlife Area	15	East	*(p) State wildlife areas and management areas*
Lindsay Prairie Preserve	19.8	Southeast	*(i) State natural heritage areas*
Umatilla Fish Hatchery	19.9	Northeast	*(f. National and state fish hatcheries,*

[a] Under OAR 345-022-0040(1), no areas meet the criteria stated in subsections (a) through (c), (e), (j), (l), (m) and (n) in the analysis area.

[b] This distance measurement between the Facility and Willow Creek Wildlife Area does not include the proposed transmission line, which does not need to be included in the Protected Areas analysis per OAR 345-022-0040(3).

[c] Crow Butte is a Washington state park. Under OAR 345-022-0040(1)(h), only Oregon Parks and Recreation Department-listed state parks and the Willamette Greenway are protected. Applicant is including "in good faith" because of the proximity of the Washington state park.

OAR 345-021-0010(1)(L)(B) *A map showing the location of the proposed Facility in relation to the Protected Areas listed in OAR 345-022-0040 located in the analysis area*.

Response: In accordance with OAR 345-021-0010(1)(L)(B), Figure L-1 shows the general location of the Facility site, the 20-mile analysis area around the Facility site boundary, and the Protected Areas identified in the analysis area. As stated in Section L.1, the transmission line is not subject to OAR 345-021-0010(1).

L.3 POTENTIAL IMPACTS OF PROPOSED FACILITY

OAR 345-021-0010(1)(L)(C) *A description of significant potential impacts of the proposed Facility, if any, on the Protected Areas including, but not limited to, potential impacts such as:*

(i) Noise resulting from Facility construction or operation;

(ii) Increased traffic resulting from Facility construction or operation;

(iii) Water use during Facility construction or operation;

(iv) Wastewater disposal resulting from Facility construction or operation;

(v) Visual impacts of Facility structures or plumes.

(vi) Visual impacts from air emissions resulting from Facility construction or operation, including, but not limited to, impacts on Class 1 Areas as described in OAR 340-204-0050.

L.3.1 Potential Noise, Traffic, Water Use, and Wastewater Disposal Impacts

Response: The majority of the listed Protected Areas are located at least 5 miles or more from the Facility site boundary. One site, Willow Creek Wildlife Area, is approximately 0.5 mile from Facility site boundary, excluding the transmission line. The following paragraphs present an evaluation of potential impacts on Protected Areas within the analysis area from noise, traffic, water use, wastewater disposal, and visual impacts. The evaluation indicates no significant potential impacts on the Protected Areas, which are further described in Sections L.3.2.1 through L.3.2.9.

(i) Noise resulting from Facility construction or operation;

Response: As described in Exhibit X, projected noise levels resulting from Facility construction and operation will be minimal and meet requirements contained in Oregon Department of Environmental Quality rules. All Protected Areas except for two, Willow Creek Wildlife Area and Horn Butte Area of Critical Environmental Concern (ACEC), are located more than 5 miles from the site boundary where noise from the Facility will be essentially inaudible.

Willow Creek Wildlife Area is located west of the Facility, approximately 0.5 mile from the site boundary. The purpose of Willow Creek Wildlife Area is to protect fish and wildlife habitat while providing recreational opportunities such as hunting. Interstate 84 (I-84) and railroad tracks bisect the northern section of Willow Creek Wildlife Area and a second railroad track runs directly adjacent to the western bank of the wildlife area. Recreational firearms from hunting produce loud noises that can reverberate, or bounce off steep slopes making the noise louder. Thus, Willow Creek Wildlife Area is subject to sound from major transportation infrastructure and recreational uses and is not acoustically pristine. In addition, there is a water-pumping facility located at the southern end of Willow Lake. The eastern section of the wildlife area closest to the Facility has an exceedingly steep slope and is therefore not conducive to frequent public use. The public may access this area by boat on Willow Creek Bay, but it is approximately 250 feet lower in elevation than the Facility due to the steep slope that provides topographical screening to the Facility. Horn Butte ACEC is more than 2 miles from the Facility site boundary and is in closer proximity to other noise-generating uses (Shepherds Flat Wind Farm abuts the Horn Butte ACEC) and transmission facilities than the Facility. Horn Butte is designated as an ACEC to protect nesting habitat for the long-billed curlew (*Numenius americanus*).

As shown in Exhibit X, Table X-5, composite construction site noise levels are conservatively estimated to decrease 6 decibels on an A-weighted scale (dBA) for each doubling of distance. Based on Table X-5, the temporary construction noise levels at 2 miles (the distance to the Horn Butte ACEC) will not exceed 44 dBA and 56 dBA at Willow Creek Wildlife Area (0.5 mile). However, as noted, these levels are conservative and will be further reduced when additional attenuation factors discussed in Exhibit X are considered such as terrain and ground effects. In addition, although potentially audible, the noise level is not such that it will result in activity or resource interference within the nearest Protected Areas.

There are very few sources of noise associated with solar facilities and they are generally minor compared to other energy facilities. The traffic on the adjacent I-84 represents a more substantial source of noise than the proposed Facility. There is no unusually loud construction (including from the batch plant) or operational noise sources associated with the Facility; therefore, a significant potential noise impact on Willow Creek Wildlife Area or Horn Butte ACEC is not anticipated.

