# DRAFT

# **FINDING OF NO SIGNIFICANT IMPACT**

#### FORT JACKSON ENERGY RESILIENCE PROJECT Fort Jackson, South Carolina

[Month], 2023

#### 1. Proposed Action

The National Environmental Policy Act of 1969 (NEPA) requires federal facilities to evaluate the environmental impacts of a proposed action and any associated alternative actions prior to Construction of the action. This Finding of No Significant Impact (FONSI) summarizes the results of the evaluation and documents Fort Jackson's conclusions.

The Army Installation Energy and Water Strategic Plan provides guidance to installations regarding secure and sustainable utility and infrastructure operations in order to improve the Army's ability to sustain installation energy and water for critical missions. Under the Proposed Action, the Army will lease two parcels to Dominion Energy South Carolina (DESC) to operate a microgrid with a solar photovoltaics (PV) system, a battery energy storage system (BESS), and two Natural Gas Generator Units. One parcel, known as Fit to Win Course of Action (COA) 1, will house the solar PV system and would involve demolition of the existing Teamwork Development Course (TDC), and relocation to a new parcel designated TDC-1. This is Solar PV System Alternative 1 (COA 1, TDC-1) from the Environmental Assessment (EA). The Army will also lease one parcel for a 25-megawatt (MW) Natural Gas Generator Units to meet Army Installation Energy and Water Strategic Plan guidance. The site under lease consideration is known as the Moseby Street Substation (COA 4). In accordance with Army Directive 2020-03, "Installation Energy and Water Resilience Policy", Army installations are required to secure critical missions by being able to provide a minimum of a 14-day supply of necessary energy to support critical loads. The Natural Gas Generator Units would serve as the primary generating asset to meet the 14-day requirement. A natural gas pipeline would be constructed from the Gate 1 roundabout through Marion Avenue and Anderson Street, then north along Lee Road to meet with the COA 4 generator; a total of 13,000 feet. This is Natural Gas Generator Units Alternative 2 (COA 4) from the EA.

The Proposed Action is needed to enhance the energy resilience of the Army. The energy resilience project would enhance the installation's ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions, and to ensure mission readiness through secure and resilient access to energy.

During normal operation, the grid-facing assets would generate power for DESC ratepayers including Fort Jackson. During contingency operations, the assets would support 100% of critical loads for a minimum of 14 days. Power during contingency operations would be purchased at the standard rate of delivery at the installation.

# 2. Other Alternatives Considered/Analyzed

Fort Jackson's EA evaluated various alternatives/COAs before the development of the preferred alternative (Figure 1). These alternatives included the following:

# Solar PV System

- Alternative 2: This alternative would develop the Solar PV System on the 33.1-acre COA 1 parcel, and site TDC-2 would be selected for development of the new TDC course. Development of TDC-2 would involve clearing tree clearing activities in both wetland and floodplain areas.
- Alternative 3: This alternative would develop the Solar PV System on the 60.3-acre COA 2 parcel. The property includes approximately 53 acres that were previously used for small arms ranges and live grenade training. Munitions and Explosives of Concern (MECs) in the Areas of Concern D, E, and F are Military Munitions Response Program sites with approved land use controls. A historical resources site is located within COA 2 which is eligible for the National Register of Historic Places (NRHP).
- **No Action Alternative:** This alternative would not construct the Solar PV System. No parcel would be selected for development of the solar array, and no construction or demolition would take place. This alternative would not meet the goals or objectives identified by Fort Jackson to implement the energy resiliency project.

