

West Linn Solar Highway Public Comment and Responses



Project Status

In March 2010, ODOT completed a comprehensive feasibility study of the proposed West Linn Solar Highway Project site. The West Linn Solar Highway Project is a 3-megawatt photovoltaic solar array proposed for a maintenance and storage yard adjacent to Interstate 205 in West Linn, Oregon. The project could produce up to 3,500 megawatt-hours of pollution free electricity per year — enough to meet approximately 18% of ODOT's annual electricity needs in Portland General Electric's service territory.

The West Linn site will now be included in ODOT's solar highway project site inventory. The timing of construction is dependent upon securing financing. The project financing is not expected before 2011. At the time financing is expected, ODOT will enter into the City of West Linn's permitting process. Permitting typically takes seven to nine months to complete and will include additional opportunity for public input. Construction of the project would begin after the land use and construction permitting processes are completed.

Overview of Recent Public Process

ODOT posted the findings of its review of the feasibility and suitability of the proposed West Linn Solar Highway Project on its website on March 12, 2010. The posting included a summary document that highlighted the findings of the analyses, along with web links to each specific study. This summary document and the underlying technical analysis can be accessed online at: http://www.oregon.gov/ODOT/COMM/WestLinn_Research_Reports.shtml

On March 30th 2010 ODOT hosted an informal open house in West Linn to share the findings of its review of the feasibility and suitability of the proposed West Linn Solar Highway Project. At the meeting ODOT distributed copies of the summary document and technical staff were present to answer questions. In addition, printed copies of the technical documents were available to review at the meeting.

Following the open house the summary document was mailed to all residences in the Barrington Heights, Hidden Creek Estates, and Tanner Creek Neighborhood Associations.

The public was invited to offer comments on the feasibility analysis and the project in general. Comments were accepted at the open house, via standard mail and electronically either through email or ODOT's website. Comments were accepted through April 30, 2010. Since the release of the findings of the site feasibility analysis ODOT has received 49 public comments on the project.

There were no new issues raised during the comment period that ODOT has not already addressed with technical analysis and/or research. Some issues, such as the land use review process, tree cutting permit, and project financing structure are still yet to be finalized and are things that will be more fully addressed if the project moves to the final design and construction stage. No conflicting technical analysis has been submitted that changes the suitability of the site for the project.

Below is a summary and response to the comments and questions received.

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Summary of Comments and Response by Topic:

Project Financing and Paybacks

Comment: Several people expressed concern about the economic feasibility and the appropriateness of the project's financing model and renewable energy development in the state in general.

Response: Continued growth in demand for nonrenewable energy forms poses a serious and immediate, as well as future, problem. It is essential that future generations not be left a legacy of vanished or depleted resources, resulting in massive environmental, social and financial impact.

While it is true that unsubsidized photovoltaic solar power tends to cost more per kilowatt-hour of electricity generated when compared to conventional fossil fuel generation, such a comparison ignores other important public values.

In recognition of these public values, the State of Oregon has established a number of policies and incentives to promote research and development of new renewable energy sources in the state. These policies are designed to reduce our state's reliance on fossil fuels for electricity generation and to increase its use of renewable energy resources in order to accelerate the transition to a cleaner, more reliable and more affordable energy system.

The policies include a requirement that 25% of Oregon's private utilities, such as Portland General Electric, retail electricity sales must come from new renewable energy sources, such as wind and solar power. The law specifically favors new solar resources over other renewable resources. Additionally the Legislature has enacted a Business Energy Tax Credit (BETC) to encourage investment in energy efficiency and renewable energy sources. The Oregon Legislature specifically designed the BETC to enable collaboration between the public and private sectors in these types of investments.

ODOT's approach to developing solar highway projects is to develop innovative public-private partnerships to take advantage of the incentives and policy frameworks established by state and federal lawmakers. Such an approach helps to lower project costs and enables ODOT to attract private sector investments to construct solar highway projects. If the legislature alters its policies on renewable energy development, ODOT will follow the guidance the Oregon legislature provides. ODOT can only use the financing tools made available under the law.

