SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR POWER DISTRIBUTION LINES FOR SOLAR PHOTOVOLTAIC RENEWABLE ENERGY ENHANCED USE LEASE FORT HOOD, TEXAS

PREPARED BY U.S. ARMY ENVIRONMENTAL COMMAND
JBSA FORT SAM HOUSTON, TEXAS

AUGUST 2015

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DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR POWER DISTRIBUTION LINES FOR SOLAR PHOTOVOLTAIC RENEWABLE ENERGY ENHANCED USE LEASE

FORT HOOD, TEXAS

AUGUST 2015

INTRODUCTION

Fort Hood has an assigned Soldier population of 39,928 with 14,545 dependents residing on post as well as 20,048 Department of Defense (DoD) and other civilian employees. The installation is comprised of 218,823 acres with 196,797acres of range and training land for mechanized armor and dismounted military training. It is located in Central Texas, approximately 60 miles from both Austin and Waco, near the city of Killeen. Fort Hood is located in Bell and Coryell counties, with the majority of its training lands in Coryell County (Fort Hood, 2014a).

Fort Hood is the Army's second largest consumer of electricity, with a peak demand of approximately 109 megawatts (MW), a base demand of 40 MW, and a minimum demand of 32 MW. In FY13, the installation consumed approximately 440,000 megawatt hours (MWh) of electricity at a cost of approximately $60 per MW. The installation spends over $25 million per year on electricity.[1] A new hospital is currently under construction at Fort Hood. It is expected to add additional load of approximately 70,000 MWh per year by 2016 (Energy Initiatives Task Force, 2014).

PURPOSE AND NEED

The purpose of the proposed action is to provide the infrastructure that would connect a proposed solar photovoltaic array (PV array) generating plant to the existing electrical distribution system that serves the Fort Hood installation. This would require construction, operation, and maintenance of power distribution line(s) from the PV array plant located on West Fort Hood within Training Area 70 to one or more substations near the PV array. Without connection to the existing electrical distribution system, the PV array would not be able to meet the purpose and need stated in the Environmental Assessment of the Implementation of Solar Photovoltaic Renewable Energy Enhanced Use Lease at Fort Hood, Texas (PV Array EA) to increase the Army's use of renewable energy, thereby reducing its reliance on fossil fuels for energy.

[1] In this report, all system capacity sizes are in direct current (DC) and consumption on a MWh basis, in alternating current (AC).

The proposed action is needed to help the Army to meet Federal and DoD guidelines for the generation and use of renewable energy. Specifically, this action in concert with construction of the PV array would allow the Army to achieve renewable electrical energy production on Army land in accordance with 10 United States Code (USC) 2911e. The Army is required to produce or procure not less than 25 percent of the total quantity of energy it consumes to operate its facilities during fiscal year 2025 from renewable energy sources, and that the same percentage from renewable energy sources each year thereafter. Additionally, this project would contribute to the Army's goal of 1 gigawatt (GW) of installed renewable energy capacity on Army real property by 2025.

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION

The proposed action would allow a developer to construct, operate, and maintain two dual-circuit 12.47 kilovolt (kV) overhead power distribution lines. During construction, the disturbed width would be 100 feet or less along the right-of-way. After construction is complete, the right-of-way would be maintained at 30 feet or less in width.

One power distribution line would run from the PV array to the Clarke Rd substation along a route that begins at the southeast edge of the PV array. It would run east for 500 feet until intersecting an existing power transmission line running north/south. The line would parallel the existing line until just south of US Highway 190. There it would run west for 300 feet and then turn north to cross US Highway 190 and onward to Logistics Blvd. It would run east along Logistics Blvd until Clarke Rd, turn north until crossing the railroad lines, and then turn east until just south of the Clarke Rd substation entering from the south side along the east edge.

The second power distribution line would run from the PV array to the West Fort Hood substation along a route that begins at the southeast edge of the PV array. It would run east for 500 feet until intersecting an existing power transmission line running north/south. Then the line would run south, parallel to the existing line, to the east side of the Clarke Rd Switching Station. From there it would turn east, parallel to an existing line, until reaching Clarke Rd. It would run south along Clarke Rd until reaching Old Copperas Cove Rd (also known as Pump Station Rd). The line would turn and run east approximately one half mile along Old Copperas Cove Rd, turn northeast for about one half mile parallel to and on the west side of an existing line. From there it would cross the parallel line to the east side, turn northeast to cross a stream and enter the West Fort Hood substation along the northwest edge.

NO ACTION ALTERNATIVE

Under the no action alternative, no power distribution lines would be constructed. This would preclude construction of the PV array. Compliance with the federal statutes, Executive Orders, and mandates to change energy consumption and production would be hampered. The effort to increase renewable energy production/use and reduce

greenhouse gas (GHG) emissions would be negatively affected.

ENVIRONMENTAL ANALYSIS

ENVIRONMENTAL CONSEQUENCES AND COMPARISON OF ALTERNATIVES

The Supplemental Environmental Assessment (S-EA), which is attached hereto and incorporated by reference into this Finding of No Significant Impact (FNSI), examined the potential effects of the Proposed Action and the No Action Alternative on 13 areas of environmental and socioeconomic concern: land use, air quality, GHG, noise, soils, water resources, biological resources, cultural resources, socioeconomics, transportation, airspace, utilities, and hazardous and toxic substances.

Construction of the Proposed Action would result in no impacts to land use, air quality, noise, soils, water resources, cultural resources, socioeconomics, transportation, air space, utilities, and hazardous and toxic substances. The proposed action would result in long-term, minor, positive impacts to greenhouse gases and long-term minor negative impacts to biological resources. The S-EA identifies environmental protection measures (e.g. avoidance, best management practices, and environmental compliance) to minimize potential environmental impacts.

The No Action Alternative would maintain the status quo and result in no impacts to the environmental resource areas.

CUMULATIVE IMPACTS

Other foreseeable actions that may change the cumulative impact of the proposed action include an off-site wind renewable energy generation system and potential reductions to the Army population at Fort Hood in response to budget constraints. The combination of these actions would enhance the long-term positive benefit to GHG emissions at Fort Hood.

PUBLIC REVIEW AND COMMENTS

The S-EA and Draft FNSI will be made available for a ten (10) day public review and comment period. Documents will be made available at the Killeen Public Library and Fort Hood Department of Public Works (DPW). A Public Notice will be published in the Killeen Daily Herald newspaper. All documents will be posted on the Fort Hood website http://www.hood.army.mil/DPW/ under the public notices section. Please direct requests for further information on this S-EA/Draft FNSI and comment submissions to the NEPA Program-ENV Division, Directorate of Public Works, Bldg. 4622 Engineer Dr., Fort Hood, Texas 76544 or email charlotte.f.baldwin.civ@mail.mil. Comments received within the ten (10) day public review period will be made part of the Administrative Record. The Army will make revisions, as appropriate, to the FNSI based on the comments received.

FINDING OF NO SIGNIFICANT IMPACT (FNSI)

Fort Hood has considered the results of the analysis in the S-EA, comments received within the public review period, and the needs of Fort Hood and the Army Office of Energy Initiatives. Based on these factors, Fort Hood has decided to implement the Proposed Action in which the Army would allow the developer to construct, operate, and maintain power distribution lines that will connect the PV array to the Fort Hood power distribution system. Implementation of proposed action would not have a significant impact on the quality of human life or the natural environment.

This analysis fulfills the requirements of the National Environmental Policy Act (NEPA) of 1969, as implemented by the Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), as well as the requirements of the Environmental Analysis of Army Actions (32 CFR Part 651). Therefore, issuance of a FNSI is warranted, and an Environmental Impact Statement (EIS) is not necessary.

_____ _____

Brian L. Dosa Date
Director, Public Works
Fort Hood, Texas

SUPPLEMENTAL

ENVIRONMENTAL ASSESSMENT

FOR

POWER DISTRIBUTION LINES

FOR

SOLAR PHOTOVOLTAIC RENEWABLE

ENERGY ENHANCED USE LEASE

FORT HOOD, TEXAS

This Supplemental Environmental Assessment has been reviewed and approved by the following:

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BRIAN L. DOSA
Director, Public Works
Fort Hood, Texas

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EXECUTIVE SUMMARY

ES 1 Introduction

Fort Hood has an assigned Soldier population of 39,928 with 14,545 dependents residing on post as well as 20,048 Department of Defense (DoD) and other civilian employees. The installation is comprised of 218,823 acres with 196,797acres of range and training land for mechanized armor and dismounted military training. It is located in Central Texas, approximately 60 miles from both Austin and Waco, near the city of Killeen. Fort Hood is located in Bell and Coryell counties, with the majority of its training lands in Coryell County (Fort Hood, 2014a).