# **Natural Gas Generator Units**

- Alternative 1 COA 3: This alternative would develop the Natural Gas Generator Units on the 2.2-acre COA 3. A substation located on the site would be demolished and replaced with the Natural Gas Generator Units. Polychlorinated Biphenyl contamination in substation soils is not confirmed, but possible due to the age of the substation equipment. The Natural Gas Generator Units would tie into the existing Hill Street substation located approximately 60 feet north of the proposed parcel. A gas line would be constructed to provide a continuous feed of natural gas to the generator units. The line would run north from Gate 1 roundabout along Jackson Boulevard, then west along Forrest Road for a total length of 9,000 feet. The proposed pipeline would tie into the existing eight-inch pipeline at the Gate 1 roundabout. COA 3 and the COA 3 pipeline would be partially constructed within a 100-year floodplain. The COA 3 pipeline would also cross wetland areas.
- **No Action Alternative:** This alternative would not construct the Natural Gas Generator Units. No parcel would be selected, and there would be no site preparations for any associated equipment. No Natural Gas Generator Units would be constructed. This alternative would not meet the purpose and need identified by Fort Jackson to implement the energy resiliency project.

#### 3. Environmental Impacts of the Proposed Action

Resources were evaluated for impacts in the EA. The impacts to the resources from implementing the proposed action included the following:

**Air Quality:** The demolition and construction activities associated with Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 would generate air pollutant emissions from site-disturbing activities and from the operation of construction and demolition equipment. There is potential for fugitive dust emissions, however personnel would implement proper Best Management Practices (BMPs) to reduce the likelihood of impacts. Short-term increases in air emissions are expected during the demolition and construction phases of the Proposed Action; however, these effects would result in no significant impacts to air quality.

No long-term increases in emissions would occur from the proposed Solar PV System, however long-term increases in air emissions are expected due to the operation of the Natural Gas Generator Units. Emissions from both Proposed Actions are anticipated to have a negligible indirect impact on air quality when compared to insignificant indicator values.

**Climate Change:** Temporary, short-term adverse climate change impacts would be expected as a result of vehicle exhaust from construction vehicles and equipment under both Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2. Developments would involve tree clearing, resulting in less natural carbon sequestration. Operation of the Solar PV System could result in long-term beneficial impacts to overall greenhouse gas emissions at Fort Jackson and within the region due to less consumption of fossil fuels.

**Noise:** Implementation of Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 is anticipated to only result in a noise level increase during the construction and demolition activities associated with the development process. The noise level increase during development would be short-term and temporary. Elevated noise levels are expected during operation of the Natural Gas Generator Units. The noise would not be out of character with existing noise in the area and would be naturally attenuated by existing vegetation. The assumed generators for this project are designed to have low vibration and limited noise emissions outside of their enclosures. Generators would include noise control measures and comply with installation and local noise emission standards. Impacts associated with the operation of Proposed Action components would therefore be long-term and negligible.

Impacts associated with any potential increases to levels of vehicle traffic would be negligible given the existing noise environment. Therefore, there would be no significant impacts to the noise environment as a result of the Proposed Action or alternatives.

**Land Use:** Land use changes are anticipated under both Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2. The Proposed Action is anticipated to increase the overall industrial land use at Fort Jackson. No conflicts with adjacent land uses are expected from alternatives where there would be land use changes. Considering the abundance of developable land at Fort Jackson, impacts to would be minor and long-term.

**Biological Resources:** Implementation of Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 would require the clearing of forest vegetation to construct the Solar PV System and Natural Gas Generator Units. Impacts to vegetation would be minimized by only removing necessary trees and implementing construction BMPs. Vegetation removal would result in a long term minor adverse impact to vegetation communities. There would be no significant impacts to native or landscape vegetation from the operation of the solar facilities. Vegetation removal along the natural gas pipeline corridor would result in a long term negligible adverse impact to vegetation communities due to necessary development in landscaped areas containing trees, shrubs, and other vegetation.

Construction would result in short-term negligible impacts to wildlife. During construction, any wildlife in the area likely would leave, but would be expected to relocate to adjacent forested

areas. Compliance with the Integrated Natural Resources Management Plan (INRMP), which would ensure impacts to fish, and wildlife would be minimal. The proposed project would have no effect to the threatened and endangered species such as the proposed endangered red-cockaded woodpecker (RCW) or protected plants, as those species do not have suitable habitat or are not known to occur within the project area. Tree-clearing activities have the potential to affect the proposed endangered tricolored bat. With the appropriate construction mitigation measures, such as limiting dates where construction can take place, and not constructing at night, it would be expected that this alternative "May Affect, Not Likely to Adversely Affect" the tricolored bat.