Wetlands

Comment: Some people wondered about the applicability of the City of West Linn's Community Development Code's rules related to "Water Resource Area Protection."

Response: All ODOT projects must comply with state and local land use regulations. If and when ODOT and project partners formally initiate the City's permit process, ODOT will submit a site plan that will be subject to all of the requirements in the Community Development Code that are determined to apply to the highway right-of-way, including provisions related to water resource protection. As part of the final design process for the solar array, civil engineers will

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determine the best cost-effective and context sensitive solution to deal with the rainwater pattern that exists at the site.

The one 0.54 acre isolated non-jurisdictional wetland identified in the Wetlands and Waters Delineation Report that is proposed to be filled may not be subject to the setback or mitigation requirements of the Community Development Code if it does not meet the definition of “wetlands” set forth in the City’s code. If it is determined to be subject to the City’s code, those standards will be addressed in the land use application that is required by the City for the project. The 0.54 acre wetland that is proposed to be filled does not require a fill permit under state or federal regulations. That determination was made by the state and federal wetland regulatory agencies upon their review of the *Wetlands/Waters Delineation Report*. The Oregon Division of State Lands is not taking jurisdiction over the 0.54 acre area because it did not exist under original natural site conditions (prior to the landslide). It’s there because of the way the site drainage formed after the massive site grading that had to be done to stabilize the site after the landslide, which occurred during the construction of I-205. The federal regulatory agency, US Army Corps of Engineers, is not taking jurisdiction over the area for a different reason. While they do regulate “man-made” wetlands, they do not regulate wetlands that do not connect to state or federal waters. Water that created the 0.54 acre wetland comes from rainwater that slowly seeps through the site and finds the path of least resistance through the underground rock that forms the middle flat part of the site, onto the lower flat part (referred to as a “bench”). The water then sits on the lower bench where it cannot infiltrate due to solid rock 8 inches below the topsoil surface. That is what created the changes to the soil which in turn allowed wetland plants to start establishing themselves. The water slowly drains toward the freeway on the lower bench. Before getting to the south edge of the bench, the water soaks back into the site and disappears.

Noise

Comment: Several people questioned if the installation of the proposed array would increase noise levels during rain events.

Response: Given the distance between the proposed arrays and the nearest residences it is unlikely that the sound of rain on solar panels will be perceptible to human ears. Additionally, the topography of the site will shield the transmittal of this noise source to nearby residents. Moreover, residents typically would be inside when rains falls and the combined noise of the rain on their roof, gutters, and hard ground surfaces around their houses or roads would likely be louder than any minimal increase in sound levels from rain on solar panels.

Comment: Other people questioned the potential effects of displaced vegetation would increase noise levels from I-205.

Response: Vegetation can only attenuate and provide noticeable reduction of noise levels if it is tall enough, wide enough and dense enough that it cannot be seen through.

To accommodate the solar arrays and maximize the potential for electricity generation, the proposed project does require the removal of a number of trees from the lower and upper benches. ODOT’s Noise Report concluded that the density of these trees located in the line of sight between residences and the freeway is not sufficient to significantly reduce traffic noise

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and that their removal will not result in a clearly noticeable increase in noise levels compared to existing conditions.

Additionally, the sound-reflective surfaces of the panels that are being placed on the site are at a 30-degree angle which will result in any noise being reflected back towards the freeway, away from residences located west and north of the project site and high above the residences located to the east and across the river in Oregon City.

Any added volume from rain or hail on the array would not be heard from inside adjacent structures or vehicles, which is where people would most likely be during such events.

Potential for Increased Crime and Vandalism

Comment: Several people indicated concern that the proposed solar array in combination with the City of West Linn's proposal for a bicycle and pedestrian pathway connecting Imperial Drive and South Salamo Road could result in greater neighborhood traffic volumes, and/or increase the potential for crime and vandalism.