Fort Hood is the Army's second largest consumer of electricity, with a peak demand of approximately 109 megawatts (MW), a base demand of 40 MW, and a minimum demand of 32 MW. In FY13, the installation consumed approximately 440,000 megawatt hours (MWh) of electricity at a cost of approximately $60 per MW. The installation spends over $25 million per year on electricity.[2] A new hospital is currently under construction at Fort Hood. It is expected to add additional load of approximately 70,000 MWh per year by 2016 (Energy Initiatives Task Force, 2014).

ES 2 Purpose and Need

The purpose of the proposed action is to provide the infrastructure that would connect a proposed solar photovoltaic array (PV array) generating plant to the existing electrical distribution system that serves the Fort Hood installation. This would require construction, operation, and maintenance of power distribution line(s) from the PV array plant located on West Fort Hood within Training Area 70 to one or more substations near the PV array. Without connection to the existing electrical distribution system, the PV array would not be able to meet the purpose and need stated in the Environmental Assessment of the Implementation of Solar Photovoltaic Renewable Energy Enhanced Use Lease at Fort Hood, Texas (PV Array EA) to increase the Army's use of renewable energy, thereby reducing its reliance on fossil fuels for energy.

The proposed action is needed to help the Army to meet Federal and DoD guidelines for the generation and use of renewable energy. Specifically, this action in concert with construction of the PV array would allow the Army to achieve renewable electrical energy production on Army land in accordance with 10 United States Code (USC) 2911e. The Army is required to produce or procure not less than 25 percent (%) of the total quantity of energy it consumes to operate its facilities during fiscal year 2025 from renewable energy sources, and that the same percentage from renewable energy sources each year thereafter. Additionally, this project would contribute to the Army's goal of 1 gigawatt (GW) of installed renewable energy capacity on Army real property by 2025.

[2] In this report, all system capacity sizes are in direct current (DC) and consumption on a MWh basis, in alternating current (AC).

ES 3 Description of the Proposed Action

The proposed action would allow a developer to construct, operate, and maintain two dual-circuit 12.47 kilovolt (kV) overhead power distribution lines. During construction, the disturbed width would be 100 feet or less along the right-of-way. After construction is complete, the right-of-way would be maintained at 30 feet or less in width.

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ES 4 Environmental Analysis

Chapter 3 of the Supplemental Environmental Assessment (S-EA) discusses the potential environmental consequences associated with implementing either the No Action or the Proposed Action Alternative on Fort Hood, Texas. The analysis determined that implementation of the proposed action has minimal potential to impact the environment (Table 1).

Table 1. Environmental Resource Area Impacts

Environmental Resource Area	Alternative	Intensity	Duration	Positive or Negative	Environmental Protection Measure
Land Use	Proposed Action	Low	Long-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Air Quality	Proposed Action	Low	Short-term	Negative	BMP for dust suppression
	No action	Very low	N/A	N/A	N/A

Environmental Resource Area	Alternative	Intensity	Duration	Positive or Negative	Environmental Protection Measure
GHG	Proposed Action	Medium	Long-term	Positive	N/A
	No action	Very low	N/A	N/A	N/A
Noise	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Soils	Proposed Action	Low	Short-term	Negative	BMP for erosion control
	No action	Very low	N/A	N/A	N/A
Water Resources	Proposed Action	Low	Short-term	Negative	BMP for erosion control
	No action	Very low	N/A	N/A	N/A
Biological Resources	Proposed Action	Low	Long-term	Negative	ESMP & INRMP guidance
	No action	Very low	N/A	N/A	N/A
Cultural Resources	Proposed Action	Very low	N/A	N/A	HPC & ICRMP guidance
	No action	Very low	N/A	N/A	N/A
Socio-economics	Proposed Action	Very low	N/A	N/A	N/A
	No action	Very low	N/A	N/A	N/A
Transportation	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Air Space	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Utilities	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Hazardous and Toxic Substances	Proposed Action	Low	Short-term	Negative	SPCC Plan guidance
	No action	Very low	N/A	N/A	N/A

ES 5 Public Review and Comments

This S-EA and Draft Finding of No Significant Impact (FNSI) will be made available for a ten (10) day public review and comment period. Documents will be made available at the Killeen Public Library and Fort Hood Department of Public Works (DPW). A Public Notice will be published in the Killeen Daily Herald newspaper. All documents will be posted on the Fort Hood website http://www.hood.army.mil/DPW/ under the public notices section. Please direct requests for further information on this S-EA/Draft FNSI and comment submissions to the NEPA Program-ENV Division, Directorate of Public Works, Bldg 4622 Engineer Dr., Fort Hood, Texas 76544 or

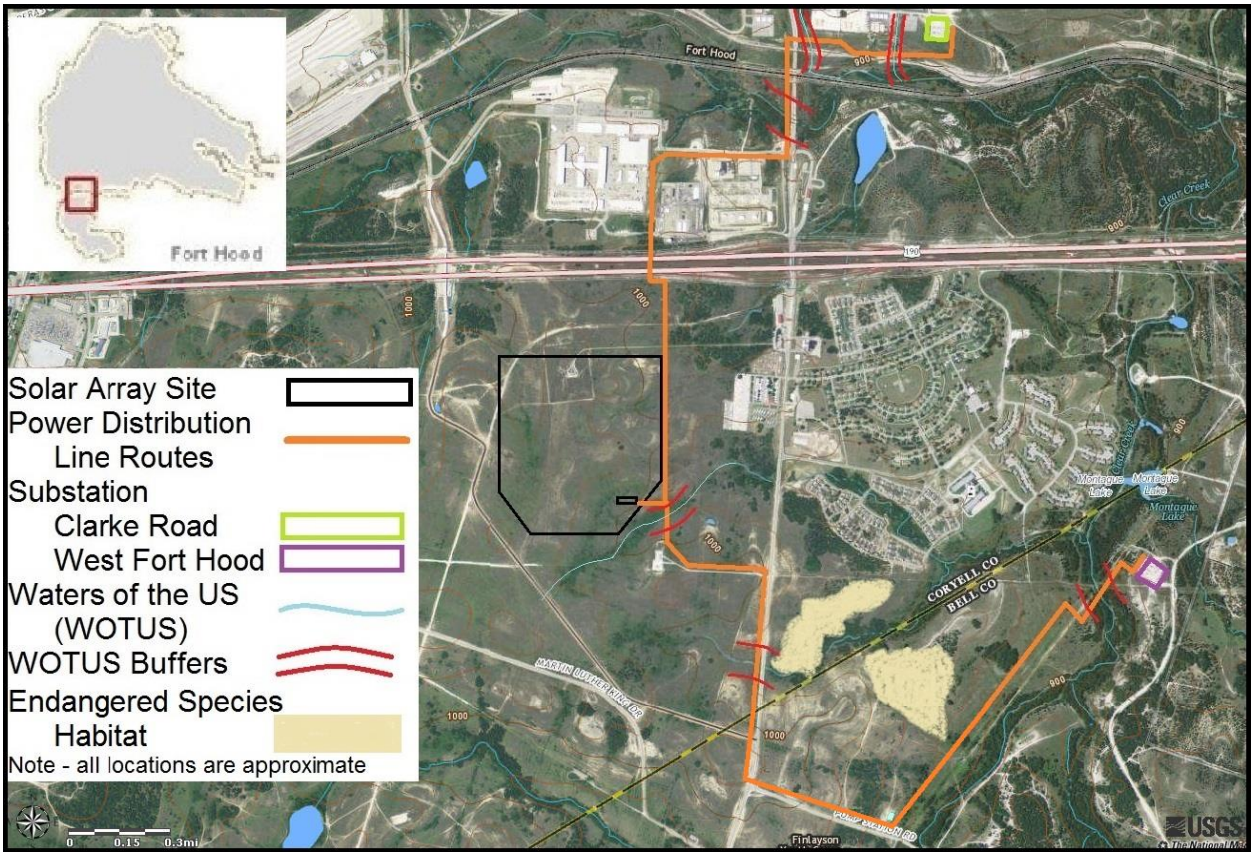
email charlotte.f.baldwin.civ@mail.mil. Comments received within the ten (10) day public review period will be made part of the Administrative Record. The Army will make revisions, as appropriate, to the FNSI based on the comments received.

