

ATTACHMENT P: VISUAL AND GLARE IMPACT ASSESSMENT

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Badger Mountain Solar Energy Project Visual and Glare Impact Assessment

Prepared for:

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Acronyms and Abbreviations

| | |
|--------------|--|
| A-D | Dryland Agriculture |
| Applicant | Aurora Solar, LLC |
| ASC | Application for Site Certification |
| BESS | battery energy storage system |
| BLM | Bureau of Land Management |
| BPA | Bonneville Power Administration |
| CFR | Code of Federal Regulations |
| County | Douglas County |
| DNI | direct normal irradiance |
| EFSEC | Washington Energy Facility Site Evaluation Council |
| FAA | Federal Aviation Administration |
| FHWA | Federal Highway Administration |
| gen-tie line | generation-tie transmission line |
| GPS | global positioning system |
| I-97 | Interstate Highway 97 |
| KOP | Key Observation Point |
| kV | kilovolt |
| NCT | Notice Criteria Tool |
| O&M | operations and maintenance |
| OEG | Obstruction Evaluation Group |
| POI | Point of Interconnect |
| Project | Badger Mountain Solar Energy Project |
| PSE | Puget Sound Energy |
| PV | photovoltaic |
| RR-20 | Rural Resource 20 |
| SEPA | State Environmental Policy Act |
| SGHAT | Solar Glare Hazard Analysis Tool |
| SR | State Route |
| US | U.S. Highway |
| ZVI | Zone of Visual Influence |

1.0 Overview

Aurora Solar, LLC (Applicant), a wholly-owned subsidiary of Avangrid Renewables, LLC, proposes to construct and operate Badger Mountain Solar Energy Project (Project). The Project is a 200 megawatt (MW) solar photovoltaic (PV) generation facility with an optional 200 MW battery energy storage system (BESS) located in unincorporated Douglas County (County), Washington (Figure 1). The Project will use solar modules configured in a solar array to convert energy from the sun into electric power, which is then delivered to the electric power grid via an overhead 230-kilovolt (kV) generation-tie transmission line (gen-tie line). The Applicant has elected to permit the Project through submittal of a streamlined solar Application for Site Certification (ASC) to the State of Washington Energy Facility Site Evaluation Council (EFSEC).

Tetra Tech, Inc. was retained by the Applicant to perform a Visual Impact Assessment for the Project. This Visual Impact Assessment was prepared to identify and evaluate the potential visual, glare, and aesthetic impacts associated with Project construction and operation.

2.0 Project Location and Site History

2.1 Location

The Project is located in unincorporated Douglas County, Washington, approximately 3.5 miles northeast of the city limits of East Wenatchee and south of Badger Mountain Road (Figure 1). The Project Lease Boundary encompasses 21 privately owned assessor parcels and two state-owned assessor parcels that would be crossed by the Project. Construction and operation of the Project are limited to the approximately 2,390-acre Project area that occurs within the Project Lease Boundary (see Figure 2 and Section 2.3 below).

2.2 Existing Setting

The Project area occurs within Douglas County's Dryland Agriculture (A-D) and Rural Resource 20 (RR-20) zoning districts. Current land uses in the area include dryland agriculture, rangeland, existing transmission lines, and undeveloped land. Adjacent assessor parcels are also currently used and zoned for dryland agricultural or rural resource purposes, with an area of suburban residential development to the west of the Project area. Land within the Solar Array Micrositing Area is currently dominated by active dryland agricultural use, whereas land uses within the Gen-tie Micrositing Corridor include a mixture of dryland agriculture, rangeland, existing transmission lines, and undeveloped land.

2.3 Project Area

The following terms will be used to describe areas associated with Project development:

- **Project Area:** The approximately 2,390-acre area that includes both the Solar Array Micrositing Area and the Gen-tie Micrositing Corridor (defined below). The Project area is

the focus of analysis provided in the streamlined solar ASC. The Applicant is requesting flexibility to microsite the Project and its interconnection facilities anywhere within the Project area so long as the final layout does not result in a greater impact than allowed for in the Site Certification Agreement and satisfies all conditions of the Site Certification Agreement.

- **Solar Array Micrositing Area:** This area is a subset of the “Project area” described above, and includes the area where the solar array and supporting components will be sited during final engineering design. The Applicant is considering various solar array design layouts within the Solar Array Micrositing Area; however, the final design for these facilities will be located within this 2,274-acre area. The Solar Array Micrositing Area is larger than size of the fenced perimeter of the solar array to allow for optimization of the final design.
- **Gen-tie Micrositing Corridor:** This area is a subset of the “Project area” described above. The Project’s overhead 230-kV gen-tie line, two Point of Interconnect (POI) options, and switchyard will be located within an approximately 3.7-mile-long and approximately 200-foot-wide corridor within the Gen-tie Micrositing Corridor. The Project will use one of the two interconnection options and an associated switchyard along the gen-tie route and the final design will be located within this approximately 116-acre area. The Gen-tie Micrositing Corridor is larger than the Project’s anticipated final footprint to allow for minor rerouting and optimization of the final design.

3.0 Project Description

3.1 Project Components

The Project solar array will consist of the solar modules, trackers, posts, cabling, inverters, transformers, and electrical collector lines. The Project solar array and the following supporting components will be developed in the Solar Array Micrositing Area: collector substation, operations and maintenance (O&M) building, associated access and service roads, perimeter fencing, and the optional BESS.

The Project collector substation in the Solar Array Micrositing Area will be connected to the grid via the overhead 230-kV gen-tie line, one of two POI options, and an associated switchyard within the Gen-tie Micrositing Corridor :

- **Option 1 POI:** A 3.7-mile-long gen-tie line that could connect the Project collector substation to the existing Puget Sound Energy (PSE) 230-kV transmission line (Figure 2). The gen-tie line will connect to the PSE line through a proposed interconnection switchyard on land currently used for cultivated dryland wheat, located east of the East Wenatchee Urban Growth Area boundary and Canyon Hills subdivision.
- **Option 2 POI:** A 1.0-mile-long gen-tie line that could connect the Project’s collector substation to an existing Bonneville Power Administration (BPA) transmission line, closer to the northern end of the Project area west of Badger Mountain Road (Figure 2). The gen-tie line will connect to the BPA line through a proposed interconnection switchyard on land

currently used for grassland/rangeland and multiple existing transmission lines, including three BPA lines ranging from 230 kV to 500 kV.

The final right-of-way for the 230-kV gen-tie lines will be up to 200 feet wide. The line will be suspended above ground on either single steel monopole structures or wooden H-frame structures that will be approximately 60 to 150 feet tall.

The Project will be accessed primarily via Badger Mountain Road and U 75 Road (i.e., Clark Road). The main access to the Project will be located at its northern end (near the Project collector substation). The Project will use existing roads to the extent practicable, as well as approximately 16 miles of new Project service roads that will be constructed within the Solar Array Micrositing Area. Roads will be constructed of an all-weather road surface, and have a minimum permanent width of 16 feet.

Chain-link fencing will be installed around the perimeter of the solar array. The fencing will be up to 8 feet high, consisting of a 7-foot-high chain-link segment with an additional 1 foot of barbed wire along the top.

3.2 Site Restoration / Decommissioning

The expected life of the Project is assumed to be 50 years; however, depending on the commercial market for renewable energy, the Project could be updated with more efficient components over time which could extend its useful life. The Project will be decommissioned following the end of its useful life. Decommissioning will be conducted in accordance with EFSEC rules and prior Site Certification Agreements and include dismantling and removing aboveground Project components described above and in Part 2 of the Applicant's streamlined solar ASC. Foundations will be removed to a level of 3 feet below the surface of the ground or until bedrock, unless requested to be maintained by the landowner. In areas where the foundations are removed, the surface will be restored and contoured to a condition reasonably similar to that prior to construction, and the area will be reseeded with vegetation reasonably acceptable to the landowner. Cables, lines, or conduit that are buried more than 3 feet below grade will not be removed. Any access roads constructed as part of the Project may remain, unless the landowner specifically requests their removal. During decommissioning, the Applicant will adhere to all federal, state, and local requirements, including obtaining and adhering to all applicable permits and authorizations.

4.0 Visual Assessment Methodology

4.1 Visual Impact Criteria

4.1.1 Visual Impact Criteria

The purpose of preparing this Visual and Glare Impact Assessment for the Project is to provide information to meet the EFSEC ASC and State Environmental Policy Act (SEPA) Environmental Checklist requirements for aesthetics (visual) under Washington Administrative Code 197-11-960.

4.1.2 Visual Change Criteria

Visual impacts are generally defined in terms of a project's physical characteristics and potential visibility, as well as the extent to which the project's presence would change the perceived visual character and quality of the environment in which it would be located. Tetra Tech followed the contrast rating system used by the U.S. Bureau of Land Management (BLM) to objectively measure potential changes to the visual environment (BLM 1986). The BLM's contrast rating system is commonly used by federal agencies to assess potential visual resource impacts from proposed projects.

Potential visual impacts were characterized by determining the level of visual contrast introduced by the Project based on comparing existing conditions and photo simulations. Visual contrast is a means to evaluate the level of modification to existing landscape features. Existing landscape is defined by the visual characteristics (form, line, color, and texture) associated with the landform (including water), vegetation, and existing development. The level of visual contrast introduced by a project can be measured by changes in the visual characteristics that would occur as a result of project implementation. The greater the difference between the character elements found within the existing landscape and with a proposed project, the more apparent the level of visual contrast. The following general criteria¹ were used when evaluating the degree of contrast:

- *None* – The contrast is not visible or perceived.
- *Weak* – The contrast can be seen but does not attract attention.
- *Moderate* – The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- *Strong* – The element contrast demands attention, would not be overlooked, and is dominant in the landscape.

4.2 Key Observation Points/Viewshed

4.2.1 Key Observation Points Criteria

Key Observation Points (KOPs) were identified based on locations from which the Project infrastructure would potentially be visible and noticeable to the casual observer. The “casual observer” is considered an observer who is not actively looking or searching for the Project, but who is engaged in activities at locations with potential views of the Project. If the Project components are not noticeable to the casual observer, visual impacts can be considered minor to negligible (i.e. weak).

Viewer distance is a key factor in determining the level of visual effect, with perceived contrast generally diminishing as distance between the viewer and the affected area increases (BLM 1986). The BLM categorizes views into foreground/midground, background, and seldom seen distance

¹ These criteria are based on the BLM Visual Resource Management system, a process using the concept of “contrast” to objectively measure potential changes to the landscape features.

zones. These distance zones provide a frame of reference for classifying the degree to which details of the viewed Project would affect visual resources. The “foreground/midground” zone is defined as occurring from zero to 5 miles from the Project. Details of Project elements would be visually clear in the foreground; viewers still have the potential to distinguish individual forms, and texture and color are still identifiable but become muted and less detailed in the midground. In the “background,” defined by the BLM as the area 5 to 15 miles from the Project, texture has disappeared and color has flattened, making objects appear “washed out.” In the relatively flat landscape setting for the Project, although the shape and mass of the solar arrays may be visible at a distance of greater than 5 miles (background distance zone), their visibility would be limited and they would not appear as a prominent feature in the landscape setting, resulting in minimal or negligible visual impacts.

4.2.2 Viewshed

The viewshed is generally the area that is visible from an observer’s viewpoint and includes the screening effects of intervening vegetation and/or physical structures. An initial assessment of the geographic extent of potential Project views was conducted through a viewshed analysis, which evaluated potential visibility of the solar array at distances up to 10 miles from the Project area.

A viewshed analysis was conducted to identify potential Project visibility within the visual study area or Zone of Visual Influence (ZVI). A viewshed analysis is a graphic representation of the seen and unseen areas adjacent to the Project based on topography within the Project ZVI. The viewshed analysis was conducted using Esri ArcGIS Geographic Information System software with the Spatial Analyst extension to process 10-meter digital elevation models and the height of the solar arrays above ground surface (up to 15 feet with the modules of the solar array slightly tilted). The viewshed assumed “bare earth” conditions and was run from the Project area looking out to determine areas with potential visibility. The assumed “bare earth” conditions mean identification of areas with potential views of the Project were based on topography only. A viewshed analysis was performed for the boundary of the Solar Array Micrositing Area (Figure 3) and the Gen-tie Micrositing Corridor (Figure 4). As a result, the analysis is conservative as it models visibility based on the uniform application of solar modules 15 feet above ground surface throughout the entire Solar Array Micrositing Area and applies the maximum support structure height of 150 feet above ground surface throughout the entire Gen-tie Micrositing Corridor. The analysis is also conservative because it does not account for screening by intervening structures, vegetation, small terrain changes, atmospheric conditions and attenuation, or other features. The ZVIs were used to assist with the identification of potential KOPs.

4.2.3 Field Assessment

Based on the ZVI and the identification of publicly accessible routes and viewpoints, potential KOPs were identified and further assessed during the field assessment. During the field assessment, it was determined that visibility of the Project area varies between viewpoints. From viewpoints to the west, north, and south, views of the Project area, where available, tend to be limited to the respective edge of the Project area. From viewpoints to the east, depending on the intervening

terrain, views of the Project area vary from expanded views of the Solar Array Micrositing Area to being limited to the eastern edge of the Project area.

A field assessment was conducted at each of the KOPs that followed the protocols and methods for contrast rating evaluation (BLM 1986). The following information was collected at each of the KOPs:

- Global positioning system (GPS) location,
- Digital photographs for use for visual simulations,
- Data required for the BLM's Visual Contrast Rating Worksheet,
- Time of day and atmospheric conditions, and
- Existing structures and roads in the viewshed.

The visual resources at each KOP were documented in a Visual Contrast Rating Worksheet (Appendix A).

4.2.4 Key Observation Points

Eight KOPs were selected as representative vantage points in the landscape with publicly accessible views of the proposed Project area (Figures 3 and 4). These KOPs provide views of each side of the Project area. Factors considered in the selection of KOPs included locations with sensitive viewers (e.g., local residences, recreationists, and motorists) and potential for the Project area to be visible (e.g., distance and view angle).

Digital photographs were taken from the selected KOP locations to support the discussion on existing visual setting and the analysis of potential visual impacts associated with the proposed Project (Figures 5 through 12). Photographs of existing conditions were taken on July 21, 2021 using a digital single-lens reflex Canon 5D Mark III camera.

4.2.5 Visual Simulations

Three-dimensional visual simulations from four representative KOPs were rendered to approximate the visual conditions resulting with Project implementation. Using the photographs acquired at KOPs 1, 2, 4, and 6, a three-dimensional physical massing model was created that incorporated the solar module scale model. The model was then georeferenced and placed on GPS-controlled site-specific photographs to create simulations that demonstrate visual changes from the Project. Figures 13 through 16 present simulated views of Project features.

5.0 Environmental Setting

5.1 Regional Character

The Project is located in the Columbia Plateau Ecoregion, and within the further subdivided Channeled Scablands and Loess Islands ecoregions (Thorson et al. 2003). Covering portions of

Washington, Oregon, Idaho, and British Columbia, the Columbia Plateau is the main geographic feature of the interior Columbia River Basin. The area is named for the massive basalt flows that underlie much of central and eastern Oregon, as well as southeastern Washington. In Washington, the Columbia Plateau covers roughly the southeastern one-third of the state.

The Columbia Plateau includes various physiographic features, including an alluvial plain along the Columbia River, basalt plateaus, and a transitional, dissected upland area. This Project is located in the Channeled Scablands and Loess Islands. The topography of the Channeled Scablands sub-ecoregion was formed through periodic flooding and scouring of the thick loess soil and underlying basalt bedrock that is consistent across the Columbia Plateau (Bryce and Woods 2000). The topography of the Loess Islands sub-ecoregion is defined by the wind-deposited loess islands that remained after the Pleistocene flood channels formed (Bryce and Woods 2000).

Current land uses around the Project vicinity include dryland agriculture, rangeland, transmission lines, and undeveloped land, interspersed with rural residences. Residential, recreational, commercial, and industrial land uses are found in East Wenatchee and Wenatchee to the west of the Project area. There are numerous parks and hiking trails in and around East Wenatchee and Wenatchee. The Apple Capital Recreation Loop Trail is a 10-mile loop along both banks of the Columbia River that is used by cyclists, walkers, joggers, and skaters.

Major transportation routes in the area include U.S. Highway (US) 2, Interstate Highway 97 (I-97), State Route (SR) 28, and SR-285. US 2 connects the western and eastern regions of Washington. It becomes concurrent with I-97 near Wenatchee, crossing the Columbia River on the Richard Odabashian Bridge. I-97 is a major north-south highway that traverses from the Oregon state line to the Canada–U.S. border. SR-28 begins at an intersection with US 2 and I-97 near East Wenatchee and travels east for 135 miles. SR-285 serves Wenatchee and runs 5 miles from an interchange with SR-28 in East Wenatchee to downtown Wenatchee, crossing the Columbia River on the Senator George Sellar Bridge. After traversing downtown, the highway ends at an interchange with US 2 and I-97 north of the Wenatchee River in Sunnyslope.

The nearest airport is the Pangborn Memorial Airport, which is approximately 2.7 miles southwest of the Project area.

5.2 Local Setting

As described above, the Project area is currently a mix of dryland agricultural use, rangeland for low-intensity grazing, and undeveloped land. Minimal agricultural-related structures (e.g., storage sheds, etc.) occur interspersed in the Project area. No residences are located within the Project area. Paved and unpaved access roads occur within the Project area including Badger Mountain Road, U 75 Road, 9 Road SW, and Road U SW. Four regional transmission lines traverse the Project area, including PSE's White River to Rocky Reach 230-kV line and three BPA lines: Rocky Reach to Maple Valley 345 kV, Rocky Reach to Columbia 230 kV, and Sickler to Schultz 500 kV.

The closest developed residential community (i.e., Canyon Hills subdivision) is adjacent to the western end of the Project area (near the Option 1 POI within the Gen-tie Micrositing Corridor) in East Wenatchee. Within the subdivision, the closest residence is approximately 280 feet west of the

Project area boundary; however, the subdivision is approximately 2.5 miles or more from the Solar Array Micrositing Area, which is located upslope from the community (approximately 2,000 feet higher elevation). Scattered rural residences occur near the Solar Array Micrositing Area; the closest residence to the Solar Array Micrositing Area is approximately 900 feet north of the Project area (east of Road U SW and south of 9 Road SW).

5.3 Visual Resources

The Wenatchee area contains significant natural and built features and landmarks such as Saddlerock, the Wenatchee Valley from Skyline Drive, and the Columbia River (City of Wenatchee 2020). The foothills to the west of Wenatchee are valued wildlife and recreation areas. The Apple Capital Recreation Loop Trail is a four-mile trail along the Columbia River in East Wenatchee and Douglas County, providing views of the river and the surrounding area. The Loop Trail is a non-motorized corridor between Wenatchee and East Wenatchee as well as being an important recreational walking, biking, skating and horseback riding (City of East Wenatchee 2021).

The State of Washington contains two All-American Roads and five National Scenic Byways (FHWA 2021). The closest of these scenic drives to the Project area is the Stevens Pass Greenway – US 2 National Scenic Byway. This Scenic Byway has its eastern terminus located at the US 2 intersection with SR-285, approximately 6 miles west of the Project area.