Response: The proposed solar array will feature a number of security features similar to those at ODOT's existing solar highway project at the I-5 and I-205 interchange near Tualatin. These measures will provide a more robust security presence at the site when compared to existing conditions. As currently designed, the site security features include:

- A six foot fence with razor wire;
- Motion detection and electrical current interruption sensing equipment;
- Security lighting;
- Cameras that can observe the solar site from any angle;
- A 24-hour security response service; and,
- "No Trespassing" signage indicating potential penalties

The proposed solar project will not create new public access points or a visitor center and therefore will not result in any significant impact to local traffic volumes.

The proposal for a bicycle and pedestrian greenway trail is not integral to the development of the proposed solar array. While ODOT is cooperating with the City of West Linn on the matter by ensuring that the solar project design would not prohibit a bicycle/pedestrian through connection, the trail would be separate and distinct from the current proposed project and subject to its own design, environmental, and funding processes.

This separate process will evaluate that project's potential impacts to the human and natural environment and other issues of concern raised by the public such as potential increased incidents of crime, impacts to local traffic flows and effects on property values. Follow on questions or comments about the proposed bicycle and pedestrian trails should be directed to the City of West Linn.

It should be noted that numerous academic studies have failed to identify a correlation between the existence of multi-use trails and increased incidents of crime. On the contrary, the literature

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suggests that such public amenities in fact deter crime and increase quality of life and property values (see for example “Rails to Trails and Safe Communities: The Experience of 372 Trails” http://www.railstotrails.org/resources/documents/resource_docs/tgc_safecomm.pdf).

Impacts to Biological Resources and Adequacy of Biological Baseline Report

Comment: Several comments related to general concerns about potential impacts to wildlife and other biological resources.

Response: Wherever possible, ODOT seeks to avoid impacts to sensitive biological resources. In those circumstances where a proposed project may adversely impact sensitive resources, ODOT develops strategies to avoid, minimize or mitigate these effects. At all times, projects are required to comply with state and federal environmental regulations, including Oregon's and the Federal Endangered Species Act.

It is the responsibility of ODOT's biologists to evaluate a proposed project's potential to impact sensitive biological resources. This evaluation includes an on-site survey and a review of natural resources databases to assess the type and quality of habitat and document the presence or absence of special status species or their habitat. The results of this evaluation are presented in a *Biology Baseline Report*.

Based on the analysis presented in the *Biology Baseline Report*, an ODOT biologist concluded the proposed project is unlikely to have significant impacts to biological resources. This conclusion is based on the fact that there is no reason to believe that special status species inhabit the project area and no designated critical habitat or essential fish habitat is found within the project area.

This conclusion does not mean there will be no loss of ecological function associated with the development of the project. The *Biology Baseline Report* notes that the project does have the potential for small-scale temporary impacts to resident wildlife during construction and may result in some long-term loss of nesting and foraging habitat. Further, construction activities have the potential to spread non-native weed seeds and contribute sedimentation into the eastern and western intermittent streams and eventually fish bearing waterways.

Notably, the project has been designed to prevent even these minor impacts by avoiding construction activity within 50 feet of the stream drainages, limiting ground disturbing activities to times outside of migratory bird nesting and breeding periods and requiring weed suppression and native plant restoration.

Comment: Some comments questioned the adequacy and methodology of the Biological Baseline Report, given citizen wildlife observations and the extent of the on-site evaluations performed by ODOT biologists.

Response: A professional ODOT biologist prepared the Biological Baseline Report in accord with established ODOT practices, standards and procedures. These practices, standards and procedures exist to ensure compliance with state and federal environmental regulations. The Biological Baseline Report considered all available and relevant information in its analysis including citizen observations of various flora and fauna (see Appendix B of the Biological Baseline Report).

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Comment: One comment was received questioning the ecological impact of tree removal.

Response: The project would require removing as many as 268 trees. ODOT's policy requires planting two trees for every one removed. All necessary permits would be acquired prior to any tree removal. In addition, cut trees would be made available to other agencies, such as the Oregon Department of Fish and Wildlife, for off-site habitat enhancement. Some of the trees may be chipped and re-used on the site as mulch. ODOT is also interested in opportunities to leverage the tree replanting to support collaborative community-based habitat restoration projects.