1.0 PURPOSE OF AND NEED FOR THE ACTION

1.1 Introduction

The United States Army Garrison Fort Hood, Texas prepared this Supplemental Environmental Assessment (S-EA) to assess the potential environmental impacts of its proposed route(s) to construct, operate, and maintain the power distribution lines for a planned solar photovoltaic array generating system (PV array). The power distribution lines would tie the PV array into the existing electric distribution system that serves Fort Hood.

Figure 1. Proposed Location of the Solar PV Array and Power Distribution Line Routes



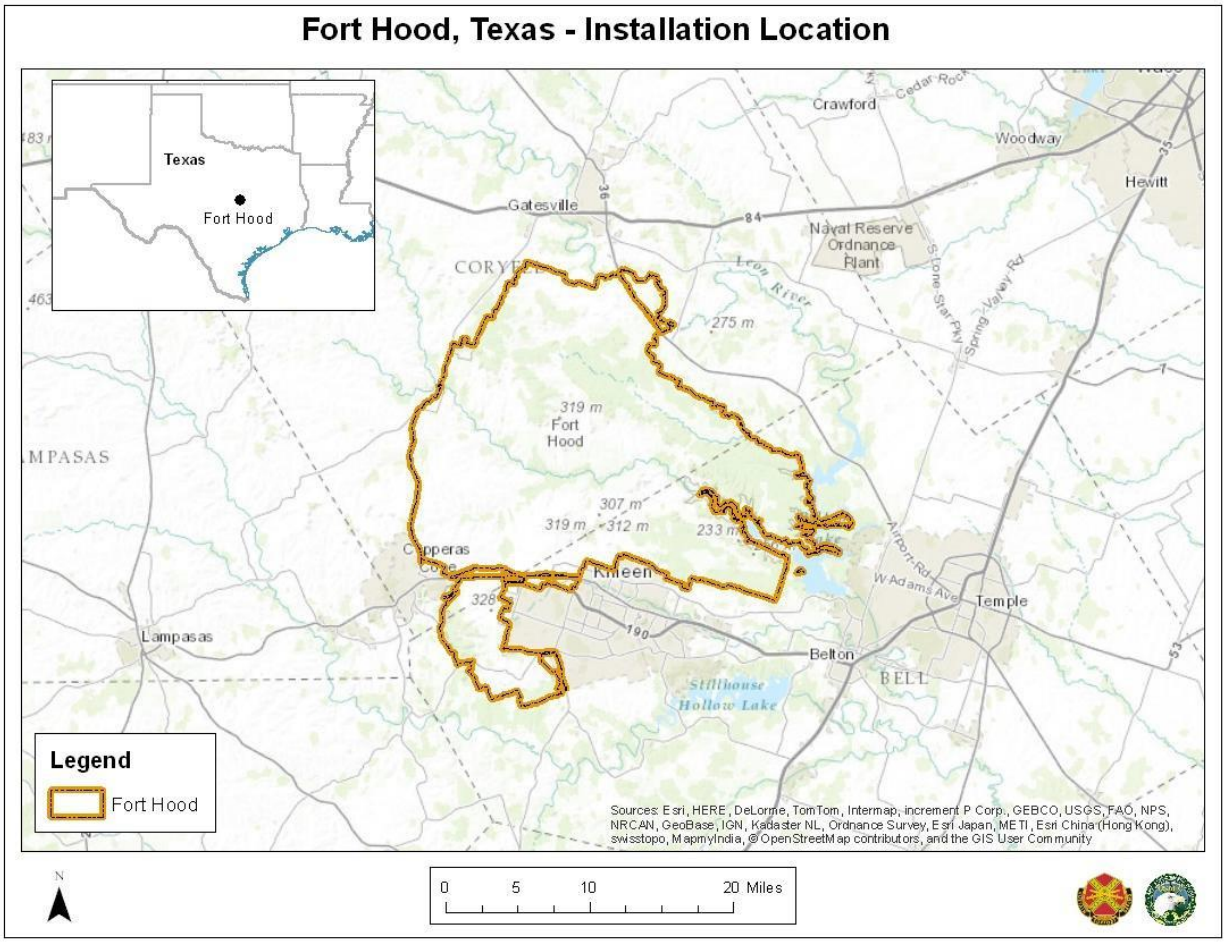
This S-EA is a supplement to the Environmental Assessment of the Implementation of Solar Photovoltaic Renewable Energy Enhanced Use Lease at Fort Hood, Texas (PV Array EA), October 2014. The PV array would be within West Fort Hood bounded on the north by US Highway 190, the east by Clarke Rd, and the south and west by Ammo Rd. The proposed action would construct two power distribution lines. One would run generally north and cross US Highway 190 to the Clarke Rd substation and the other would run generally east to the West Fort Hood substation (figure 1). Construction of

the PV array and power distribution lines is expected to commence on or about February 2016.

1.2 Background

Fort Hood has an assigned Soldier population of 39,928 with 14,545 dependents residing on post as well as 20,048 Department of Defense (DoD) and other civilian employees. The installation is comprised of 218,823 acres with 196,797acres of range and training land for mechanized armor and dismounted military training. It is located in Central Texas, approximately 60 miles from both Austin and Waco, adjacent to the cities of Killeen, Copperas Cove, and Gatesville (figure 2). Fort Hood is located in Bell and Coryell counties, with the majority of its training lands in Coryell County (Fort Hood, 2014a).

Figure 2. Fort Hood, Texas Location



Traditionally, Fort Hood has supported training for two armored divisions. Additionally, Fort Hood provides resources and training facilities for active and reserve units in support of the Army's mission. This mission is to maintain a total force, trained and ready to fight, to serve our nation's interests both domestically and abroad, and to

maintain a strategic force capable of decisive victory. Fort Hood is one of the Army's premier installations in support of this mission. The full range of mission-related training activities, including maneuver exercises for units up to brigade level, firing of live weapons, and aviation training, are conducted on Fort Hood.

A number of other, non-military, land uses occur on Fort Hood, including grazing, fishing, hunting, and other types of recreational activities. These uses, together with military training, affect the soil, water, vegetation, and animals on the installation.

Fort Hood is the Army's second largest consumer of electricity, with a peak demand of approximately 109 megawatts (MW), a base demand of 40 MW, and a minimum demand of 32 MW. In FY13, the installation consumed approximately 440,000 megawatt hours (MWh) of electricity at a cost of approximately $60 per MW. The installation spends over $25 million per year on electricity.[3] A new hospital is currently under construction at Fort Hood. It is expected to add additional load of approximately 70,000 MWh per year by 2016 (Energy Initiatives Task Force, 2014).

This S-EA has been prepared in accordance with the National Environmental Policy Act (NEPA), the regulations issued by the Council on Environmental Quality (CEQ), 40 Code of Federal Regulations (CFR) Parts 1500-1508, and the Army's procedures for implementing NEPA, published in 32 CFR Part 651 Environmental Analysis of Army Actions.

1.3 Need for the Proposed Action

The proposed action is needed to help the Army to meet Federal and DoD guidelines for the generation and use of renewable energy. Specifically, this action in concert with construction of the PV array would allow the Army to achieve renewable electrical energy production on Army land in accordance with 10 United States Code (USC) 2911e. The Army is required to produce or procure not less than 25 percent (%) of the total quantity of energy it consumes to operate its facilities during fiscal year 2025 from renewable energy sources, and that the same percentage from renewable energy sources each year thereafter. Additionally, this project would contribute to the Army's goal of 1 gigawatt (GW) of installed renewable energy capacity on Army real property by 2025.

As of April 2014, less than 2.1% of the energy consumed by the Army comes from renewable energy sources. The Energy Policy Act of 2005 (EPAct) mandated Federal facilities use at least 5% renewable energy by 2010 and 7.5% in 2013 and thereafter.

The Office of Energy Initiatives (OEI) was established by the Secretary of the Army to serve as the central management office for partnering with Army installations to implement cost-effective, large-scale renewable energy projects leveraging private sector financing. The OEI focuses on solar, wind, geothermal, and biomass projects that are 10 MWs or greater and located on Army installations in the United States. The

[3] In this report, all system capacity sizes are in direct current (DC) and consumption on a MWh basis, in alternating current (AC).