The State of Washington also contains 21 State Scenic Byways (WSDOT 2021). The closest of these scenic drives to the Project area is the Cascade Loop Byway. A portion of the Cascade Loop Byway follows US 97 north from Wenatchee along the Columbia River approximately 4 miles west of the Project area.

5.4 Existing Visual Character

Eight KOPs were selected to assess the level of visual change resulting, based on the BLM's contrast rating system (Section 4.1.2), from the construction of the Project as described in Section 3 on the existing environment. The location of the eight KOPs and site photograph locations are presented in Figures 3 and 4. Photographs from each KOP are presented in Figures 5 through 12.

5.4.1 Key Observation Point 1

KOP 1 is located on Badger Mountain Road, approximately 0.15 mile east of the existing Douglas County Public Utility District Michael Doneen Substation. The Solar Array Micrositing Area is located approximately 2.6 miles east of this viewpoint. The Gen-tie Micrositing Corridor Option 1 POI terminates at a proposed interconnection switchyard located approximately 260 feet east of this viewpoint. As shown on Figure 5, the existing landscape setting is characterized by agricultural land with generally rolling to steep terrain. Existing structural features include Badger Mountain Road, residences, agricultural buildings, fencing, and transmission structures and lines in the foreground. Vegetation includes grasses and clusters of shrubs. Dominant colors for the landscape are tans, browns, and greens while the structures are gray, black, tan, and brown. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs. The linear

and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for drivers traveling along Badger Mountain Road, likely traveling at a high rate of speed. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area. This KOP also provides a view for the residences adjacent to this viewpoint that would use Badger Mountain Road. The views from the residences within the Canyon Hills subdivision would often be blocked or partially blocked by other residences, terrains, or fencing. Considering the potential frequency of views from this location from local residents driving on Badger Mountain Road and the proximity of the nearby subdivision, viewers would have a moderate sensitivity to the visual changes in the area.

5.4.2 Key Observation Point 2

KOP 2 is located east of the Project area on 9½ Road SW, near the intersection of 9½ Road SW and Kern Road. The eastern end of the Solar Array Micrositing Area is located approximately 0.6 mile west of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 1.9 miles northwest of this viewpoint. As shown on Figure 6, the existing landscape setting is characterized by agricultural land with horizontal lines from plowing for row crops with generally rolling terrain. Existing structural features include roadways, an agricultural structure, and utility poles and overhead distribution lines in the foreground. Vegetation includes grasses. Dominant colors for the landscape are tans, browns, and greens while the structures are gray and brown. The vegetation consists of the irregular, organic forms of grasses. The linear, horizontal, and vertical lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for drivers traveling along 9½ Road SW. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area.

5.4.3 Key Observation Point 3

KOP 3 is located on Badger Mountain Road, approximately 0.4 mile north of the intersection of Badger Mountain Road and Rainey Road. The Solar Array Micrositing Area is located approximately 0.5 mile south of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 0.1 mile south of this viewpoint. As shown on Figure 7, the existing landscape setting is characterized by steep terrain. Existing structural features include Badger Mountain Road and road guard rails in the foreground and transmission structures and lines in the middleground. Vegetation includes grasses and clusters of shrubs. Dominant colors for the landscape are tans, browns, and greens while the structures are gray, black, tan, and brown. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs. The linear and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for drivers traveling along Badger Mountain Road, likely traveling at a high rate of speed. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area. This KOP also provides a typical view for the occupants of the residence northwest of this viewpoint. Considering the frequent viewing by local residents, viewers would have a moderate sensitivity to the visual changes in the area.

5.4.4 Key Observation Point 4

KOP 4 is located southwest of the Project area, at the intersection of 10th Street NE and Stark Avenue N. The Solar Array Micrositing Area is located approximately 2.4 miles northeast of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 2.3 miles north of this viewpoint. As shown on Figure 8, the existing landscape setting is characterized by rolling to steep terrain. Existing structural features include street signs, and utility and transmission structures and lines. Vegetation includes grasses and clusters of shrubs. Dominant colors for the landscape are tans and browns while the structures are yellow, green, gray, and brown. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs. The linear and horizontal lines associated with the structures are visible from this viewpoint. This KOP provides a typical view for drivers traveling along 10th Street NE and Stark Avenue N. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area. This KOP also provides a typical view for the occupants of the residences near this viewpoint. The views from these residences would often be blocked or partially blocked by trees or buildings. Considering the frequent viewing by local residents, viewers would have a moderate sensitivity to the visual changes in the area.

5.4.5 Key Observation Point 5

KOP 5 is located on Batterman Road at the intersection of SR-28 and Batterman Road. The Solar Array Micrositing Area is located approximately 4.5 miles north of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 8.5 miles north of this viewpoint. As shown on Figure 9, the existing landscape setting is generally rolling to steep terrain. Existing structural features include roadway, residences, agricultural buildings, fencing, and utility structures and lines. Vegetation includes grasses and clusters of shrubs and trees. Dominant colors for the landscape are tans, browns, and greens while the structures are gray, brown, and white. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs and trees. The linear and horizontal lines associated with the structures are visible from this viewpoint. This KOP provides a typical view for drivers traveling along Batterman Road. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area.

5.4.6 Key Observation Point 6

KOP 6 is located an overlook on Skyline Drive approximately 0.2 mile south of the intersection of Skyline Drive and Skyline Place. The Solar Array Micrositing Area is located approximately 7 miles east of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 4.5 miles east of this viewpoint. As shown on Figure 10, the existing landscape setting is flat to hilly to steep terrain. Existing structural features include roadway, residences, and utility structures and lines. Vegetation includes grasses and clusters of shrubs and trees. Dominant colors for the landscape are tans, browns, and greens while the structures are gray, brown, and white. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs and trees. The linear and horizontal lines associated with the structures are visible from this viewpoint. This KOP

provides a typical view for drivers traveling along Skyline Drive. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area. This KOP also provides a typical view for those visiting the overlook and the occupants of the residences near this viewpoint. The overlook and some of the residences have uninterrupted views of the urban development below and the hills to the east, and viewers would have a high sensitivity to the visual changes in the area.

5.4.7 Key Observation Point 7

KOP 7 is located on the Apple Capital Recreational Loop Trail by the Pybus Public Market. The Solar Array Micrositing Area is located approximately 5.4 miles east of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 2.6 miles northeast of this viewpoint. As shown on Figure 11, the existing landscape setting is river to hilly and steep terrain. Existing structural features include residences, roadway, and utility structures and lines. Vegetation includes grasses and numerous shrubs and trees. Dominant colors for the landscape are tans, browns, and greens while the structures are gray, brown, and white. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs and trees. The linear and horizontal lines associated with the structures are visible from this viewpoint. This KOP provides a typical view for people frequenting the Pybus Public Market and/or using the Apple Capital Recreational Loop Trail. This KOP provides an uninterrupted view of the Columbia River and the opposite shore, and viewers would have a high sensitivity to the visual changes in the area.

5.4.8 Key Observation Point 8

KOP 8 is located on US 2 at the intersection with School Street. The Solar Array Micrositing Area is located approximately 6.1 miles east of this viewpoint. The Gen-tie Micrositing Corridor is located approximately 5 miles northeast of this viewpoint. As shown on Figure 12, the existing landscape setting is characterized by flat to rolling to steep terrain. Existing structural features include roadways, street lighting, signs, and guard rails, and commercial signs and buildings. Vegetation includes grasses and clusters of shrubs and trees. Dominant colors for the landscape are tans, browns, and greens while the structures are gray and brown. The vegetation consists of irregular, organic forms: grasses are continuous with irregular shaped shrubs and trees. The linear and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for drivers traveling along US 2, likely traveling at a high rate of speed. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area.

6.0 Regulatory Setting

6.1 Federal

6.1.1 National Scenic Byways Program

The National Scenic Byways Program, a part of the Federal Highway Administration (FHWA), recognizes, preserves, and enhances selected roads throughout the United States as All-American Roads or National Scenic Byways based on one or more archaeological, cultural, historic, natural, recreational, and scenic qualities. According to the FHWA's America's Byways website, the Stevens Pass Greenway – US 2 National Scenic Byway is approximately 6 miles west of the Project area (FHWA 2021).

6.2 State

6.2.1 Washington State Scenic Byways Program

Washington State was one of the first states in the country to establish a system of scenic highways. Scenic highways pass through the varied terrain of Washington reflecting the depth of its scenic, cultural, and historic landscapes. According to the Washington State Department of Transportation Scenic Byways website, the Cascade Loop Byway is approximately 4 miles west of the Project area (WSDOT 2021).

6.3 Local

6.3.1 Douglas County

Relevant policies from the Douglas County Countywide Comprehensive Plan for the development of energy facilities are summarized below (Douglas County 2019). The Douglas County Countywide Comprehensive Plan identifies rock bluffs of the Columbia River Valley as scenic resources, which are located outside of the Project area to the west. It also notes that generally natural resource lands provide aesthetic benefits (Douglas County 2019).

3.4 LAND USE & POPULATION ASSUMPTIONS

GOAL: Maintain and improve the quality of life, attitude, and character of Douglas County by encouraging the long-term public commitment to the stewardship of historical/cultural resources, natural resources, critical areas and the full range of land uses desired by the public.

Policies:

G-14. Encourage efforts to maintain scenic open space, cultural, historic and heritage resources.

8.3 UTILITIES GOALS AND POLICIES

GOAL: Development in Douglas County will only occur in conjunction with the availability of adequate, cost effective provision of utilities. The installation and expansion of utilities will be coordinated to minimized cost and disruption of normal activities.

Policies:

U-2. Develop standards and criteria for locating major types of energy facilities in the County. Energy facilities and associated uses may include: solar, wind, fuel cells, hydroelectric, thermal, waste energy, ethanol, methane, gasification, nuclear and petroleum based facilities. Standards and criteria should address, type, size or scale of development, classes of areas sensitive to differing energy facilities, general layout, cumulative impacts and public input.

U-3. Utility and energy facilities with the least impact to the public health, safety and the environment are encouraged.

6.3.2 Wenatchee

Relevant policies from the Wenatchee Urban Area Comprehensive Plan are summarized below (City of Wenatchee 2020).

GOAL 1: GATEWAYS -- Improve the visual appeal and navigability of Wenatchee by enhancing gateways into the city, its districts and neighborhoods.

Policy 2: Preserve and enhance views of significant natural and built features and landmarks such as Saddlerock, the Wenatchee Valley from Skyline Drive, and the Columbia River.

6.3.3 East Wenatchee

Relevant policies from the Greater Wenatchee Area Comprehensive Plan are summarized below (City of East Wenatchee 2021).

GOAL 2: Provide for the expansion of electric utility facilities to meet future load requirements. Support conservation measures to aid in meeting future growth needs.

UT 15: Develop standards and criteria for consideration when locating major types of energy facilities in the County. Energy facilities and associated uses may include a variety of differing energy facilities and needs including: solar, wind, fuel cells, hydroelectric, thermal, waste energy, ethanol, methane, gasification, nuclear and petroleum based facilities. Standards and criteria should address, type, size or scale of development, classes of areas sensitive to differing energy facilities, general layout, principles for assessment of cumulative impacts and public input.

7.0 Impact Analysis

7.1 Potential Visual Effects

During construction and operation, where visible and noticeable, the Project may introduce visual contrast and have the potential to create visual effects within the surrounding areas. The potential

visual effects anticipated as a result of construction and operation of the Project are discussed below.

If the Project components are not visible or perceived, no visual impact would occur. If the Project components introduce contrast to the view but do not attract the attention of casual observer, the contrast is considered weak and the visual impacts could be considered minor to negligible. If the visual contrast introduced by the Project begins to attract attention and begins to dominate the view, the contrast is considered moderate and the impact could be considered moderate. If the Project components introduce contrast that demands attention, would not be overlooked, and is dominant in the view, the contrast is considered strong and the impact could be considered significant.

Construction activities will involve the clearing and grubbing of existing vegetation and grading of access roads. A temporary lay-down area will be established for storage of major equipment and materials. Construction of the Project is expected take place over approximately 18 months. These visual changes would be transient and short-term in nature.

Completion of the Project will introduce many new visual elements onto the Project area. These will include solar modules, tracking system and posts, overhead 230-kV gen-tie line, switchyard, collector substation, O&M building, an optional BESS, access and service roads, fencing, gates, and security lighting.

7.1.1 KOP 1

KOP 1 represents a view of the proposed Project for drivers traveling along Badger Mountain Road and residences adjacent to this viewpoint. The Project would introduce gray color, geometric shapes, and horizontal lines into the landscape setting. The casual observer would have little to no visibility of the solar array and supporting components within the Solar Array Micrositing Area from this location because of the screening of the Project by terrain (see Figure 13). The switchyard and gen-tie line associated with Gen-tie Micrositing Corridor Option 1 POI would be visible from this location by a casual observer (see Figure 13).

The colors, regular geometric forms, and horizontal lines associated with the gen-tie line and switchyard would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, the structures in the vicinity also possess horizontal and vertical lines (residences, agricultural buildings, fencing, and transmission lines). The Project elements would also be similar in appearance to nearby Douglas County PUD Michael Doneen Substation.

The portions of the Project that are visible would attract attention and would be a co-dominate feature in the landscape setting. These impacts would be short-term for travelers, and their focus would be on the road ahead. The views of the Project from adjacent residences would often be blocked or partially blocked by other residences, terrains, or fencing. Where views of the Project are visible, while appearing as new and highly visible features, the Project components would be consistent with other horizontal and vertical lines and geometric shapes visible throughout the landscape.

Because the Project would attract attention to the casual observer and the portion of the Project that would be visible would co-dominate the landscape, the contrast would be considered moderate. However, the Project would not block views of the surrounding agricultural open space or the foothills.

7.1.2 KOP 2

KOP 2 represents a view of the proposed Project for drivers traveling west along 9½ Road SW from this viewpoint. The Project would introduce dark gray color, geometric shapes, and horizontal lines into the landscape setting and would be visible from this location by a casual observer (see Figure 14). The colors, regular geometric forms, and horizontal lines associated with the solar arrays and the gen-tie line would result in a visual contrast with the irregular, organic forms and colors of the existing vegetation. Horizontal lines are found in the landform from plowing for row crops. Existing structures in the vicinity also possess horizontal and vertical lines (roadway, utility poles and overhead distribution lines, agricultural buildings) and some are colored gray (roadway, fencing, transmission lines). Because the Project would attract attention to the casual observer and the portion of the Project that would be visible would co-dominate the landscape, the contrast would be considered moderate. These impacts would be short-term for travelers. However, given its low profile, the Project would not block views of the surrounding agricultural open space.

7.1.3 KOP 3

KOP 3 represents a view of the proposed Project for drivers traveling south along on Badger Mountain Road from this viewpoint. The Project would introduce gray color, geometric shapes, and horizontal lines into the landscape setting. The solar array and supporting components within the Solar Array Micrositing Area would not be visible from this location because of the screening of the Project by terrain. The switchyard and gen-tie line associated with Gen-tie Micrositing Corridor Option 1 POI would be visible from this location by a casual observer.

The colors, regular geometric forms, and horizontal lines associated with the transmission structures and lines would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, the structures in the vicinity also possess horizontal and vertical lines (existing roadway, guard rails, and transmission structures and lines). The portions of the Project that are visible could attract attention but would blend in with the similar transmission line elements and would be a subordinate feature in the landscape setting. These impacts would be short-term for travelers, and their focus would be on the road ahead. Because the contrast is anticipated to be weak from KOP 3, the visual impacts are considered minor.

7.1.4 KOP 4

KOP 4 represents a view of the proposed Project for drivers traveling along 10th Street NE and Stark Avenue N and residences adjacent to this viewpoint. The Project would introduce limited gray color, geometric shapes, and horizontal lines into the landscape setting. The casual observer would have little to no visibility of the solar array and supporting components within the Solar Array

Micrositing Area from this location because of the screening of the Project by terrain, see Figure 15. The switchyard and gen-tie line associated with the Gen-tie Micrositing Corridor would not be visible.

The colors, regular geometric forms, and horizontal lines associated with the solar arrays and supporting components would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, due to the viewing difference, Project elements blend in with the existing landform silhouette, and appearance of visual contrast will be highly reduced. In addition, the existing structures in the vicinity also possess horizontal and vertical lines (street signs, and utility and transmission structures and lines). The portions of the Project that are visible would barely attract attention and would be a subordinate feature in the landscape setting. These impacts would be short-term for travelers, and their focus would be on the road ahead. The views of the Project from adjacent residences would often be blocked or partially blocked by existing trees or buildings. Where views of the Project are visible, while appearing as new features, the Project components would be consistent with other horizontal and vertical lines and geometric shapes visible throughout the landscape. Because the contrast is anticipated to be weak from KOP 4, the visual impacts are considered minor. In addition, the Project would not block views of the surrounding agricultural open space or the foothills.

7.1.5 KOP 5

KOP 5 represents a view of the proposed Project for drivers traveling along Batterman Road. The Project would introduce gray color, geometric shapes, and horizontal lines into the landscape setting. The casual observer would have little to no visibility of the solar array and supporting components within the Solar Array Micrositing Area from this location because of the screening of the Project by terrain. The switchyard and gen-tie line associated with Gen-tie Micrositing Corridor would not be visible.

The colors, regular geometric forms, and horizontal lines associated with the solar arrays and supporting components would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, due to the viewing difference, Project elements blend in with the existing landform silhouette, and appearance of visual contrast will be highly reduced. In addition, the existing structures in the vicinity also possess horizontal and vertical lines (street signs, and utility and transmission structures and lines). The portions of the Project that may be visible would be a subordinate feature in the landscape setting and are not likely to attract the attention of the casual observer. These impacts would be short-term for travelers, and their focus would be on the road ahead. Because the contrast is anticipated to be weak from KOP 5, the visual impacts are considered minor. In addition, the Project would not block views of the surrounding agricultural open space or the foothills.

7.1.6 KOP 6

KOP 6 represents a view of the proposed Project for drivers traveling along Skyline Drive and residences adjacent to this viewpoint. The Project would introduce gray color, geometric shapes,

and horizontal lines into the landscape setting. The Project would barely be visible from this location by a casual observer because of distance and the screening of the Project by terrain, (see Figure 16).

The colors, regular geometric forms, and horizontal lines associated with the solar array and supporting components would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, due to the viewing difference, Project elements blend in with the existing landform silhouette, and appearance of visual contrast will be highly reduced. In addition, the structures in the vicinity also possess horizontal and vertical lines (roadway, residences, and utility structures and lines).

The portions of the Project that are visible would barely attract attention and would be a subordinate feature in the landscape setting. These impacts would be short-term for travelers, and their focus would be on the road ahead. For the views of the Project from the overlook and adjacent residences, while appearing as new features, the Project components would be consistent with other horizontal and vertical lines and geometric shapes visible throughout the landscape. Because the contrast is anticipated to be weak from KOP 6, the visual impacts are considered minor. In addition, the Project would not block views of the valley or the foothills.

7.1.7 KOP 7

KOP 7 represents a view of the proposed Project for people frequenting the Pybus Public Market and/or using the Apple Capital Recreational Loop Trail. The Project would introduce limited gray color, geometric shapes, and horizontal lines into the landscape setting. The Project would barely be visible from this location by a casual observer because of distance and the screening of the Project by terrain.