Cultural Resources: The areas proposed for development under the Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 are located within Fort Jackson's cantonment area, with the exception of TDC-1. Previously disturbed areas within the cantonment area do not require an archaeological survey. No NRHP-eligible historical or archaeological resources have been identified in the area of TDC-1. Buildings 2335, 2495, and 4500 were analyzed as part of this EA. Other NHRP-listed structures have either been demolished (Buildings 1520 and 2511), or are planned for demolition in the near future (Building 1895), and were therefore not analyzed in this EA. A Section 106 agreement document and associated mitigation actions or products are being developed for Building 1895 (Reception Battalion) to address the adverse effect of demolition. Building 2335 (Anderson Street Chapel) is located within close proximity to the COA 4 pipeline, however development activities would not disturb the structure, footprint, or viewshed of the facility. Therefore, no impacts are expected to the historical integrity of Building 2335. Fort Jackson previously mitigated Building 2495 pursuant to Section 106 of the NHPA. All proposed development areas are at least 2,200 ft from this structure. Building 4500 (Moncrief Army Medical Clinic) is located at least 900 feet from any proposed development. All Proposed Action alternatives would have no effect on archaeological or historic resources listed or eligible for listing on the NRHP.

**Hazardous Materials and Waste:** Hazardous materials such as fuels for equipment and vehicles would be managed in accordance with applicable military, federal, state, and local regulations. Contractors would be responsible for hazardous substance spill prevention, training, clean up, and reporting, and must comply with the Fort Jackson's Spill Prevention, Control, and Countermeasure Plan. The Fort Jackson Environmental Division would be contacted if contamination is discovered, or if spills occurred during construction of various projects. Any and all contaminated debris and waste generated during the project will be disposed in accordance with South Carolina Department of Health and Environmental Control regulations. It is unlikely that hazardous waste materials from other relevant projects would be generated during the same time period. There would be no significant incremental adverse cumulative effects on hazardous materials/waste generation or disposal to local landfills from implementation of Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2.

**Safety and Occupational Health:** Fort Jackson requires its contractors and heavy equipment operators to adhere to all applicable safety regulations and guidelines. Direct construction, demolition, and renovation adverse impacts would be negligible, localized, and short-term. No indirect impacts are expected from Solar PV System Alternative 1 or Natural Gas Generator Units Alternative 2. Development activities would result in a temporary increase in traffic from vehicles and equipment. Once construction is completed, transportation patterns are expected to revert to pre-construction/renovation direction and frequency. Temporary negligible impacts to

the traffic environment would occur. Intermittent traffic delays, detours, and temporary road closures may occur in the vicinity of the proposed developments. Potential congestion impacts could be avoided or minimized by scheduling truck deliveries outside of the peak inbound traffic time and by using different access gates. As a result, no long-term or significant impacts on transportation infrastructure are anticipated from the Proposed Action.

**Geology and Soils:** Construction and demolition activities involving tree clearing, grading and site preparation activities would have direct short-term adverse impacts on physical resources. To minimize impacts, erosion and sedimentation control measures would be implemented, including the use of BMPs at the construction sites, such as silt fencing, hydro-mulching, sediment traps, and vegetated filter strips. Proper BMPs would be implemented to reduce erosion hazards during pipeline installation, with construction activities potentially avoided within months susceptible to flooding conditions. Clearing of timber or grading around the development area would be required during construction, and result in negligible long-term impacts to topography. Geologic resources would remain unaffected by Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 because there is no substantial excavation associated with this action that would impact site geology.

**Socioeconomic Resources and Environmental Justice:** Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 would result in short-term minor beneficial impacts to socioeconomics of the Region of Influence. Beneficial impacts to the regional economy would occur as a result of hiring construction crews during the development phase and hiring skilled labor for the installation of the solar elements. Short-term beneficial impacts are expected to positively impact environmental justice from the hiring of low-income labor during the construction phase. No adverse impacts to children or housing are anticipated.