OEI and Fort Hood developed a renewable energy strategy for Fort Hood that includes solar PV as a viable source of renewable energy.

1.4 Purpose of the Proposed Action

The purpose of the proposed action is to provide the infrastructure that would connect a proposed solar photovoltaic array (PV array) generating plant to the existing electrical distribution system that serves the Fort Hood installation. This would require construction, operation, and maintenance of power distribution line(s) from the PV array plant located on West Fort Hood within Training Area 70 to one or more substations near the PV array. Without connection to the existing electrical distribution system, the PV array would not be able to meet the purpose and need stated in the PV Array EA to increase the Army's use of renewable energy, thereby reducing its reliance on fossil fuels for energy.

In addition to reducing the Army's reliance on fossil fuels, this project along with construction of the PV array would reduce the Army's total utility costs. Savings with a Net Present Value of as high as $32 million are possible. The project would also advance the Army by approximately 4% toward its goal of 1 GW of renewable energy capacity on Army land by 2025.

1.5 Scope of the Analysis

This S-EA is a supplement to the PV Array EA published in October 2014. This S-EA will not address the potential impacts already assessed in the PV Array EA. Connection of the PV array to two existing substations was discussed briefly in Section 3.1.2 of the PV Array EA (p. 14-15), with notional routes and acreages listed. This S-EA will assess the impacts created by the construction, operation, and maintenance of power distribution lines that would be required to connect the PV array into the Fort Hood electrical distribution system.

1.6 Public Involvement

This S-EA and Draft Finding of No Significant Impact (FNSI) will be made available for a ten (10) day public review and comment period. Documents will be made available at the Killeen Public Library and Fort Hood Department of Public Works (DPW). A Public Notice will be published in the Killeen Daily Herald newspaper. All documents will be posted on the Fort Hood website http://www.hood.army.mil/DPW/ under the public notices section. Please direct requests for further information on this S-EA/Draft FNSI and comment submissions to the NEPA Program-ENV Division, Directorate of Public Works, Bldg. 4622 Engineer Dr., Fort Hood, Texas 76544 or email charlotte.f.baldwin.civ@mail.mil. Comments received within the ten (10) day public review period will be made part of the Administrative Record. The Army will make revisions, as appropriate, to the FNSI based on the comments received.

1.7 Decisions to be Made

The decision maker will consider both the environmental and socioeconomic impacts analyzed in this S-EA, along with all other relevant information, such as public issues of concern that arise during the comment period, prior to making a final decision. If the decision maker determines there are no significant environmental impacts, that decision will be documented in the Final FNSI, which would be signed no earlier than ten (10) days from the publication of this S-EA and Draft FNSI. The Army may initiate a Notice of Intent to complete an Environmental Impact Statement if new information warrants the need for additional analysis of potentially significant environmental impacts.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

This chapter explores and evaluates alternatives developed in accordance with the purpose and need for the Proposed Action described in Section 1 and the screening criteria described below in Section 2.2. The purpose and need sets forth a rational context in which to analyze the viability of potential alternatives. The Army considered a range of potential alternatives, eventually narrowing the list to those considered reasonable for the routing of the power distribution lines for the PV array. This chapter presents the screening process used to eliminate non-viable alternatives from detailed consideration and to identify alternatives carried forward for full analysis in the S-EA.

2.2 Screening Criteria for the Proposed Action and Alternatives

In order to be considered a viable alternative and carried forward for analysis, the alternatives must meet the following screening criteria:

Mission Compatibility: Must be compatible with the military missions and training occurring at Fort Hood. Site development and operations may not adversely impact military training or future planned development activities.

On-Installation Energy Generation Potential for Increased Energy Security: Must allow Fort Hood to have greater control of and access to its energy supplies while reducing the possibility of distribution failures.

Environmental Factors: Must allow acceptable accommodation of cultural or sensitive natural resources.

Safety & Unexploded Ordnance (UXO): Must minimize exposure to UXO and damage from munitions. Must not conflict with military training activities or jeopardize personal safety of those constructing or operating the facilities. Ongoing operational needs must not adversely impact traffic safety or security risk.

Project Financing: Must be financeable at reasonable rates.

Compliance with Federal Mandates and DoD or Army Goals: Must enhance compliance with government mandates and DoD and Army goals and objectives regarding renewable energy production, energy security, increased energy efficiency, water conservation, and waste and greenhouse gas (GHG) emissions reduction.

Utility Considerations: Must be reasonably acceptable to the current electric supplier and not unreasonably interfere with their ability to absorb intermittent impacts and variance in peak energy generation.

2.3 Proposed Action

The proposed action would allow a developer to construct, operate, and maintain two dual-circuit 12.47 kilovolt (kV) overhead power distribution lines. During construction, the disturbed width would be 100 feet or less along the right-of-way. After construction is complete, the right-of-way would be maintained at 30 feet or less in width.

One power distribution line would run from the PV array to the Clarke Rd substation along a route that begins at the southeast edge of the PV array. It would run east for 500 feet until intersecting an existing power transmission line running north/south. The line would parallel the existing line until just south of US Highway 190. There it would run west for 300 feet and then turn north to cross US Highway 190 and onward to Logistics Blvd. It would run east along Logistics Blvd until Clarke Rd, turn north until crossing the railroad lines, and then turn east until just south of the Clarke Rd substation entering from the south side along the east edge.

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2.4 No Action Alternative

Under the no action alternative, no power distribution lines would be constructed. This would preclude construction of the PV array. Compliance with the federal statutes, Executive Orders, and mandates to change energy consumption and production would be hampered. The effort to increase renewable energy production/use and reduce GHG emissions would be negatively affected.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

Environmental resource areas are environmental and socioeconomic categories where effects are analyzed to enable a managed and systematic assessment of impacts. The affected environment and environmental consequences, to include direct, indirect, and cumulative effects, were analyzed, as appropriate, by the environmental resource areas listed in table 2 using the following intensity levels and expected level of analysis.

Very low: No Impact and it is self-evident that this environmental resource area is not impacted. NEPA analysis should be one paragraph identifying the list of environmental resource areas with impacts anticipated as Very Low.

Low: No Impact, but it is not self-evident that this environmental resource area is not impacted. NEPA analysis should consist of one paragraph for each environmental resource area explaining why it is not impacted.

Medium: It is not clear that the threshold of significance will be exceeded for this environmental resource area. NEPA analysis should use the Army's *Quick Look Guide*. If all of the questions can be answered, no further analysis is necessary; there is no significant impact. Appropriate level of discussions should be included in the EA.

High: The threshold of significance will be exceeded for this environmental resource area. The Army's *NEPA Analysis Guidance Manual* should be used as a guide for the analysis. Without mitigation, this environmental resource area would likely drive the NEPA analysis to an Environmental Impact Statement (EIS).

Table 2. Environmental Resource Area Impacts

Environmental Resource Area	Alternative	Intensity	Duration	Positive or Negative	Environmental Protection Measure
Land Use	Proposed Action	Low	Long-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Air Quality	Proposed Action	Low	Short-term	Negative	BMP for dust suppression
	No action	Very low	N/A	N/A	N/A
GHG	Proposed Action	Medium	Long-term	Positive	N/A
	No action	Very low	N/A	N/A	N/A

Environmental Resource Area	Alternative	Intensity	Duration	Positive or Negative	Environmental Protection Measure
Noise	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Soils	Proposed Action	Low	Short-term	Negative	BMP for erosion control
	No action	Very low	N/A	N/A	N/A
Water Resources	Proposed Action	Low	Short-term	Negative	BMP for erosion control
	No action	Very low	N/A	N/A	N/A
Biological Resources	Proposed Action	Low	Long-term	Negative	ESMP & INRMP guidance
	No action	Very low	N/A	N/A	N/A
Cultural Resources	Proposed Action	Very low	N/A	N/A	HPC & ICRMP guidance
	No action	Very low	N/A	N/A	N/A
Socio-economics	Proposed Action	Very low	N/A	N/A	N/A
	No action	Very low	N/A	N/A	N/A
Transportation	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Air Space	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Utilities	Proposed Action	Low	Short-term	Negative	N/A
	No action	Very low	N/A	N/A	N/A
Hazardous and Toxic Substances	Proposed Action	Low	Short-term	Negative	SPCC Plan guidance
	No action	Very low	N/A	N/A	N/A

3.2 Land Use

For the purpose of this S-EA, the Region of Influence (ROI) for Land Use includes Fort Hood and the surrounding communities of Killeen, Belton, Nolanville, Gatesville, Copperas Cove and unincorporated areas of Bell and Coryell Counties. This section describes development and any other general use within the ROI. It provides a description of the affected environment, evaluation of the anticipated changes in land use for the alternatives, including the No Action Alternative, and evaluation of the measures required to avoid, minimize, and mitigate impacts.