Given the minimal projected noise levels documented in Exhibit X, the distance between the Facility and the Protected Areas, and existing substantial sources of noise, noise resulting from Facility construction and operation will not significantly affect the Protected Areas within the 20-mile analysis area.

(ii) Increased traffic resulting from Facility construction or operation;

Response: Traffic impacts are addressed in greater detail in Exhibit U, which provides information on anticipated traffic volumes and peak construction traffic times, and measures the construction contractor will implement to avoid significant traffic impacts. This section focuses on the impacts of increased traffic on Protected Areas.

Threemile Canyon Road. Access to the proposed Facility will be from Threemile Canyon Road, a private road that runs north and south just east of the Facility from I-84 at Exit 151. The only Protected Area that also uses this access road is the Willow Creek Wildlife Area. A turnoff for the wildlife area is located approximately 0.5 mile south on the western side of Threemile Canyon Road. Approximately 600 feet of this existing private road will be upgraded to accommodate construction and operation of the Facility. From that point, a new private road will be constructed for 900 feet to the north between the private existing road used to access Willow Creek Wildlife Area and the main access gate for the Facility. No new road construction and upgrades or improvements to existing state or county roads will be required.

As mentioned above, 600 feet of the private access road where it turns west from Threemile Canyon Road will be upgraded to accommodate Facility construction and operation. To provide access to Willow Creek Wildlife Area during construction, particularly while the 600-foot section of upgraded private road is under construction, the Applicant, in coordination with the existing landowner, Threemile Canyon Farms, will provide a temporary alternate public access to Willow Creek Wildlife Area. The alternate access, shown on Figure L-2, follows Threemile Canyon Road 1.1 miles south of the existing Willow Creek Wildlife Area turnoff and then turns west onto an existing privately owned dirt road, which continues west to Willow Creek Wildlife Area. Although this route will be approximately 0.6 mile longer than the existing access route to the wildlife area, most of it will be on Threemile Canyon Road, which is paved. Paved roads generally allow for faster travel speeds and increased fuel economy. The Applicant will coordinate with ODFW and the landowner to ensure there is safe and clear wayfinding to Willow Creek Wildlife Area for the alternate route, including but not limited to directional roadway signage along the alternate access route and a description of the route on ODFW's website. Therefore, although the construction traffic on Threemile Canyon Road and the slightly increased travel distance for the alternate access route may slightly delay access to Willow Creek Wildlife Area, the delays will only be during the construction period, and will not significantly impact access to the wildlife area.

Backups and delays of a temporary nature may occur on the 0.5-mile segment of Threemile Canyon Road from the increase in traffic during construction that may impact access to the Willow Creek Wildlife Area. These impacts are mitigated by the fact that the traffic will primarily be from 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), limiting the time period over which delays will occur. In addition, the arrival of large delivery trucks will likely be during the work week, thereby minimizing delays to weekend visitors. The Applicant will monitor road traffic on Threemile Canyon Road during delivery of heavy components, and will implement measures such as advance signage and flag personnel as described in Exhibit U Section U.4.7.

Traffic impacts to the Willow Creek Wildlife Area during Facility operation are not anticipated from the limited number of operational trips to be added. In addition, after construction, access to Willow Creek Wildlife Area will be improved with the upgraded turnoff and 600-foot section

from Threemile Canyon Road. Therefore, long-term negative impacts from traffic will be negligible due to the limited number of permanent employees.

I-84. I-84 in the immediate vicinity of the Facility may be temporarily affected by traffic increases as a result of construction vehicles accessing the site. Because the primary transportation route will be I-84, the state highway system is constructed to design, safety, and load-bearing standards, and existing traffic volumes are low as a result of the rural nature of the surroundings, minimal impacts are anticipated from potential construction- and operation-related traffic on traffic safety or road maintenance that may impact access to Protected Areas.

(iii) Water use during Facility construction or operation;

As discussed in Exhibit O, Facility water use will be temporary and limited to the construction period, except for a small amount to be used for operation and maintenance (O&M) activities. Water will be used during construction for a number of activities, including construction of concrete foundations, and dust control. The construction contractor will be responsible for arranging the delivery of water via water trucks from a source municipality with an existing water right and no water will be withdrawn from a Protected Area. A well or aboveground water storage tank will be used during operations at the O&M building. If the well is used, water withdrawal will occur at an estimated average of 165 gallons per day.

Water for dust control will ensure that Protected Areas, specifically Willow Creek Wildlife Area and Horn Butte ACEC, are not affected by dust that otherwise might arise during construction. Other water uses during Facility construction and operation will not affect any of the Protected Areas within the 20-mile analysis area.

(iv) Wastewater disposal resulting from Facility construction or operation;

Response: Wastewater disposal will not affect Protected Areas. As discussed in Exhibit V, the use of water for construction practices is not anticipated to generate significant runoff. Exhibit V documents structural and nonstructural best management practices that will be implemented during construction to prevent erosion and control sedimentation. The only sewage services required by the Facility during construction will be the handling of sewage from portable toilets, which will not affect Protected Areas. Waste from the portable toilets will be pumped regularly and disposed of offsite by the construction contractor. Other than the washwater periodically generated from washing panels, which will be covered under the WPCF 1700-B General Permit, industrial wastewater will not be generated through Facility operation. During operation, the stormwater will infiltrate into the ground. Water used to wash the solar modules two times per year will not be heated or include detergents. This washwater will be allowed to infiltrate into the ground and will be covered under a 1700-B General Water Pollution Control Facilities Permit, as described in Exhibit E. The minimal amount of sanitary waste to be generated by use of the O&M building will be handled and disposed of through an onsite septic system, which will be authorized by an Onsite Sewage Disposal Construction-Installation Permit. Wastewater resulting from Facility construction and operation will not affect any of the Protected Areas within the 20-mile analysis area.