**Transportation and Traffic:** Temporary minor short-term impacts are anticipated due to potential reroutes or road closures associated with the Solar PV System Alternative 1 and Natural Gas Generator Units Alternative 2 construction and demolition. These activities would require the temporary employment of workers, contributing to traffic. Construction of the natural gas pipeline would be limited in peak hours or during events to reduce the impact on traffic flow and the need for reroutes. Once construction is completed, transportation patterns are expected to revert to pre-construction direction and frequency.

**Utilities:** Installation of the Solar PV System Alternative 1 would replace some of the gas and electrical energy used on the installation with electricity produced by solar, thereby reducing the installation's reliance on fossil fuels. Maintenance and improvement of infrastructure have a long-term beneficial impact on the human and natural environment through increased efficiency of operations, increase in green technologies, as well as decreased costs associated with improved systems.

Short-term adverse impacts may occur during construction of the Natural Gas Generator Units Alternative 2 natural gas pipeline due to temporary gas shut-offs required for utilities tie-in. No long-term adverse impacts are expected to utility systems associated with potable water, solid waste, or stormwater systems. Long-term beneficial impacts to the existing infrastructure would result by providing expanded services to meet the increased needs in both daily, and contingency operations. No adverse effects to utilities are expected.

**Water Resources:** The potential for indirect short-term adverse impacts on surface water resources could occur during construction as a result of land-clearing activities. There would be

no adverse impacts to surface waters from the operation of the solar facilities or the relocated TDC course because no direct actions affecting surface waters would occur. There could be a slight increase in impervious surface area from building footprints, roof drainage, parking areas, driveways, and other infrastructure, but this additional impervious area would not be significant.

There would be no direct or indirect impacts to wetlands or floodplains under the Natural Gas Generator Units Alternative 2. There is, however, the potential for short-term adverse indirect impacts to wetlands during construction as a result of land-clearing activities under the Solar PV System Alternative 1. There is potential for sediment, dust, oils, and other contaminants to runoff to adjacent areas, including wetlands; however, implementation of construction stormwater management plans and proper BMPs during construction would prevent impacts to adjacent wetlands.

#### 4. Mitigation Measures

The EA identified mitigation measures and BMPs that must be followed to further reduce impacts of the preferred alternative. They are discussed in the EA and listed in Table 1 of this document. These mitigation measures and BMPs will be incorporated into any contract documents and specifications.

#### 5. Conclusions

I have considered the results of the analysis in the EA and the comments received during the public comment period and have decided to proceed with the selection of the preferred alternative. The implementation of the preferred alternative would not result in a significant impact to the quality of the human or natural environment. This analysis fulfills the requirements of the NEPA as implemented by the Council of Environmental Quality regulations (40 Code of Federal Regulations (CFR) Parts 1500-1508), as well as the requirements of the Environmental Analysis of Army Actions (32 CFR Part 651). Therefore, issuance of a FONSI is warranted, and an Environmental Impact Statement is not necessary.

