

**Oregon Department of Transportation, Office of Innovative Partnerships
Oregon Solar Highway Program
2010**

Solar Highway Project Siting General Criteria

- Project site must be ODOT-owned or ODOT right-of-way.
 - If right-of-way, exclude at least a 30 foot clear zone from the edge of travel lane shoulders
- Project site should be vacant or undeveloped
- Project site must be at least 5 acres
- Project site must have 24/7, year-round access from a paved or gravel roadway to the array
- Project site, including utility and road access, must be available for term of project (at least 25 years)
- Project site must be within ½ mile of existing electricity grid; closer interconnection should be valued or scored higher
 - Identify type of utility service to site and interconnection point
 - Project site must have 3-phase power available or capable of being run in; project economics must be able to cover this
- Project site must have southern orientation
- Project site must have slope of less than 15%
- Project site must have a Total Solar Resource Fraction of at least 95% to be economic
- Project site should have fiber optic connectivity possible for security and data transmission

- Identify which sites are in flood plains or that have known wetlands or protected stream corridors
- Identify which sites are on or adjacent to an area that has documented endangered or threatened flora or fauna
- Identify sites in designated state or federal scenic corridors or protected viewsheds
- Identify sites within areas that have known cultural or historic artifacts
- Identify sites with known hazardous materials or that are likely to contain hazardous materials
- Identify sites which are identified for transportation improvement projects in the Statewide Transportation Improvement Program (STIP)

Site Assessment Work Needed for Permitting and/or Financing

- Total Solar Resource Fraction Analysis
- Soils Analysis
- Drainage and Stormwater Plan and Preliminary Design
- Water Resources Assessment (if present)
- Hazardous Materials Assessment
- Utility Interconnection Assessment
- Threatened and Endangered Species Assessment
- Cultural and Archaeological Resources Assessment
- Local zoning codes – land use and construction permitting requirements and processes
- Determine whether use of site would require additional zoning, environmental assessments or mitigation, and if so, what is required

Additional Assessments or Process Needed for Arrays Near Residential Areas

- Public Involvement/Outreach
- Visual Impact Analysis
- Noise Analysis