L.3.2 Potential Visual Impacts

(v) Visual impacts of Facility structures or plumes.

After developing the Protected Areas map provided as Figure L-1, the Applicant's visual resource specialist conducted a field visit throughout the Facility's 20-mile Protected Areas analysis area on November 16 and 17, 2016. Protected Areas or a nearby vantage point were visited to establish sight lines to the Facility and the potential for visual impacts from Facility structures. The methodology used in the field visit by the visual resource specialist to assess potential visual impacts to Protected Areas was the same as described in Section R.2 of Exhibit R.

The field visit focused on assessing and documenting with photographs the potential views of Facility components from Protected Areas. The visual resource specialist relied on field observations, review of aerial photography, and professional expertise to assess the extent to which the Facility will be visible, including an evaluation of the screening potential of existing development, topography, and vegetation. Topographic features, elevation change, and the type, density, and height of vegetation were considered when assessing screening potential. Another criterion used by the visual resource specialist to assess the level of Facility visibility from the applicable Protected Areas was the distance between the two areas.

Attachment L-1 contains a set of photographs that present existing views toward the Facility from main public entry points or publicly accessible areas within or adjacent to Protected Areas nearest to the Facility site boundary.

As explained in Section R.5.5 of Exhibit R, the Facility design will result in limited reflectivity (glare) that may be visible within the Protected Areas analysis area. Viewed collectively from a distance at similar elevations, the limited reflectivity of the solar modules contributes to an overall appearance of a dark line on the horizon. In closer-in views, modules will be discernible but they are unlikely to be substantial sources of glint or glare. The solar modules are tracking, which means that they will rotate as the sun's angle changes. This, combined with the solar module's antireflective (AR) coating, will result in minimized glare. As shown in Attachment L-2, top-tier modern photovoltaic solar modules use a sophisticated AR coating to nearly eliminate the reflection of sunlight off the module face. A typical human eye reacts to light wavelengths from 390 to 700 nanometers and in that spectrum, the AR-coated glass on the Jinko module (which is typical of other modules) will have a high-level transmittance of at least 93.3 percent. Transmittance is the percent of radiation (light) that travels through a surface. Such a high level of transmittance is valuable because it means that more light is traveling through the glass and onto the photovoltaic cells, rather than reflecting off the surface. With transmittance values higher than a body of water or a glass window without an AR coating, the potential for glare is lower for modules compared to other surfaces, such as the Columbia River, which is visible within the Protected Areas analysis area. In addition, as stated in other sections of this Exhibit, the transmission line is not subject to Protected Areas review.

The Facility structures under consideration will not visually affect the Protected Areas identified in Table L-1. In addition, none of the Protected Areas are managed specifically for scenic viewsheds. Sections L.3.2.1 through L.3.2.9 provide additional description.

L.3.2.1 Willow Creek Wildlife Area

The Willow Creek Wildlife Area encompasses approximately 646 acres of wetlands, shrub-steppe, grassland, and agricultural habitat within a canyon setting. Visitors to the wildlife area may hunt and fish. The wildlife area is approximately 0.5 mile west of the Facility site boundary.

It is situated in a canyon that ranges in elevation from approximately 260 feet at water level (Willow Creek Bay) to 480 feet. The Facility structures will be located above and set back

approximately 0.5 mile from the top of the canyon. Photographs 1 and 2 in Attachment L-1 are taken from water level within the canyon (see Photo Survey Point 1 on Figure L-1) near the site's information kiosk and at the focal point of where recreational use typically associated with the wildlife area occurs (such as fishing and waterfowl hunting). These photographs show that existing screening in the form of varying topography and a mix of evergreen and deciduous vegetation will block views from the wildlife area toward the Facility.

To summarize, the Facility will not likely be visible from the wildlife area and Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.2 Horn Butte Area of Critical Environmental Concern

The Horn Butte Wildlife Area is approximately 6,000 acres and is managed by the U.S. Department of the Interior Bureau of Land Management (BLM) in accordance with the *Two Rivers Resource Management Plan and Record of Decision* (BLM, 1986). The BLM has designated the Horn Butte Wildlife Area as an "Area of Critical Environmental Concern" to protect nesting habitat for the long-billed curlew (*Numenius americanus*). At its nearest point, the ACEC is 2.1 miles west of the Facility site boundary. The Applicant's visual resource specialist drove along portions of the Horn Butte ACEC. Existing views from the majority of the Horn Butte ACEC include human-made features such as wind turbines, various transmission lines, highways, and roads. Photograph 3 in Attachment L-1 provides a view towards the Facility from a point along the Blue Mountain Scenic Byway (State Route 74). This photo survey point is adjacent to the ACEC and offers the nearest publicly accessible view from the ACEC toward the site boundary (see Photo Survey Point 2 on Figure L-1). As shown in Photograph 3, the canyon walls along the east side of Willow Creek Wildlife Area will likely block views of the solar module arrays. In the event that the solar module arrays are visible, their appearance will be similar to a dark line on the horizon.

