

## **SOLAR ENERGY PLAN OF DEVELOPMENT**

The following outline identifies the minimum requirements for a Solar Energy Plan of Development (POD) to be submitted prior to initiation of NEPA analysis (including publication of a Notice of Intent to prepare an EIS) for a solar energy development project. These minimum requirements provide the basic information necessary to begin the NEPA analysis and review process. The specific outline format and title for each section of the POD does not have to be consistent with this template, however, the content of the POD needs to include these minimum requirements.

The Solar Energy POD is a dynamic document that may require additional information during the NEPA review and analysis process. The initial POD template is just that, initial. It may require different information from the applicant depending upon the solar technology, the environmental resources that may be impacted, the location of the proposed project, the timing of the project, etc. There may be information required from one applicant that is not required by another applicant, because of the issues or resources involved.

**Due Diligence:** The solar energy right-of-way applicant will be requested by letter to provide within 90 days a complete POD consistent with the POD requirements. If the applicant has not responded within 90 days, or if the applicant has responded and the information provided is not sufficient, the BLM will send a second letter of request with a 60-day response. For those applicants that have already provided a POD, but need to submit additional information to meet the requirements of the new POD template, the BLM will send the 60-day letter. A final 30-day show cause letter will be provided to the applicant prior to issuing any decision to reject the application for failure to respond pursuant to the regulations (43 CFR 2804.25(b) and 2804.26(a)(6)). During the NEPA review process additional information may be requested of the applicant. Reasonable periods of time should be provided to the applicant to respond to these requests for additional information.

**Supplementary Information:** Additional Supplementary Information (attached) will be required, after publication of the Notice of Intent, to prepare and complete the NEPA process. Alternative designs and mitigation measures developed in the NEPA analysis will be incorporated into a final POD. Additional environmental information and data (including wildlife surveys, sensitive plants and cultural resource surveys) will be required as part of the NEPA analysis process.

**Solar Energy Plan of Development Outline:**

## 1. Project Description

## a. Introduction

- Describe type of facility, planned uses, generation output
- Applicants schedule for project, including anticipated timelines for permitting, construction and operation, and any phased development as appropriate

## b. Proponents Purpose and Need for the Project

## c. General Facility Description, Design and Operation

- Project location, land ownership and jurisdiction
- Legal land description of facility (federal and non-federal lands)
- Total acreage and general dimensions of all facilities and components
- Power plant facilities, thermal conversion process
- Numbers and general dimensions of solar array, power generation units (wet or dry cooling), towers, substations, transmission lines, access roads, buildings, parking areas
- Temporary construction workspace, yards, staging areas
- Geotechnical studies and data needs, including solar insolation testing
- Ancillary facilities (administrative and maintenance facilities and storage sites)
- Water usage, amounts, sources (during construction and operations)
- Erosion control and stormwater drainage
- Vegetation treatment and weed management
- Waste and hazardous materials management
- Fire protection
- Site security and fencing (during construction and operations)
- Electrical components, new equipment and existing system upgrades
- Interconnection to electrical grid
- Spill prevention and containment for construction and operation of facility
- Health and safety program

## d. Other Federal, State and Local Agency Permit Requirements

- Identify required permits (entire project area on both federal and non-federal lands)
- Status of permits

## e. Financial and Technical Capability of Applicant

## 2. Construction of Facilities

## a. Solar field design, layout, installation and construction processes including timetable and sequence of construction

## b. Phased projects, describe approach to construction and operations

## c. Access and transportation system, component delivery, worker access

- d. Construction work force numbers, vehicles, equipment, timeframes
- e. Site preparation, surveying and staking
- f. Site preparation, vegetation removal and treatment
- g. Site clearing, grading and excavation
- h. Solar array assembly and construction
- i. Power plant construction
- j. Gravel, aggregate, concrete needs and sources
- k. Electrical construction activities
- l. Aviation lighting (power towers, transmission)
- m. Site stabilization, protection, and reclamation practices

### 3. Related Facilities and Systems

- a. Transmission System Interconnect
  - Existing and proposed transmission system
  - Ancillary facilities and substations
  - Status of Power Purchase Agreements
  - Status of Interconnect Agreement
  - General design and construction standards
- b. Gas Supply Systems (as appropriate)
  - Backup natural gas generation requirements
  - Pipeline routing considerations and construction standards
  - Metering stations
- c. Other Related Systems
  - Communications system requirements (microwave, fiber optics, hard wire, wireless) during construction and operation

### 4. Operations and Maintenance

- a. Operation and facility maintenance needs
- b. Maintenance activities, including mirror washing and road maintenance
- c. Operations workforce and equipment

### 5. Environmental Considerations

- a. General description of site characteristics and potential environmental issues (existing information)
  - Special or sensitive species and habitats
  - Special land use designations
  - Cultural and historic resource sites and values
  - Native American Tribal concerns
  - Recreation and OHV conflicts
  - Other environmental considerations
- b. Mitigation measures proposed by applicant and included in POD

## 6. Maps and Drawings

- a. Maps with footprint of solar facility (7.5 min topographic maps or equivalent to include references to Public Land Survey system)
- b. Initial design drawings of solar facility layout and installation, thermal power conversion facilities, electrical facilities and ancillary facilities. These initial design drawings will typically be a 30% Engineering and Civil Design package to adequately describe the proposed project and evaluate the design considerations for soils, drainage and watershed management.
- c. Initial site grading plan
- d. Maps with transmission facilities, substations, distribution, communications
- e. Access and transportation maps

## SUPPLEMENTARY INFORMATION

Additional Supplementary Information will be required from the applicant in order to prepare the NEPA analysis and complete the review process, but is not required to be submitted with the initial POD. This information may be filed after the publication of a Notice of Intent to prepare an EIS, but is required before the BLM can complete the environmental analysis. This information is developed as further data is gathered on-site and as alternative designs and mitigation measures are incorporated into a final POD. Other environmental data and inventory information (including but not limited to cultural resources, sensitive species and other biological data) will also be required to be collected by the applicant in order to prepare the NEPA analysis.

1. Engineering and Civil Design
  - a. Facility survey and design drawing standards
  - b. Final engineering and civil design packages for all solar facilities, thermal power conversion facilities, electrical facilities and ancillary facilities that incorporate all mitigation measures developed in the NEPA analysis and incorporated into the final POD
  - c. Watershed and drainage analysis and calculations
  - d. Watershed protection and erosion control design drawings
  - e. Final site grading plans
2. Alternatives Considered by the Applicant
  - a. Alternative site evaluation criteria
  - b. Alternatives considered but not carried forward by proponent
  - c. Comparative analysis of proponents alternatives
  - d. Alternative site configurations
3. Facility Management Plans
  - a. Stormwater Pollution Prevention and Protection Plan
  - b. Hazardous Materials Management Plan
  - c. Waste Management Plan
  - d. Invasive Species and Noxious Weed Management Plan
  - e. Health and Safety Plan (meeting OSHA requirements)
  - f. Environmental Inspection and Compliance Monitoring Plan
4. Facility Decommissioning
  - a. Reclamation and site stabilization planning
  - b. Temporary reclamation of disturbed areas
  - c. Removal of power generation and substation facilities
  - d. Removal of heliostats/panels
  - e. Removal of other ancillary facilities