COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY STATE BOARD
ON ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of the Application of AEUG Fleming Solar, LLC, for a Construction Certificate to Construct a Merchant Electric Generating Facility	**)** **)** **)**	**Case No. 2020-00206**

APPLICANT'S MOTION FOR DEVIATION FROM SETBACK REQUIREMENTS

Comes the Applicant, AEUG Fleming Solar, LLC ("AEUG Fleming"), by counsel, and pursuant to KRS 278.704(4), moves the Kentucky State Board on Electric Generation and Transmission Siting (the "Board") to grant a deviation from the setback requirements of KRS 278.704(2). As grounds for its motion, AEUG Fleming states as follows:

I. INTRODUCTION

On November 25, 2020, AEUG Fleming filed its Application for a Certificate to Construct a Merchant Electric Generating Facility in Fleming County, Kentucky (the "Application"). The setback requirements for the AEUG Fleming Solar Project ("Project") are addressed in the Application. *(See* Application, Volume I, Section 5 and Attachment A). The setback requirements of KRS 278.704(2) are applicable to the Project. This statute provides in pertinent part:

> Except as provided in subsections (3), (4), and (5) of this section, no construction certificate shall be issued to construct a merchant electric generating facility unless the exhaust stack of the proposed facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility.
>
> KRS 278.704(2).

A. The 1,000-Foot Setback Requirement

As noted in the Application, the Project's sources of generation are solar panels and associated infrastructure. Because the statutory language for the 1,000-foot setback is limited to those sources of generation with an exhaust stack or a wind turbine, the 1,000-foot setback is inapplicable.

B. The 2,000-Foot Setback Requirement

Without a deviation, all proposed structures or facilities used for generation of electricity must be located more than 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility. As defined by KRS 278.700(6), a "residential neighborhood" is "a populated area of five (5) or more acres containing at least one (1) residential structure per acre." As shown in the Application, there are four residential neighborhoods (located to the south, east, and west of the subject property) within 2,000 feet of the proposed "structures or facilities used for generation of electricity." (See Attached Exhibit 1 for the list of the neighborhoods as well as a map showing the sites) (*See* Application at Volume I, Attachment A). Additionally, the Fleming County High School is located within a 2,000-foot radius of the project.

Pursuant to KRS 278.704(4), the Board may grant a deviation from the 2,000-foot setback requirements in KRS 278.704(2) if "the proposed facility is designed to and, as located, would meet the goals of KRS 224.10-280, 278.010, 278.212, 278.24, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than those provided in subsection (2) of this section." For the reasons set forth below, and applying guidance from prior Board actions interpreting KRS 278.704(4), AEUG Fleming believes the proposed facility would meet the goals of KRS 278.700 *et seq.*, and respectfully requests the Board to grant a deviation from the setback requirements of KRS 278.704(2).`

II. ARGUMENT

A. Effects on Adjacent Landowners

In the Board action styled, *In the Matter of: Application of ecoPower Generation-Hazard, LLC for a Certificate to Construct and Operate a Merchant Electric Generating Facility and a 69kV Transmission Line in Perry County, Kentucky,* Board Case No. 2009-00530 (hereinafter "ecoPower"), a copy of which is attached as Exhibit 2, the Board enunciated the standards applicable to merchant generating facilities seeking a deviation from the setback requirements found in KRS 278.704(2). In *ecoPower*, the Board stated, "The setback provisions of KRS 278.704(2) were enacted to afford some level of protection for persons occupying a property adjacent to a property where a merchant generating plant is to be constructed and operated." *ecoPower* at 31. The Board concluded that it must consider the effects of the planned facility on the adjacent residents when determining whether to grant a deviation pursuant to KRS 278.704(4). *See id.* at 32. The Board followed the ecoPower deviation procedure in approving the application in SunCoke Energy South Shore, LLC, Case No. 2014-00162.

Each of these factors are discussed in more detail below and in the Site Assessment Report included in the Application. (*See* Application, Volume 2, entitled Site Assessment Report).

1. Noise

The Site Assessment Report (*See* Volume II to the Application) thoroughly evaluates the expected noise levels from the proposed Project and the surrounding properties. (*See* Application, Volume II, Appendix C). The consulting firm SWCA, performed the Noise and Traffic Study ("NTS") (*See* Application, Volume II, Appendix C) for the Project. The noise section within the NTS analyzed the estimated construction noise and operational noise

conditions at the nearest noise sensitive receptors. The closest receptor to any structure, a grouping of residences along KY-559, will be approximately 212 feet from the nearest solar panel and approximately 739 feet from the nearest inverter.