To summarize, portions of the Facility may be visible from certain areas of the Horn Butte ACEC, but because of the existing human-made features and topography, the Facility will not be visually obtrusive. The views, if any, of Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.3 Crow Butte State Park

Crow Butte State Park is a 275-acre park on an island located in the southwestern section of Benton County in Washington State. The park is 5.5 miles northeast of the site boundary. While the park is closed seasonally between March 15 and October 31, the boat ramp is open year round and provided the nearest publicly accessible viewpoint towards the Facility during the field visit. Photograph 4 in Attachment L-1 shows that views toward the Facility from the boat ramp at Crow Butte State Park (see Photo Survey Point 3 on Figure L-1) are blocked by the elevation and topography of the hills and bluffs north of and adjacent to the Columbia River. In the absence of these features, distance will also likely preclude views of the Facility from Crow Butte State Park.

To summarize, should Facility structures be visible from other lesser-used areas within the park, they will not be visibly obtrusive because of their distance from the viewer. Therefore, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.4 Arlington Wayside

The Arlington Wayside is an undeveloped 219-acre parcel of land owned by the Oregon Department of Parks and Recreation. The parcel is located between the Columbia River and I-84, approximately 2 miles east of Arlington and approximately 6.3 miles west of the Facility site boundary (Figure L-1). Owing to safety concerns presented by the lack of available turnouts on this portion of the highway, the Applicant's visual resource specialist did not take photographs

of views in the direction of the Facility from portions of I-84 adjacent to the Arlington Wayside. However, the Applicant's visual resource specialist drove eastbound on the portion of I-84 near the approximate location of the Arlington Wayside during the visual resource site visit and verified that the surrounding topography blocks views of the Facility site from this area.

To summarize, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.5 Umatilla National Wildlife Refuge

The nearest point of the Umatilla National Wildlife Refuge is located approximately 6.1 miles northeast of the site boundary. The wildlife refuge includes 8,907 acres in Oregon and 14,876 acres in Washington. The refuge is popular with birdwatchers and wildlife enthusiasts and is a varied mix of open water, sloughs, shallow marsh, seasonal wetlands, cropland, islands, and shrub-steppe upland habitats. Although the nearest point of the refuge is approximately 6.1 miles from the Facility, the main refuge entrance used by recreationalists to access the site in Oregon is approximately 18.6 miles northeast of the Facility site boundary (USFWS, 2013). Photograph 5 in Attachment L-1 was taken from a designated parking area within the main refuge entrance off Paterson Ferry Road and within the Umatilla National Wildlife Refuge (see Photo Survey Point 4 on Figure L-1). The photograph clearly shows that at this distance, the Facility will not be visible from the main publicly accessible area within the refuge.

To summarize, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.6 Boardman Research Natural Area

The Boardman Research Natural Area (RNA) is located entirely within the Naval Weapons Systems Training Facility (NWSTF) Boardman. The NWSTF Boardman is a 47,000-acre site used by the U.S. Navy, the Oregon National Guard, and other agencies for aerial gunnery practice to meet their training and testing requirements. The RNA site is located approximately 11.8 miles southeast of the site boundary and is protected to preserve native grasslands and wildlife such as the Washington ground squirrel. The RNA site is not protected for its scenic qualities. As a result of the current use of the NWSTF Boardman, the Applicant's visual resource specialist did not access the RNA during the field visit. However, based on distance and surrounding topography, Facility structures will not be visible from the RNA.

To summarize, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.7 Coyote Springs Wildlife Area

The Coyote Springs Wildlife Area is located approximately 2 miles east of the Boardman city limits and 15 miles east of the Facility site boundary. The wildlife area encompasses approximately 160 acres and provides habitat for a variety of mammals, including deer, skunks, coyotes, raccoons, waterfowl, and upland birds. The Applicant's visual resource specialist drove to the wildlife area entry point along the wildlife area's only access road and verified that distance and the presence of human-made features (such as industrial warehouse facilities and I-84) will screen views of the Facility from this wildlife area.

To summarize, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.8 Lindsay Prairie Preserve

The Lindsay Prairie Preserve is a native prairie remnant on the Columbia Plateau that hosts rare grasslands and a variety of wildlife. Similar to the Boardman RNA, the Lindsay Prairie Preserve is

not managed for its scenic qualities. The preserve is 19.8 miles southeast of the site boundary. The Facility structures will not be visible from the preserve because of distance, topography, and vegetative screening.

To summarize, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.9 Umatilla Fish Hatchery

The Umatilla Fish Hatchery is used for egg incubation and rearing of spring and fall Chinook salmon and summer steelhead. The hatchery is located farther east from the main entrance of the Umatilla National Wildlife Refuge described in Section L.3.2.5 and is approximately 19.9 miles northeast of the site boundary. The Applicant's visual resource specialist drove to the entrance of the hatchery to verify that at this distance, the Facility will not be visible from the hatchery.

To summarize, Facility structures will not constitute a significant adverse visual impact on this Protected Area.

L.3.2.10 Class I Areas

(vi) Visual impacts from air emissions resulting from Facility construction or operation, including, but not limited to, impacts on Class 1 Areas as described in OAR 340-204-0050.

Response: The Facility is not located in a Class 1 area pursuant to OAR 340-204-0050, which addresses Prevention of Significant Deterioration to areas in Oregon. The closest area classified as Class 1 is the Mt. Hood National Forest, which is approximately 72 miles from the site boundary. Because of the considerable distance between the Mt. Hood National Forest and the Facility, the Facility will not be visible from the forest.

