



# U.S. Department of Energy Categorical Exclusion Determination Form

Submit by E-mail

Proposed Action Title: Gila Substation Stage 07 Rebuild Project and Related Communication and Protection Equipment Replacement

Program or Field Office: Western Area Power Administration/ Desert Southwest Region

Location(s) (City/County/State): Yuma, Yuma County, Arizona and Imperial County, California

Proposed Action Description:

At Gila Substation, Western proposes to build a new 161-kV switchyard using 230-kV standards and dismantle the existing one. In support of this effort, Western plans to add or modify communication and protection equipment and improve control buildings at Knob, Kofa, and Wellton Mohawk Substations and Black Mountain and Telegraph Pass Communication Sites. Western plans to provide technical assistance regarding communications equipment at customer-owned Siphon Drop and Winterhaven facilities.

The purpose of the work is to ensure the safety and reliability of the bulk electric system. Western needs to rebuild the 161-kV switchyard in a manner and location to accommodate future equipment upgrades and additions. For example, Western doesn't have room to rebuild the 34.5-kV or 69-kV yards, because the 161-kV equipment blocks the way. Western's 34.5-kV yard, which contains 1950s equipment nearing the end of its useful life, is the sole path for power to irrigation district relay pumps and other customers.

Western plans to start construction on October 1, 2015 and complete it by March 31, 2017.

SEE CONTINUATION SHEET

Categorical Exclusion(s) Applied:

B4.11 - Electric power substations and interconnection facilities

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: *Lord Marant*

Date Determined: *7-20-15*

## **Categorical Exclusion Determination Form – Continuation Sheet**

### **Gila Substation Stage 07 Rebuild Project And Associated Communications Work**

#### **Project Description (continued):**

Gila Substation occurs on Western-owned land located at 9600 East Araby-Blaisdale Road in Yuma, Yuma County, Arizona. Knob Substation is situated on Western-owned land near Sidewinder Road and Interstate 8 in Imperial County, California. Kofa Substation occurs on Department of Defense land along US Route 95 north of Yuma, Yuma County, Arizona. Wellton Mohawk Substation is located on Bureau of Reclamation land along old US 80 west of Wellton, Yuma County, Arizona. Black Mountain Communications Site occurs on Bureau of Land Management (BLM) land near State Route 78 and County Highway S34 in Imperial County, California. Telegraph Pass Communication Site occurs on BLM land north of Interstate 8 in Yuma County, Arizona. Siphon Drop and Winterhaven are customer-operated facilities located near Winterhaven, Imperial County, California.

At Gila Substation, Western plans the following:

- 1) Build a new 8-bay 161-kV switchyard to 230-kV standards, add 9 to 12 new Sulphur Hexafluoride (SF<sub>6</sub>) gas breakers, and demolish the old 161-kV yard.
- 2) Reuse the existing 161-kV transformers in place, and change the high-side connections so that they can be isolated and protected separately.
- 3) Install a new 34.5-kV transformer and concrete pad in the existing yard.
- 4) Modify 0.4 mi of existing transmission line as follows
  - a. Modify the Gila Knob 161-kV transmission line in order to connect it to a bay on the north side of the new yard. This entails removing 4 wood poles structures, installing 3 new steel monopoles, replacing conductors, and placing a marker ball on the overhead ground wire.
  - b. Modify the Gila Wellton Mohawk 161-kV transmission line in order to connect it to a bay on the south side of the new yard. This entails removing 1 wood-pole structure, adding 1 new steel monopole structure, and replacing conductors. In addition, guy wires will be attached to existing wood-pole Structure 0/2 situated across the street from Gila Substation.
  - c. Modify the Parker Gila 161-kV transmission line in order to connect it to a new bay on the south side of the new yard. This entails removing 1 wood pole structure, adding 1 new steel monopole structure, replacing conductors, and placing a marker ball on the overhead ground wire.
- 5) Adjust the height of the Gila North Gila 69-kV transmission line as needed for any transmission line crossings.
- 6) Build a new slab-on-grade control building (48 x 94 ft) inside the new switchyard and install metering and communications equipment, as well as backup batteries.
- 7) Remove unsalvageable equipment from existing control building, and remove asbestos flooring as needed.
- 8) Install temporary fiber optic cables between old and new control buildings using existing cable trays to the extent possible.
- 9) Install permanent fiber optic cables between new control building and existing office building using existing vaults and conduit to the extent possible.

