LYNN BARK
ENERGY CENTER

# Tab 2
# 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 200 MW (the Facility) and an associated 138-kilovolt (kV), approximately 5.61-mile long, transmission line (the Transmission Line). The Facility will be located on a reclaimed, mountaintop-removal coal mine site in an unincorporated area of Martin County, Kentucky. The area leased for the Project Site includes approximately 1,514 acres of private land (the Project site). Within this Facility Area, the footprint of the Project Site will only be approximately 641 acres based on the area underneath the solar arrays, inverters, and private access roads. Access roads will be gravel-surfaced and approximately 16 feet in finished width with the exception of the access to the substation being 20 feet in width.

The Project will use approximately 357,588 fixed-tilt photovoltaic (PV) modules oriented south at a bearing of 182 degrees with a panel tilt of 26 degrees, 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 the array clusters will be within chain link-style fencing which will be gated for equipment security and public safety.

The panel arrays will be connected to approximately 51 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 Project Site substation. At the 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 5.61 miles in length, generally traversing through vacant timberland to the point of interconnection (POI)

at the existing Inez Substation, which is owned by Kentucky Power Company (Kentucky Power), a wholly owned subsidiary of American Electric Power, Inc (AEP).

A map showing the Project Site 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 schools, public parks, or private parks within a 2-mile radius 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.

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## Attachment A

# Map of Proposed Project Site

M:\US\Projects\S-U\Savion\Lynn_Bark_Solar_ArcGIS\Lynn Bark_041524.aprx\Neighborhood Map, REVISED: 04/25/2024, SCALE: 1:55,000 when printed at 8.5x11

Drawn By: Casey.Brotman

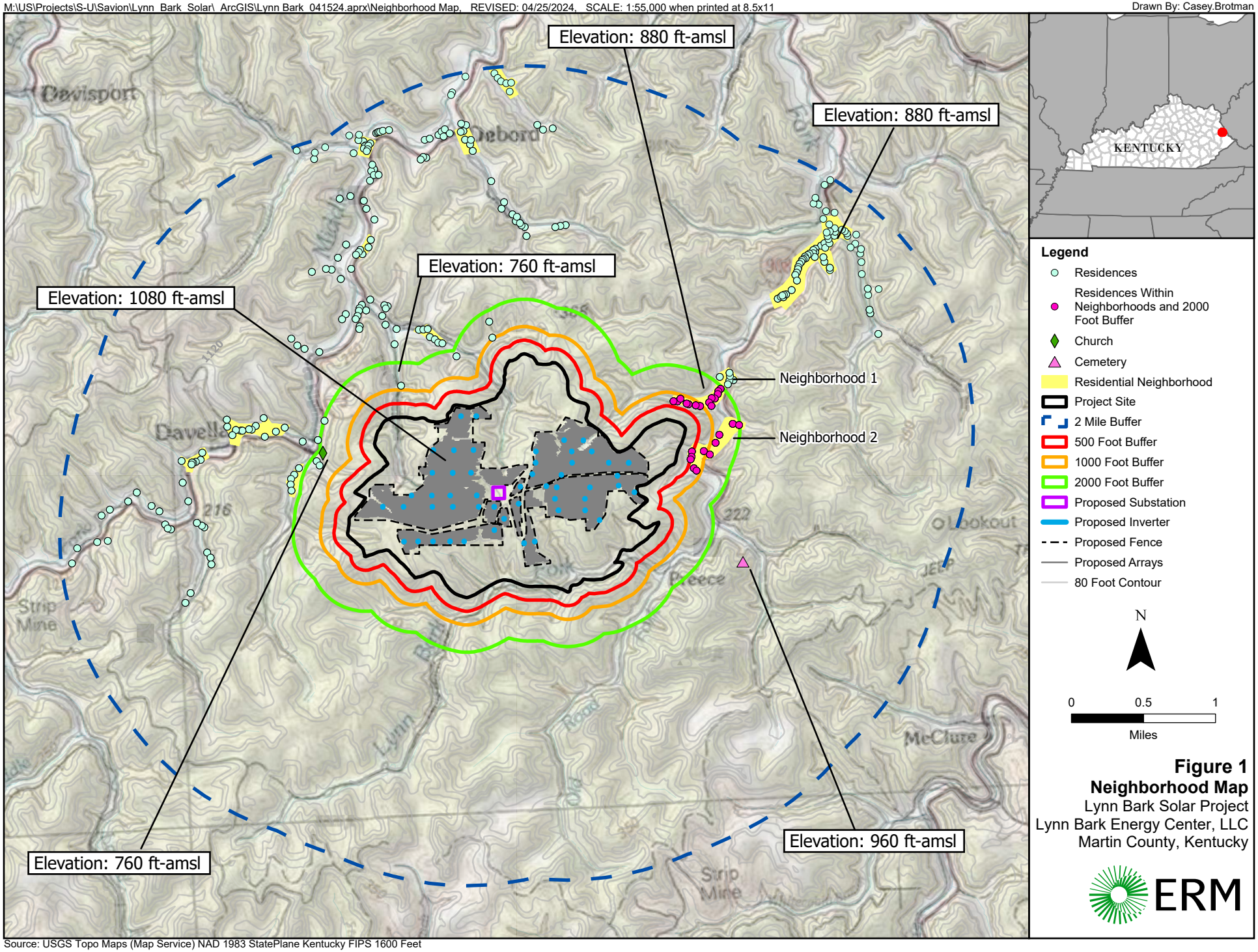


**Figure 1**
**Neighborhood Map**
Lynn Bark Solar Project
Lynn Bark Energy Center, LLC
Martin County, Kentucky

ERM

Source: USGS Topo Maps (Map Service) NAD 1983 StatePlane Kentucky FIPS 1600 Feet
No schools identified within the 2-mile buffer