In terms of visual impacts from air quality, dust may be generated during Facility construction activities such as grading and clearing. However, the Applicant will control dust by watering disturbed areas during construction. Furthermore, the Facility will not emit regulated pollutants in the generation of electricity. Because of the distance from the Facility to the Mt. Hood National Forest (Class 1 area), the Facility will not be visible from the forest.

To summarize, no impacts are expected from construction or operation of the Facility. Therefore, there will be no impacts on Class 1 areas.

L.4 POTENTIAL IMPACTS OF PROPOSED TRANSMISSION LINE

OAR 345-022-0040 *(2) Notwithstanding section (1), the Council may issue a site certificate for a transmission line or a natural gas pipeline or for a Facility located outside a Protected Area that includes a transmission line or natural gas or water pipeline as a related or supporting Facility located in a Protected Area identified in section (1), if other alternative routes or sites have been studied and determined by the Council to have greater impacts. Notwithstanding section (1), the Council may issue a site certificate for surface facilities related to an underground gas storage reservoir that have pipelines and injection, withdrawal or monitoring wells and individual wellhead equipment and pumps located in a Protected Area, if other alternative routes or sites have been studied and determined by the Council to be unsuitable.*

Response: The Facility transmission line will not be located in a Protected Area. Therefore, this provision does not apply.

OAR 345-022-0040 (*3) The provisions of section (1) do not apply to transmission lines or natural gas pipelines routed within 500 feet of an existing utility right-of-way containing at least one*

transmission line with a voltage rating of 115 kilovolts or higher or containing at least one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of 125 psig.

Response: The Facility 115-kV transmission line will be adjacent to, and within 500 feet of an existing utility right-of-way containing at least one transmission line with a voltage rating of more than 115 kV (230 kV). Therefore, the provisions of section (1) do not apply to the Facility transmission line.

L.5 SUMMARY

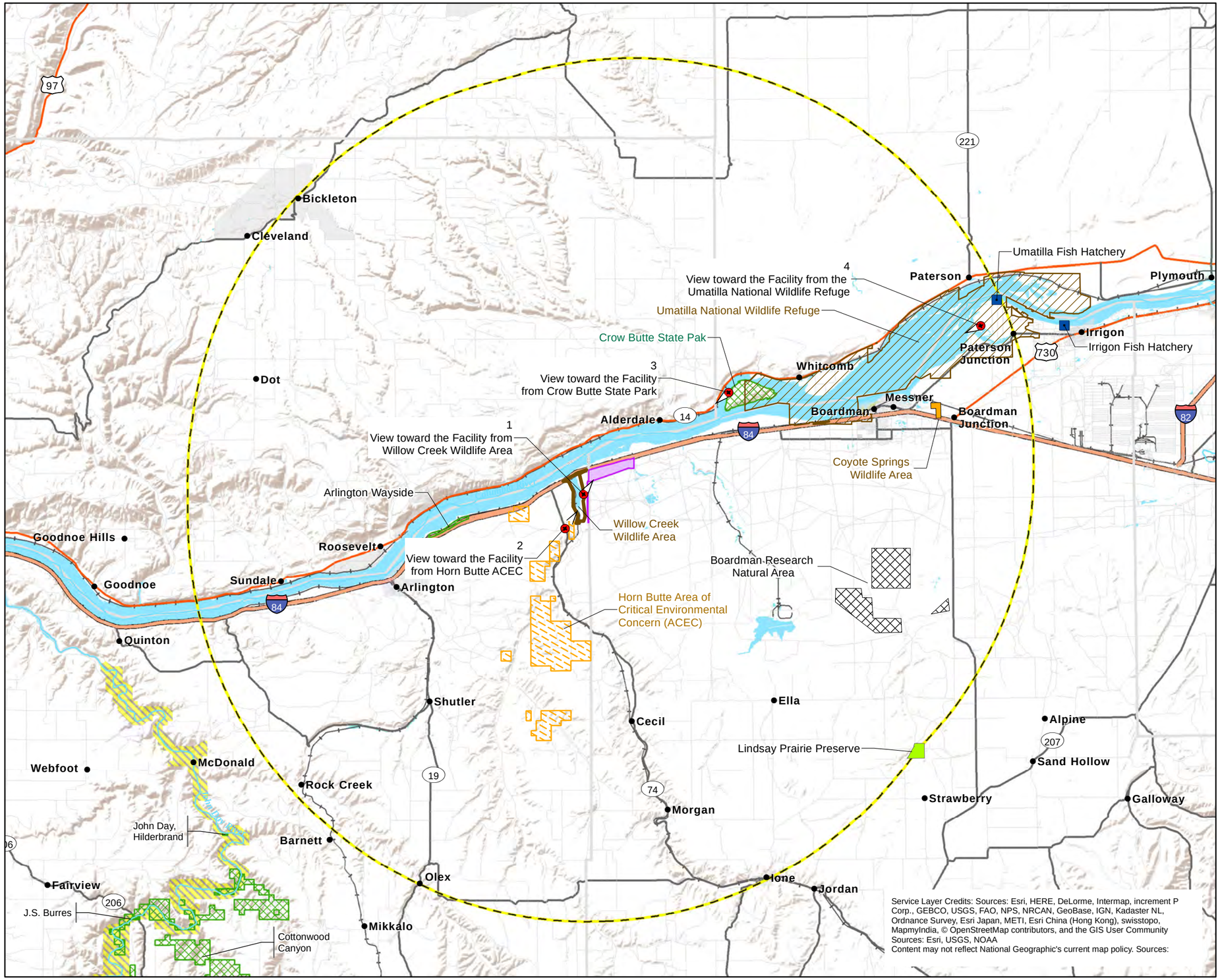
On the basis of the potential impacts evaluation discussed in this Exhibit, sufficient evidence is provided to demonstrate that the design, construction, and operation of the Facility will not cause direct or indirect noise, traffic, water, wastewater, or visual impacts likely to result in significant adverse impacts to Protected Areas.