The Project area can be defined as a sparse suburban or rural area with very few (if any) near sources of sound; therefore, background sound levels are conservatively represented by those of Category 6: *Very quiet suburban and rural residential,* as defined by the American National Standards Institute (ANSI 2013).[1] Thus, the majority of the analysis area would be expected to have background noise L_{dn} of about 40 dBA or less.

The primary noise impact from Project construction will arise from the use of construction equipment to grade land, install the solar panels and associated equipment and a temporary increase in traffic during construction activities. The NTS identifies multiple pieces of construction equipment that will be utilized during Project construction. The equipment used for the calculations included cranes, vibratory pile drivers, pickup trucks, front end loaders, and trenchers. The pole installation is anticipated to be the loudest activity and is based on three pole setting crews working simultaneously within a single block. It is assumed that the construction equipment for one crew will be operating at the block boundary closest to the considered receptor. The other two crews are assumed to be operating at the location of the proposed inverter for that block. At the closest receptor, the maximum calculated noise level during construction is 82.9 dBA (Leq), and that would only arise if all equipment was operating simultaneously.[2] Noise from construction equipment is not likely to result in long term negative impacts to neighboring landowners.

[1] American National Standards Institute, Inc (ANSI). 2013. Quantities and Procedures for Description and Measurements with an Observer Present – Part 3: Short-term Measurements with an Observer Present, ANSI/ASA S12.9-2013/Part 3.2 ANSI S12.9-2013/Part 3, 2013.

[2] This equipment includes a Crane, Vibratory Pile Driver, Pickup Truck, Front End Loader, and Trencher.

For noise generated by the operation of the Project, standard acoustical engineering methods were used and based on vendor-supplied equipment noise levels. Noise from the Project during operation will be produced by inverters, panel tracking motors, and a single transformer. The proposed facility design consists of 73 inverters. According to the manufacturer's specifications, the noise emission produced by the inverter is less than 66 dBA at a distance of 10 meters. Tracking system motors would operate no more than five minutes out of every 15-minute period. The sound typically produced by the proposed tracking motors (NexTracker or equivalent) is approximately 47 dBA at 10 meters. The transformer to be used is a 240 MVA ONAF2 with 650 kV BIL. It is located within the planned substation. The transformer is rated at 85 dBA sound power.

The City of Flemingsburg Noise Regulation (Chapter 98, 2020) prohibits "excessive noise," but does not provide specifics that pertain to this project. Since no other local, county, or state thresholds were identified, an L_{dn} of 55 dBA has been used to determine if the Project would adversely affect public health and welfare as defined in the U.S. EPA published "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin on Safety".[3]

The day and night noise level (L_{dn}) at the nearest sensitive receptor, a residence on the north side of the Project 739 feet from the nearest inverter, is estimated to be 45.8 dBA L_{dn}, which is below the EPA's recommended 24-hour average day and night value of 55 dBA L_{dn}. Therefore, based on the NTS Report, the anticipated operational noise levels will not have a negative contributing effect.

[3] U.S. Environmental Protection Agency (EPA). 1974. Information on levels of environmental noise requisite to protect public health and welfare with an adequate margin of safety. Available at: http://www.nonoise.org/library/levels/levels.htm#levelsof. Accessed August 4, 2017.1 Environmental Protection Agency [EPA], 1974.

2. Visual Obstruction of Scenic Views

The Application provides an in-depth analysis of the compatibility of the facility with the scenic surroundings *(See* Application Volume II, Section 2 and Attachments A and F).

Adjoining land is primarily a mix of residential and agricultural uses, which is very typical of solar farm sites. There is a nearby religious facility and minimal adjoining commercial uses. Schools and religious facilities such as churches are commonly located adjoining solar farms (Application, Volume II, Attachment A, page 3).

The proposed Project would introduce low vertical, geometric elements that are gray in color into a relatively rolling terrain landscape dominated by green vegetation and patches of trees and shrubs. Viewers in proximity to the Project may have unobstructed or partially screened views and include adjacent rural residences and travelers along the local roads and highways. Existing vegetation between the solar arrays and the residences will be left in place, to the extent practicable, to help screen the Project and reduce visual impacts from the adjacent homes. It is anticipated that views of the Project from surrounding places (Nepton, Elizaville, Flemingsburg Junction, Flemingsburg) would generally be screened by vegetation and structures associated with development. Roadways and rural residential development located outside of built communities would have elevated views towards the Project. Views would vary from completely screened to partially screened to unobstructed. Portions of the Project that would be seen in the context of existing development and would appear as a codominant feature in the landscape setting (*See* Application Volume II, Section 2 and Appendix F).