The colors, regular geometric forms, and horizontal lines associated with the solar arrays and supporting components would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, due to the viewing difference, Project elements blend in with the existing landform silhouette and appearance of visual contrast will be highly reduced. In addition, the existing structures in the vicinity also possess horizontal and vertical lines (roadway, residences, and utility structures and lines).

The portions of the Project that are visible would barely attract attention and would be a subordinate feature in the landscape setting. Views of the Project, while appearing as new features, would be consistent with other horizontal and vertical lines and geometric shapes visible throughout the landscape. Since the contrast is anticipated to be weak from KOP 7, the visual impacts are considered minor. In addition, the Project would not block views of the river or the foothills.

7.1.8 KOP 8

KOP 8 represents a view of the proposed Project for drivers traveling along US 2. The Project would introduce limited gray color, geometric shapes, and horizontal lines into the landscape setting. The

Project would barely be visible from this location by a casual observer because of distance and the screening of the Project by terrain.

The colors, regular geometric forms, and horizontal lines associated with the solar arrays and supporting components would result in a visual contrast with the irregular, organic forms and colors of the existing landform and vegetation. However, due to the viewing difference, Project elements blend in with the existing landform silhouette and appearance of visual contrast will be highly reduced. In addition, the existing structures in the vicinity also possess horizontal and vertical lines (roadways, street lighting, signs, and guard rails, and commercial signs and buildings). The portions of the Project that are visible would barely attract attention and would be a subordinate feature in the landscape setting. These impacts would be short-term for travelers. Because the contrast is anticipated to be weak from KOP 8, the visual impacts are considered minor. In addition, the Project would not block views of the foothills.

7.1.9 Visual Resources

The Project would not block views of any significant landmarks such as Saddlerock, the Wenatchee Valley from Skyline Drive, and the Columbia River. The Project would not be visible from the Cascade Loop Byway (US 97) or the rock bluffs of the Columbia River Valley adjacent to the Byway. The portions of the Project that are visible from Skyline Drive, the foothills to the west of Wenatchee, Apple Capital Recreation Loop Trail, and Stevens Pass Greenway – US 2 National Scenic Byway would barely attract attention and would be a subordinate feature in the landscape setting. Since the contrast is anticipated to be weak from these scenic viewpoints, the visual impacts are considered minor.

8.0 Glare

8.1 Background

Tetra Tech conducted a glare analysis of the proposed Project (Appendix B). With growing numbers of solar energy systems being proposed and installed throughout the United States, the potential impact of glare (a continuous source of bright light) from solar modules is receiving increased attention. The Federal Aviation Administration (FAA) developed a Technical Guidance for Evaluating Selected Solar Technologies on Airports in 2018 (FAA 2018).

As an industry standard, the term “glint and glare analysis” is typically used to describe an analysis of potential ocular impacts to defined receptors. ForgeSolar defines glint and glare in the following statement:

Glint is typically defined as a momentary flash of bright light, often caused by a reflection off a moving source. A typical example of glint is a momentary solar reflection from a moving car. Glare is defined as a continuous source of bright light. Glare is generally associated with stationary objects, which, due to the slow relative movement of the sun, reflect sunlight for a longer duration (Sandia Laboratories 2016).

Based on the ForgeSolar definitions of glint and glare and that the Project's solar modules will not likely rotate faster than the relative daily motion of the sun, the potential reflectance from the Project modeled throughout this report will be referred to as glare.

8.2 Regulatory

The FAA developed Technical Guidance for Evaluating Selected Solar Technologies on Airports in 2018. The FAA's technical guidance is in addition to FAA regulatory guidance under 78 FR 63276 Interim Policy, FAA Review of Solar Energy System Projects on Federally Obligated Airports (collectively referred to as FAA Guidance). The FAA Guidance recommends that glare analyses should be performed on a site-specific basis using the Sandia Laboratories Solar Glare Hazard Analysis Tool (SGHAT). This guidance applies to solar facilities located on federally obligated airport property; it is not mandatory for a proposed solar installation that is not on an airport (and for which a Form 7460-1 is filed with FAA pursuant to Code of Federal Regulations (CFR) Title 14 Part 77.9, as discussed below), but is considered to be an industry best practice for solar facilities in general. The SGHAT is the standard for measuring potential ocular impact as a result of solar facilities (78 FR 63276).

According to 78 FR 63276, the FAA has determined that "glint and glare from solar energy systems could result in an ocular impact to pilots and/or air traffic control (ATC) facilities and compromise the safety of the air transportation system." The FAA has developed the following criteria for analysis of solar energy projects located on jurisdictional airports:

- No potential for glint or glare in the existing or planned ATC tower cab; and
- No potential for glare or "low potential for after-image" along the final approach path for any existing landing threshold or future landing thresholds (including any planned interim phases of the landing thresholds) as shown on the current FAA-approved Airport Layout Plan. The final approach path is defined as 2 miles from 50 feet above the landing threshold using a standard three-degree glidepath.

8.3 Methodology

8.3.1 FAA Notice Criteria Tool

The online FAA Notice Criteria Tool (NCT) reports whether a proposed structure is in proximity to a jurisdictional air navigation facility and if formal submission to the FAA Obstruction Evaluation Group (OEG) under CFR Title 14 Part 77.9 (Safe, Efficient Use, and Preservation of the Navigable Airspace) is recommended. The NCT also identifies final approach flight paths that may be considered vulnerable to a proposed structure's impact on navigation signal reception. The NCT was used to determine if the proposed Project is located within an FAA-identified impact area based on the Project area boundaries and height above ground surface. The FAA NCT report stated that a formal filing with the FAA OEG is recommended, and referenced Pangborn Memorial Airport (see Appendix C). Based on this information, this airport facility was included in the SGHAT analysis.

8.3.2 Sandia Laboratories Solar Glare Hazard Analysis Tool

Tetra Tech used the SGHAT technology as part of an online tool (GlareGauge) developed by Sandia National Laboratories and hosted by ForgeSolar. GlareGauge provides a quantitative assessment of the following:

- When and where glare has the potential to occur throughout the year for a defined solar array polygon; and
- Potential effects on the human eye at locations where glare is predicted.

The following statement was issued by Sandia Laboratories regarding the SGHAT technology:

Sandia developed SGHAT v. 3.0, a web-based tool and methodology to evaluate potential glint/glare associated with solar energy installations. The validated tool provides a quantified assessment of when and where glare will occur, as well as information about potential ocular impacts. The calculations and methods are based on analyses, test data, a database of different photovoltaic module surfaces (e.g. anti-reflective coating, texturing), and models developed over several years at Sandia. The results are presented in a simple easy-to-interpret plot that specifies when glare will occur throughout the year, with color indicating the potential ocular hazard (Sandia Laboratories, 2016).

Note, that technology changes continue to occur to address issues such as reflectivity. The model, therefore, presents a conservative assessment based on simplifying assumptions inherent in the model as well as industry improvements since the most recent update of such assumptions.

Based on the predicted retinal irradiance (intensity) and subtended angle (size/distance) of the glare source to receptor, the GlareGauge categorizes potential glare where it is predicted by the model to occur in accordance with three tiers of severity (ocular hazards) that are shown by different colors in the model output:

- Red glare: glare predicted with a potential for permanent eye damage (retinal burn)
- Yellow glare: glare predicted with a potential for temporary after-image
- Green glare: glare predicted with a low potential for temporary after-image

These categories of glare are calculated using a typical observer's blink response time, ocular transmission coefficient (the amount of radiation absorbed in the eye prior to reaching the retina), pupil diameter, and eye focal length (the distance between where rays intersect in the eye and the retina). As a point of comparison, direct viewing of the sun without a filter is considered to be on the border between yellow glare and red glare, while typical camera flashes are considered to be lower tier yellow glare (approximately 3 orders of magnitude less than direct viewing of the sun). Upon exposure to yellow glare, the observer may experience a temporary spot in their vision temporarily lasting after the exposure. Upon exposure to green glare, the observer may experience a bright reflection but typically no spot lasting after exposure.

8.3.3 Glare Analysis Assumptions

The GlareGauge model is bound by conservative limitations. The following assumptions provide a level of conservatism to the GlareGauge model:

- The GlareGauge model simulates solar arrays as infinitesimally small modules within planar convex polygons exemplifying the tilt and orientation characteristics defined by the user. Gaps between modules, variable heights of the solar array within the polygons, and supporting structures are not considered in the analysis. Since the actual module rows will be separated by open space, this model assumption could result in indication of glare in locations where solar modules will not be located. In addition, the supporting structures are considered to have reflectivity values that are negligible relative to the module surfaces included in the model.
- The GlareGauge model assumes that the observation point receptor can view the entire solar array segment when predicting glare minutes. However, it may be that the receptor at the observation point may only be able to view a small portion (typically the most proximal edge) of the solar array segment. Therefore, the predicted glare minutes and intensity from a specific solar array to a specific observation point are conservative because the observer will likely not experience glare from the entire solar array segment at once.
- The GlareGauge model does not consider obstacles (either man-made or natural) between the defined solar arrays and the receptors such as vegetative screening (existing or planted), buildings, topography, etc. Where such features exist, they would screen views of the Project and, thus, minimize or eliminate glare from those locations.
- The GlareGauge model does not consider the potential effect of shading from existing topography between the sun and the Project outside of the defined areas.
- The direct normal irradiance (DNI) is defined as variable using a typical clear day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum of 1,000 Watts per square meter at solar noon. The irradiance profile uses the coordinates from Google Maps and a sun position algorithm to scale the DNI throughout the year. The actual daily DNI would be affected by precipitation, cloud cover, atmospheric attenuation (radiation intensity affected by gaseous constituents), and other environmental factors not considered in the GlareGauge model. This may result in modeled predicted glare occurrences when in fact the glare is not actually occurring due to cloud cover, rain, or other atmospheric conditions.

Hazard zone boundaries shown in the Glare Hazard plots are an approximation; actual ocular impacts encompass a continuous, not discrete, spectrum.

8.3.4 Glare Analysis Methodology

The SGHAT (GlareGauge) was used to evaluate the potential for glare in areas surrounding the Project (Appendix B). The Project Layout inputted into the GlareGauge model consists of 19 separate “PV Array Areas,” which are segmented polygons generally representative of the proposed

Project layout shown on Figure 2. PV Arrays 1 through 16 were based on the current project layout, and PV Arrays 16 through 19 simulate potential arrays on the DNR parcels.

Three separate glare analyses were conducted which included 9 proximal segmented vehicular traffic routes and 31 observation points. The two analyses differ in the height assumed for these points with Analysis Scenario 1 representing the point of view from an average first floor residential/commercial structure and typical commuter car, while Analysis Scenario 2 represents the point of view from an average second floor residential/commercial structure and typical semi-tractor-trailer truck. Analysis Scenario 3 represented the 2-mile final approach paths for the Pangborn Memorial Airport, Runways 12 and 30. PV Array inputs included a tracking angle of + 60 degrees, a resting angle of 40 degrees, and centroid panel height of 7 feet.

8.4 Glare Impacts

Glare impact analysis was conducted for the three analysis scenarios (see Appendix B). No glare was predicted for Analysis Scenario 1 (average first floor residential/commercial structure and typical commuter car) or Analysis Scenario 3 (2-mile final approach paths for the Pangborn Memorial Airport). Analysis Scenario 2 (average second floor residential/commercial structure and typical semi-tractor-trailer truck) predicted 35 minutes of “green glare” for PV Array 18. Green glare is defined as having a low potential to cause after-image. Glare was limited to one receptor route, 9 Road SW, which is directly south of the potential PV Array 18 located on DNR land, and only for 35 minutes during the entire year. This would be considered a negligible amount. No receptor residences were predicted to experience glare.

As previously noted, the GlareGauge model does not account for varying ambient conditions (i.e., cloudy days, precipitation); atmospheric attenuation; screening due to existing topography not located within the defined array layouts; or existing vegetation or structures (including fences or walls); therefore, the predicted results are considered to be conservative.

Based on the results of the FAA NCT, the Project is recommended to formally file with the FAA OEG because of its proximity to Pangborn Memorial Airport. This filing allows the FAA to confirm the Project will not pose a hazard and will be completed at least 45 days prior to construction, after final project design is available. Based on the parameters evaluated in Analysis 3, no glare is predicted for either of the 2-mile final approach paths and would meet the FAA criteria.

9.0 References

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Figures

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Badger Mountain Solar Energy Project

Figure 1 Regional Location

DOUGLAS COUNTY, WASHINGTON

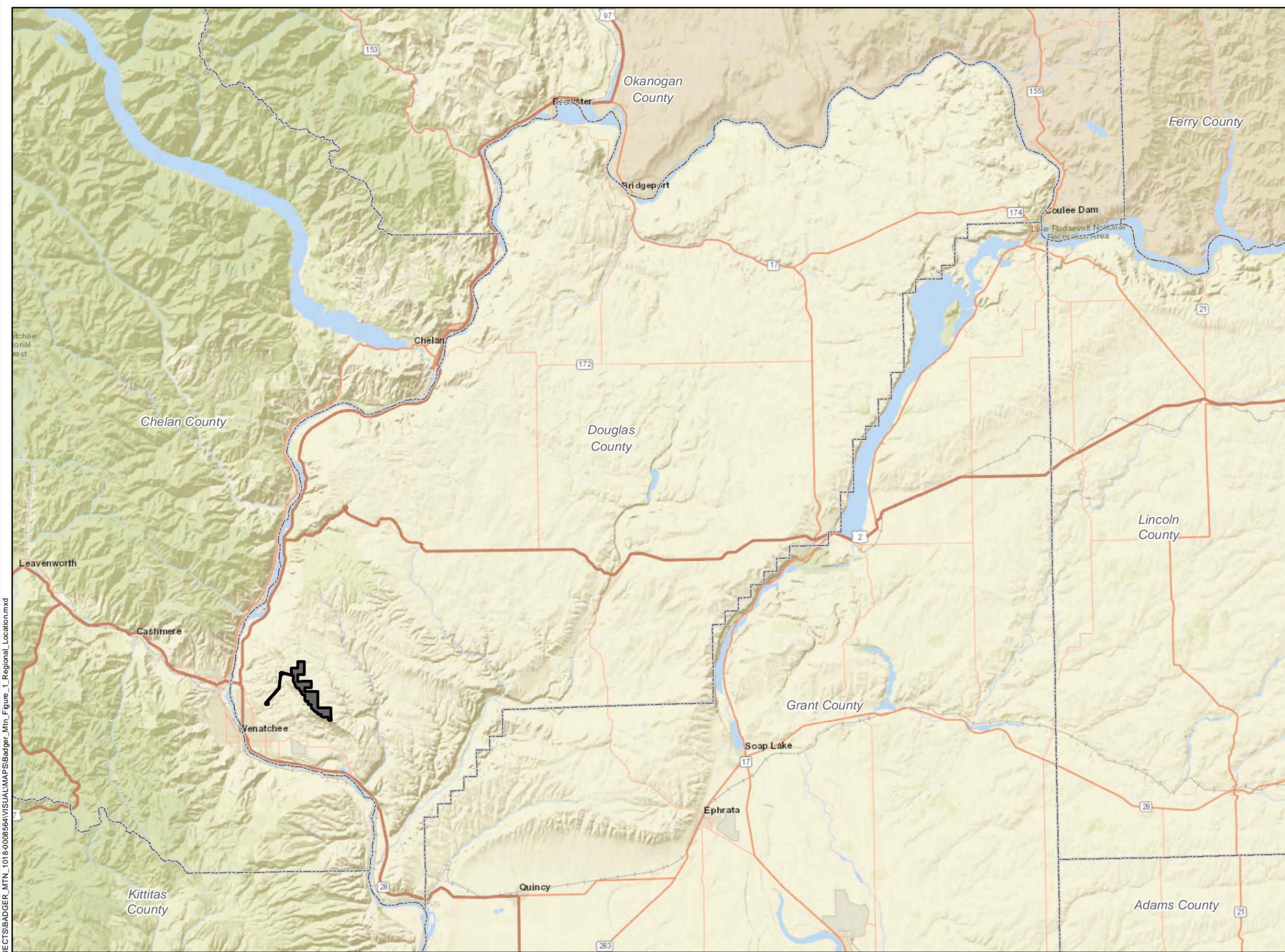
-  Project Area
-  County Boundary



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



R:\PROJECTS\BADGER_MTN_1018-0008564\VISUALMAPS\Badger_Mtn_Figure_1_Regional_Location.mxd



1:450,000 NAD 1983 StatePlane Washington North FIPS 4601 Feet

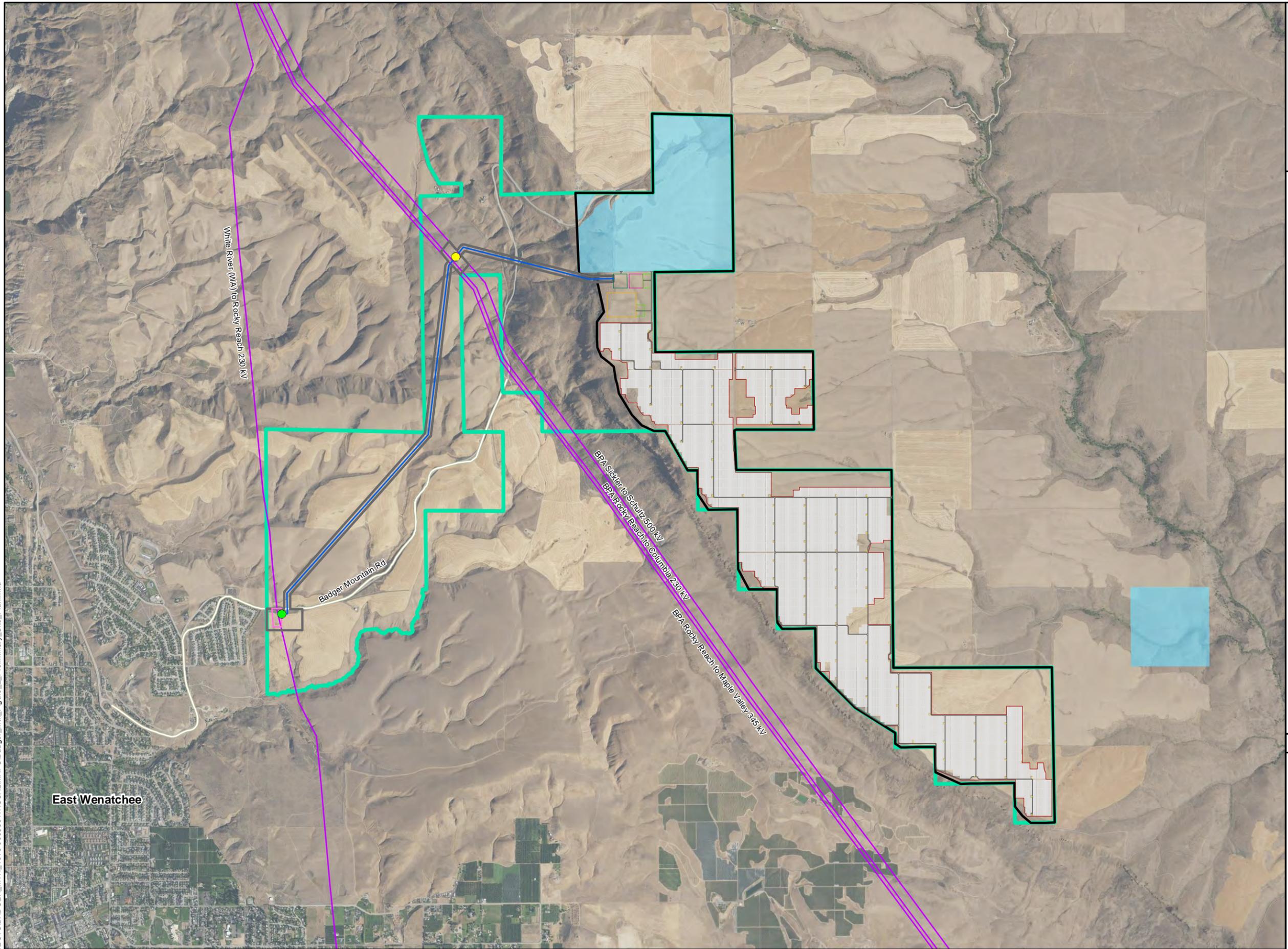
0 2.5 5 10 Miles

NOT FOR CONSTRUCTION

Badger Mountain Solar Energy Project

Figure 2 Preliminary Site Plan

DOUGLAS COUNTY, WASHINGTON



- Project Lease Boundary (4,399 acres)
- Project Area (2,390 acres)
- Solar Array Micrositing Area (2,274 acres)
- Gen-tie Micrositing Corridor (116 acres)
- Option 1 Point of Interconnect
- Option 2 Point of Interconnect
- Proposed Project Components**
- Solar Array
- Inverters
- Perimeter Fence
- Project Service Road
- O&M Building
- Collector Substation
- Battery Energy Storage System
- 230 kV Gen-tie Line
- Switchyard
- Temporary Staging Area
- Basemap Features**
- Existing Transmission
- State Lands