L.6 REFERENCES

Bureau of Land Management (BLM). 1986. *Two Rivers Resource Management Plan and Record of Decision*. U.S. Department of the Interior Bureau of Land Management. June 1986. Accessed April 28, 2016. http://www.blm.gov/or/districts/prineville/plans/files/pdo_tworivers_06_1986.pdf.

U.S. Fish and Wildlife Service (USFWS). 2013. *Umatilla National Wildlife Refuge. Plan Your Visit*. Updated August 29. Accessed December 16, 2016. https://www.fws.gov/refuge/Umatilla/Visit/Plan_YourVisit.html.

Figures



VICINITY MAP

LEGEND

- Facility Site Boundary
- Protected Areas Analysis Area (20 miles)
- Photo Survey Point
- Fish Hatcheries
- State Park
- Wild and Scenic River (WSR)
- Lindsay Prairie Preserve
- Boardman Research Natural Area
- Coyote Springs Wildlife Area
- Willow Creek Wildlife Area
- Horn Butte Area of Critical Environmental Concern (ACEC)
- Umatilla National Wildlife Refuge

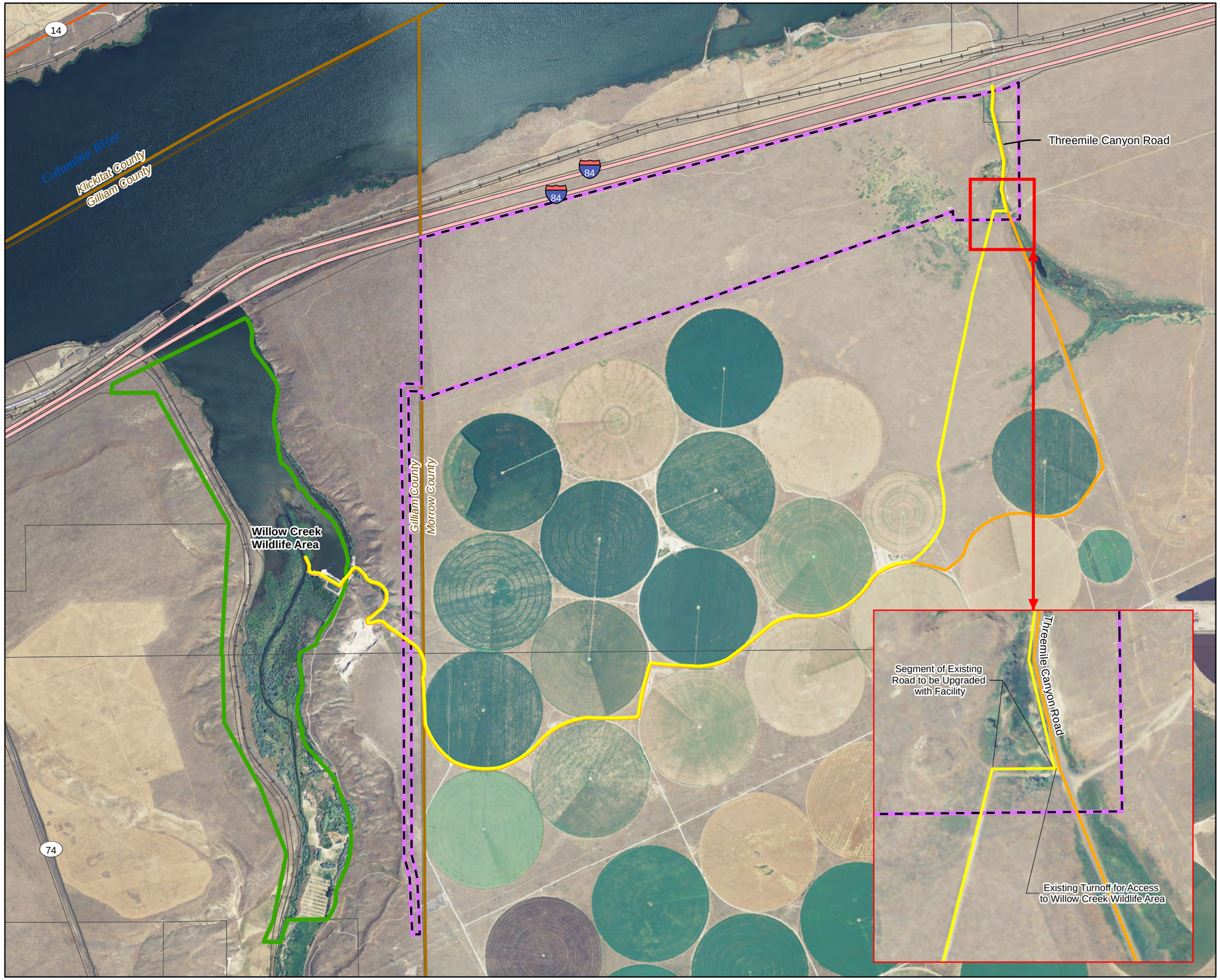
N

0 6 12

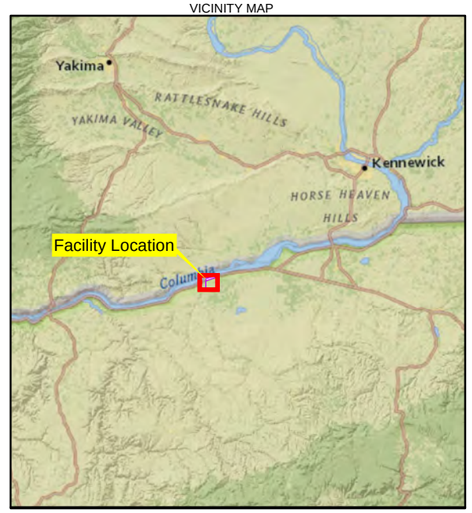
Miles

FIGURE L-1
Protected Areas
Boardman Solar Energy Facility
Application for Site Certificate
Morrow and Gilliam Counties, Oregon

Invenergy
ch2m:



VICINITY MAP



LEGEND

- Facility Site Boundary
- Willow Creek Wildlife Area
- State Boundary
- County Boundary
- Tax Lot
- Major Highway
- Highway
- Major Road
- Primary Facility Access
- Temporary Alternate Access to Willow Creek Wildlife Area

N

0 2,000 4,000

Feet

FIGURE L-2
Temporary Alternate Access to Willow Creek Wildlife Area
Boardman Solar Energy Facility
Application for Site Certificate
Morrow and Gilliam Counties, Oregon

Invenergy
ch2m

Attachment L-1
Photographs of Existing Views Toward Facility from Protected Areas, with Photo Points

Photograph 1 – From Photo Survey Point 1 on Figure L-1.
View from within the Willow Creek Wildlife Area facing northeast toward the Facility site. (The red arrow indicates the approximate location of the Facility site.)

Photograph 2 – From Photo Survey Point 1 on Figure L-1.
View from within the Willow Creek Wildlife Area facing northeast toward the Facility site. (The red arrow indicates the approximate location of the Facility site.)

Photograph 3 – From Photo Survey Point 2 on Figure L-1.
View from the Blue Mountain Scenic Byway facing northeast across the Horn Butte Area of Critical Environmental Concern toward the Facility site. (The red arrow indicates the approximate location of the Facility site in the midground left of center along the horizon above the fence line.)

Photograph 4 – From Photo Survey Point 3 on Figure L-1.