As noted in the compatibility section of the Site Assessment Report, "The matched pair analysis shows no impact in home values due to abutting or adjoining a solar farm

as well as no impact to abutting or adjacent vacant residential or agricultural land. Very similar solar farms in very similar areas have been found by hundreds of towns and counties not to have a substantial injury to abutting or adjoining properties, and many of those findings of no impact have been upheld by appellate courts. Similar solar farms have been approved adjoining agricultural uses, schools, churches, and residential developments." (Application Volume II, Section 2 and Attachment A at page 113).

3. <u>Traffic</u>

The Application analyzes the traffic impact during both the construction and operation phases of the proposed facility. (*See* Application, Volume II, Attachment C).

The report provided in Appendix C of the Site Assessment Report (SAR) discusses the Project's impact on road and rail traffic. The major roads to be used to access the facility are anticipated to be KY-32, KY-559, KY-11, and KY-170. During construction of this facility, traffic is anticipated to increase, with morning and evening peaks for daily workers and deliveries being made to the site periodically. To ensure safety, the Project's construction contractors will install signage notifying drivers in the area of trucks entering and leaving the roadway and will utilize flaggers when necessary to best ensure collisions are prevented on the surrounding roads. There are not anticipated damages to the existing road infrastructure. Operation of the facility is not expected to cause a significant impact to local traffic as the expected traffic to be contributed to the area will be similar to that of a typical single-family home. Workers will generally be entering and leaving on normal weekdays during daylight hours.

4. AEUG Fleming's Mitigation Efforts

AEUG Fleming has had an extensive outreach program to the community generally and the neighbors specifically, which went above and beyond the statutory and regulatory requirements. *(See* Application, Volume I, Section 6).

Existing vegetation between the solar arrays and the residences will be left in place, to the extent practicable, to help screen the Project and reduce visual impacts from the adjacent homes. It is anticipated that views of the Project from surrounding places would generally be screened by vegetation and structures associated with development (*See* Application, Volume II, Section 5). Typically the screening shall consist of a continuous line of native evergreen and/or native shrubs and/or native trees and/or any existing wooded area and/or plantings of tall native grasses and other native flowering plants. Landscaping under panels will be of native or other types of grasses. This process would typically include the local and virtual assessment of the site, the development of a landscape plan, screening schedule, and 3D modelling.

The Board should grant this motion for deviation because AEUG Fleming has made every effort to protect property owners from all adverse impacts that might result from the construction and operation of the facility. The proposed merchant generating Plant would not produce any emissions and the plant once constructed would produce a negligible amount of noise.

B. The Proposed Facility is Designed and Located to Meet the Goals of KRS 278.700, *et seq.*

In initially denying ecoPower's motion for a deviation, the Board stated that the Applicant must satisfy the goals of certain statutes described in KRS 278.704(4) as follows:

1. KRS 224.10-280 Cumulative Environmental Assessment. KRS 224.10-280 provides that no person shall commence to construct a facility to be used for the

generation of electricity unless that person has submitted a cumulative environmental assessment ("CEA") to the Energy and Environment Cabinet ("Cabinet") with its permit application, and remits a fee which has been sent pursuant to KRS 224.10-100(20).

Upon researching the statute and accompanying regulations, AEUG Fleming is unaware of any regulations that have been promulgated regarding CEAs. At the time of the *ecoPower* Order, the Board concluded that there were no regulations involving CEAs (*see ecoPower* at 34) and AEUG Fleming is unaware of any additional regulations since that order. Consequently, no fee has been established for AEUG Fleming to pay "to defray the cost of processing the cumulative environmental assessment." KRS 224.10-280.

But to satisfy the goals of KRS 224.10-280, AEUG Fleming submitted a CEA to the Cabinet which provides an in-depth analysis of the potential air pollutants, water pollutants, wastes, and water withdrawal associated with the proposed merchant solar facility. (See the AEUG Solar CEA, attached herein as Exhibit 3).

