

Proposed Site Description

TAB 2 PROPOSED SITE DESCRIPTION

KRS 278.706(2)(b) A full description of the proposed site, including a map showing the distance of the proposed site from residential neighborhoods, the nearest residential structures, schools, and public and private parks that are located within a two (2) mile radius of the proposed facility.

The proposed Project includes a solar-powered electric generation facility with an alternating current (AC) generating capacity of up to 100 MW (the Facility), an associated 138-kilovolt (kV), approximately 1 mile long, nonregulated transmission line (the Transmission Line), and a project substation transformer. The Facility will be located on a reclaimed, mountaintop-removal coal mine site in an unincorporated area of Pike County, Kentucky. The area leased for the Facility includes approximately 1,543 acres of reclaimed mine land (the Facility Area). Within this Facility Area, the footprint of the Facility will only be approximately 500 acres based on the area underneath the solar arrays, inverters, substation, and private access roads. Access roads will be gravel-surfaced and approximately 16 feet in finished width with the exception to the access to the substation being 20 feet in width.

The Facility will use approximately 191,436 ground-mounted photovoltaic (PV) modules, commonly known as solar panels, to provide renewable energy to the Kentucky bulk power transmission system. Solar panels will be affixed to a metal racking system mounted on piles that will be installed into the ground in arrays. Arrays will be grouped into separate, contiguous clusters, and all of the array clusters will be within a contiguous chain link-style fence which will be gated for equipment security and public safety.

The panel arrays will be connected to approximately 25 inverters which will convert the direct current (DC) power generated by the solar panels to AC. From the inverters, a series of below-ground collection cables will deliver the electricity to the Facility substation. At the Facility substation, the voltage will be stepped up to allow connection to the regional electrical grid through the Transmission Line. The Transmission line will be approximately 1 mile in length, generally traversing through vacant timberland to the point of interconnection (POI) at the existing Excel to Johns Creek 138kV transmission line, which is owned by Kentucky Power Company (Kentucky Power), a wholly owned subsidiary of American Electric Power, Inc (AEP).

A map showing the Facility Area with residential structures and residential neighborhoods within a 2-mile radius is included in this Tab as Attachment A. Residential neighborhoods have been identified pursuant to Kentucky Revised Statute (KRS) 278.700(6)¹.¹ Areas of 5 or more acres containing at least 1 residential structure per acre were digitized manually, according to the approximate area of land upon which the residential structures are situated. Parcel boundary data was not considered in the identification of residential neighborhoods.

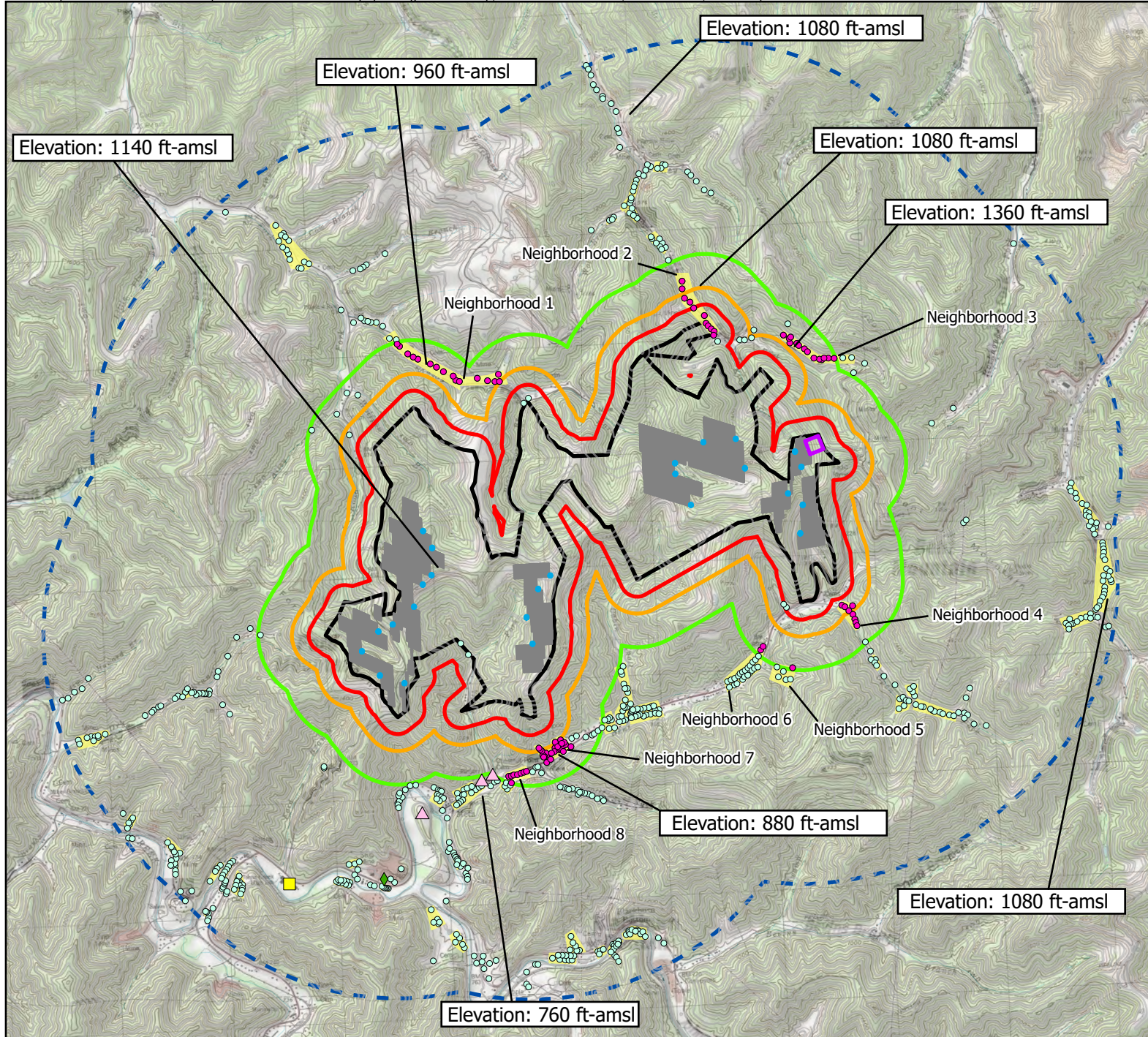
Residential structures in the vicinity of the Project are generally clustered along roadways.

There are no public parks or private parks within a 2-mile radius of the Facility Area. One school, John's Creek Elementary School is located approximately 1.25 miles southwest of the Facility Area. Additional maps showing the preliminary Facility layouts in greater detail are included with Tab 12, the Site Assessment Report.

Attachments:

- Attachment A: Map of Proposed Project Site (1 page)

¹ 1 KRS 278.700(6): "Residential neighborhood" means a populated area of five (5) or more acres containing at least one (1) residential structure per acre.



Legend

- Residences
- Residences Within Neighborhoods and 2000 Foot Buffer
- △ Cemetery
- ◆ Church
- School
- Residential Neighborhood
- ▭ Project Site
- Two Mile Buffer
- ▭ 500 Foot Buffer
- ▭ 1000 Foot Buffer
- ▭ 2000 Foot Buffer
- Proposed Arrays
- Proposed Inverter
- Proposed Substation
- 80 Foot Contour

N

0 0.5 1
Miles

Figure 1
Neighborhood Map
 Pike County Solar Project
 Pike County Solar Project, LLC
 Pike County, Kentucky