The attributes of land use include general use and ownership, special-use land areas, and land management plans. Land uses are frequently regulated by management plans, policies, ordinances, and regulations that determine the types of land uses that

are allowable or provide protection for specially designated or environmentally sensitive areas. Municipalities utilize urban planning and zoning to regulate development and land use. Zoning is used to segregate incompatible land uses and to assist in future development. Fort Hood's Installation Design Guide (Fort Hood, 2005) identifies the multiple activities that take place on the Installation. In addition, the Fort Hood Installation Natural Resources Management Plan (INRMP) provides in detail the Desired Future Conditions (DFC) for training.

Land use categories, defined in Army Technical Manual 5-803-1, *Installation Master Planning* (US Army, 1986), are summarized in table 3.

Table 3. Land Use Categories

Land Use Category	**Land Use Definition**
Administration	Headquarters and office buildings to accommodate offices, professional and technical activities, records, files, and administrative supplies
Airfield	Includes landing and takeoff areas, aircraft maintenance areas, airfield operations, and traffic aids
Community facilities	Commercial and service facilities, the same as those associated with towns in the civilian community
Family housing	Facilities to house military families, along with support and recreational facilities
Industrial	Includes activities for manufacturing Army equipment and material, utility plants, and waste disposal facilities
Maintenance	Facilities and shops for maintenance and repair of all types of Army equipment found at the depot and installation and for all manning and equipment levels
Medical	Facilities providing for both inpatient and outpatient medical and dental care for active-duty and retired personnel
Open space	Safety clearances, security areas, utility easements, water areas, wetlands, conservation areas, forest stands, and grazing areas
Outdoor recreation	Outdoor athletic and recreational facilities of all types and intensities of use
Supply/storage	Depot, terminal, and bulk-type storage for all classes of Army supply
Training/ranges	*(a)* Academic training areas required to support entry-level and continuing education and *(b)* fire and movement/maneuver areas
Unaccompanied personnel housing	Unaccompanied enlisted and officer personnel barracks, including dining, administration, supply, outdoor recreation, and community retail and service facilities

3.2.1 Affected Environment

West Fort Hood (WFH) is the south-westernmost part of Fort Hood, and home to Robert Gray Army Airfield. The only operational area of Fort Hood south of US-190, it is bordered on the east by Clear Creek Rd. It can only be accessed through the Clarke Gate South from the north and from Clear Creek Rd through the Mohawk Gate from the east.

WFH is a combination of two former Air Force installations that were transferred to Fort Hood in the late 1960s. Killeen Base was one of the Air Force's first storage and assembly bases for nuclear weapons; the storage areas are still used for munitions storage and take up a large portion of WFH. Gray Air Force Base was constructed in the late 1940s to support Killeen Base.

The majority of development in WFH supports the combat aviation training units, which use the majority of the flight-line facilities. Other units in WFH include the 504th Battlefield Surveillance Brigade, 15th Military Intelligence Battalion, and the Operational Test Command. The Arrival/Departure Aircraft Control Group maintains a large complex at the southwest end of the airfield.

Facilities on WFH range from original WWII substandard facilities to new construction. The newer facilities include barracks, company operations facilities, hangars, and the Airfield Operations Facility and Control Tower. The Killeen Regional Airport has a joint-use agreement with Fort Hood and operates out of the southeast end of the airfield. There is access to the airport from the flight-line, but public access to the airport is from outside of Fort Hood. Family and single-Soldier housing and social facilities, such as dining facilities, gymnasiums, banks, stores, and daycare facilities, are also located within the WFH Cantonment.

Training Areas (TAs) within the West Ft Hood Cantonment Area are known as TA70, 71, 72, 73, 74, and 75.

The current land-use categories for the proposed power distribution line routes are open space and training/ranges, respectively.

Grazing Lease

Fort Hood Military Reservation was initially established as Camp Hood in 1942 and became a permanent installation in 1950. The creation of Camp Hood and later expansion of Fort Hood was made possible by the condemnation of private lands by the Federal government, allowing the US Army to prepare Soldiers for tank destroyer combat during World War II. In exchange for the condemned land, the ranchers received fair market value and a 5-year lease to allow continued grazing of the land. Every 5 years, the terms of the lease and the effects of grazing are reviewed and a lease may or may not be renewed. The site of the proposed PV array was fenced in 2010 to keep cattle from grazing within the area. The current lease is dated 30 March 2015 and the proposed PV array parcel along with the distribution line routes are not

included in the current grazing lease. The grazing lease would not adversely affect the execution of the PV array or power distribution line projects.

3.2.2 Direct and Indirect Impacts

Proposed Action

The routes chosen for the power distribution lines in the proposed action could create a minor long-term negative effect on land use on the installation. There may be restrictions placed on operations in and around the lines to ensure personnel safety and minimize the possibility of damage to the lines. However, the area is undeveloped land and is not part of current maneuver or training areas so there would be no impact.

No Action Alternative

The no action alternative would not alter the current land use.

3.2.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.3 Air Quality and Greenhouse Gases

3.3.1 Affected Environment

Air Quality

The US Environmental Protection Agency (USEPA) established National Ambient Air Quality Standards (NAAQS) for specific pollutants determined to be of concern with respect to the health and welfare of the public. Areas that do not meet NAAQS standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. Fort Hood is in an attainment area for NAAQS (USEPA, 2015).

Greenhouse Gases

Greenhouse gases (GHGs) are chemical compounds in the Earth's atmosphere that allow incoming short-wave solar radiation but absorb long-wave infrared radiation re-emitted from the Earth's surface, trapping heat. Most studies indicate that the Earth's climate has warmed over the past century due to increased emissions of GHGs, and that human activities affecting emissions to the atmosphere are likely an important contributing factor.

Gases exhibiting greenhouse properties come from both natural and human sources. Water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are examples of GHGs that have both natural and manmade sources, while other GHGs such as chlorofluorocarbons are exclusively manmade. In the US, most GHG emissions are attributed to energy use. Such emissions result from combustion of fossil fuels used for electricity generation, transportation, industry, heating, and other needs.

The principal GHGs that enter the atmosphere due to human activities are:

- **Carbon Dioxide (CO_2)**: CO_2 enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)**: Methane is emitted during the production, transport, and combustion of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste.

- **Nitrous Oxide (N_2O)**: Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- **Fluorinated Gases**: Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone -depleting substances. They are typically emitted in smaller quantities, but because they are potent GHGs, they are referred to as High Global Warming Potential gases.

The proposed project would have a minor beneficial long-term impact on the reduction of greenhouse gases since the use of renewable energy sources reduces the need for carbon fuels to power electrical generation plants.

3.3.2 Direct and Indirect Impacts

Proposed Action

Dust would be created during construction of the proposed action. The use of environmental protection measures in the form of best management practices common to Fort Hood would prevent the air quality impacts of dust created during construction. Fort Hood is in an attainment region, therefore, air-conformity regulations do not apply. No activities on the proposed site or within the area present Air Quality concerns.

The proposed action would result in long-term reduction of GHGs associated with electrical energy production for operations on Fort Hood. GHGs generated by construction activities would be insignificant in comparison to the total number of vehicles and machinery operating on the installation and the relatively short duration of construction activities.

No Action Alternative

The no action alternative would result in GHG emissions continuing at the present level and no dust would be generated by construction.

3.3.3 Cumulative Impact

Other reasonably foreseeable projects that may also affect air quality and GHG include the planned construction of an off-site wind renewable energy generation system and the potential for a reduction in Soldiers stationed at Fort Hood. These actions in concert with construction of the PV array and the proposed action would result in even greater reductions in GHG since more of Fort Hood's energy demand would be met through renewable energy and the overall demand for energy would decrease.