View from the marina at Crow Butte State Park facing southwest toward the Facility. (The red arrow indicates the approximate location of the Facility site.)

Photograph 5 – From Photo Survey Point 4 on Figure L-1.
View facing southwest toward the Facility from the public access road within the Umatilla National Wildlife Refuge. (The red arrow indicates the approximate location of the Facility site.)

Attachment L-2
Antireflective Coating Specifications

Jinko Solar
Building Your Trust in Solar
晶科能源
www.jinkosolar.com
中国上海浦东新区杨高南路
428号2号楼16层
200127
16F, Building No. 2,
428# South Yang Gao Road,
Shanghai 200127, China
电话: (86) 21-6061 1799
传真: (86) 21-6876 1115
Tel: (86) 21-6061 1799
Fax: (86) 21-6876 1115

Statement

To Whom It May Concern,

We, Jinko Solar Co., Ltd (Jinko Solar), hereby declaration that our PV modules, have Anti-Reflective Coating (AR Coating) and show low reflection rate due to the specific AR Coated solar glass employed for production in comparison with modules without AR Coating treatment.

The Anti-Reflective Coating main material is porous SiO2, solvent and additive resolved under high temperature during tempering process, free from ROHS and SVHC substance which assure long-term durability of the optical properties of the glass sheet.

The Solar Energy transmittance (T_E%) of the 4.0 mm thick single side AR Coated glass assembled on Jinko module, measured by means of UV-Vis-Spectrometer (acc. ISO 9050:2003), is always ≥93.3% at all wave length between 380-780nm.

Kind regards,

晶科能源有限公司
组件事业部客户服务部

Technical Service Department

28th May, 2015

EXHIBIT M
FINANCIAL ASSURANCE

OAR 345-021-0010(1)(m)

TABLE OF CONTENTS

ATTACHMENTS

OAR 345-021-0010(1)(m) *Information about the applicant's financial capability, providing evidence to support a finding by the Council as required by OAR 345-022-0050(2). Nothing in this subsection shall require the disclosure of information or records protected from public disclosure by any provision of state or federal law. The applicant shall include:*

M.1 OPINION OF LEGAL COUNSEL

OAR 345-021-0010(1)(m)(A) *An opinion or opinions from legal counsel stating that, to counsel's best knowledge, the applicant has the legal authority to construct and operate the facility without violating its bond indenture provisions, articles of incorporation, common stock covenants, or similar agreements.*

Response: Attachment M-1 contains a legal opinion stating that Boardman Solar Energy LLC (Applicant) has the legal authority to construct and operate the Boardman Solar Energy Facility (Facility) without violating articles of organization covenants or similar agreements.