Stormwater

Comment: One comment was received related to the proposed projects potential impact to stormwater runoff. The citizen expressed concern that the removal of site vegetation and the addition of impervious surfaces could result in flooding.

Response: In order to consider the potential change to stormwater runoff and nonpoint source pollution impacts, ODOT commissioned a *Stormwater Drainage Report*. The report was prepared by Parametrix, Inc.—an environmental, planning and civil engineering firm. The purpose of the report was to provide a preliminary analysis of how stormwater drainage patterns might be affected by the proposed project and determine if the proposed project would result in adverse impacts to water quality or floodways.

The proposed project will feature several low impact development techniques to manage stormwater runoff. The solar array will be arranged in rows along the existing site terraces with approximately twenty-foot vegetated strips in between panel rows to allow for stormwater infiltration. Excess stormwater not absorbed by the vegetated strip would be directed into shallow bio-swales along each row. Stormwater flow not absorbed in these swales would be carried down the terraces via proposed conveyance ditches and directed to the existing culvert that also carries the flow of the intermittent stream to the east.

The report concludes that the proposed stormwater management strategy will not create flooding conditions or circumstances, and as currently designed the stormwater management system may actually improve stormwater drainage flows in the project vicinity. These improvements would come by diverting stormwater flows currently directed toward the Bernert Creek, which currently has limited stormwater capacity, to a new location further east and closer to the project site access road, where stormwater capacity is sufficient.

Slope Stability and Adequacy of Geotechnical Analysis

Comment: ODOT received numerous comments regarding the potential for the proposed project to undermine slope stability, questioning if the historic occurrence of slope instability predisposed the site to future events. Specifically, citizens questioned if regional hazard assessments such as the Statewide Landslide Information Database for Oregon (SLIDO) prepared by the Oregon Department of Geology and Mineral Industries (DOGAMI) or the City of West Linn Natural Hazards Mitigation Plan reveal risks not previously considered.

Response: ODOT commissioned a licensed geotechnical engineering firm, GeoDesign, Inc., to perform a slope stability analysis and geotechnical evaluation in order to determine the present

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condition of the project site and evaluate the potential for the proposed project to undermine slope stability.

The engineering firm walked the entire site in the field, reviewed historic aerial photographs and geotechnical reports, examined current remote sensing images and data, conducted soil and rock core sampling, performed laboratory testing of rock and soil samples and utilized sophisticated computer models to determine the stability of the existing slope and prepare the report.

Based on this analysis, the geotechnical engineering firm concluded that there were no slope stability issues and there is no likelihood of landslides similar to the ones that previously occurred on the site because the previous grading and terracing activity removed the unstable rocks and soils that caused the slides. Furthermore, the report concluded that there are no slope stability conditions that present a hazard to adjacent properties. The geotechnical engineering firm also concluded that site preparation and construction activities would have no impact on slope stability.

While regional hazard assessments such as those prepared by DOGAMI and the City of West Linn can be used as a general guide for emergency response planning they are not considered suitable substitutes for site-specific investigation by qualified practitioners. Indeed, DOGAMI's website and hazard maps features a prominent disclaimer that states site-specific data may differ from the DOGAMI data sets and that its maps are not intended for site-specific planning. The same disclaimer appears on the hazard maps included in the City of West Linn's Natural Hazards Mitigation Plan which are in fact based on DOGAMI data sets.

Based on the detailed site-specific analysis, it remains the conclusion of the certified engineering geologist that landslides on the proposed site are extremely unlikely, and that the development of the proposed solar energy facility on the site will present no risk to slope stability.

Comment: Additional comments were received asking why ODOT did not conduct a "predictive/anticipatory hillside stability study."

Response: Such studies are generally used to identify the probability of slope instability and soil failures at a regional level in order to inform emergency management planners. Such studies are not a feasible or suitable substitute for the type of site-specific analysis conducted by ODOT.

Comment: Additional comments were received asking if ODOT considered the findings of other site-specific investigations.

