WIND ENERGY PLAN OF DEVELOPMENT

The following outline identifies the minimum requirements for an initial wind energy Plan of Development (POD) to be submitted prior to the end of the 3-year term of a site testing and monitoring authorization. These minimum requirements provide the basic information necessary to begin the National Environmental Policy Act (NEPA) analysis and review process for a wind energy development project. 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 wind 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 environmental resources that may be impacted, the location of the proposed project, and the timing of the project. There may be information required from one applicant that is not required by another applicant because of the issues or resources involved.

Wind Energy Plan of Development Outline

1. Project Description
   a. Introduction
      - Describe type of facility and generation capacity (Federal and non-Federal lands)
      - Applicants proposed schedule for project, including anticipated timelines for permitting, construction and operation, and any phased development as appropriate
   b. Proponent's 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
      -Number and size of wind turbines (Federal and non-Federal lands)
      -Wind turbine configuration and layout (Federal and non-Federal land)
      -Substations, transmission lines, access roads, buildings, parking areas
      -Ancillary facilities (administrative and maintenance facilities and storage sites)
      -Temporary construction workspace, yards, staging areas
      -Water usage, amounts, sources (during construction and operations)
      -Erosion control and stormwater drainage
      -Vegetation treatment, weed management, and any proposed use of herbicides
      -Waste and hazardous materials management
      -Fire protection
      -Site security and fencing proposed (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. Alternatives Considered by Applicant
    -Alternative project site location considerations
    -Alternative technology considerations
    -Alternative project design/layout/phased development considerations
    -Alternatives considered but not carried forward
    -Comparative analysis of alternatives
e. 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. Wind turbine design, layout, installation, and construction processes including timetable and sequence of construction
    b. Geotechnical studies that may be planned
    c. Phased projects, describe approach to construction and operations
    d. Access and transportation system, component delivery, worker access
    e. Construction work force numbers, vehicles, equipment, timeframes
    f. Site preparation, surveying, and staking
    g. Site preparation, vegetation removal, and treatment
    h. Site clearing, grading, and excavation
    i. Gravel, aggregate, concrete needs and sources
    j. Wind turbine assembly and construction
    k. Electrical construction activities
    l. Aviation lighting (wind turbines, 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. Meteorological Towers
    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 road maintenance
    c. Operations workforce, equipment, and ground transportation

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
      -Visual Resource Management (VRM) designations
      -Aviation and/or military conflicts
      -Other environmental considerations
   b. Design criteria (mitigation measures) proposed by applicant and included in POD

6. Maps and Drawings
   a. Maps with footprint of wind facility (7.5 min topographic maps or equivalent to include references to Public Land Survey system)
   b. Initial design drawings of wind facility layout and installation, 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
   f. Preliminary visual resource evaluation and visual resource simulations

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 is developed as further data is gathered onsite 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 wind energy facilities, electrical facilities, and ancillary facilities that incorporate all mitigation measures developed in the NEPA analysis and incorporated into the final POD
   c. Aviation lighting plan
   d. Watershed protection and erosion control design drawings
   e. Final site grading plans
   f. Visual resource evaluation, final simulations, and mitigation strategy

2. Alternatives Considered by the Applicant
   a. Alternative engineering design considerations

b. Alternatives considered but not carried forward by proponent
c. Comparative analysis of design alternatives

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 wind turbines and substation facilities
   d. Removal of other ancillary facilities