



Environmental Assessment for the Mt. Storm Wind Energy Project Power Purchase Agreement, West Virginia

The Proposed Action

In accordance with the National Environmental Policy Act (NEPA), the Navy is preparing an environmental assessment (EA) to evaluate the environmental consequences of entering into a Power Purchase Agreement (PPA) for the purchase of renewable energy to serve the energy needs of 11 Navy installations within Navy Region Mid-Atlantic and Naval District Washington.

The Navy's intent to enter into this PPA would compel the construction and operation of the Mt. Storm Wind Energy Project, a renewable (wind) energy generation facility on privately owned lands in Grant and Tucker counties, West Virginia.

Under the PPA, a wind power developer would construct, own, and operate the wind energy facility. The Navy would purchase the supply and delivery of a minimum of 351,000 megawatt hours (MWh) of renewable energy electricity annually for the life of the contract. Minimization or mitigation of potential environmental impacts would also be the primary responsibility of the developer.

Purpose and Need for the Proposed Action

The purpose of the proposed action is to increase Navy installation energy security, strategic flexibility, and resource availability through the development of renewable-energy generating assets that would provide renewable energy to the electrical energy grid within the region that services Navy Region Mid-Atlantic and Naval District Washington. The proposed action is needed to assist in meeting the federal policies, goals, and standards for renewable energy.

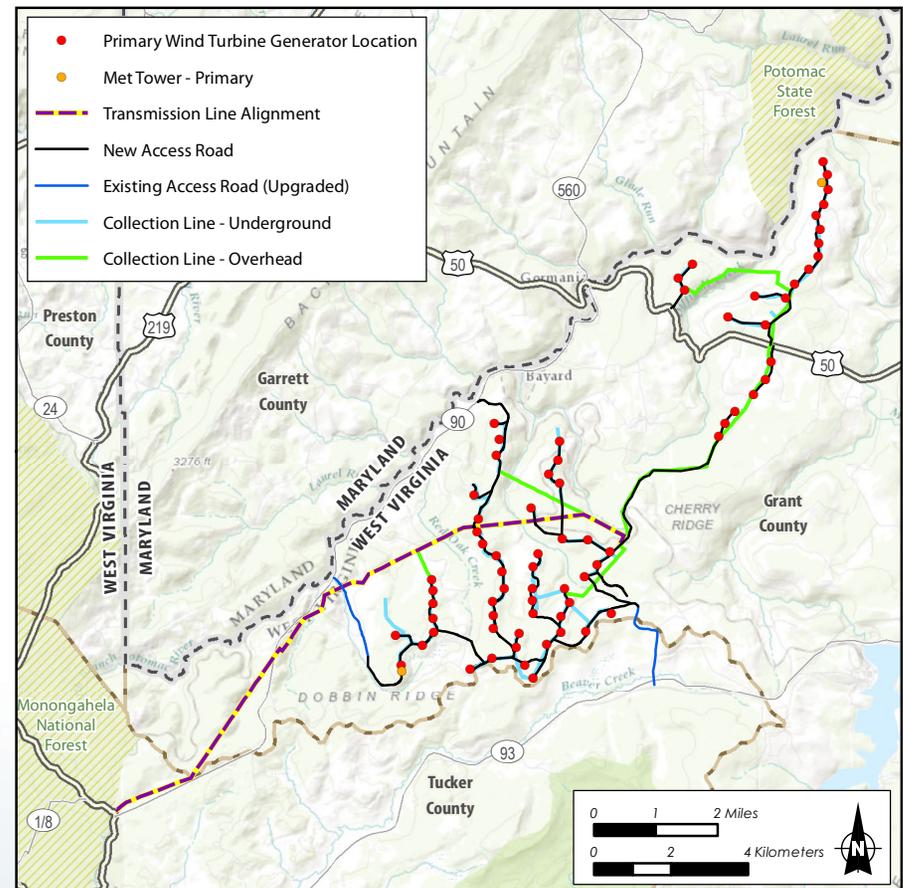
Project Location

The Mt. Storm Wind Energy Project would be located within the Appalachian Mountain Range, primarily in western Grant County; a small portion extends into northern Tucker County, West Virginia. The wind power developer proposes to construct and operate 72 wind turbine generators with a combined capacity of 150 MW on approximately 5,000 acres of leased, owned or land under an easement. The project would include an approximately 11-mile, 138 kV overhead transmission line that would run from the proposed substation in Grant County and terminate at an interconnection with an existing switching station in Tucker County. While nearby, no project components are located within the Monongahela National Forest. The site is currently in use and has historically been used for timber production and mining. Land cover is primarily forested with areas of developed, open space.