Response: The Slope Stability Report considered all available and relevant information in its analysis including data from previous site-specific investigations, following standard professional guidelines for a site-specific analysis.

Potential for Increased Wildfire Risk

Comment: A number of people raised concerns about the potential for increased wildfire risk resulting from the project. Specifically, comments cited concern that the project could lead to

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increased human activity on the site and therefore pose a greater risk of accidental ignition.

Response: At the request of ODOT, the Tualatin Valley Fire and Rescue (TVF&R), the designated emergency response agency for the proposed project area, provided a letter addressing community concerns regarding the project's potential to increase wildfire risk.

In the letter, TVF&R expressed its opinion that the proposed project may in fact, decrease the risk of wildland fire. The agency draws this conclusion based on its experience that developed properties tend to present lower fire risks than undeveloped properties. Further, the agency stated that the proposed project would decrease fire risk by creating fire breaks that currently do not exist and improve the ability to respond to an emergency incident by providing new access to the site via an extension of the existing gravel drive.

It is true that human activity is responsible for the majority of wildfires in Oregon and ODOT takes seriously its responsibility and role in reducing the risk of wildfire. To that end ODOT seeks to manage its properties in such a manner to minimize fire hazard. ODOT has initiated discussions with the residential neighbors to the north of the project site and other parties with resource restoration interests to see if there is a collaborative solution to reduce invasive, fire-prone plant materials on the site. It is hoped that a public/private solution can be found for a long-term plan to provide improved maintenance and restoration of the upper portion of the site, to further reduce wildfire risk.

Comment: Additional comments were received regarding the potential for shock or electrocution if a fire-fighter or emergency responder comes in contact with a high voltage conductor while responding to an emergency situation.

Response: Although highly unlikely it is true that an emergency responder could be at risk of shock or electrocution if they came into contact with a high voltage conductor. However this risk is not unique to the proposed solar array and could occur in a number of emergency situations (e.g. a downed power line).

Comment: Additional comments were received regarding ODOT's consideration of developing a "Fire Study" for the site.

Response: ODOT takes seriously its responsibility and role in reducing the risk of wildfire. To that end ODOT seeks to manage its properties in such a manner to minimize fire hazard.

ODOT has initiated discussions with the residential neighbors to the north of the project site and other parties with resource restoration interests to see if there is a collaborative solution to reduce invasive, fire-prone plant materials on the site. It is hoped that a public/private solution can be found for a long-term plan to provide improved maintenance and restoration of the upper portion of the site, to further reduce wildfire risk. On the short term, the ODOT District office is working directly with the adjacent property owners under the Adopt-A-Highway program, so those owners can legally access the site to perform basic maintenance and implement some of the landscaping improvements they desire to reduce fire hazards and improve views.

Comment: Additional comments were received regarding the proposed project conformity with the objectives of Clackamas County Community Wildfire Protection Plan.

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Response: ODOT will comply with all applicable city and county regulations. The Clackamas County Community Wildfire Protection Plan is planning document adopted by the Clackamas County Board of Commissioners to “[identify] wildfire risks, developed priorities for project funding, and developed programs to reduce the risk of wildfires to citizens and communities in Clackamas County.” The document addresses community vulnerabilities in the wildland-urban interface primarily associated with federally owned public lands (e.g. Mount Hood National Forest) in the eastern portion of the county.

Land-Use Suitability and Compliance with Local Zoning

Comment: Several people questioned the suitability of the site and wondered why ODOT does not develop the project in another location (e.g. Eastern Oregon)

Response: Most of ODOT’s electricity load is in northwestern Oregon, and ODOT gets more of its power to run the transportation system from Portland General Electric than any other utility in the state. While there is more solar resource in eastern Oregon, ODOT cannot put an array there to offset energy use in PGE territory – where most of its load is. It is likely that at some point, ODOT will have solar highway installations around the state, offsetting its energy use in each utility district.