3.4 Noise

3.4.1 Affected Environment

The current noise environment is characterized by different uses along the power distribution line routes. North of US Highway 190 is a light industrial area and rail lines. The highway would contribute traffic noise. South of the highway, there is a Fort Hood residential community east of Clarke Rd and north of the power transmission line running to the West Fort Hood substation. Killeen-Fort Hood Regional Airport is located approximately 2 miles south of the project location and contributes intermittent aircraft noise.

3.4.2 Direct and Indirect Impacts

Proposed Action

Noise may have a minor short-term negative impact on the Fort Hood residential community if the proposed action is implemented. Construction of one of the two power distribution lines runs along the southern boundary of residential community property that is part of a Fort Hood housing area. In addition, periodic mowing and clearing of the right of way would be required. Noise from construction, mowing, and clearing may carry into the nearby Fort Hood residential community. No noise generated by construction or maintenance activities is expected to leave Fort Hood; therefore, no noise impacts to the public would occur. No noise is anticipated from the operation of the power distribution lines or the associated solar PV technologies.

No Action Alternative

The no action alternative would not alter the current noise profile.

3.4.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.5 Soils

3.5.1 Affected Environment

The predominant soils along the power distribution line routes are Topsey clay loam, 3 to 8 percent slopes, severely eroded soil, Cho clay loam, 1 to 3 percent slopes, and Nuff

silty clay loam, 1to 6 percent slopes (Figure 3). The routes also cross Krum, Doss, and Frio soil types (Natural Resources Conservation Service, 2014).

3.5.2 Direct and Indirect Impacts

Proposed Action

Short-term direct impacts of the proposed action could consist of possible soil erosion during construction activities. These impacts would be controlled by the use of erosion control measures and the short duration of the construction process in any particular location; therefore no significant impacts would occur. If erosion did occur, it could cause the indirect impact of sedimentation of downstream areas and decreased water quality.

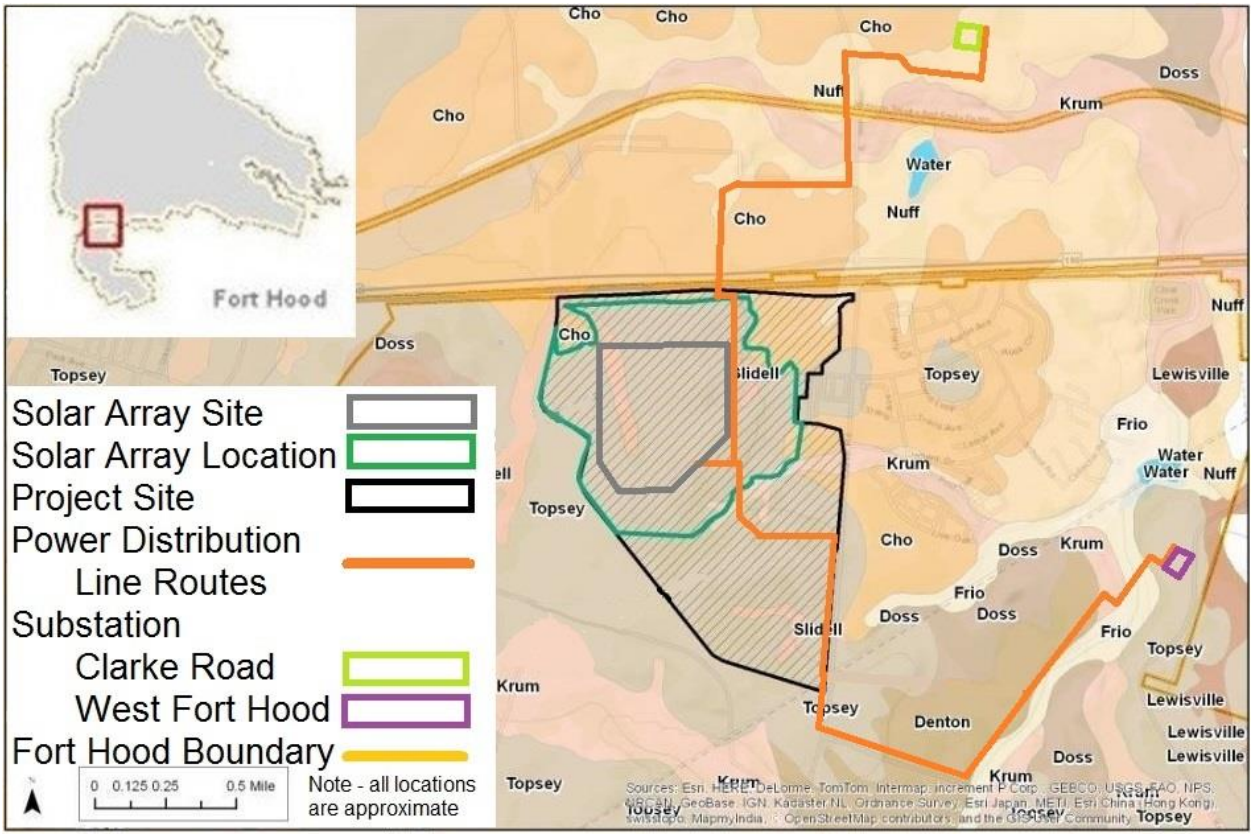
No Action Alternative

The no action alternative would have no impact on the project area.

3.5.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

Figure 3. Project Site Soils

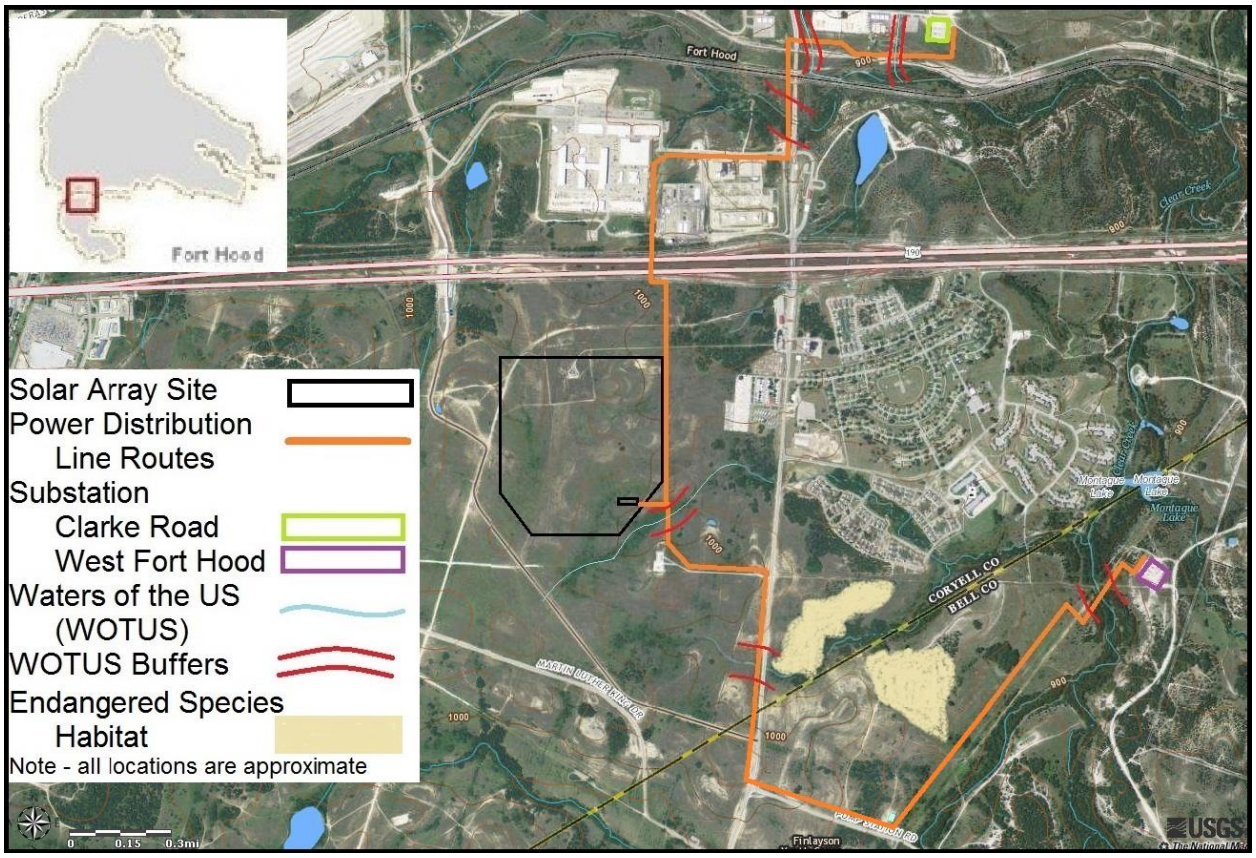


3.6 Water Resources

3.6.1 Affected Environment

Waters of the US are present along the proposed routes in the form of streams (Figure 4). The 100-year floodplain is crossed by the proposed routes according to the National Flood Insurance Rate Maps for Coryell and Bell Counties in Texas. Surface water features have been delineated to determine jurisdictional status under Section 404 of the Clean Water Act (33 USC 1251, as amended). A project design that evaluates potential impacts to streams and wetlands, and includes coordination with the Fort Hood Natural Resources Management (FHNRM) Branch, is essential to meeting the requirements of Section 404.