Data Sources Reference Map



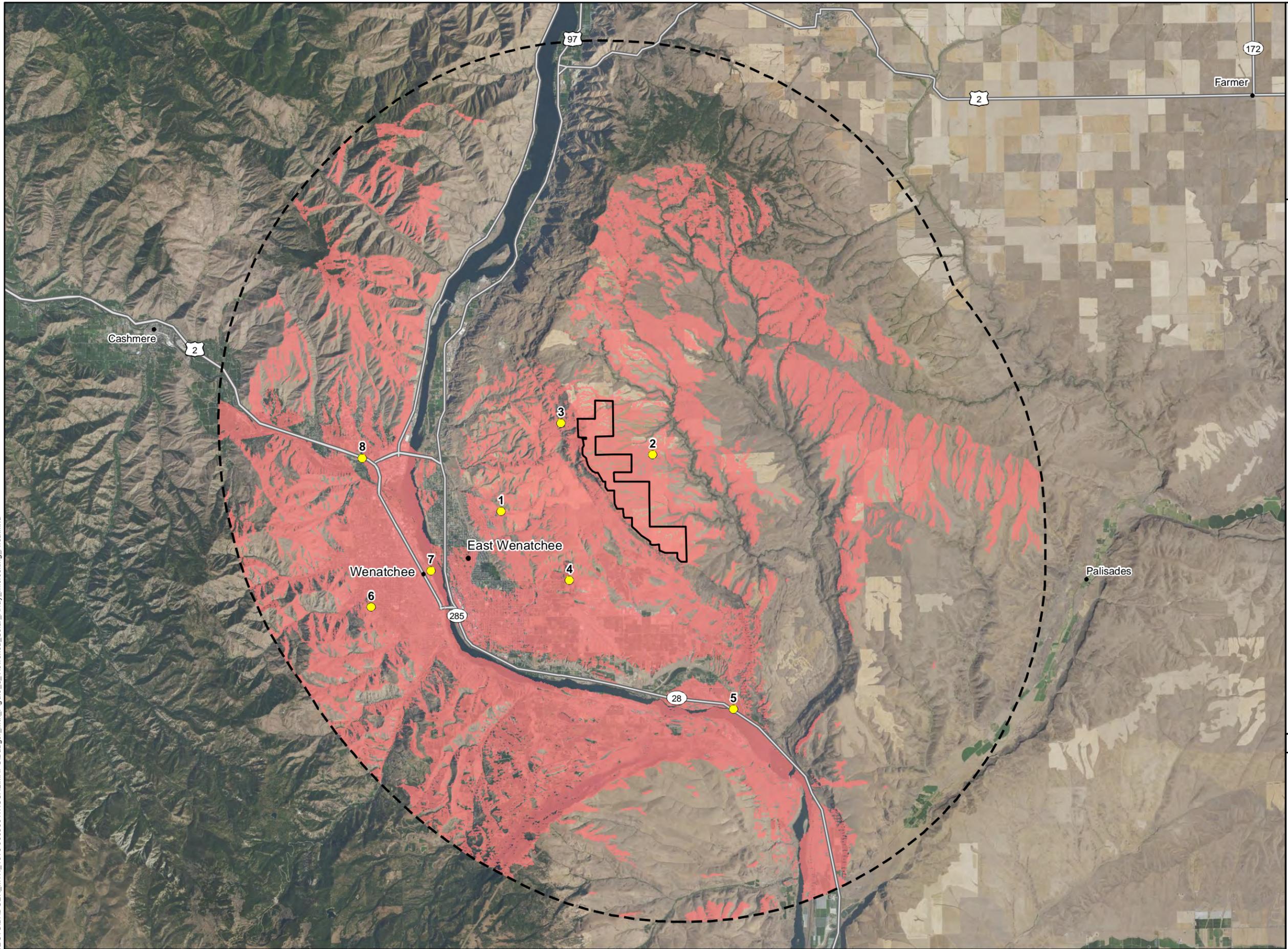
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**Badger Mountain
Solar Energy Project**

**Figure 3
Potential Project Visibility -
Solar Array Micrositing Area**

DOUGLAS COUNTY, WASHINGTON

-  Solar Array Micrositing Area
-  Solar Array Micrositing Area Buffer
-  Potential Solar Module Visibility
-  KOP



Data Sources

Avangrid-Project Boundary;
USDA-NAIP Imagery

Reference Map



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1:165,000 NAD 1983 StatePlane Washington North FIPS 4601 Feet



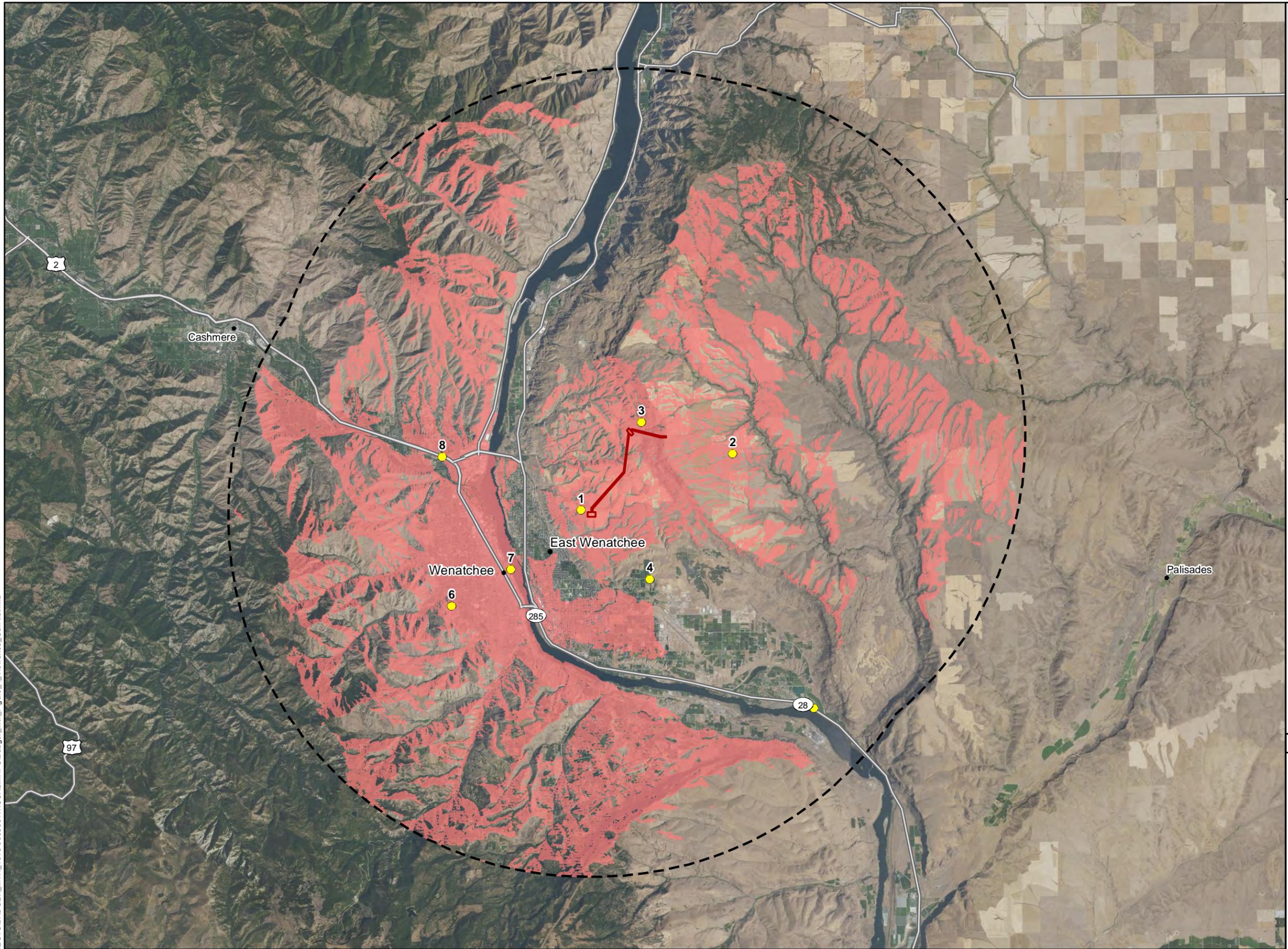
NOT FOR CONSTRUCTION

**Badger Mountain
Solar Energy Project**

**Figure 4
Potential Project Visibility -
Generation-tie Line**

DOUGLAS COUNTY, WASHINGTON

-  Gen-tie Micrositing Corridor
-  Gen-tie Micrositing Corridor
10-mile Buffer
-  Potential 230-kV Generation-tie
Line Visibility
-  KOP



Data Sources

Reference Map

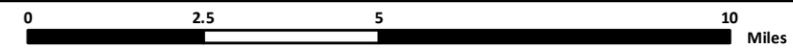
Avangrid-Project Boundary;
USDA-NAIP Imagery



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1:165,000 NAD 1983 StatePlane Washington North FIPS 4601 Feet



NOT FOR CONSTRUCTION

**Badger Mountain
Solar Energy Project**

**Figure 5
KOP 1 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON



 KOP Location and
Photo Direction



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



View from Badger Mountain Road, approximately 0.15 miles east of existing Douglas County Public Utility District Michael Doneen Substation, oriented east.

**Badger Mountain
Solar Energy Project**

**Figure 6
KOP 2 Existing Conditions**

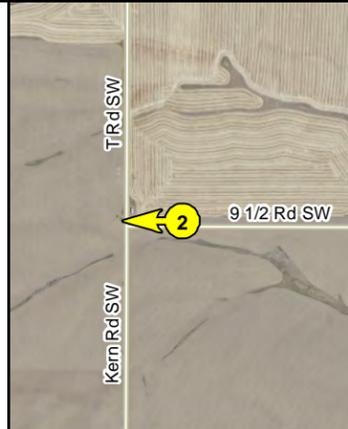
DOUGLAS COUNTY, WASHINGTON

 KOP Location and
Photo Direction



View from 9½ Road SW near the intersection with Kern Road, oriented west.



| Data Sources | Reference Map |
|---|---|
| Avangrid-Project Boundary; USDA-NAIP Imagery |  |

**Badger Mountain
Solar Energy Project**

**Figure 7
KOP 3 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON



KOP Location and
Photo Direction



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



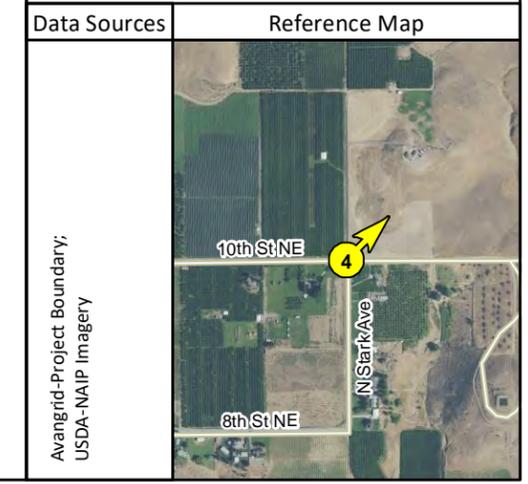
View from Badger Mountain Road approximately 0.4 miles north of the intersection with Rainey Road, oriented southwest.

**Badger Mountain
Solar Energy Project**

**Figure 8
KOP 4 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON

 KOP Location and
Photo Direction



View from the intersection of 10th Street NE and Stark Avenue N, oriented northeast.

**Badger Mountain
Solar Energy Project**

**Figure 9
KOP 5 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON



KOP Location and
Photo Direction



View from Batterman Road at the intersection with SR-28, oriented north.



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



**Badger Mountain
Solar Energy Project**

**Figure 10
KOP 6 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON



KOP Location and
Photo Direction



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



View from overlook on Skyline Drive approximately 0.2 miles south of the intersection of Skyline Drive and Skyline Place, oriented east.

**Badger Mountain
Solar Energy Project**

**Figure 11
KOP 7 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON



KOP Location and
Photo Direction



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



View from Apple Capital Recreational Loop Trail by the Pybus Public Market, oriented east.

**Badger Mountain
Solar Energy Project**

**Figure 12
KOP 8 Existing Conditions**

DOUGLAS COUNTY, WASHINGTON

 KOP Location and
Photo Direction



Data Sources

Reference Map

Avangrid-Project Boundary;
USDA-NAIP Imagery



View from I-2 at intersection with School Street, oriented east.



Existing Conditions



Simulation

**Badger Mountain
Solar Energy Project**

**Figure 13
KOP 1 Existing Conditions
and Simulation**

Douglas County, Washington

 Project Area

 KOP Location and
Photo Direction

This sheet should be printed at 11x17 inches;
full size with no scaling; and viewed at 9.9 inches
from the eye. If viewed on a computer monitor,
the document should be scaled at 100% and
viewed at 9.9 inches from the eye.





Existing Conditions

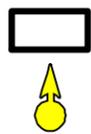


Simulation

**Badger Mountain
Solar Energy Project**

**Figure 14
KOP 2 Existing Conditions
and Simulation**

Douglas County, Washington



Project Area
KOP Location and
Photo Direction

This sheet should be printed at 11x17 inches;
full size with no scaling; and viewed at 9.9 inches
from the eye. If viewed on a computer monitor,
the document should be scaled at 100% and
viewed at 9.9 inches from the eye.





Existing Conditions

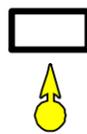


Simulation

**Badger Mountain
Solar Energy Project**

**Figure 15
KOP 4 Existing Conditions
and Simulation**

Douglas County, Washington



Project Area
KOP Location and
Photo Direction

This sheet should be printed at 11x17 inches; full size with no scaling; and viewed at 9.9 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 9.9 inches from the eye.





**Badger Mountain
Solar Energy Project**

**Figure 16
KOP 6 Existing Conditions
and Simulation**

Douglas County, Washington

 Project Area

 KOP Location and
Photo Direction

This sheet should be printed at 11x17 inches;
full size with no scaling; and viewed at 9.9 inches
from the eye. If viewed on a computer monitor,
the document should be scaled at 100% and
viewed at 9.9 inches from the eye.



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Appendix A: Visual Contrast Rating Worksheets

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date _____

District _____

Resource Area _____

Activity (program) _____

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
| COLOR | | | |
| TEX-TURE | | | |

SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
| COLOR | | | |
| TEX-TURE | | | |

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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|------------------------------------|---|----------|------|------|----------------|----------|------|------|----------------|----------|------|------|--|
| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
| | LAND/WATER BODY (1) | | | | VEGETATION (2) | | | | STRUCTURES (3) | | | | |
| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 3. Additional mitigating measures recommended <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) | | | | | | | | | | | | |
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| | Texture | | | | | | | | | | | | |

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date _____

District _____

Resource Area _____

Activity (program) _____

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
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SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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| FORM | | | |
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| COLOR | | | |
| TEX-TURE | | | |

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
| | LAND/WATER BODY (1) | | | | VEGETATION (2) | | | | STRUCTURES (3) | | | | |
| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | 3. Additional mitigating measures recommended <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

| |
|--------------------|
| Date |
| District |
| Resource Area |
| Activity (program) |

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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| FORM | | | |
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SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
| | LAND/WATER BODY (1) | | | | VEGETATION (2) | | | | STRUCTURES (3) | | | | |
| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | |
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| 3. Additional mitigating measures recommended <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) | | | | | | | | | | | | | Evaluator's Names _____ Date _____ |
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date _____

District _____

Resource Area _____

Activity (program) _____

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
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SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) | |
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| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | | |
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

| |
|--------------------|
| Date |
| District |
| Resource Area |
| Activity (program) |

SECTION A. PROJECT INFORMATION

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| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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| COLOR | | | |
| TEX-TURE | | | |

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | 3. Additional mitigating measures recommended <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

| |
|--------------------|
| Date |
| District |
| Resource Area |
| Activity (program) |

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
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| COLOR | | | |
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SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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|------------------------------------|---------------------|----------|------|------|----------------|----------|------|------|----------------|----------|------|------|--|
| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

| |
|--------------------|
| Date |
| District |
| Resource Area |
| Activity (program) |

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
| COLOR | | | |
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SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
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| TEX-TURE | | | |

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

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|-----------------------|---------------------|----------|------|------|----------------|----------|------|------|----------------|----------|------|------|---|
| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
| | LAND/WATER BODY (1) | | | | VEGETATION (2) | | | | STRUCTURES (3) | | | | |
| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | 3. Additional mitigating measures recommended <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
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| EVALUATOR'S NAMES | | | | | | | | | | | | Date | |

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

| |
|--------------------|
| Date |
| District |
| Resource Area |
| Activity (program) |

SECTION A. PROJECT INFORMATION

| | | |
|--------------------------|---|--------------------|
| 1. Project Name | 4. Location Township _____ Range _____ Section _____ | 5. Location Sketch |
| 2. Key Observation Point | | |
| 3. VRM Class | | |

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
| COLOR | | | |
| TEX-TURE | | | |

SECTION C. PROPOSED ACTIVITY DESCRIPTION

| | 1. LAND/WATER | 2. VEGETATION | 3. STRUCTURES |
|----------|---------------|---------------|---------------|
| FORM | | | |
| LINE | | | |
| COLOR | | | |
| TEX-TURE | | | |

SECTION D. CONTRAST RATING SHORT TERM LONG TERM

| | | | | | | | | | | | | | |
|------------------------------------|---------------------|----------|------|------|----------------|----------|------|------|----------------|----------|------|------|--|
| 1. DEGREE OF CONTRAST | FEATURES | | | | | | | | | | | | 2. Does project design meet visual resource management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
| | LAND/WATER BODY (1) | | | | VEGETATION (2) | | | | STRUCTURES (3) | | | | |
| | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | Strong | Moderate | Weak | None | 3. Additional mitigating measures recommended <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) |
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| ELEMENTS | Form | | | | | | | | | | | | Evaluator's Names _____ Date _____ |
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Appendix B: Glare Analysis