Furthermore, the West Linn site, while also serving as an ODOT maintenance storage area, features direct southern exposure and flat benches requiring minimal earthwork allowing for maximum solar exposure and low grading cost. Finally, it is close to a PGE substation facilitating interconnection to the local grid.

Comment: Several people observed that a portion of the proposed project is shown on City Zoning maps as having residential zoning and questioned if the proposed project would be in conflict with local land use ordinances.

Response: The City of West Linn initially advised ODOT that the City's land use rules did not apply because the proposed project is an operational improvement for ODOT's use and would occur entirely within ODOT owned right-of-way. This conclusion is consistent with how other transportation improvements in highway right-of-way are treated by local jurisdictions in the Portland metropolitan area. The initial advice also found that other development standards do apply to the project, including the City's stormwater engineering standards and tree removal procedures.

Upon further review and discussion with ODOT, the City of West Linn recommended that their initial advice be subject to an official "Planning Director Interpretation," as set forth in the Community Development Code. This process will provide opportunities for additional public participation.

The City of West Linn's official Zoning and Comprehensive Plan maps show most of the project area as unzoned I-205 right-of-way. However a portion of the site appears on the official maps as having residential zoning.

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The dual zoning seems to arise from ODOT's acquisition of the northern portion of the site during the construction of I-205 in the late 1960s. At that time, ODOT acquired a number of additional parcels as highway right-of-way in order to terrace and stabilize the slope. However, tax maps produced by the Clackamas County Assessor's Office did not properly map the additional acquisition as public right-of-way and showed, in error, the acquired parcels as individual freestanding tax lots.

The City of West Linn relied on the erroneous mapping when it overlaid residential zoning to the northern portion of the site, mistaking the previously acquired and consolidated parcels as freestanding lots.

When it became aware of the mapping error in 2009, ODOT requested that the Clackamas County Assessor's Office consolidate the freestanding tax lots into the I-205 right-of-way. The Assessor's Office approved the request and changed the tax map in April 2009 removing the freestanding tax lot lines. The City of West Linn then followed suit by removing the lots from the zoning map. However, the northern portion of the property is still officially zoned residential.

The City of West Linn and ODOT recognize the inconsistency in having a portion of ODOT owned right-of-way designated as a residential zone and are working together to resolve the matter by applying an appropriate process prescribed by the City of West Linn's Community Development Code.

If the project becomes funded and moves to a construction phase, ODOT will apply for a pre-application conference and obtain final confirmation from the City for all the required land use and construction permits, and then apply for the permits. ODOT understands that the land use approval process will include public notices and participation, and expects that process will take 6-12 months to complete.

Electromagnetic Fields and Human Health

Comment: Several comments were received regarding the potential of adverse health risks posed by from electromagnetic fields (EMFs) and voltage transients (so-called "*dirty electricity*").

Response: The levels of EMFs likely to be produced by the project fall well below the International Commission on Non-Ionizing Radiation Protection guidelines for public exposure and would likely be indistinguishable from background levels produced by other human and natural sources at the perimeter of the site's security fence.

Furthermore, the current scientific consensus is that no causal relationship exists between exposure to low-level power frequency EMFs and any adverse health effects including childhood cancer.

There is no credible evidence in either the technical or medical literature to suggest that the proposed project will either adversely affect power quality or harm public health.

Health and Safety Concerns of Photovoltaic Solar Panels

Comment: One person expressed concern about the potential release of hazardous materials into the environment in the event a panel was "compromised."

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Response: Because solar panels are encased in heavy-duty glass or plastic, there is little risk that the small amounts of semiconductor material present can be released into the environment.

In the event of a fire, it is theoretically possible for hazardous fumes to be released and inhalation of these fumes could pose a risk to human health. However, researchers do not generally believe these risks to be substantial given the short-duration of fires and the relatively high melting point of the materials present in the solar modules. Moreover, the risk of fire at ground-mounted solar installations is remote because of the precautions taken during site preparation including the removal of fuels and the lack of burnable materials – mostly glass and aluminum – contained in a solar panel.

Comment: Some people asked what would happen to the solar panels at the end of their useful life.