M.2 BOND, SECURITY, OR OTHER FINANCIAL INSTRUMENT

OAR 345-021-0010(1)(m)(B) *The type and amount of the applicant's proposed bond or letter of credit to meet the requirements of OAR 345-022-0050.*

Response: Before beginning Facility construction, the Applicant will submit a bond or letter of credit in an amount equal to the net cost of Facility retirement and restoration. The estimated cost, in fourth quarter 2016 dollars, is approximately $4.5 million. Attachment W-1 in Exhibit W provides a detailed estimate. The bond or letter of credit will be provided in a form satisfactory to the Council and will ensure that adequate funds exist for restoration of the Facility site to a useful, nonhazardous condition following permanent cessation of construction or operation of the Facility.

M.3 EVIDENCE OF REASONABLE LIKELIHOOD OF OBTAINING SECURITY

OAR 345-021-0010(1)(m)(C) *Evidence that the applicant has a reasonable likelihood of obtaining the proposed bond or letter of credit in the amount proposed in paragraph (B), before beginning construction of the facility.*

Response: Attachment M-2 is a letter from Wells Fargo Bank, N.A., stating that Wells Fargo has an ongoing relationship with the Applicant's parent company, Invenergy Solar Development LLC, and subject to review and acceptance of the terms and conditions of the final contract, will provide a letter of credit for the Facility in an amount of up to $4.5 million, should a letter be required.

Attachment M-1
Legal Opinion

Boardman Solar Energy LLC Invenergy

December 5, 2016

Oregon Department of Energy
625 Marion Street NE
Salem, OR 97301

RE: Boardman Solar Energy Facility Application for Site Certificate

To whom it may concern:

I am an in house attorney for Invenergy Solar Development LLC, the parent company of Boardman Solar Energy LLC (the "Applicant"), and as such have acted as counsel to the Applicant. I am a member of the bar of the states of Illinois, New York, Pennsylvania and Washington. For Oregon jurisdictional matters, Invenergy LLC relies on the expertise of counsel Stoel Rives LLP.

In my capacity as counsel to the Applicant, I have examined originals or copies certified or otherwise identified to my satisfaction of the books and records of Applicant and such other documents, limited liability company records, certificates of public officials and other instruments regarding the Applicant as I have deemed necessary and appropriate for the purposes of this opinion.

In rendering this opinion expressed below, I have assumed (i) the authenticity of all the documents submitted to me as originals and (ii) the conformity to original documents of all documents submitted to me as copies. As to factual matters, I have relied to the extent deemed proper upon statements and certification of officers and managers of the Applicant.

Based on the foregoing, to the best of my knowledge, I am of the opinion, subject to the Applicant's meeting all of the applicable federal, state and local laws (including all rules and regulations promulgated thereunder), the Applicant has the legal authority to construct and operate the 75 MW solar generation facility and associated facilities located in Morrow and Gilliam counties, Oregon (the "Facility") that the Applicant proposes in its Application for Site Certificate to be filed with the Oregon Energy Facility Siting Council and in connection with which this opinion is rendered, without violating articles of organization covenants or similar agreements.

The foregoing opinion is rendered pursuant to Oregon Administrative Rules 345-020-0010(1)(m)(A) regarding whether the Applicant has the legal authority under its operating agreements to construct and operate the Facility without violating its articles of incorporation. I express no opinion as to the applicability of any federal, state or local laws (including all rules and regulations promulgated thereunder) to such construction and operation or as to the effects of the foregoing laws on such construction and operation.

Please do not hesitate to contact me if you have any questions regarding this matter.

Sincerely,

Mike Blazer
Senior Vice President and General Counsel

Attachment M-2
Credit Letter

WELLS FARGO

Chicago Regional
Commercial Banking Office
10 South Wacker Drive
16th Floor
Chicago, IL 60606

December 21, 2016

Oregon Department of Energy
625 Marion Street NE
Salem, Oregon 97301-3737

Attention: Todd R. Cornett, Assistant Director, Siting Division

Dear Mr. Cornett:

Invenergy Solar Development LLC ("ISD") is a valued client of Wells Fargo Bank, N.A. ("Bank").

It is our understanding that ISD (as Applicant on behalf of Boardman Solar Energy LLC) may be asked to provide a letter of credit. It is further our understanding that the potential liability of the letter of credit could total an amount of up to four million five hundred thousand dollars ($4,500,000.00).

Wells Fargo has an ongoing relationship with ISD and there is a reasonable likelihood that we will provide a letter of credit for this project should it be required. This commitment is subject to our regular review and acceptance of the terms and conditions of the final contract and required letter of credit and approval by the Bank.

Furthermore, any arrangement for the final letter of credit is a matter between ISD and the Bank and we assume no liability to third parties or to you if, for any reason, we do no execute said letter of credit.

If you have any questions, please do not hesitate to call me at (312) 845-4762.

Sincerely,

James G. Cygan
Senior Vice President

EXHIBIT N
NONGENERATING FACILITY INFORMATION

OAR 345-021-0010(1)(n)

Exhibit N requires information about a nongenerating facility. Exhibit N is not required for this application because Boardman Solar Energy LLC (Applicant) is not proposing to construct a nongenerating energy facility.