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FORGESOLAR GLARE ANALYSIS

Project: **Badger Mnt**

Proposed >100 MW solar array near Wanatchee, WA

Site configuration: **Analysis 1- Badger Mnt 1st KOP and DNR**

Analysis conducted by Drew Timmis (drew.timmis@tetrattech.com) at 15:36 on 30 Jul, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

| COMPONENT | STATUS | DESCRIPTION |
|-----------------------|--------|--|
| Analysis parameters | PASS | Analysis time interval and eye characteristics used are acceptable |
| 2-mile flight path(s) | N/A | No flight paths analyzed |
| ATCT(s) | N/A | No ATCT receptors designated |

Default glare analysis parameters and observer eye characteristics (for reference only):

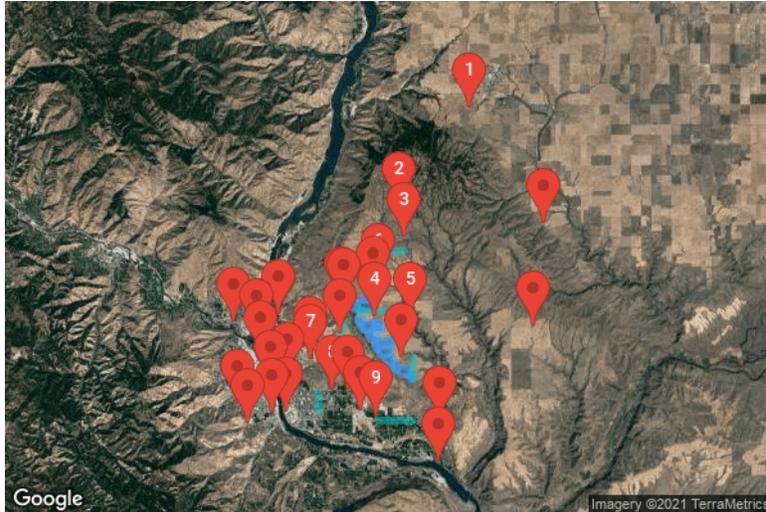
- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m²
 Time interval: 1 min
 Ocular transmission coefficient: 0.5
 Pupil diameter: 0.002 m
 Eye focal length: 0.017 m
 Sun subtended angle: 9.3 mrad
 Site Config ID: 56694.10047



PV Array(s)

Name: PV array 1
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 2.33°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Resting angle: 40.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.432892 | -120.155287 | 2984.71 | 7.00 | 2991.71 |
| 2 | 47.432137 | -120.155297 | 3002.70 | 7.00 | 3009.70 |
| 3 | 47.432152 | -120.154536 | 3005.80 | 7.00 | 3012.81 |
| 4 | 47.428029 | -120.154514 | 3041.22 | 7.00 | 3048.22 |
| 5 | 47.428084 | -120.157905 | 3044.16 | 7.00 | 3051.16 |
| 6 | 47.429155 | -120.159364 | 3028.24 | 7.00 | 3035.24 |
| 7 | 47.431339 | -120.159517 | 3034.39 | 7.00 | 3041.39 |
| 8 | 47.432861 | -120.158473 | 3005.75 | 7.00 | 3012.75 |

Name: PV array 10

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.1°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.470186 | -120.196658 | 3289.00 | 7.00 | 3296.00 |
| 2 | 47.470253 | -120.186530 | 3182.11 | 7.00 | 3189.11 |
| 3 | 47.467461 | -120.186550 | 3173.95 | 7.00 | 3180.95 |
| 4 | 47.467481 | -120.189725 | 3209.18 | 7.00 | 3216.19 |
| 5 | 47.468508 | -120.195142 | 3288.92 | 7.00 | 3295.92 |
| 6 | 47.468497 | -120.196575 | 3302.12 | 7.00 | 3309.12 |

Name: PV array 11

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.02°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.468469 | -120.195151 | 3288.37 | 7.00 | 3295.37 |
| 2 | 47.467447 | -120.189726 | 3209.97 | 7.00 | 3216.97 |
| 3 | 47.466459 | -120.189762 | 3203.40 | 7.00 | 3210.40 |
| 4 | 47.466541 | -120.195148 | 3281.24 | 7.00 | 3288.24 |

Name: PV array 12

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.91°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.466496 | -120.194153 | 3269.46 | 7.00 | 3276.46 |
| 2 | 47.466422 | -120.189764 | 3205.48 | 7.00 | 3212.48 |
| 3 | 47.465009 | -120.189747 | 3212.40 | 7.00 | 3219.40 |
| 4 | 47.465070 | -120.194122 | 3254.66 | 7.00 | 3261.66 |

Name: PV array 13

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.41°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.464678 | -120.196789 | 3300.62 | 7.00 | 3307.62 |
| 2 | 47.463833 | -120.196761 | 3303.19 | 7.00 | 3310.19 |
| 3 | 47.463819 | -120.186547 | 3196.19 | 7.00 | 3203.19 |
| 4 | 47.464958 | -120.186540 | 3194.31 | 7.00 | 3201.31 |
| 5 | 47.465064 | -120.194489 | 3268.32 | 7.00 | 3275.32 |
| 6 | 47.464678 | -120.194472 | 3271.06 | 7.00 | 3278.06 |

Name: PV array 14

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.69°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.464281 | -120.208138 | 3412.99 | 7.00 | 3419.99 |
| 2 | 47.464293 | -120.208776 | 3419.56 | 7.00 | 3426.56 |
| 3 | 47.467694 | -120.212488 | 3401.50 | 7.00 | 3408.50 |
| 4 | 47.469200 | -120.212501 | 3390.18 | 7.00 | 3397.18 |
| 5 | 47.469219 | -120.208019 | 3344.39 | 7.00 | 3351.39 |

Name: PV array 15

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.44°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.469231 | -120.208022 | 3344.39 | 7.00 | 3351.39 |
| 2 | 47.469217 | -120.212519 | 3390.77 | 7.00 | 3397.77 |
| 3 | 47.471232 | -120.214861 | 3424.38 | 7.00 | 3431.38 |
| 4 | 47.473320 | -120.214793 | 3425.82 | 7.00 | 3432.82 |
| 5 | 47.473309 | -120.208200 | 3384.71 | 7.00 | 3391.71 |

Name: PV array 16

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.26°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485350 | -120.212685 | 3374.71 | 7.00 | 3381.71 |
| 2 | 47.478390 | -120.212771 | 3450.30 | 7.00 | 3457.30 |
| 3 | 47.478165 | -120.196989 | 3298.30 | 7.00 | 3305.30 |
| 4 | 47.485408 | -120.197085 | 3311.10 | 7.00 | 3318.10 |

Name: PV array 17

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.62°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485466 | -120.197075 | 3311.27 | 7.00 | 3318.27 |
| 2 | 47.492535 | -120.197289 | 3283.01 | 7.00 | 3290.01 |
| 3 | 47.492789 | -120.207782 | 3346.39 | 7.00 | 3353.39 |
| 4 | 47.485445 | -120.207728 | 3370.79 | 7.00 | 3377.79 |

Name: PV array 18

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.5°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485108 | -120.214038 | 3370.90 | 7.00 | 3377.90 |
| 2 | 47.484695 | -120.215416 | 3350.44 | 7.00 | 3357.44 |
| 3 | 47.482334 | -120.217943 | 3206.44 | 7.00 | 3213.44 |
| 4 | 47.478459 | -120.217895 | 3138.08 | 7.00 | 3145.08 |
| 5 | 47.478386 | -120.213410 | 3443.17 | 7.00 | 3450.17 |
| 6 | 47.482073 | -120.213388 | 3400.89 | 7.00 | 3407.89 |

Name: PV array 19

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.5°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485420 | -120.218361 | 3429.81 | 7.00 | 3436.81 |
| 2 | 47.482890 | -120.218028 | 3243.03 | 7.00 | 3250.03 |
| 3 | 47.485413 | -120.215646 | 3387.04 | 7.00 | 3394.04 |

Name: PV array 2

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.89°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.431342 | -120.159533 | 3034.38 | 7.00 | 3041.38 |
| 2 | 47.431403 | -120.166578 | 3066.09 | 7.00 | 3073.09 |
| 3 | 47.432394 | -120.170033 | 3057.75 | 7.00 | 3064.75 |
| 4 | 47.437343 | -120.170767 | 3049.53 | 7.00 | 3056.53 |
| 5 | 47.437378 | -120.160742 | 3001.14 | 7.00 | 3008.14 |
| 6 | 47.438281 | -120.160742 | 2991.76 | 7.00 | 2998.76 |
| 7 | 47.438331 | -120.158747 | 2988.58 | 7.00 | 2995.58 |
| 8 | 47.432870 | -120.158490 | 3006.06 | 7.00 | 3013.06 |

Name: PV array 3

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.21°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.434670 | -120.170379 | 3072.29 | 7.00 | 3079.29 |
| 2 | 47.434789 | -120.175186 | 3081.58 | 7.00 | 3088.58 |
| 3 | 47.436042 | -120.175378 | 3108.66 | 7.00 | 3115.66 |
| 4 | 47.441456 | -120.176028 | 3075.24 | 7.00 | 3082.24 |
| 5 | 47.441443 | -120.170785 | 3057.28 | 7.00 | 3064.28 |
| 6 | 47.435900 | -120.170923 | 3053.94 | 7.00 | 3060.94 |
| 7 | 47.437353 | -120.170804 | 3049.84 | 7.00 | 3056.84 |

Name: PV array 4

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.27°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.435810 | -120.175383 | 3107.44 | 7.00 | 3114.44 |
| 2 | 47.438106 | -120.180703 | 3137.92 | 7.00 | 3144.92 |
| 3 | 47.441786 | -120.185894 | 3198.50 | 7.00 | 3205.50 |
| 4 | 47.445650 | -120.186019 | 3198.63 | 7.00 | 3205.63 |
| 5 | 47.445687 | -120.182527 | 3151.04 | 7.00 | 3158.04 |
| 6 | 47.444865 | -120.182525 | 3148.23 | 7.00 | 3155.23 |
| 7 | 47.444897 | -120.178872 | 3128.07 | 7.00 | 3135.07 |
| 8 | 47.445746 | -120.178860 | 3124.33 | 7.00 | 3131.33 |
| 9 | 47.445742 | -120.176085 | 3103.74 | 7.00 | 3110.74 |
| 10 | 47.441453 | -120.176075 | 3076.18 | 7.00 | 3083.18 |

Name: PV array 5

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 3.21°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.445706 | -120.182642 | 3151.67 | 7.00 | 3158.67 |
| 2 | 47.445639 | -120.190842 | 3241.46 | 7.00 | 3248.46 |
| 3 | 47.452107 | -120.191646 | 3241.27 | 7.00 | 3248.27 |
| 4 | 47.452236 | -120.177108 | 3074.99 | 7.00 | 3081.99 |
| 5 | 47.448258 | -120.177217 | 3097.16 | 7.00 | 3104.16 |

Name: PV array 6

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.44°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.449164 | -120.191307 | 3254.80 | 7.00 | 3261.80 |
| 2 | 47.449097 | -120.194011 | 3254.41 | 7.00 | 3261.41 |
| 3 | 47.451400 | -120.196475 | 3290.40 | 7.00 | 3297.40 |
| 4 | 47.459833 | -120.196686 | 3303.69 | 7.00 | 3310.69 |
| 5 | 47.459800 | -120.192242 | 3261.50 | 7.00 | 3268.50 |
| 6 | 47.452083 | -120.191711 | 3240.90 | 7.00 | 3247.90 |

Name: PV array 7

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 3.05°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.452126 | -120.191680 | 3241.21 | 7.00 | 3248.21 |
| 2 | 47.457321 | -120.191992 | 3262.11 | 7.00 | 3269.11 |
| 3 | 47.457411 | -120.189622 | 3239.89 | 7.00 | 3246.89 |
| 4 | 47.458108 | -120.187925 | 3222.10 | 7.00 | 3229.10 |
| 5 | 47.458117 | -120.176033 | 3101.76 | 7.00 | 3108.76 |
| 6 | 47.453483 | -120.175994 | 3090.01 | 7.00 | 3097.01 |
| 7 | 47.453050 | -120.179036 | 3084.07 | 7.00 | 3091.07 |
| 8 | 47.452237 | -120.179196 | 3093.46 | 7.00 | 3100.46 |

Name: PV array 8

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.97°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.456444 | -120.196775 | 3284.16 | 7.00 | 3291.16 |
| 2 | 47.456536 | -120.200214 | 3300.22 | 7.00 | 3307.22 |
| 3 | 47.457819 | -120.201911 | 3316.22 | 7.00 | 3323.23 |
| 4 | 47.460083 | -120.202017 | 3328.14 | 7.00 | 3335.14 |
| 5 | 47.460133 | -120.203497 | 3345.64 | 7.00 | 3352.64 |
| 6 | 47.463433 | -120.206117 | 3396.37 | 7.00 | 3403.37 |
| 7 | 47.463428 | -120.197236 | 3302.74 | 7.00 | 3309.74 |

Name: PV array 9

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.71°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.463836 | -120.197433 | 3309.57 | 7.00 | 3316.57 |
| 2 | 47.463919 | -120.206420 | 3400.80 | 7.00 | 3407.80 |
| 3 | 47.464161 | -120.208117 | 3413.87 | 7.00 | 3420.87 |
| 4 | 47.470222 | -120.207980 | 3360.94 | 7.00 | 3367.94 |
| 5 | 47.470211 | -120.197439 | 3277.55 | 7.00 | 3284.55 |

Discrete Observation Receptors

| Name | ID | Latitude (°) | Longitude (°) | Elevation (ft) | Height (ft) |
|-------|----|--------------|---------------|----------------|-------------|
| OP 1 | 1 | 47.624404 | -120.094225 | 2689.26 | 6.00 |
| OP 2 | 2 | 47.553549 | -120.169574 | 3659.22 | 6.00 |
| OP 3 | 3 | 47.531556 | -120.163416 | 3390.99 | 6.00 |
| OP 4 | 4 | 47.473244 | -120.195899 | 3235.80 | 6.00 |
| OP 5 | 5 | 47.473209 | -120.156889 | 3018.72 | 6.00 |
| OP 6 | 6 | 47.500978 | -120.190943 | 3093.09 | 6.00 |
| OP 7 | 7 | 47.442967 | -120.263452 | 1510.58 | 6.00 |
| OP 8 | 8 | 47.420744 | -120.240235 | 1211.09 | 6.00 |
| OP 9 | 9 | 47.402090 | -120.193714 | 1220.65 | 6.00 |
| OP 10 | 10 | 47.475713 | -120.298188 | 915.61 | 6.00 |
| OP 11 | 11 | 47.404551 | -120.290647 | 730.03 | 6.00 |
| OP 12 | 12 | 47.398526 | -120.125723 | 1614.54 | 6.00 |
| OP 13 | 13 | 47.541509 | -120.013785 | 2546.95 | 6.00 |
| OP 14 | 14 | 47.467382 | -120.024596 | 2779.93 | 6.00 |
| OP 15 | 15 | 47.484745 | -120.230919 | 2701.67 | 6.00 |
| OP 16 | 16 | 47.443716 | -120.166142 | 2990.25 | 6.00 |
| OP 17 | 17 | 47.430364 | -120.287950 | 859.87 | 6.00 |
| OP 18 | 18 | 47.448384 | -120.264091 | 1547.91 | 6.00 |
| OP 19 | 19 | 47.492551 | -120.196972 | 3278.36 | 6.00 |
| OP 20 | 20 | 47.461101 | -120.232699 | 2115.34 | 6.00 |
| OP 21 | 21 | 47.483682 | -120.227986 | 2695.03 | 6.00 |
| OP 22 | 22 | 47.420477 | -120.223780 | 1311.86 | 6.00 |
| OP 23 | 23 | 47.405724 | -120.209683 | 1213.94 | 6.00 |
| OP 24 | 24 | 47.368151 | -120.127146 | 622.65 | 6.00 |
| OP 25 | 25 | 47.410295 | -120.341636 | 1060.77 | 6.00 |
| OP 26 | 26 | 47.396352 | -120.330897 | 1101.10 | 6.00 |
| OP 27 | 27 | 47.403571 | -120.305126 | 799.45 | 6.00 |
| OP 28 | 28 | 47.461693 | -120.321954 | 622.59 | 6.00 |
| OP 29 | 29 | 47.445528 | -120.318044 | 635.86 | 6.00 |
| OP 30 | 30 | 47.424753 | -120.306090 | 630.65 | 6.00 |
| OP 31 | 31 | 47.470108 | -120.346377 | 826.91 | 6.00 |

Route Receptor(s)

Name: 4th Street SE

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.398660 | -120.190322 | 1238.47 | 5.00 | 1243.47 |
| 2 | 47.398776 | -120.170452 | 1235.41 | 5.00 | 1240.41 |
| 3 | 47.398602 | -120.154702 | 1152.03 | 5.00 | 1157.03 |

Name: Badger Mountain Road - North

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.521243 | -120.201479 | 3352.48 | 5.00 | 3357.48 |
| 2 | 47.521243 | -120.189764 | 3309.78 | 5.00 | 3314.78 |
| 3 | 47.521214 | -120.175473 | 3281.72 | 5.00 | 3286.72 |
| 4 | 47.521330 | -120.163886 | 3239.18 | 5.00 | 3244.18 |

Name: Badger Mountain Road - Northern Central

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.504264 | -120.197514 | 3119.23 | 5.00 | 3124.24 |
| 2 | 47.502104 | -120.197493 | 3123.70 | 5.00 | 3128.70 |
| 3 | 47.499249 | -120.197021 | 3210.55 | 5.00 | 3215.55 |
| 4 | 47.492812 | -120.197042 | 3280.06 | 5.00 | 3285.06 |

Name: Badger Mountain Road - South

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.468933 | -120.227462 | 2286.01 | 5.00 | 2291.01 |
| 2 | 47.461854 | -120.231753 | 2140.20 | 5.00 | 2145.20 |
| 3 | 47.461012 | -120.233213 | 2107.30 | 5.00 | 2112.30 |

Name: Badger Mountain Road - Southern Central

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



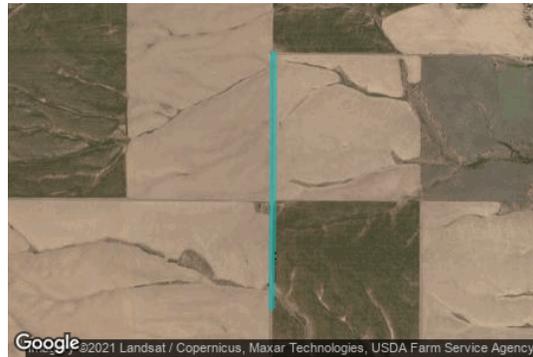
| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.487433 | -120.229541 | 2842.10 | 5.00 | 2847.10 |
| 2 | 47.484112 | -120.228468 | 2710.93 | 5.00 | 2715.93 |
| 3 | 47.481099 | -120.226625 | 2647.51 | 5.00 | 2652.51 |
| 4 | 47.479562 | -120.226238 | 2611.93 | 5.00 | 2616.93 |
| 5 | 47.476444 | -120.226689 | 2521.87 | 5.00 | 2526.87 |