Scope of the EA

The EA will present the existing conditions at the proposed project site and evaluate the potential consequences of the proposed action on the natural and human environment. The EA will evaluate potential impacts of the proposed action on the following resource areas: land use, visual setting, utilities and infrastructure, socioeconomics and environmental justice, cultural resources, air quality and greenhouse gases, biological resources, water resources, geology, topography and soils, noise, traffic and transportation, public safety, and airspace use.

Figure 1 Proposed Project Site





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Wind Energy Technology

Wind energy technology transforms wind into mechanical power through a turbine, which is then converted into electricity through a wind turbine generator. Wind turbine generators consist of three main aboveground components: the tower, the nacelle, and the rotor (see Figure 2). Utility-scale wind energy projects include many turbines sited together. Wind energy projects require a transmission system to collect and distribute electricity to the power grid.

Wind Turbines

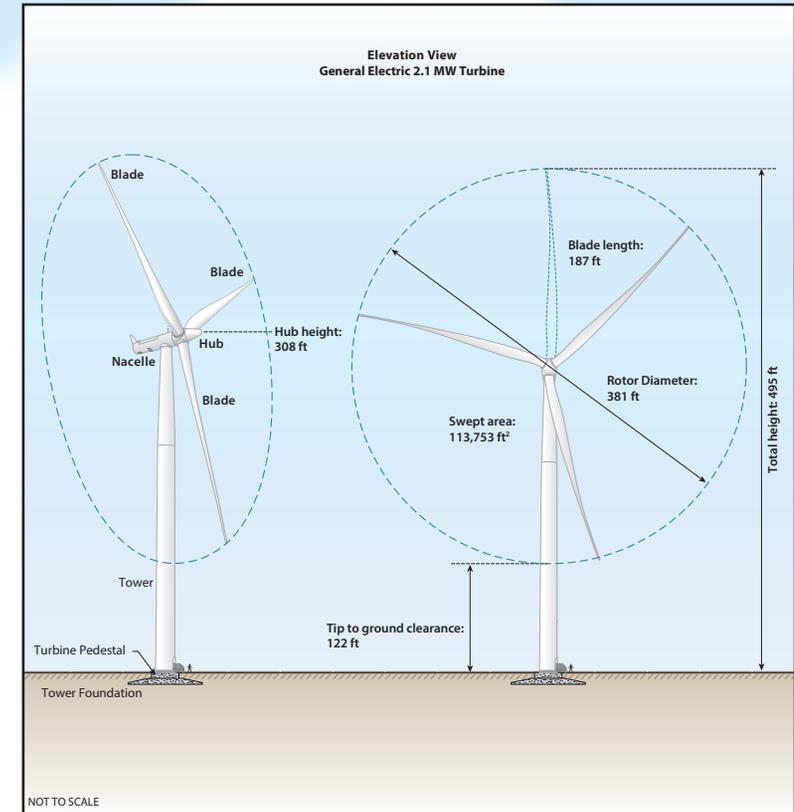


Federal Policies, Goals, and Standards for Renewable Energy

To enhance energy security, efficiency, and sustainability, the federal government has established rigorous policies, goals, and standards for the production and use of alternative and renewable energy by federal facilities, including:

- Secretary of the Navy renewable energy goals:
 - By 2020, produce or procure at least 50% of electricity consumed by shore-based facilities from alternative energy sources;
 - By 2020, 50% of Navy installations must be “net zero” (i.e., use alternative energy sources to meet or exceed the electricity they consume).
- Executive Order 13693, Planning for Federal Sustainability in the Next Decade (2015): By 2025, increase the share of electricity the federal government consumes from renewable sources to 30%.

Figure 2 Schematic of a Typical Wind Turbine Generator



For more information or to provide comments on the proposed action, please contact:

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