

Tab 2
Proposed Site Description

TAB 2 – PROPOSED SITE DESCRIPTION

Requirement: *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 45 MW and substation. The Project will be located on land currently being used for agricultural purposes in an unincorporated area of Marion County, Kentucky. The area leased for the Project includes approximately 412 acres of private land (the Project Area). Within this Project Area, the footprint of the Project will be approximately 245 acres based on the area under the solar arrays, inverters, and private access roads. Access roads will be gravel-surfaced and approximately 16 feet in finished width.

The Project will use approximately 110,052 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 each of the array clusters will be within a contiguous chain-linked fence that will be gated for public safety and equipment security.

The panel arrays will be connected to approximately 12 power inverters that 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 substation. At the Project substation, the voltage will be stepped up to allow connection to the regional electrical grid. The connection will occur at an adjacent onsite, newly-constructed East Kentucky Power Cooperation

(EKPC) switchyard serving as the point of interconnection (POI) with the existing 69 kilovolt (kV) line. A Project Site Map is provided in Tab 12, the Site Assessment Report (SAR), at Exhibit A.

Attachment A to this Tab 2 shows the Project Area with the residential structures, residential neighborhoods, two schools, and one church within a 2-mile radius. No hospitals, nursing homes, or public or private parks were identified within 2 miles of the Project Area.

Residential neighborhoods within 2 miles of the Project Area have been identified pursuant to 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. This resulted in a qualitative identification of residential neighborhoods that included some clusters of houses along a roadway, in addition to larger groupings of residences. Point density tools and other forms of computerized analysis were not utilized, as analyses of this kind could result in shapes of residential neighborhoods that contain large amounts of unpopulated area or are incompatible with roadways or the topography of the land. Parcel boundary data was not considered in the identification of residential neighborhoods; however, parcel bounds were used to visually display neighborhood extents within the Attachment A map. Residential structures near the Project are generally clustered along roadways.

West Marion Elementary School is located within 1 mile, and Marion County Middle School is located within 2 miles of the Project Area. The St. Charles Catholic Church is located

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.

within 1 mile of the Project Area. Additional maps showing the Project layout in greater detail are included in the SAR.

Attachments:

- Attachment A: Map of Proposed Project Site (2 pages)

Attachment A
Map of Proposed Project Site