Name: Kern Road

Path type: Two-way

Observer view angle: 50.0°

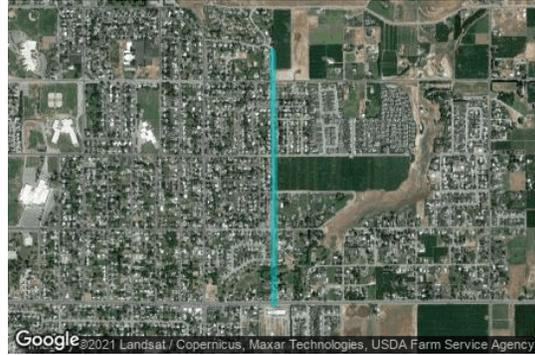
Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.470678 | -120.175638 | 3091.91 | 5.00 | 3096.91 |
| 2 | 47.463425 | -120.175681 | 3126.20 | 5.00 | 3131.20 |
| 3 | 47.458260 | -120.175767 | 3096.80 | 5.00 | 3101.80 |

Name: North Lyle Avenue
Path type: Two-way
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.418221 | -120.255528 | 1218.62 | 5.00 | 1223.62 |
| 2 | 47.413081 | -120.255421 | 1087.68 | 5.00 | 1092.68 |
| 3 | 47.405849 | -120.255421 | 1027.67 | 5.00 | 1032.67 |

Name: Road 9 SW
Path type: Two-way
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.478283 | -120.212940 | 3448.50 | 5.00 | 3453.50 |
| 2 | 47.478080 | -120.195645 | 3277.98 | 5.00 | 3282.98 |
| 3 | 47.477964 | -120.179380 | 3115.59 | 5.00 | 3120.59 |

Name: SW Road 11 Extension

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.444451 | -120.154362 | 2894.99 | 5.00 | 2899.99 |
| 2 | 47.441371 | -120.154346 | 2928.05 | 5.00 | 2933.05 |
| 3 | 47.438256 | -120.154343 | 2958.41 | 5.00 | 2963.41 |
| 4 | 47.433519 | -120.154375 | 2976.53 | 5.00 | 2981.53 |
| 5 | 47.429354 | -120.154268 | 3024.92 | 5.00 | 3029.92 |

GLARE ANALYSIS RESULTS

Summary of Glare

| PV Array Name | Tilt | Orient | "Green" Glare | "Yellow" Glare | Energy |
|---------------|----------------|----------------|---------------|----------------|--------|
| | (°) | (°) | min | min | kWh |
| PV array 1 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 10 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 11 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 12 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 13 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 14 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 15 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 16 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 17 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 18 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 19 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 2 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 3 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 4 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 5 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 6 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 7 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 8 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 9 | SA tracking | SA tracking | 0 | 0 | - |

Total annual glare received by each receptor

| Receptor | Annual Green Glare (min) | Annual Yellow Glare (min) |
|--|---------------------------------|----------------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Results for: PV array 1

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 10

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 11

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 12

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 13

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 14

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 15

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 16

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 17

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 18

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 19

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 2

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 3

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 4

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 5

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 6

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 7

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 8

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 9

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

FORGESOLAR GLARE ANALYSIS

Project: **Badger Mnt**

Proposed >100 MW solar array near Wanatchee, WA

Site configuration: **Analysis 2- Badger Mnt 2st KOP and DNR**

Analysis conducted by Drew Timmis (drew.timmis@tetrattech.com) at 15:48 on 30 Jul, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

| COMPONENT | STATUS | DESCRIPTION |
|-----------------------|--------|--|
| Analysis parameters | PASS | Analysis time interval and eye characteristics used are acceptable |
| 2-mile flight path(s) | N/A | No flight paths analyzed |
| ATCT(s) | N/A | No ATCT receptors designated |

Default glare analysis parameters and observer eye characteristics (for reference only):

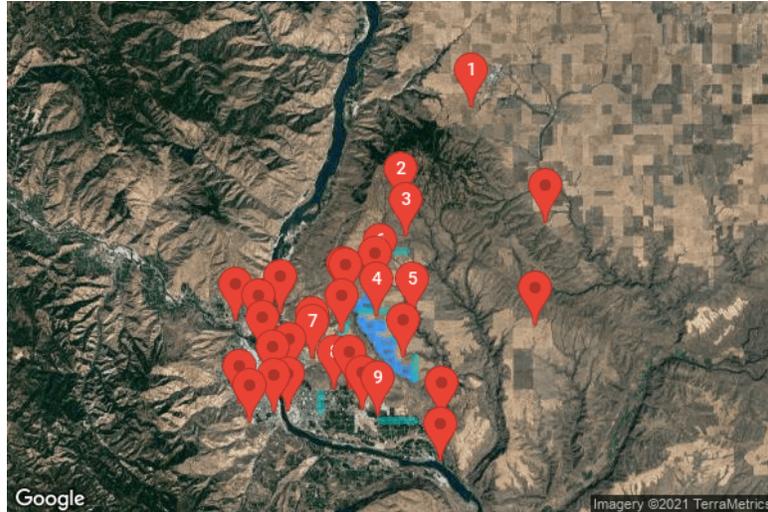
- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m²
 Time interval: 1 min
 Ocular transmission coefficient: 0.5
 Pupil diameter: 0.002 m
 Eye focal length: 0.017 m
 Sun subtended angle: 9.3 mrad
 Site Config ID: 56830.10047



PV Array(s)

Name: PV array 1
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 2.33°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Resting angle: 40.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.432892 | -120.155287 | 2984.71 | 7.00 | 2991.71 |
| 2 | 47.432137 | -120.155297 | 3002.70 | 7.00 | 3009.70 |
| 3 | 47.432152 | -120.154536 | 3005.80 | 7.00 | 3012.81 |
| 4 | 47.428029 | -120.154514 | 3041.22 | 7.00 | 3048.22 |
| 5 | 47.428084 | -120.157905 | 3044.16 | 7.00 | 3051.16 |
| 6 | 47.429155 | -120.159364 | 3028.24 | 7.00 | 3035.24 |
| 7 | 47.431339 | -120.159517 | 3034.39 | 7.00 | 3041.39 |
| 8 | 47.432861 | -120.158473 | 3005.75 | 7.00 | 3012.75 |

Name: PV array 10

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.1°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

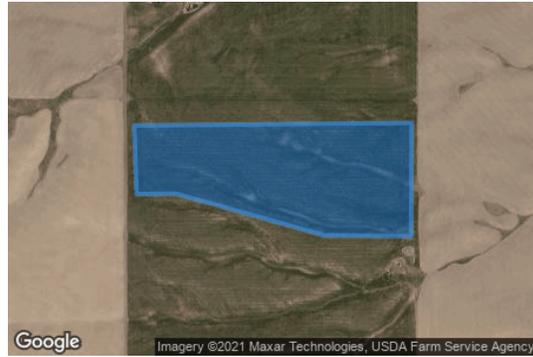
Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.470186 | -120.196658 | 3289.00 | 7.00 | 3296.00 |
| 2 | 47.470253 | -120.186530 | 3182.11 | 7.00 | 3189.11 |
| 3 | 47.467461 | -120.186550 | 3173.95 | 7.00 | 3180.95 |
| 4 | 47.467481 | -120.189725 | 3209.18 | 7.00 | 3216.19 |
| 5 | 47.468508 | -120.195142 | 3288.92 | 7.00 | 3295.92 |
| 6 | 47.468497 | -120.196575 | 3302.12 | 7.00 | 3309.12 |

Name: PV array 11

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.02°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.468469 | -120.195151 | 3288.37 | 7.00 | 3295.37 |
| 2 | 47.467447 | -120.189726 | 3209.97 | 7.00 | 3216.97 |
| 3 | 47.466459 | -120.189762 | 3203.40 | 7.00 | 3210.40 |
| 4 | 47.466541 | -120.195148 | 3281.24 | 7.00 | 3288.24 |

Name: PV array 12

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.91°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.466496 | -120.194153 | 3269.46 | 7.00 | 3276.46 |
| 2 | 47.466422 | -120.189764 | 3205.48 | 7.00 | 3212.48 |
| 3 | 47.465009 | -120.189747 | 3212.40 | 7.00 | 3219.40 |
| 4 | 47.465070 | -120.194122 | 3254.66 | 7.00 | 3261.66 |

Name: PV array 13

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.41°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.464678 | -120.196789 | 3300.62 | 7.00 | 3307.62 |
| 2 | 47.463833 | -120.196761 | 3303.19 | 7.00 | 3310.19 |
| 3 | 47.463819 | -120.186547 | 3196.19 | 7.00 | 3203.19 |
| 4 | 47.464958 | -120.186540 | 3194.31 | 7.00 | 3201.31 |
| 5 | 47.465064 | -120.194489 | 3268.32 | 7.00 | 3275.32 |
| 6 | 47.464678 | -120.194472 | 3271.06 | 7.00 | 3278.06 |

Name: PV array 14

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.69°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.464281 | -120.208138 | 3412.99 | 7.00 | 3419.99 |
| 2 | 47.464293 | -120.208776 | 3419.56 | 7.00 | 3426.56 |
| 3 | 47.467694 | -120.212488 | 3401.50 | 7.00 | 3408.50 |
| 4 | 47.469200 | -120.212501 | 3390.18 | 7.00 | 3397.18 |
| 5 | 47.469219 | -120.208019 | 3344.39 | 7.00 | 3351.39 |

Name: PV array 15

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.44°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.469231 | -120.208022 | 3344.39 | 7.00 | 3351.39 |
| 2 | 47.469217 | -120.212519 | 3390.77 | 7.00 | 3397.77 |
| 3 | 47.471232 | -120.214861 | 3424.38 | 7.00 | 3431.38 |
| 4 | 47.473320 | -120.214793 | 3425.82 | 7.00 | 3432.82 |
| 5 | 47.473309 | -120.208200 | 3384.71 | 7.00 | 3391.71 |

Name: PV array 16

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.26°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485350 | -120.212685 | 3374.71 | 7.00 | 3381.71 |
| 2 | 47.478390 | -120.212771 | 3450.30 | 7.00 | 3457.30 |
| 3 | 47.478165 | -120.196989 | 3298.30 | 7.00 | 3305.30 |
| 4 | 47.485408 | -120.197085 | 3311.10 | 7.00 | 3318.10 |

Name: PV array 17

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.62°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485466 | -120.197075 | 3311.27 | 7.00 | 3318.27 |
| 2 | 47.492535 | -120.197289 | 3283.01 | 7.00 | 3290.01 |
| 3 | 47.492789 | -120.207782 | 3346.39 | 7.00 | 3353.39 |
| 4 | 47.485445 | -120.207728 | 3370.79 | 7.00 | 3377.79 |

Name: PV array 18

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.5°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485108 | -120.214038 | 3370.90 | 7.00 | 3377.90 |
| 2 | 47.484695 | -120.215416 | 3350.44 | 7.00 | 3357.44 |
| 3 | 47.482334 | -120.217943 | 3206.44 | 7.00 | 3213.44 |
| 4 | 47.478459 | -120.217895 | 3138.08 | 7.00 | 3145.08 |
| 5 | 47.478386 | -120.213410 | 3443.17 | 7.00 | 3450.17 |
| 6 | 47.482073 | -120.213388 | 3400.89 | 7.00 | 3407.89 |

Name: PV array 19

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.5°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485420 | -120.218361 | 3429.81 | 7.00 | 3436.81 |
| 2 | 47.482890 | -120.218028 | 3243.03 | 7.00 | 3250.03 |
| 3 | 47.485413 | -120.215646 | 3387.04 | 7.00 | 3394.04 |

Name: PV array 2

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.89°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.431342 | -120.159533 | 3034.38 | 7.00 | 3041.38 |
| 2 | 47.431403 | -120.166578 | 3066.09 | 7.00 | 3073.09 |
| 3 | 47.432394 | -120.170033 | 3057.75 | 7.00 | 3064.75 |
| 4 | 47.437343 | -120.170767 | 3049.53 | 7.00 | 3056.53 |
| 5 | 47.437378 | -120.160742 | 3001.14 | 7.00 | 3008.14 |
| 6 | 47.438281 | -120.160742 | 2991.76 | 7.00 | 2998.76 |
| 7 | 47.438331 | -120.158747 | 2988.58 | 7.00 | 2995.58 |
| 8 | 47.432870 | -120.158490 | 3006.06 | 7.00 | 3013.06 |

Name: PV array 3

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.21°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.434670 | -120.170379 | 3072.29 | 7.00 | 3079.29 |
| 2 | 47.434789 | -120.175186 | 3081.58 | 7.00 | 3088.58 |
| 3 | 47.436042 | -120.175378 | 3108.66 | 7.00 | 3115.66 |
| 4 | 47.441456 | -120.176028 | 3075.24 | 7.00 | 3082.24 |
| 5 | 47.441443 | -120.170785 | 3057.28 | 7.00 | 3064.28 |
| 6 | 47.435900 | -120.170923 | 3053.94 | 7.00 | 3060.94 |
| 7 | 47.437353 | -120.170804 | 3049.84 | 7.00 | 3056.84 |

Name: PV array 4

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.27°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.435810 | -120.175383 | 3107.44 | 7.00 | 3114.44 |
| 2 | 47.438106 | -120.180703 | 3137.92 | 7.00 | 3144.92 |
| 3 | 47.441786 | -120.185894 | 3198.50 | 7.00 | 3205.50 |
| 4 | 47.445650 | -120.186019 | 3198.63 | 7.00 | 3205.63 |
| 5 | 47.445687 | -120.182527 | 3151.04 | 7.00 | 3158.04 |
| 6 | 47.444865 | -120.182525 | 3148.23 | 7.00 | 3155.23 |
| 7 | 47.444897 | -120.178872 | 3128.07 | 7.00 | 3135.07 |
| 8 | 47.445746 | -120.178860 | 3124.33 | 7.00 | 3131.33 |
| 9 | 47.445742 | -120.176085 | 3103.74 | 7.00 | 3110.74 |
| 10 | 47.441453 | -120.176075 | 3076.18 | 7.00 | 3083.18 |

Name: PV array 5

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 3.21°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.445706 | -120.182642 | 3151.67 | 7.00 | 3158.67 |
| 2 | 47.445639 | -120.190842 | 3241.46 | 7.00 | 3248.46 |
| 3 | 47.452107 | -120.191646 | 3241.27 | 7.00 | 3248.27 |
| 4 | 47.452236 | -120.177108 | 3074.99 | 7.00 | 3081.99 |
| 5 | 47.448258 | -120.177217 | 3097.16 | 7.00 | 3104.16 |

Name: PV array 6

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.44°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.449164 | -120.191307 | 3254.80 | 7.00 | 3261.80 |
| 2 | 47.449097 | -120.194011 | 3254.41 | 7.00 | 3261.41 |
| 3 | 47.451400 | -120.196475 | 3290.40 | 7.00 | 3297.40 |
| 4 | 47.459833 | -120.196686 | 3303.69 | 7.00 | 3310.69 |
| 5 | 47.459800 | -120.192242 | 3261.50 | 7.00 | 3268.50 |
| 6 | 47.452083 | -120.191711 | 3240.90 | 7.00 | 3247.90 |

Name: PV array 7

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 3.05°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.452126 | -120.191680 | 3241.21 | 7.00 | 3248.21 |
| 2 | 47.457321 | -120.191992 | 3262.11 | 7.00 | 3269.11 |
| 3 | 47.457411 | -120.189622 | 3239.89 | 7.00 | 3246.89 |
| 4 | 47.458108 | -120.187925 | 3222.10 | 7.00 | 3229.10 |
| 5 | 47.458117 | -120.176033 | 3101.76 | 7.00 | 3108.76 |
| 6 | 47.453483 | -120.175994 | 3090.01 | 7.00 | 3097.01 |
| 7 | 47.453050 | -120.179036 | 3084.07 | 7.00 | 3091.07 |
| 8 | 47.452237 | -120.179196 | 3093.46 | 7.00 | 3100.46 |

Name: PV array 8

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.97°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.456444 | -120.196775 | 3284.16 | 7.00 | 3291.16 |
| 2 | 47.456536 | -120.200214 | 3300.22 | 7.00 | 3307.22 |
| 3 | 47.457819 | -120.201911 | 3316.22 | 7.00 | 3323.23 |
| 4 | 47.460083 | -120.202017 | 3328.14 | 7.00 | 3335.14 |
| 5 | 47.460133 | -120.203497 | 3345.64 | 7.00 | 3352.64 |
| 6 | 47.463433 | -120.206117 | 3396.37 | 7.00 | 3403.37 |
| 7 | 47.463428 | -120.197236 | 3302.74 | 7.00 | 3309.74 |

Name: PV array 9

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.71°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.463836 | -120.197433 | 3309.57 | 7.00 | 3316.57 |
| 2 | 47.463919 | -120.206420 | 3400.80 | 7.00 | 3407.80 |
| 3 | 47.464161 | -120.208117 | 3413.87 | 7.00 | 3420.87 |
| 4 | 47.470222 | -120.207980 | 3360.94 | 7.00 | 3367.94 |
| 5 | 47.470211 | -120.197439 | 3277.55 | 7.00 | 3284.55 |

Discrete Observation Receptors

| Name | ID | Latitude (°) | Longitude (°) | Elevation (ft) | Height (ft) |
|-------|----|--------------|---------------|----------------|-------------|
| OP 1 | 1 | 47.624404 | -120.094225 | 2689.26 | 16.00 |
| OP 2 | 2 | 47.553549 | -120.169574 | 3659.22 | 16.00 |
| OP 3 | 3 | 47.531556 | -120.163416 | 3390.99 | 16.00 |
| OP 4 | 4 | 47.473244 | -120.195899 | 3235.80 | 16.00 |
| OP 5 | 5 | 47.473209 | -120.156889 | 3018.72 | 16.00 |
| OP 6 | 6 | 47.500978 | -120.190943 | 3093.09 | 16.00 |
| OP 7 | 7 | 47.442967 | -120.263452 | 1510.58 | 16.00 |
| OP 8 | 8 | 47.420744 | -120.240235 | 1211.09 | 16.00 |
| OP 9 | 9 | 47.402090 | -120.193714 | 1220.65 | 16.00 |
| OP 10 | 10 | 47.475713 | -120.298188 | 915.61 | 16.00 |
| OP 11 | 11 | 47.404551 | -120.290647 | 730.03 | 16.00 |
| OP 12 | 12 | 47.398526 | -120.125723 | 1614.54 | 16.00 |
| OP 13 | 13 | 47.541509 | -120.013785 | 2546.95 | 16.00 |
| OP 14 | 14 | 47.467382 | -120.024596 | 2779.93 | 16.00 |
| OP 15 | 15 | 47.484745 | -120.230919 | 2701.67 | 16.00 |
| OP 16 | 16 | 47.443716 | -120.166142 | 2990.25 | 16.00 |
| OP 17 | 17 | 47.430364 | -120.287950 | 859.87 | 16.00 |
| OP 18 | 18 | 47.448384 | -120.264091 | 1547.91 | 6.00 |
| OP 19 | 19 | 47.492551 | -120.196972 | 3278.36 | 6.00 |
| OP 20 | 20 | 47.461101 | -120.232699 | 2115.34 | 6.00 |
| OP 21 | 21 | 47.483682 | -120.227986 | 2695.03 | 6.00 |
| OP 22 | 22 | 47.420477 | -120.223780 | 1311.86 | 6.00 |
| OP 23 | 23 | 47.405724 | -120.209683 | 1213.94 | 6.00 |
| OP 24 | 24 | 47.368151 | -120.127146 | 622.65 | 6.00 |
| OP 25 | 25 | 47.410295 | -120.341636 | 1060.77 | 6.00 |
| OP 26 | 26 | 47.396352 | -120.330897 | 1101.10 | 6.00 |
| OP 27 | 27 | 47.403571 | -120.305126 | 799.45 | 6.00 |
| OP 28 | 28 | 47.461693 | -120.321954 | 622.59 | 6.00 |
| OP 29 | 29 | 47.445528 | -120.318044 | 635.86 | 6.00 |
| OP 30 | 30 | 47.424753 | -120.306090 | 630.65 | 6.00 |
| OP 31 | 31 | 47.470108 | -120.346377 | 826.91 | 6.00 |