Date

TIMOTHY R. HICKMAN COL, AG Commanding

# **Figure 1: Proposed Action Locations**



Resource	BMPs/Mitigation Measures
Air Quality	<ul> <li>Consider low-emission options for all emissions-producing equipment (e.g., generators, transformers, and refrigeration units).</li> <li>To suppress dust during ground-disturbing activities, cover or apply water or soil stabilizers to soil. Limit or halt soil-disturbing activities during high-wind conditions when work is in soil classified as highly erodible.</li> <li>Cover soil stockpiles and trucks transporting soil or other materials that could cause airborne dust.</li> <li>Use electricity from established power sources rather than generators whenever possible.</li> <li>Minimize vehicle and equipment idling times.</li> </ul>
Climate Change	• To reduce greenhouse gas emissions the following BMP will be utilized as needed; reducing fugitive dust emissions, avoiding the unnecessary idling of construction equipment; and maintaining construction equipment in good operating condition.
Noise	<ul> <li>Compliance with applicable laws and regulations; permits; and Army and installation programs, policies, and plans.</li> <li>For all construction activities, implement the industry standard practice of operation construction equipment in accordance with the manufacturer's specifications and with standard mufflers and other noise-reducing equipment in proper operating condition.</li> <li>Use equipment mufflers and/or other sound dampening devices, as appropriate. Shut down noise-generating equipment when not in use. If complaints about noise are received, increase sound-reducing measures appropriately.</li> <li>Personal hearing protection by appropriate construction personnel.</li> <li>Position generators, and other noise-producing equipment away from areas where quiet is important, and shield it with walls or other enclosures, as appropriate, to reduce sound transmission.</li> </ul>
Land Use	Compliance with applicable laws and regulations; permits; and Army and installation programs, policies, and plans.
Biological Resources	<ul> <li>Appropriate biological resources surveys identified and completed in time to inform site design and/or construction activities.</li> <li>Site design to minimize the size of disturbed areas.</li> <li>Tree clearing and night construction avoided in months where presence of the proposed endangered tricolored bat is possible.</li> <li>Conduct informal or formal consultations with USFWS if any development or activities are planned in areas that support any federally listed threatened and endangered species or their habitat.</li> <li>Compliance with applicable laws and regulations; permits; Army and installation programs, policies; and the INRMP.</li> </ul>
Cultural Resources	• Complete cultural resources survey as directed by SHPO guidance received during consultations.

<b>Table 5-1: Best Management Practices</b>	s and Mitigation Measures
---	---------------------------

Resource	BMPs/Mitigation Measures
	• Compliance with applicable laws and regulations; permits; Army and installation programs, policies; the ICRMP, and the Programmatic Agreement with South Carolina SHPO.
Hazardous Materials and Waste	<ul> <li>Proper management and disposal of all hazardous waste generated during construction and maintenance, in compliance with applicable laws and regulations.</li> <li>Use of protective gear and equipment by construction and maintenance workers to minimize potential impacts from hazardous material.</li> <li>Compliance with applicable laws and regulations (including RCRA and CERCLA); permits; and Army and installation programs, policies, and plans, including the Fort Jackson Hazardous Substances Management Plan, Installation Spill Contingency Plan.</li> </ul>
Safety and Occupational Health	<ul> <li>Use of protective gear and equipment by construction and maintenance workers to minimize potential health hazards and accidents and potential impacts from hazardous material.</li> <li>Develop and implement comprehensive construction health and safety plan which addresses site specific health and safety issues, including specific emergency response services and procedures and evacuation measures (contractor responsibility).</li> <li>If any evidence of MECs are encountered on the site during construction or operation and maintenance, cease work immediately and remain stopped until the appropriate military office has been notified and appropriate clearance procedures have been completed.</li> </ul>
Geology and Soils	<ul> <li>Compliance with applicable laws and regulations; permits; and Army and installation programs, policies, and plans.</li> <li>Minimize soil erosion that could result in sedimentation of surface water during ground-disturbing activities by implementing appropriate control measures, such as silt fences, inlet protection, and diversion ditches.</li> </ul>
Socioeconomic Resources and Environmental Justice	<ul> <li>Fence construction sites and post appropriate signage to deter unauthorized people, including children, from accessing them.</li> </ul>
Transportation and Traffic	• Route and schedule construction vehicles to minimize conflicts with other traffic to the maximum extent practical.
Utilities	<ul> <li>Project design to be compatible with existing grid system.</li> </ul>
Water Resources	<ul> <li>Site design to maximize avoidance of water features and minimize the size of disturbed areas.</li> <li>Site design, construction, operation, and maintenance prevents or reduces migration of contaminant (if any are warranted based on the type of contaminant) to off-site surface water or groundwater.</li> <li>Erosion and storm water management control measures on the project site during construction.</li> <li>Compliance with applicable laws and regulations; permits; and Army and installation programs, policies, and plans.</li> </ul>