- 10) Build a new 160-ft-tall, 3-legged, self-supporting communication tower situated next to new control building, and install three, 6 or 10-ft-diameter solid parabolic dishes at the 95, 145, and 155 ft levels and two antennae at the 150 and 160 ft levels. This entails constructing a wave guide structure with concrete footings to support cables between the tower and the control building.
- 11) Install lighting and security cameras.
- 12) Add fill, grade the new 161-kV yard, and install 5 pipe drains and concrete pipe culverts along the switchyard perimeter.
- 13) Remove fill and grade existing on-site spoils/dirt pile located on Western and the adjacent Bureau of Reclamation property.
- 14) Cover the new yard with 6 in of gravel surfacing and apply herbicides.
- 15) Install a ground mat below the new 161-kV yard.
- 16) Erect a 7-ft-high, chain-link fence with 3-strand barbed wire or razor wire on top around the new 161-kV switchyard. Fence posts will be embedded in concrete and connected to the ground mat.
- 17) Improve grade and surfacing of existing access roads and create new road between the new 161-kV switchyard gate and existing roads.

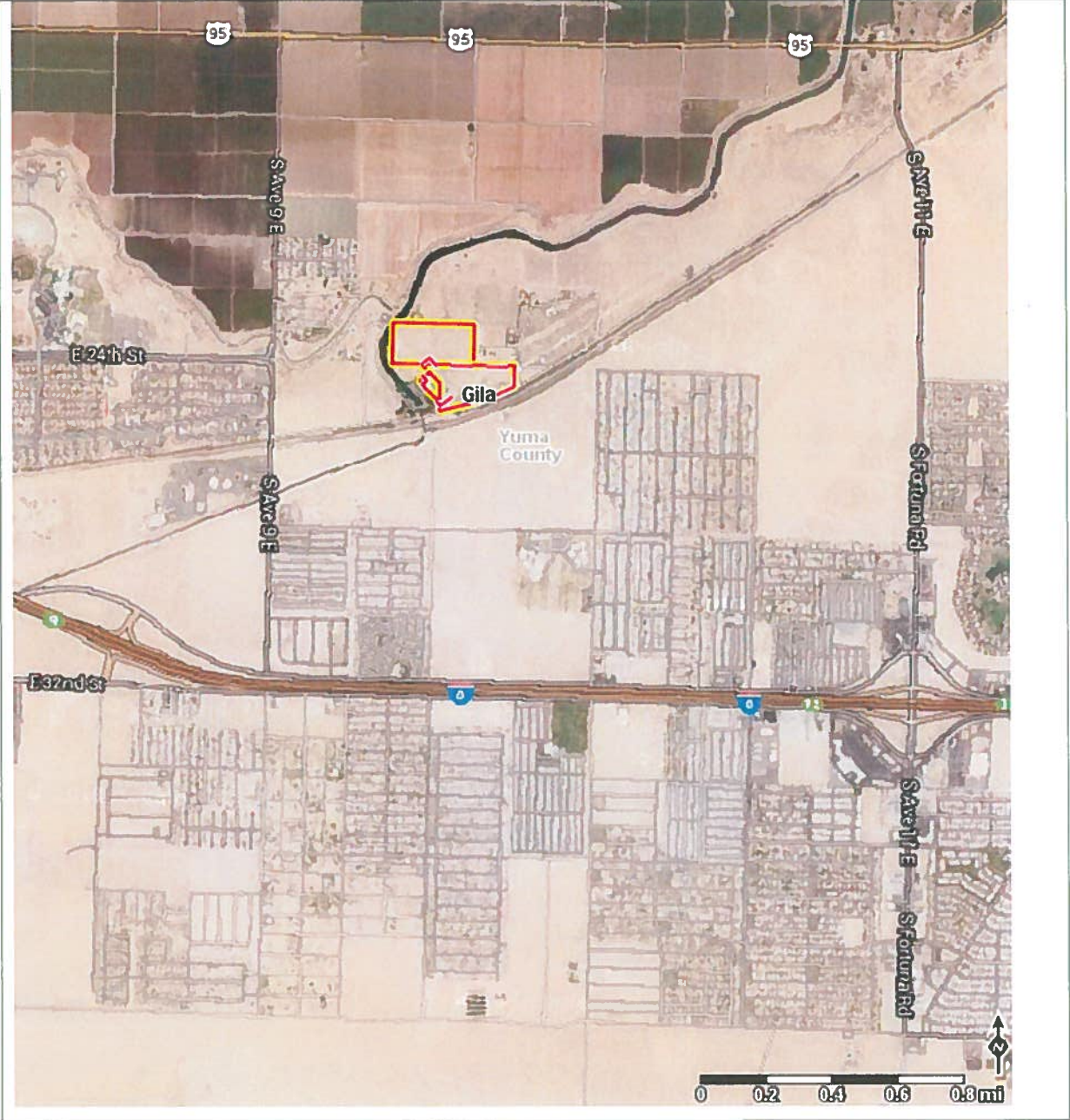
At other facilities, Western plans the following supporting actions:

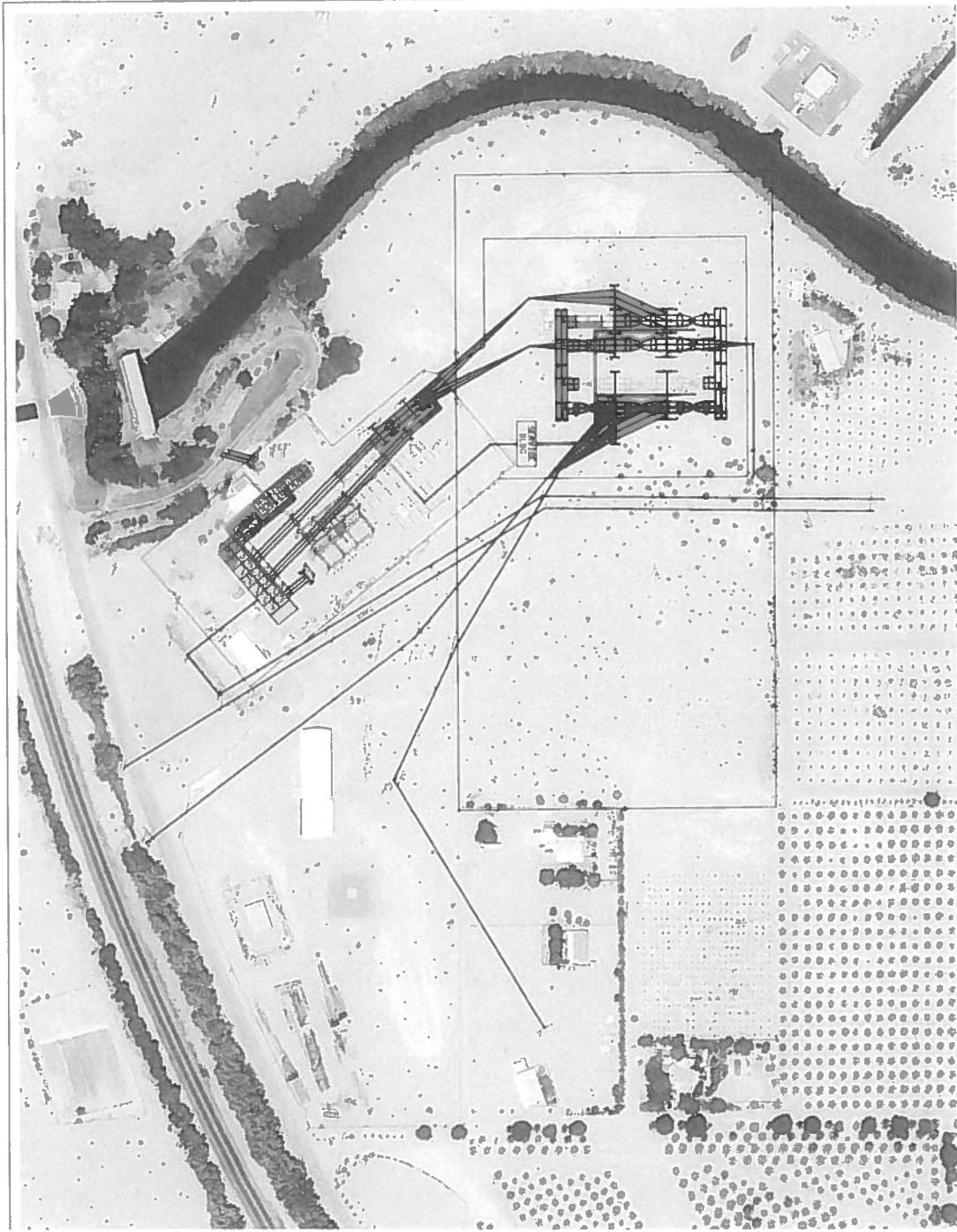
- 18) At Knob, Kofa, and Wellton Mohawk Substations, change panels and switches and replace radio equipment in control buildings. This may entail drilling holes in walls, floors, and ceiling for new conduit or to secure new racks. Western will also install temporary jumpers to existing transmission line structures.
- 19) At Knob Substation, remove asbestos containing materials, such as flooring, in the control building.
- 20) At Knob Substation, install new junction boxes and lay new cables in the existing yard.
- 21) At Wellton Mohawk Substation, remove asbestos containing materials, such as flooring, in the control room.
- 22) At Black Mountain and Telegraph Pass Communication Sites as well as at Knob Substation, adjust microwave dishes and radio antennae or add new ones and remove the old ones when bypassed. The waveguide structures located between towers and control buildings may also be replaced.
- 23) At customer-owned Siphon Drop and Winterhaven facilities, provide technical assistance to realign antennae and dishes to point to the new communication tower at Gila Substation