Route Receptor(s)

Name: 4th Street SE

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.398660 | -120.190322 | 1238.47 | 9.00 | 1247.47 |
| 2 | 47.398776 | -120.170452 | 1235.41 | 9.00 | 1244.41 |
| 3 | 47.398602 | -120.154702 | 1152.03 | 9.00 | 1161.03 |

Name: Badger Mountain Road - North

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.521243 | -120.201479 | 3352.48 | 9.00 | 3361.48 |
| 2 | 47.521243 | -120.189764 | 3309.78 | 9.00 | 3318.78 |
| 3 | 47.521214 | -120.175473 | 3281.72 | 9.00 | 3290.72 |
| 4 | 47.521330 | -120.163886 | 3239.18 | 9.00 | 3248.18 |

Name: Badger Mountain Road - Northern Central

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.504264 | -120.197514 | 3119.23 | 9.00 | 3128.24 |
| 2 | 47.502104 | -120.197493 | 3123.70 | 9.00 | 3132.70 |
| 3 | 47.499249 | -120.197021 | 3210.55 | 9.00 | 3219.55 |
| 4 | 47.492812 | -120.197042 | 3280.06 | 9.00 | 3289.06 |

Name: Badger Mountain Road - South

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.468933 | -120.227462 | 2286.01 | 9.00 | 2295.01 |
| 2 | 47.461854 | -120.231753 | 2140.20 | 9.00 | 2149.20 |
| 3 | 47.461012 | -120.233213 | 2107.30 | 9.00 | 2116.30 |

Name: Badger Mountain Road - Southern Central

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



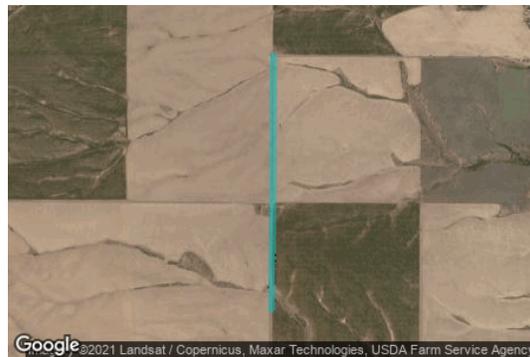
| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.487433 | -120.229541 | 2842.10 | 9.00 | 2851.10 |
| 2 | 47.484112 | -120.228468 | 2710.93 | 9.00 | 2719.93 |
| 3 | 47.481099 | -120.226625 | 2647.51 | 9.00 | 2656.51 |
| 4 | 47.479562 | -120.226238 | 2611.93 | 9.00 | 2620.93 |
| 5 | 47.476444 | -120.226689 | 2521.87 | 9.00 | 2530.87 |

Name: Kern Road

Path type: Two-way

Observer view angle: 50.0°

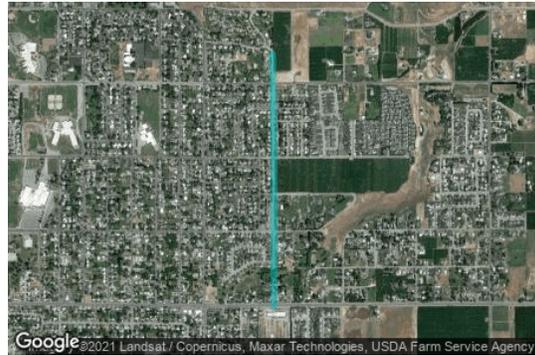
Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.470678 | -120.175638 | 3091.91 | 9.00 | 3100.91 |
| 2 | 47.463425 | -120.175681 | 3126.20 | 9.00 | 3135.20 |
| 3 | 47.458260 | -120.175767 | 3096.80 | 9.00 | 3105.80 |

Name: North Lyle Avenue
Path type: Two-way
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.418221 | -120.255528 | 1218.62 | 9.00 | 1227.62 |
| 2 | 47.413081 | -120.255421 | 1087.68 | 9.00 | 1096.68 |
| 3 | 47.405849 | -120.255421 | 1027.67 | 9.00 | 1036.67 |

Name: Road 9 SW
Path type: Two-way
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.478283 | -120.212940 | 3448.50 | 9.00 | 3457.50 |
| 2 | 47.478080 | -120.195645 | 3277.98 | 9.00 | 3286.98 |
| 3 | 47.477964 | -120.179380 | 3115.59 | 9.00 | 3124.59 |

Name: SW Road 11 Extension

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.444451 | -120.154362 | 2894.99 | 9.00 | 2903.99 |
| 2 | 47.441371 | -120.154346 | 2928.05 | 9.00 | 2937.05 |
| 3 | 47.438256 | -120.154343 | 2958.41 | 9.00 | 2967.41 |
| 4 | 47.433519 | -120.154375 | 2976.53 | 9.00 | 2985.53 |
| 5 | 47.429354 | -120.154268 | 3024.92 | 9.00 | 3033.92 |

GLARE ANALYSIS RESULTS

Summary of Glare

| PV Array Name | Tilt | Orient | "Green" Glare | "Yellow" Glare | Energy |
|---------------|----------------|----------------|---------------|----------------|--------|
| | (°) | (°) | min | min | kWh |
| PV array 1 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 10 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 11 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 12 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 13 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 14 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 15 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 16 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 17 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 18 | SA tracking | SA tracking | 35 | 0 | - |
| PV array 19 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 2 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 3 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 4 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 5 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 6 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 7 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 8 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 9 | SA tracking | SA tracking | 0 | 0 | - |

Total annual glare received by each receptor

| Receptor | Annual Green Glare (min) | Annual Yellow Glare (min) |
|--|---------------------------------|----------------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 35 | 0 |
| SW Road 11 Extension | 0 | 0 |

Results for: PV array 1

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 10

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 11

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 12

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 13

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 14

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 15

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 16

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 17

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 18

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 35 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

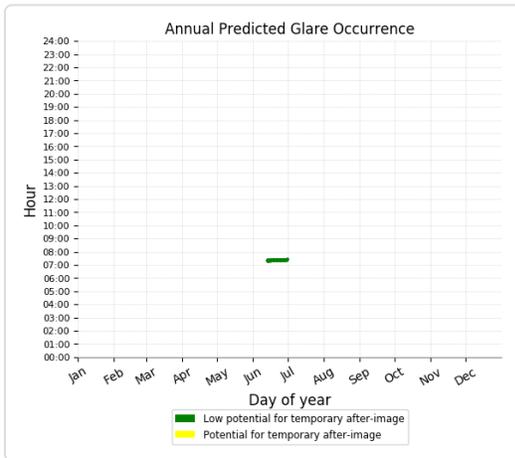
0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

35 minutes of green glare



Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 19

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 2

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 3

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 4

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 5

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 6

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 7

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare

0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare
0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare
0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare
0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare
0 minutes of green glare

Results for: PV array 8

| Receptor | Green Glare (min) | Yellow Glare (min) |
|--|-------------------|--------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------------------|-------------------|--------------------|
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare
0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 9

| Receptor | Green Glare (min) | Yellow Glare (min) |
|-----------------|--------------------------|---------------------------|
| OP 1 | 0 | 0 |
| OP 2 | 0 | 0 |
| OP 3 | 0 | 0 |
| OP 4 | 0 | 0 |
| OP 5 | 0 | 0 |
| OP 6 | 0 | 0 |
| OP 7 | 0 | 0 |
| OP 8 | 0 | 0 |
| OP 9 | 0 | 0 |
| OP 10 | 0 | 0 |
| OP 11 | 0 | 0 |
| OP 12 | 0 | 0 |
| OP 13 | 0 | 0 |
| OP 14 | 0 | 0 |
| OP 15 | 0 | 0 |
| OP 16 | 0 | 0 |
| OP 17 | 0 | 0 |
| OP 18 | 0 | 0 |
| OP 19 | 0 | 0 |
| OP 20 | 0 | 0 |
| OP 21 | 0 | 0 |
| OP 22 | 0 | 0 |
| OP 23 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|---|-------------------|--------------------|
| OP 24 | 0 | 0 |
| OP 25 | 0 | 0 |
| OP 26 | 0 | 0 |
| OP 27 | 0 | 0 |
| OP 28 | 0 | 0 |
| OP 29 | 0 | 0 |
| OP 30 | 0 | 0 |
| OP 31 | 0 | 0 |
| 4th Street SE | 0 | 0 |
| Badger Mountain Road - North | 0 | 0 |
| Badger Mountain Road - Northern Central | 0 | 0 |
| Badger Mountain Road - South | 0 | 0 |
| Badger Mountain Road - Southern Central | 0 | 0 |
| Kern Road | 0 | 0 |
| North Lyle Avenue | 0 | 0 |
| Road 9 SW | 0 | 0 |
| SW Road 11 Extension | 0 | 0 |

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 13

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 15

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 16

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 17

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 18

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 19

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 20

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 21

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 22

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 23

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 25

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 26

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 27

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 28

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 29

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 30

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 31

0 minutes of yellow glare
0 minutes of green glare

Route: 4th Street SE

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - North

0 minutes of yellow glare
0 minutes of green glare

Route: Badger Mountain Road - Northern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - South

0 minutes of yellow glare

0 minutes of green glare

Route: Badger Mountain Road - Southern Central

0 minutes of yellow glare

0 minutes of green glare

Route: Kern Road

0 minutes of yellow glare

0 minutes of green glare

Route: North Lyle Avenue

0 minutes of yellow glare

0 minutes of green glare

Route: Road 9 SW

0 minutes of yellow glare

0 minutes of green glare

Route: SW Road 11 Extension

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.



FORGESOLAR GLARE ANALYSIS

Project: **Badger Mnt**

Proposed >100 MW solar array near Wanatchee, WA

Site configuration: **Analysis 3- Badger Mnt FAA with DNR**

Analysis conducted by Drew Timmis (drew.timmis@tetrattech.com) at 19:20 on 30 Jul, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

| COMPONENT | STATUS | DESCRIPTION |
|-----------------------|--------|--|
| Analysis parameters | PASS | Analysis time interval and eye characteristics used are acceptable |
| 2-mile flight path(s) | PASS | Flight path receptor(s) do not receive yellow glare |
| ATCT(s) | N/A | No ATCT receptors designated |

Default glare analysis parameters and observer eye characteristics (for reference only):

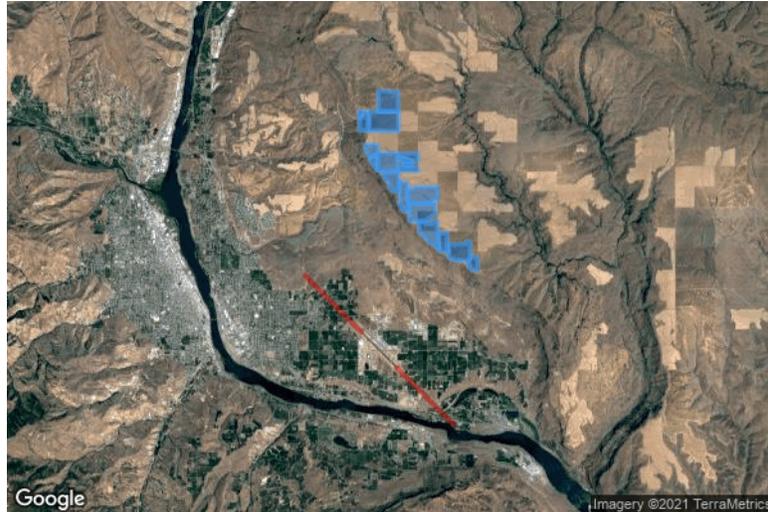
- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m²
 Time interval: 1 min
 Ocular transmission coefficient: 0.5
 Pupil diameter: 0.002 m
 Eye focal length: 0.017 m
 Sun subtended angle: 9.3 mrad
 Site Config ID: 56696.10047



PV Array(s)

Name: PV array 1
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 2.33°
Tracking axis panel offset: 0.0°
Max tracking angle: 60.0°
Resting angle: 40.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.432892 | -120.155287 | 2984.71 | 7.00 | 2991.71 |
| 2 | 47.432137 | -120.155297 | 3002.70 | 7.00 | 3009.70 |
| 3 | 47.432152 | -120.154536 | 3005.80 | 7.00 | 3012.81 |
| 4 | 47.428029 | -120.154514 | 3041.22 | 7.00 | 3048.22 |
| 5 | 47.428084 | -120.157905 | 3044.16 | 7.00 | 3051.16 |
| 6 | 47.429155 | -120.159364 | 3028.24 | 7.00 | 3035.24 |
| 7 | 47.431339 | -120.159517 | 3034.39 | 7.00 | 3041.39 |
| 8 | 47.432861 | -120.158473 | 3005.75 | 7.00 | 3012.75 |

Name: PV array 10

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.1°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.470186 | -120.196658 | 3289.00 | 7.00 | 3296.00 |
| 2 | 47.470253 | -120.186530 | 3182.11 | 7.00 | 3189.11 |
| 3 | 47.467461 | -120.186550 | 3173.95 | 7.00 | 3180.95 |
| 4 | 47.467481 | -120.189725 | 3209.18 | 7.00 | 3216.19 |
| 5 | 47.468508 | -120.195142 | 3288.92 | 7.00 | 3295.92 |
| 6 | 47.468497 | -120.196575 | 3302.12 | 7.00 | 3309.12 |

Name: PV array 11

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.02°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.468469 | -120.195151 | 3288.37 | 7.00 | 3295.37 |
| 2 | 47.467447 | -120.189726 | 3209.97 | 7.00 | 3216.97 |
| 3 | 47.466459 | -120.189762 | 3203.40 | 7.00 | 3210.40 |
| 4 | 47.466541 | -120.195148 | 3281.24 | 7.00 | 3288.24 |

Name: PV array 12

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.91°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.466496 | -120.194153 | 3269.46 | 7.00 | 3276.46 |
| 2 | 47.466422 | -120.189764 | 3205.48 | 7.00 | 3212.48 |
| 3 | 47.465009 | -120.189747 | 3212.40 | 7.00 | 3219.40 |
| 4 | 47.465070 | -120.194122 | 3254.66 | 7.00 | 3261.66 |

Name: PV array 13

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.41°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.464678 | -120.196789 | 3300.62 | 7.00 | 3307.62 |
| 2 | 47.463833 | -120.196761 | 3303.19 | 7.00 | 3310.19 |
| 3 | 47.463819 | -120.186547 | 3196.19 | 7.00 | 3203.19 |
| 4 | 47.464958 | -120.186540 | 3194.31 | 7.00 | 3201.31 |
| 5 | 47.465064 | -120.194489 | 3268.32 | 7.00 | 3275.32 |
| 6 | 47.464678 | -120.194472 | 3271.06 | 7.00 | 3278.06 |

Name: PV array 14

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.69°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.464281 | -120.208138 | 3412.99 | 7.00 | 3419.99 |
| 2 | 47.464293 | -120.208776 | 3419.56 | 7.00 | 3426.56 |
| 3 | 47.467694 | -120.212488 | 3401.50 | 7.00 | 3408.50 |
| 4 | 47.469200 | -120.212501 | 3390.18 | 7.00 | 3397.18 |
| 5 | 47.469219 | -120.208019 | 3344.39 | 7.00 | 3351.39 |

Name: PV array 15

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.44°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.469231 | -120.208022 | 3344.39 | 7.00 | 3351.39 |
| 2 | 47.469217 | -120.212519 | 3390.77 | 7.00 | 3397.77 |
| 3 | 47.471232 | -120.214861 | 3424.38 | 7.00 | 3431.38 |
| 4 | 47.473320 | -120.214793 | 3425.82 | 7.00 | 3432.82 |
| 5 | 47.473309 | -120.208200 | 3384.71 | 7.00 | 3391.71 |

Name: PV array 16

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.26°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485350 | -120.212690 | 3374.71 | 7.00 | 3381.72 |
| 2 | 47.478390 | -120.212770 | 3450.30 | 7.00 | 3457.30 |
| 3 | 47.478160 | -120.196990 | 3298.30 | 7.00 | 3305.30 |
| 4 | 47.485410 | -120.197090 | 3311.09 | 7.00 | 3318.09 |

Name: PV array 17

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.62°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485470 | -120.197070 | 3311.27 | 7.00 | 3318.27 |
| 2 | 47.492530 | -120.197290 | 3283.01 | 7.00 | 3290.01 |
| 3 | 47.492790 | -120.207780 | 3346.39 | 7.00 | 3353.39 |
| 4 | 47.485440 | -120.207730 | 3370.79 | 7.00 | 3377.79 |

Name: PV array 18

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.5°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485110 | -120.214040 | 3370.90 | 7.00 | 3377.90 |
| 2 | 47.484690 | -120.215420 | 3350.44 | 7.00 | 3357.44 |
| 3 | 47.482330 | -120.217940 | 3206.44 | 7.00 | 3213.44 |
| 4 | 47.478460 | -120.217890 | 3138.08 | 7.00 | 3145.08 |
| 5 | 47.478390 | -120.213410 | 3443.17 | 7.00 | 3450.17 |
| 6 | 47.482070 | -120.213390 | 3400.89 | 7.00 | 3407.89 |

Name: PV array 19

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 4.5°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.485420 | -120.218360 | 3429.81 | 7.00 | 3436.81 |
| 2 | 47.482890 | -120.218030 | 3243.03 | 7.00 | 3250.03 |
| 3 | 47.485410 | -120.215650 | 3387.04 | 7.00 | 3394.04 |

Name: PV array 2

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.89°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.431342 | -120.159533 | 3034.38 | 7.00 | 3041.38 |
| 2 | 47.431403 | -120.166578 | 3066.09 | 7.00 | 3073.09 |
| 3 | 47.432394 | -120.170033 | 3057.75 | 7.00 | 3064.75 |
| 4 | 47.437343 | -120.170767 | 3049.53 | 7.00 | 3056.53 |
| 5 | 47.437378 | -120.160742 | 3001.14 | 7.00 | 3008.14 |
| 6 | 47.438281 | -120.160742 | 2991.76 | 7.00 | 2998.76 |
| 7 | 47.438331 | -120.158747 | 2988.58 | 7.00 | 2995.58 |
| 8 | 47.432870 | -120.158490 | 3006.06 | 7.00 | 3013.06 |