Response: Proper decommissioning and recycling of solar panels both ensures that potentially harmful materials are not released into the environment and reduces the need for virgin raw materials. In recognition of these facts, ODOT's Solar Highway procurement standards require the manufacturer to guarantee product take-back and recycling. This means it will be a contractual requirement that the manufacturer take the panels back and recycle them.

Effect on Property Values

Comment: Several people expressed concern that the proposed project would adversely affect local property values.

Response: No known studies support the contention that proximity to solar arrays impacts property values. An analogous study conducted by the U.S. Department of Energy Lawrence Berkeley National Laboratory examining the impact of wind power projects on residential property values found no widespread negative property value impacts.

Visual Impacts

Comment: Several comments were received related to the potential impacts the project would have on visual and aesthetic resources. Specifically, people urged ODOT to consider opportunities to minimize visual impacts through landscape design and the suitable selection of materials.

Response: In order to assess if the proposed solar array would result in significant adverse visual impacts, ODOT commissioned a licensed landscape architect to provide a professional evaluation of the existing landscape aesthetics and the consequences of the proposed project to those aesthetics.

The report concludes that the proposed project site is most visible from Canemah Bluff and that the proposed project will, to an extent, accentuate the unnatural linear features of the terraced benches. However, the report notes that the scale of the project area is small relative to the wide panoramic view from the Bluff and as a result, the impact to the existing scenic conditions will be minimal. The report though recommends the planting of native and deciduous and evergreen shrubs at the margins of the solar array in order to reduce the linear effect of the project.

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While a final project design is not complete it is ODOT's intent to follow the recommendations of the Visual Resource Report.

Comment: Several comments were received related to concerns about the reflection of sunlight off the surface of solar panels.

Response: A review of concerns related to the reflection of sunlight off the surface of solar panels found that solar panels have a reflectivity of around 30%—similar to the reflectivity of current site surface materials such as dry sand at 45%, needle-leaf coniferous trees at 20%, grass-type vegetation at 25% and broadleaf deciduous trees at 10%. Furthermore the research found that the angle of inclination for the proposed panels would be such that any light reflected from the panels would not cause a glare or reflection for either drivers along I-205 or residents along Canemah Bluff in Oregon City who raised the issue.

Adequacy of Environmental Analysis

Comment: Several comments were received urging ODOT to conduct an Environmental Assessment (EA) or Environmental Impact Statement (EIS).

Response:

It is ODOT's practice to apply the environmental review process required by the National Environmental Policy Act (NEPA) to projects that involve ground- disturbing or physical impacts, even if the project does not involve the use of federal funds or otherwise meet the definition of major federal action. ODOT always does this in the most efficient and cost-effective manner possible. Consistent with this practice, ODOT has followed the environmental due diligence process called for under NEPA in evaluating the feasibility and suitability of the proposed West Linn Solar Highway project.

Under NEPA, an Environmental Impact Statement is only required when a project is known or believed to have a significant impact. A major realignment of a highway, a new interstate bridge over a river or the construction of a new highway in a natural area are examples of the types of projects that typically require an Environmental Impact Statement. An Environmental Assessment is only required when the agency is uncertain if the proposed project would result in a significant impact.

Based on the site feasibility and preliminary environmental analysis it is ODOT's assessment that there will be no significant impacts on urban, community, natural or physical resources resulting from the proposed West Linn Solar Highway Project.

In coming to this conclusion, ODOT examined a range of environmental topics including: biological resources and threatened and endangered species, wetland and water quality issues, the applicability of state and local land use regulations, hazardous materials, noise, visual and aesthetic resources, socioeconomics, geotechnical, air quality and archaeological, historical and cultural resources.

ODOT also investigated other issues of concern raised by the public including potential adverse human health effects related to electromagnetic fields associated with the project, the potential environmental and health hazards associated with the life cycle of solar photovoltaic solar panels, the potential for increased wildfire risk resulting from the project, the potential for

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increased incidents of crime and vandalism in the surrounding area and the potential for glare from the solar panels.