Figure 4. Project Site Hydrography



3.6.2 Direct and Indirect Impacts

Proposed Action

Direct impacts would be eliminated by avoiding construction or disturbance in these areas and designing the project where supporting structures are placed outside of streams and buffers. Possible indirect impacts of the proposed action to water resources would be reduced to insignificance using best management practices (BMPs)

required by the installation. Sedimentation control such as sediment catchments are needed in outflow areas during construction (Fort Hood, 2014a).

No Action Alternative

The no action alternative would have no effect on water resources.

3.6.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.7 Biological Resources

3.7.1 Affected Environment

Endangered Species

In accordance with the Endangered Species Act (ESA) of 1973, as amended, the Army must assist in the recovery of all listed threatened and endangered (T&E) species and their habitats under the Army's land management authority. Fort Hood has prepared an Endangered Species Management Plan (ESMP) for all listed and proposed T&E species (Table 4). The objective of the ESMP is to provide a comprehensive plan for conserving and protecting populations and habitats of federally listed species and species of concern on Fort Hood while maintaining mission readiness in a manner consistent with Army and Federal environmental regulations. In addition, the US Fish and Wildlife Service (USFWS) has issued a biological opinion (USFWS, 2015) for Fort Hood which outlines the terms and conditions required for exemption under the ESA. This biological opinion is a document that is the product of formal consultation, stating the opinion of the USFWS on whether or not a federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of habitat. If the Army fails to assume and implement the terms and conditions of the biological opinion, the protective coverage of exemption may lapse.

Table 4. Federal Endangered, Threatened, and Candidate Species

Common name	Scientific name	Listing status[a]	Status[b]
FEDERALLY LISTED SPECIES			
Black-capped vireo	*Vireo atricapilla*	E	A
Golden-cheeked warbler	*Setophaga chrysoparia*	E	A
Whooping crane	*Grus americana*	E	B
Least Tern	*Sterna antillarum*	E	C
Piping Plover	*Charadrius melodus*	T	C
Rufa Red Knot	*Calidris canutus rufa*	T	C
CANDIDATE SPECIES			

Common name	Scientific name	Listing status[a]	Status[b]
Sprague's pipet	*Anthus spragueii*	C	B
Smooth pimpleback	*Quadrula houstonensis*	C	B
Texas Fawnsfoot	*Truncilla macrodon*	C	C

a Federal listing status; E = endangered, T = threatened, C = candidate

b Status refers to population status on or near Fort Hood according to these definitions.

(A) Population established on Fort Hood. Recent information documents an established breeding population (even if small) or regular occurrence on the installation. This includes those species for which research and management is ongoing.

(B) Recorded on or near Fort Hood, but there is no evidence of an established population. This includes species considered transient, accidental, or migratory (e.g., some migrating birds may use the installation as a stop-over site during migration to and from their wintering grounds). For some species in this category, further inventory may reveal breeding populations.

(C) Not known to occur on Fort Hood.

Note: a list of Species of Concern can be found in the Endangered Species Management Plan for Fort Hood, Texas FY11-16.

Migratory Bird Treaty Act

Several hundred species of game and non-game birds are protected by the Migratory Bird Treaty Act (MBTA, 16 USC 703-712; 50 CFR Part 10) on Fort Hood. Executive Order 13186 provides guidance to Federal Agencies with the purpose to, “minimize the potential adverse effects of migratory bird take, with the goal of striving to eliminate take, while implementing the mission.” The greatest risk of unintentional take occurs during the migratory bird nesting season, which at Fort Hood is 15 March to 15 August, annually.

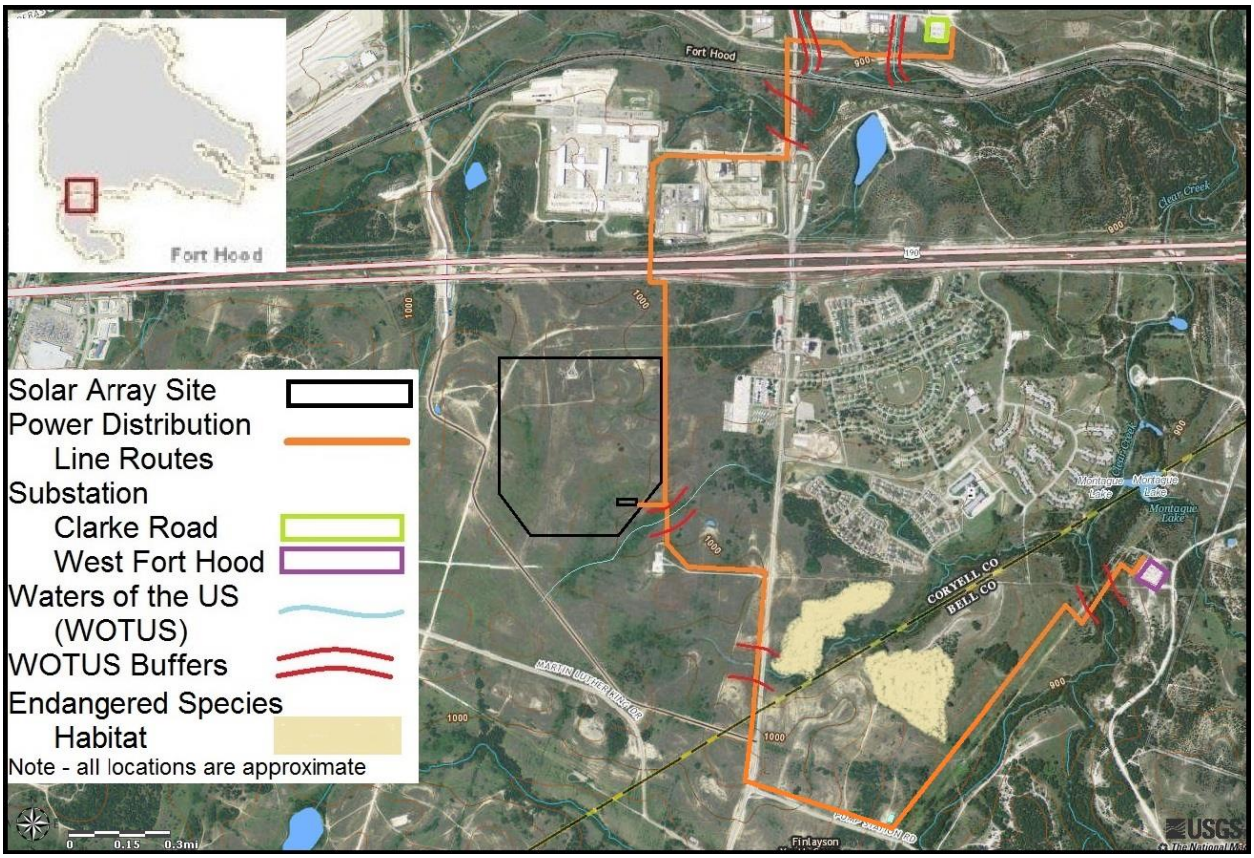
3.7.2 Direct and Indirect Impacts

Proposed Action

Endangered Species

The proposed action avoids routing any power distribution lines through endangered species habitat (Figure 5). Construction, operation, and maintenance of the power distribution lines and right of way would be carefully coordinated with the FHNRM Branch to ensure there are no impacts to T&E species or their habitat.

Figure 5. Endangered Species Habitat



Migratory Bird Treaty Act (MBTA)

Issues related to migratory birds can be managed by incorporating best management practices as detailed in the INRMP, such as clearing of vegetation during the non-nesting season, surveys, and monitoring by a permitted biologist during construction.