Name: PV array 3

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.21°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.434670 | -120.170379 | 3072.29 | 7.00 | 3079.29 |
| 2 | 47.434789 | -120.175186 | 3081.58 | 7.00 | 3088.58 |
| 3 | 47.436042 | -120.175378 | 3108.66 | 7.00 | 3115.66 |
| 4 | 47.441456 | -120.176028 | 3075.24 | 7.00 | 3082.24 |
| 5 | 47.441443 | -120.170785 | 3057.28 | 7.00 | 3064.28 |
| 6 | 47.435900 | -120.170923 | 3053.94 | 7.00 | 3060.94 |
| 7 | 47.437353 | -120.170804 | 3049.84 | 7.00 | 3056.84 |

Name: PV array 4

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.27°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.435810 | -120.175383 | 3107.44 | 7.00 | 3114.44 |
| 2 | 47.438106 | -120.180703 | 3137.92 | 7.00 | 3144.92 |
| 3 | 47.441786 | -120.185894 | 3198.50 | 7.00 | 3205.50 |
| 4 | 47.445650 | -120.186019 | 3198.63 | 7.00 | 3205.63 |
| 5 | 47.445687 | -120.182527 | 3151.04 | 7.00 | 3158.04 |
| 6 | 47.444865 | -120.182525 | 3148.23 | 7.00 | 3155.23 |
| 7 | 47.444897 | -120.178872 | 3128.07 | 7.00 | 3135.07 |
| 8 | 47.445746 | -120.178860 | 3124.33 | 7.00 | 3131.33 |
| 9 | 47.445742 | -120.176085 | 3103.74 | 7.00 | 3110.74 |
| 10 | 47.441453 | -120.176075 | 3076.18 | 7.00 | 3083.18 |

Name: PV array 5

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 3.21°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.445706 | -120.182642 | 3151.67 | 7.00 | 3158.67 |
| 2 | 47.445639 | -120.190842 | 3241.46 | 7.00 | 3248.46 |
| 3 | 47.452107 | -120.191646 | 3241.27 | 7.00 | 3248.27 |
| 4 | 47.452236 | -120.177108 | 3074.99 | 7.00 | 3081.99 |
| 5 | 47.448258 | -120.177217 | 3097.16 | 7.00 | 3104.16 |

Name: PV array 6

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.44°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.449164 | -120.191307 | 3254.80 | 7.00 | 3261.80 |
| 2 | 47.449097 | -120.194011 | 3254.41 | 7.00 | 3261.41 |
| 3 | 47.451400 | -120.196475 | 3290.40 | 7.00 | 3297.40 |
| 4 | 47.459833 | -120.196686 | 3303.69 | 7.00 | 3310.69 |
| 5 | 47.459800 | -120.192242 | 3261.50 | 7.00 | 3268.50 |
| 6 | 47.452083 | -120.191711 | 3240.90 | 7.00 | 3247.90 |

Name: PV array 7

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 3.05°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.452126 | -120.191680 | 3241.21 | 7.00 | 3248.21 |
| 2 | 47.457321 | -120.191992 | 3262.11 | 7.00 | 3269.11 |
| 3 | 47.457411 | -120.189622 | 3239.89 | 7.00 | 3246.89 |
| 4 | 47.458108 | -120.187925 | 3222.10 | 7.00 | 3229.10 |
| 5 | 47.458117 | -120.176033 | 3101.76 | 7.00 | 3108.76 |
| 6 | 47.453483 | -120.175994 | 3090.01 | 7.00 | 3097.01 |
| 7 | 47.453050 | -120.179036 | 3084.07 | 7.00 | 3091.07 |
| 8 | 47.452237 | -120.179196 | 3093.46 | 7.00 | 3100.46 |

Name: PV array 8

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 1.97°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.456444 | -120.196775 | 3284.16 | 7.00 | 3291.16 |
| 2 | 47.456536 | -120.200214 | 3300.22 | 7.00 | 3307.22 |
| 3 | 47.457819 | -120.201911 | 3316.22 | 7.00 | 3323.23 |
| 4 | 47.460083 | -120.202017 | 3328.14 | 7.00 | 3335.14 |
| 5 | 47.460133 | -120.203497 | 3345.64 | 7.00 | 3352.64 |
| 6 | 47.463433 | -120.206117 | 3396.37 | 7.00 | 3403.37 |
| 7 | 47.463428 | -120.197236 | 3302.74 | 7.00 | 3309.74 |

Name: PV array 9

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 2.71°

Tracking axis panel offset: 0.0°

Max tracking angle: 60.0°

Resting angle: 40.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



| Vertex | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|--------|--------------|---------------|-----------------------|--------------------------|----------------------|
| 1 | 47.463836 | -120.197433 | 3309.57 | 7.00 | 3316.57 |
| 2 | 47.463919 | -120.206420 | 3400.80 | 7.00 | 3407.80 |
| 3 | 47.464161 | -120.208117 | 3413.87 | 7.00 | 3420.87 |
| 4 | 47.470222 | -120.207980 | 3360.94 | 7.00 | 3367.94 |
| 5 | 47.470211 | -120.197439 | 3277.55 | 7.00 | 3284.55 |

Flight Path Receptor(s)

Name: FP 1

Description:

Threshold height: 60 ft

Direction: 135.0°

Glide slope: 3.6°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



| Point | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|-----------|--------------|---------------|-----------------------|--------------------------|----------------------|
| Threshold | 47.405426 | -120.216823 | 1209.10 | 60.00 | 1269.11 |
| Two-mile | 47.425870 | -120.247065 | 1442.21 | 491.30 | 1933.52 |

Name: FP 2

Description:

Threshold height: 46 ft

Direction: 315.0°

Glide slope: 4.3°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



| Point | Latitude (°) | Longitude (°) | Ground elevation (ft) | Height above ground (ft) | Total elevation (ft) |
|-----------|--------------|---------------|-----------------------|--------------------------|----------------------|
| Threshold | 47.392499 | -120.197798 | 1224.16 | 46.00 | 1270.17 |
| Two-mile | 47.372055 | -120.167563 | 636.47 | 1427.75 | 2064.22 |

GLARE ANALYSIS RESULTS

Summary of Glare

| PV Array Name | Tilt | Orient | "Green" Glare | "Yellow" Glare | Energy |
|---------------|----------------|----------------|---------------|----------------|--------|
| | (°) | (°) | min | min | kWh |
| PV array 1 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 10 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 11 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 12 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 13 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 14 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 15 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 16 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 17 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 18 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 19 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 2 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 3 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 4 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 5 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 6 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 7 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 8 | SA tracking | SA tracking | 0 | 0 | - |
| PV array 9 | SA tracking | SA tracking | 0 | 0 | - |

Total annual glare received by each receptor

| Receptor | Annual Green Glare (min) | Annual Yellow Glare (min) |
|----------|--------------------------|---------------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Results for: PV array 1

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 10

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 11

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 12

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 13

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 14

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 15

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 16

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 17

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 18

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 19

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 2

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 3

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 4

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 5

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 6

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 7

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 8

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Results for: PV array 9

| Receptor | Green Glare (min) | Yellow Glare (min) |
|----------|-------------------|--------------------|
| FP 1 | 0 | 0 |
| FP 2 | 0 | 0 |

Flight Path: FP 1

0 minutes of yellow glare

0 minutes of green glare

Flight Path: FP 2

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Appendix C: FAA Notice Criteria Tool Report

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Notice Criteria Tool

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

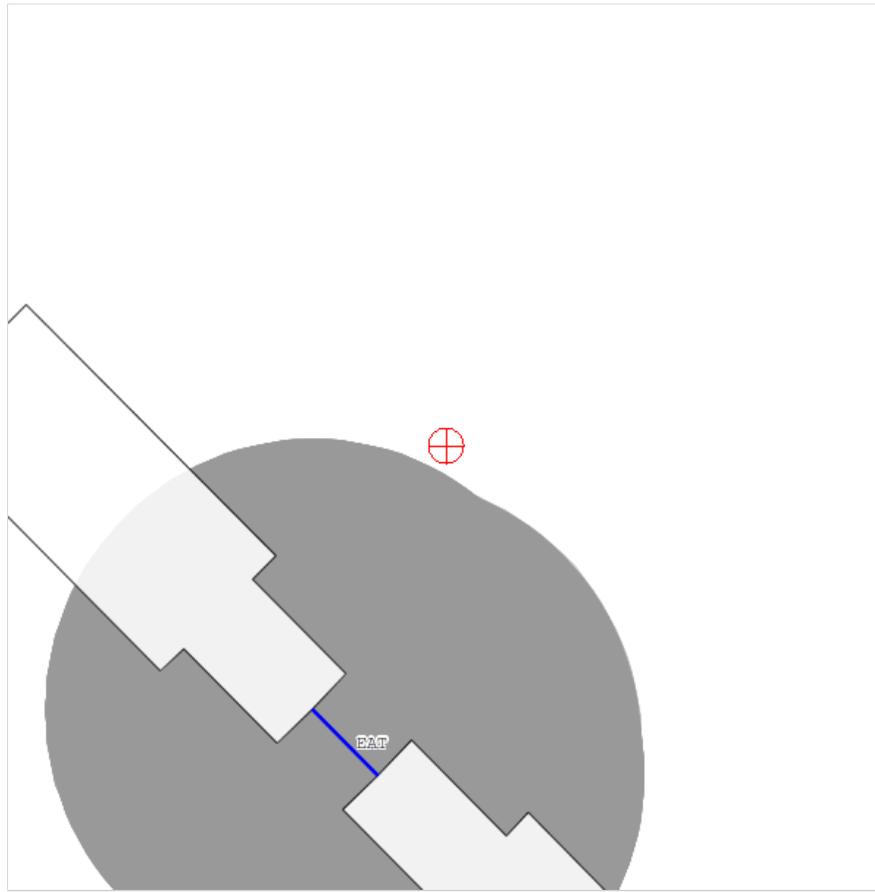
| | | | | |
|---------------------------------|---|-----------------------------------|--------------------------------------|---|
| Latitude: | <input type="text" value="47"/> Deg | <input type="text" value="27"/> M | <input type="text" value="32.99"/> S | <input type="button" value="N"/> <input type="button" value="S"/> |
| Longitude: | <input type="text" value="120"/> Deg | <input type="text" value="10"/> M | <input type="text" value="35.82"/> S | <input type="button" value="W"/> <input type="button" value="E"/> |
| Horizontal Datum: | <input type="button" value="NAD83"/> | | | |
| Site Elevation (SE): | <input type="text" value="3131"/> (nearest foot) | | | |
| Structure Height : | <input type="text" value="14"/> (nearest foot) | | | |
| Traverseway: | <input type="button" value="No Traverseway"/> | | | |
| | <small>(Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway</small> | | | |
| Is structure on airport: | <input checked="" type="radio"/> No <input type="radio"/> Yes | | | |

Results

You exceed the following Notice Criteria:

Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file.

The FAA requests that you file





Notice Criteria Tool

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

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- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

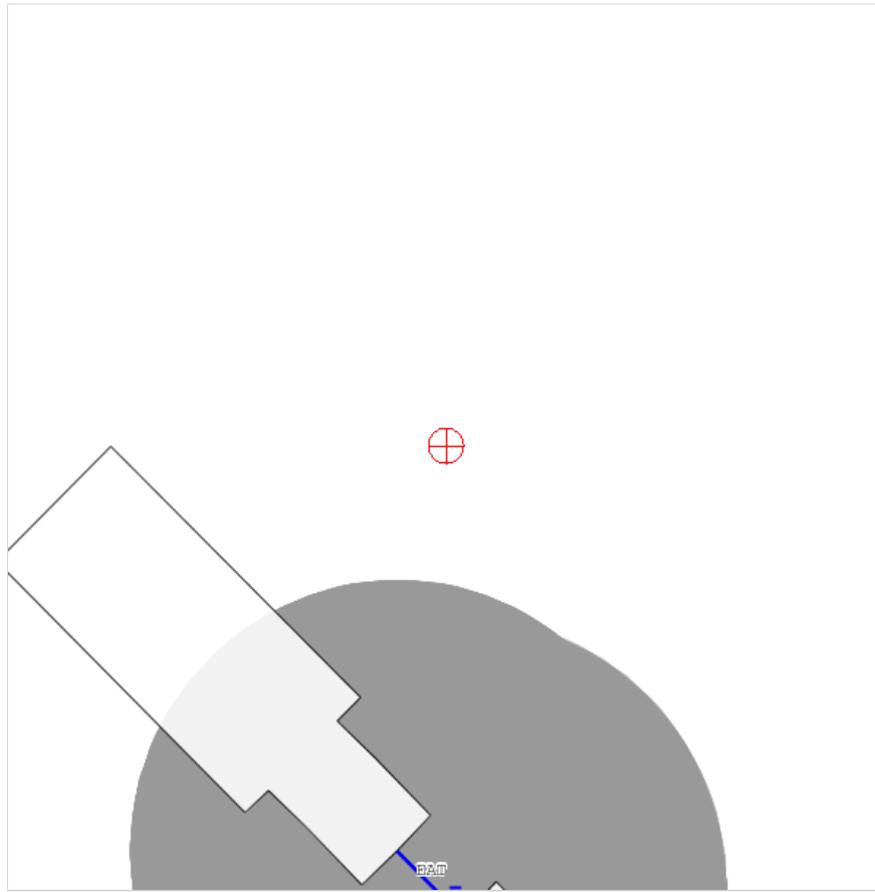
If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | | | | |
|---------------------------------|---|-----------------------------------|--------------------------------------|---|
| Latitude: | <input type="text" value="47"/> Deg | <input type="text" value="29"/> M | <input type="text" value="16.68"/> S | <input type="button" value="N"/> <input type="button" value="▼"/> |
| Longitude: | <input type="text" value="120"/> Deg | <input type="text" value="12"/> M | <input type="text" value="8.55"/> S | <input type="button" value="W"/> <input type="button" value="▼"/> |
| Horizontal Datum: | <input type="button" value="NAD83"/> <input type="button" value="▼"/> | | | |
| Site Elevation (SE): | <input type="text" value="3327"/> (nearest foot) | | | |
| Structure Height : | <input type="text" value="14"/> (nearest foot) | | | |
| Traverseway: | <input type="button" value="No Traverseway"/> <input type="button" value="▼"/> | | | |
| | <small>(Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway</small> | | | |
| Is structure on airport: | <input checked="" type="radio"/> No <input type="radio"/> Yes | | | |

Results

You do not exceed Notice Criteria.





Notice Criteria Tool

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | | | | |
|---------------------------------|---|-----------------------------------|--------------------------------------|---|
| Latitude: | <input type="text" value="47"/> Deg | <input type="text" value="25"/> M | <input type="text" value="38.97"/> S | <input type="button" value="N"/> <input type="button" value="S"/> |
| Longitude: | <input type="text" value="120"/> Deg | <input type="text" value="9"/> M | <input type="text" value="17.20"/> S | <input type="button" value="W"/> <input type="button" value="E"/> |
| Horizontal Datum: | <input type="button" value="NAD83"/> | | | |
| Site Elevation (SE): | <input type="text" value="3047"/> (nearest foot) | | | |
| Structure Height : | <input type="text" value="14"/> (nearest foot) | | | |
| Traverseway: | <input type="button" value="No Traverseway"/> | | | |
| | <small>(Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway</small> | | | |
| Is structure on airport: | <input checked="" type="radio"/> No <input type="radio"/> Yes | | | |

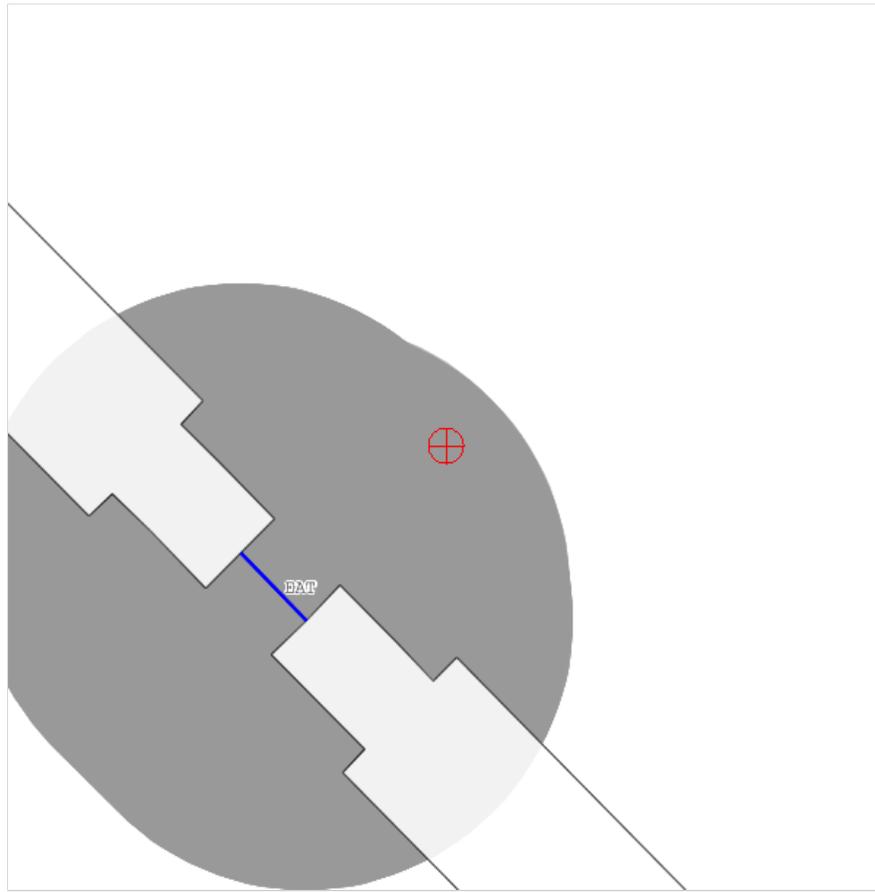
Results

You exceed the following Notice Criteria:

Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file.

77.9(b) by 1669 ft. The nearest airport is EAT, and the nearest runway is 12/30.

The FAA requests that you file





Notice Criteria Tool

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | | | | |
|---------------------------------|---|-----------------------------------|--------------------------------------|---|
| Latitude: | <input type="text" value="47"/> Deg | <input type="text" value="26"/> M | <input type="text" value="23.95"/> S | <input type="button" value="N"/> <input type="button" value="v"/> |
| Longitude: | <input type="text" value="120"/> Deg | <input type="text" value="10"/> M | <input type="text" value="59.67"/> S | <input type="button" value="W"/> <input type="button" value="v"/> |
| Horizontal Datum: | <input type="button" value="NAD83"/> <input type="button" value="v"/> | | | |
| Site Elevation (SE): | <input type="text" value="3164"/> (nearest foot) | | | |
| Structure Height : | <input type="text" value="14"/> (nearest foot) | | | |
| Traverseway: | <input type="button" value="No Traverseway"/> <input type="button" value="v"/> | | | |
| | <small>(Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway</small> | | | |
| Is structure on airport: | <input checked="" type="radio"/> No <input type="radio"/> Yes | | | |

Results

You exceed the following Notice Criteria:

Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file.

77.9(b) by 1812 ft. The nearest airport is EAT, and the nearest runway is 12/30.

The FAA requests that you file