**Special Conditions:**

- 1) Western will conduct a pre-construction survey for burrowing owls prior to on-site ground-disturbing activities. Surveys will be conducted per the *Burrowing Owl Project Clearance Guidance for Landowners* (Arizona Burrowing Owl Working Group, 2009). If active burrows are detected in the project area, workers will avoid a 100-ft-wide buffer around any suspected active burrow entrance. If burrows cannot be avoided, Western will implement suitable conservation measures, such as translocation.
- 2) Western or Western's construction contractor shall not cause injury or death to nesting birds, active nests, eggs, or nestlings. In general, breeding birds and active nests are likely to be encountered between February 15 and August 1. If evidence of a nesting bird is discovered in the project area:
  - a. Western or the Contractor shall immediately stop work within 40 ft of the nest and notify the Contracting Officer's Representative (COR) with the location and nature of the findings. The Contractor shall suspend work in the avoidance area until directed to continue by the COR;
  - b. The COR will coordinate with Western's Environmental Section relative to active nest discoveries and any recommended actions; the COR shall provide notice to proceed to the Contractor after Western's internal coordination is complete.
- 3) Western's construction contractor shall obtain any required air-quality permits.
- 4) Western will and Western's construction contractor shall use construction machinery that meets air emission requirements.
- 5) Western will and Western's construction contractor shall report SF6 gas quantities and avoid leakage or venting.
- 6) Western's construction contractor shall obtain a Storm Water Construction General Permit from Arizona Department of Environmental Quality and submit a Notice of Intent.
- 7) Western's construction contractor shall develop and implement a Storm Water Pollution Prevention Plan because the project will disturb more than one acre of land.
- 8) Western will provide the construction contractor with a copy of the Lead-based paint inspection and asbestos survey reports for Gila, Knob and Wellton Mohawk control buildings, if they plan to perform work in those buildings. Persons working in areas where lead based paint and asbestos containing materials have been identified will follow appropriate safety measures.

**Project Location Map:**





Checklist for Categorical Exclusion Determination, revised Nov. 2011

Application of Categorical Exclusions (1021.410)	Disagree	Agree	Unknown
(b)(1) The proposal fits within a class of actions that is listed in appendix A or B to subpart D.		X	
(b)(2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerning alternate uses of available resources		X	
(b)(3) The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. The scope of a proposal must include the consideration of connected and cumulative actions, that is, the proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or § 1021.211 of this part concerning limitations on actions during EIS preparation.		X	
<b>B. Conditions that are Integral Elements of the Classes of Actions in Appendix B. :</b>	NO	YES	UNKNOWN
(1) Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety and health, or similar requirements of DOE or Executive Orders.	X		
(2) Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities;	X		
(3) Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases;	X		
(4) Have the potential to cause significant impacts on environmentally sensitive resources. An environmentally sensitive resource is typically a resource that has been identified as needing protection through Executive Order, statute, or regulation by Federal, state, or local government, or a federally recognized Indian tribe. An action may be categorically excluded if, although sensitive resources are present, the action would not have the potential to cause significant impacts on those resources (such as construction of a building with its foundation well above a sole-source aquifer or upland surface soil removal on a site that has wetlands). Environmentally sensitive resources include, but are not limited to:	X		
(i) Property (such as sites, buildings, structures, and objects) of historic, archaeological, or architectural significance designated by a Federal, state, or local government, or	X		

	property determined to be eligible for listing on the National Register of Historic Places;			
(ii)	Federally-listed threatened or endangered species or their habitat (including critical habitat) or Federally- proposed or candidate species or their habitat (Endangered Species Act); state-listed or state-proposed endangered or threatened species or their habitat; Federally-protected marine mammals and Essential Fish Habitat (Marine Mammal Protection Act; Magnuson-Stevens Fishery Conservation and Management Act); and otherwise Federally-protected species (such as under the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act);	X		
(iii)	Floodplains and wetlands (as defined in 10 CFR 1022.4, —Compliance with Floodplain and Wetland Environmental Review Requirements: “Definitions,” or its successor);	X		
(iv)	Areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national monuments, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, scenic areas (such as National Scenic and Historic Trails or National Scenic Areas), and marine sanctuaries;	X		
(v)	Prime or unique farmland, or other farmland of statewide or local importance, as defined at 7 CFR 658.2(a), —Farmland Protection Policy Act: Definitions,   or its successor;	X		
(vi)	Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region); and	X		
(vii)	Tundra, coral reefs, or rain forests.; or	X		
(5)	Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.	X		