Construction of all other portions of the power distribution lines would be coordinated with the FHNRM Branch to ensure compliance with the MBTA and any other requirements.

No Action Alternative

The no action alternative would have no effect on biological resources.

3.7.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.8 Cultural Resources

3.8.1 Affected Environment

The Fort Hood Cultural Resource Management (FHCRM) program has oversight responsibility for all of the cultural resources within the boundaries of Fort Hood.

Fort Hood has adopted the Army Alternate Procedures (AAP) through development of a Historic Properties Component (HPC). The HPC is a compliance document that implements the Army Alternate Procedures in lieu of regular Section 106 requirements of the National Historic Preservation Act (NHPA). The intent of the HPC is to be a stand-alone document that is sent out for external review and signatory acceptance. Fort Hood HPC was certified by the Advisory Council on Historic Preservation (ACHP) in 2010 and recertified in 2015.

3.8.2 Direct and Indirect Impacts

Proposed Action

No known historic properties would be affected by the proposed action. In accordance with the installation's HPC and BMPs for cultural resources, work would stop immediately and the installation's cultural resources manager would be notified if any human remains or cultural resources are found.

No Action Alternative

The no action alternative would have no effect on cultural resources.

3.8.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.9 Socioeconomics

3.9.1 Affected Environment

The ROI includes Bell, Coryell, and Lampasas counties. The ROI includes counties that are generally considered the geographic extent to which the majority of the installation's Soldiers, Army Civilians, and contractor personnel and their Families reside. The population and workforce at Fort Hood have long been an essential element of the regional economy. Executive Order 12898 requires all Federal agencies to identify and address disproportionately high and adverse effects of programs, policies, and activities on minority and low-income populations. There are larger minority populations in Coryell and Bell Counties relative to those same populations at the state level. In these areas with higher proportions of environmental justice populations, there is a potential that these populations could be adversely impacted by the Proposed Action (USAEC, 2014). However it is not likely that these impacts would fall disproportionally on these environmental justice populations. All activities of the proposed action would be located within Fort Hood and few jobs would potentially be created for this project. No minority

populations would be disproportionately impacted by the proposed undertaking.

3.9.2 Direct and Indirect Impacts

Proposed Action

There are no anticipated direct or indirect impacts resulting from the proposed action.

No Action Alternative

The no action alternative would have no effect on socioeconomics.

3.9.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.10 Transportation

3.10.1 Affected Environment

The proposed routes for the undertaking would cross US Highway 190 and Clarke Rd and the railroad right of way near the Clarke Rd substation.

3.10.2 Direct and Indirect Impacts

Proposed Action

Short-term minor impacts to transportation from the proposed undertaking are possible during construction. The proposed power transmission lines would cross roads, highways, and railroads and may require traffic restrictions to allow the safe completion of construction. The restrictions would be timed to coincide with off peak traffic periods and would be of such a short term as to be insignificant.

No Action Alternative

The no action alternative would have no effect on transportation

3.10.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.11 Airspace

3.11.1 Affected Environment

The Robert Gray Army Airfield / Killeen Fort Hood Regional Airport is located between 1.5 and five miles south of the proposed power transmission line routes. Hood Army Airfield is located approximately six miles east of the proposed routes.

3.11.2 Direct and Indirect Impacts

Proposed Action

The proposed undertaking has the potential for minor short-term negative impacts on the use of the surrounding airspace during construction. The use of cranes to erect the power transmission lines may require short-term flight restrictions at the airfields but the area impacted is very small so there would be no interruption of air traffic and no impact.

No Action Alternative

The no action alternative would have no effect on airspace.

3.11.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

3.12 Utilities

3.12.1 Affected Environment

The area of the proposed undertaking has numerous above ground power transmission line routes already. These lines feed the Clarke Rd and West Fort Hood substations and distribute energy within Fort Hood. Other utilities are below ground and would be surveyed and marked to allow avoidance during construction.

3.12.2 Direct and Indirect Impacts

Proposed Action

The proposed action would parallel existing power transmission line routes as much as possible to avoid negative impacts to surrounding areas. Short-term interruptions to electrical power near the project may be required to ensure worker safety during construction or interconnection with the existing electrical infrastructure. The interruptions would be compensated for through other electrical feed routes and planned during periods that minimize their effects.

No Action Alternative

The no action alternative would have no effect on utilities.

3.12.3 Cumulative Impact

Other reasonably foreseeable projects that may also affect utilities include the planned construction of an off-site wind renewable energy generation system and the potential for a reduction in Soldiers stationed at Fort Hood. These actions in concert with construction of the PV array and the proposed action would result in even greater reductions to Fort Hood's need for commercially procured electric energy. More of Fort

Hood's energy demand would be met through renewable energy and the overall demand for energy would decrease.

3.13 Hazardous and Toxic Substances

3.13.1 Affected Environment

There are no environmental remediation agreements/orders in place with local, state or federal environmental regulatory agencies applicable to the proposed routes. No current or historic solid or hazardous waste management units are located within or directly adjacent to the proposed routes. No heating oil tanks are currently, or were formerly, known to be located on the proposed routes or adjacent properties. In addition, no aboveground storage tanks and underground storage tanks are presently, or were historically, known to be on the proposed routes. No oil/water separators are currently, or were formerly, located on the proposed routes. There are no known unexploded ordnance (UXO) or munitions and explosives of concern (MEC) on the proposed routes. However, since the areas are located on a military reservation, the presence of UXO or MEC cannot be totally excluded (Fort Hood, 2014b).

3.13.2 Direct and Indirect Impacts

Proposed Action

The proposed action could have minor short-term negative impacts if hazardous substances such as herbicides or petroleum products were spilled. The Fort Hood spill prevention, control, and countermeasure plan would mandate clean-up and remediation of any spill sites. If any suspected UXO or MEC were discovered during construction, work would immediately be halted and Fort Hood safety personnel would be notified to allow investigation.

No Action Alternative

The no action alternative would have no effect on hazardous and toxic substances.

3.13.3 Cumulative Impact

There are no anticipated cumulative impacts resulting from the proposed action.

4.0 CONCLUSION

The construction, operation, and maintenance of the power distribution lines assessed in the proposed action would provide the infrastructure that would connect a proposed PV array generating plant to the existing electrical distribution system that serves Fort Hood. Without connection to the existing electrical distribution system the PV array would not be constructed. This would reduce the Army's ability to meet Federal and DoD guidelines and Army goals for the generation and use of renewable energy and the reduction of GHG emissions. It would also raise the cost of energy for Fort Hood.

The Proposed Action would not result in significant environmental impacts. A Finding of No Significant Impact (FNSI) is recommended for the Proposed Action, and an Environmental Impact Statement is not required. This EA and supporting documentation have been prepared in accordance with the National Environmental Policy Act of 1969, 42 USC 4321 *et seq.*, as implemented by the Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), as well as the requirements of the Environmental Analysis of Army Actions (32 CFR Part 651).

5.0 PREPARER

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6.0 PERSONS CONSULTED

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7.0 ACRONYMS AND ABBREVIATIONS

AAP	Army Alternate Procedures
AC	Alternating Current
ACHP	Advisory Council on Historic Preservation
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	Methane
CO_2	Carbon Dioxide
DC	Direct Current
DoD	Department of Defense
DPW	Department of Public Works
EA	Environmental Assessment,
EIS	Environmental Impact Statement
EITF	Energy Initiatives Task Force
EPAct	Energy Policy Act of 2005
ESA	Endangered Species Act
ESMP	Endangered Species Management Plan
FHCRM	Fort Hood Cultural Resource Management
FHNRM	Fort Hood Natural Resource Management
FNSI	Finding of No Significant Impact
GHG	Greenhouse Gas
GW	Gigawatt
HPC	Historic Properties Component
ICRMP	Installation Cultural Resources Management Plan

INRMP	Installation Natural Resource Management Plan
kV	Kilovolt
MBTA	Migratory Bird Treaty Act
MEC	Munitions and Explosives of Concern
MW	Megawatt
MWh	Megawatt Hour
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
OEI	Office of Energy Initiatives
PV	Photovoltaic
ROI	Region of Influence
S-EA	Supplemental Environmental Assessment
SPCC	Spill Prevention, Control, & Countermeasure
T&E	Threatened and Endangered
USAEC	US Army Environmental Command
USC	United States Code
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
UXO	Unexploded Ordnance

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