## Environmental Assessment for a Solar Power Energy Farm at Dover Air Force Base

**Introduction, Purpose, and Need for the Proposed Action -** The Dover Air Force Base (DAFB) has prepared a National Environmental Protection Act (NEPA) Environmental Assessment (EA) for a Proposed Action that focuses on the redevelopment of a portion of government-owned land into a solar energy farm. This Proposed Action will increase DAFB's energy security and reduce the purchase of commercially generated electrical power. In addition, this Proposed Action would support the goals of the 2017-2036 Air Force Energy Flight Plan by supplying a portion of DAFB's electricity demand with renewable energy generated on the installation.

**Description of the Proposed Action and Alternatives -** DAFB proposes to redevelop a portion of governmentowned land into a solar farm. The solar farm will be comprised of fixed photovoltaic (PV) solar panels, which convert sunlight into electricity. The three Action Alternatives and the No Action Alternative evaluated in the EA are briefly discussed below.

Under the Preferred Alternative, DAFB would redevelop the 3.3-acre vacant lot northwest of the base recycling center (Building 650) into a solar farm. This parcel would support a solar farm with an output ranging from 0.4 MW to 0.6 MW. This solar grid would be connected to DAFB's North electrical substation (ESS) via underground conduit (North ESS adjacent to Preferred Alternative).

Under Alternative 1, DAFB would redevelop a portion of the former Skeet Range into a solar farm. The 29-acre portion of the Skeet Range is located in the southeastern portion of DAFB and would support a solar farm with an output ranging from 3.8 MW to 5.3 MW. This solar grid would be connected to DAFB's South ESS via underground conduit (South ESS approximately 1.3 miles from Alternative 1).

Under Alternative 2, DAFB would redevelop a portion of Bergold Farm into a solar farm. The 40-acre portion of Bergold Farm is located within DAFB, east of Route 9. This parcel would support a solar array capable of producing between 5.2 MW to 7.2 MW. This solar grid would be connected to DAFB's South ESS via underground conduit (South ESS approximately 1.6 miles from Alternative 2).

Under the No Action Alternative, DAFB would not redevelop base-owned land into a solar farm. As a result, DAFB would not be able to offset/supplement the use of commercially generated electrical power with a renewable source (i.e., solar power) and the base's energy security and resiliency would remain unimproved.

**Summary of Anticipated Environmental Affects -** The EA concluded that impacts resulting from the construction and operation of the Action Alternatives would be non-existent to minimal for the following resource categories: visual and aesthetic resources, air quality, geological resources, noise, socioeconomics, and environmental justice. These categories were dismissed from further analysis. Resource categories examined further in the EA are discussed below. See Section 5.0 of the EA for detailed information on the potential impacts to these resource catagories.

- **Biological Resources** Relative to the other Action Alternatives, the Preferred Alternative would have a smaller impact on biological resources at DAFB. The Preferred Alternative would have no impacts on listed species, and only minor short-term negative impacts related to construction and habitat loss.
- **Cultural Resources** The Preferred Alternative would have no impact on cultural resources while impacts associated with the other Action Alternatives are uncertain as these areas have not been adequately surveyed for cultural resources. The Delaware State Historic Preservation Office concurs with this conclusion.
- **Hazardous Materials and Waste** Relative to the other Action Alternatives, the Preferred Alternative would have a smaller impact on hazardous materials and waste. While there is some affected shallow groundwater adjacent to the Preferred Alternative, the other Action Alternative sites contain elevated concentrations of lead and polycyclic aromatic hydrocarbons (PAH; Skeet Range) or jet fuel constituents and per- and polyfluoroalkyl substances (PFAS; Bergold Farm).
- Airspace Glare from PV panels can affect the DAFB Air Traffic Control Tower or pilots approaching DAFB runways. Existing glare studies indicate that all three Action Alternatives can be designed to meet FAA solar

policy glare standards. However, it is recommended that additional modeling be conducted following final site selection and engineering design to ensure FAA compliance.

- Land Use The Preferred Alternative and Alternative 1 (Skeet Range) are projected to have no impact on land use at DAFB. Constructing a solar farm at the Alternative 2 location (Bergold Farm) is less compatible with existing land uses as this parcel is directly adjacent to the runway 32 Clear Zone (CZ) and Accident Potential Zone I (APZ I).
- **Infrastructure** All three Action Alternatives would enable DAFB to offset/supplement the use of commercially generated electrical power with a renewable source increasing the base's energy security and resiliency (i.e., there would be a long-term beneficial effect).
- Water Resources Relative to the other Action Alternatives, the Preferred Alternative is projected to have a smaller impact on water resources (i.e., short-term, minor impact). Alternatives 1 and 2 have characteristics that, when taken together, have the potential to cause moderate negative impacts to water resources (i.e., shallower groundwater, larger construction footprint, larger post-construction impervious surface, affected soil (e.g., lead, PAHs, PFAS) and, in the case of Alternative 2, the potential to impact a 0.05 acre isolated wetland.
- **Health and Safety** Relative to the other Action Alternatives, the Preferred Alternative is projected to have a smaller impact on base health and safety (i.e., no impact). Alternatives 1 and 2 are projected to have greater negative impacts on Health and Safety due to the affected media at these locations and, in the case of Alternative 2, due to proximity to the runway 32 CZ and APZ I.
- **Cumulative Effects** The cumulative impacts of the Action Alternatives were evaluated relative to past, present, and future projects at and near DAFB. The EA concluded that no adverse cumulative impacts to any of the above-reference resource catagories are likely to occur because of this project.

## **Mitigation Measures**

The following mitigation measures will be adhered to during implementation of the Preferred Alternative:

- All construction and operations activities would follow all applicable DAFB and Occupational Safety and Health Administration (OSHA) regulations and guidance.
- Approved glare modeling would be conducted following final site selection and engineering design to ensure compliance with FAA solar policy glare standards.
- All Action Alternatives are located within Delaware's Coastal Management Area. A formal Federal Consistency Determination will be required prior to the construction of a solar field at these locations.
- Potential effects to nearby surface water bodies from stormwater runoff during construction activities will be mitigated via the implementation of an approved Erosion and Sediment Control Plan and stormwater Best Management Practices.
- All other permit conditions associated with this project will be complied with.

## Finding of No Significant Impact

Based upon my review of the facts and analyses contained in the attached EA, conducted under the provisions of NEPA, CEQ Regulations and 32 CFR Part 989, I conclude that implementing the Preferred Alternative (development of a solar energy farm in the vacant lot northwest of Building 650) will not have a significant negative environmental impact, either directly or cumulatively in conjunction with other projects at or near DAFB. Accordingly, an Environmental Impact Statement is not required. The signing of this Finding of No Significant Impact completes the environmental impact analysis process.