AIR EVALUATION - KRS 224.10-280(3)(a)

As required by KRS 224.10-280(3)(a), the CEA evaluates the air pollutants to be emitted by the facility and the associated control measures. (See Exhibit 3, Section 2). The solar panels produce zero emissions. (See Exhibit 3, Section 2). Limited indirect air emissions will occur during construction through the operation of vehicles and equipment and will consist of emissions of Particulate Matter (PM), Particulate Matter 10 microns diameter and smaller ($PM_{10)}$, Particulate Matter 2.5 microns diameter and smaller ($PM_{2.5}$), Carbon Monoxide (CO), Sulfur Dioxide (SO_2), oxides of nitrogen (NO_X), Volatile Organic Contaminants (VOCs) and Hazardous Air Pollutants (HAPs) generated through the combustion of gasoline and diesel fuels. No air quality permit is required for these construction or ancillary activities. Once construction

is complete, the only emissions from the Project will be associated with the internal combustion engines of maintenance equipment used to repair the solar panels, worker transportation vehicles, and grounds keeping equipment.

WATER EVALUATION - KRS 224.10-280(3)(b)

As required by KRS 224.10-280(3)(b), the CEA evaluates the water pollutants to be emitted by the facility and the associated control measures. (See Exhibit 3, pp. 4-5). As described in Section 3.1 of the CEA, and with the use of BMPs listed therein, Project operations and maintenance are expected to result in a net, long-term beneficial effect to surface waters.

WASTE EVALUATION - KRS 224.10-280(3)(c)

As required by KRS 224.10-280(3)(c), the CEA evaluates the waste to be generated by the facility and the associated control measures. (*See* CEA, Section 4).

Construction activities will intermittently generate debris and general trash, including but not limited to wooden crates, pallets, flattened cardboard module boxes, plastic packaging, excess electrical wiring, and trees/vegetation from limited clearing. No special wastes as defined in KRS 224.50-760 are anticipated to be generated during construction or operations and maintenance. No existing structures would be demolished (*See* CEA, Section 4).

All waste generated during Project construction and operations and maintenance would be handled and disposed of in accordance with local, state, and federal regulations to minimize the potential for effects to human health and safety. Waste would be recycled to the extent feasible. Solid waste material that cannot be recycled would be disposed of offsite at a permitted facility to be determined by the designated contractor(s), in accordance with applicable laws and regulations (*See* CEA, Section 4).

The Project will include storage of hazardous materials including oil, diesel fuel, gasoline, hydraulic fluid, and other lubricants associated with construction vehicles. Additionally, small quantities of janitorial supplies, paint, degreasers, herbicides, pesticides, air conditioning fluids, gasoline, hydraulic fluid, propane, and welding rods typical of those purchased from retail outlets may also be used and stored at the Project area. Portable chemical toilets will be provided for construction workers during development. Hazardous waste will be contained and managed through the development and implementation of implementation of best management practices, a Hazardous Management Plan, and a Spill Prevention Containment Countermeasures Plan (*See* CEA, Section 4.2).

WATER WITHDRAWAL EVALUATION - KRS 224.10-280(3)(d)

As required by KRS 224.10-280(3)(d), the CEA identifies the source and volume of anticipated water withdrawal needed to support facility construction and operations, and the CEA describes the methods to be used for managing water usage and withdrawal. (See Exhibit 3, p. 9). As described in the CEA, the proposed facility would primarily utilize groundwater from existing onsite wells to provide water needed for construction activities. Construction-related water use would support site preparation (including dust control) and grading activities.

Operation of solar facilities is not water-intensive. Precipitation in the region is adequate to remove dust and other debris from the PV panels while maintaining energy production; therefore, manual panel washing with water or other substance is not part of regular solar project maintenance.

In summary, the Project is designed and located to meet the goals of KRS 224.10-280. (See Exhibit III). Simultaneously with the filing of this Motion, AEUG Fleming has submitted a CEA to the Cabinet which contains a description and analysis of anticipated air pollutants, water

pollutants, wastes, and water withdrawal needs. The CEA also references the substantial amount of planning, permitting, and assessments which have been completed for the facility and which are ongoing. The Project development team shall continue permitting as required to comply with all applicable regulations.

2. KRS 278.010. KRS 278.010 provides a list of definitions to be used in conjunction with KRS 278.010 to 278.450, 278.541 to 278.544, 278.546 to 278.5462, and 278.990. The Board's authority begins with KRS 278.700 and extends through KRS 278.716 and any applicable provision of 278.990. In filing a complete Application pursuant to the applicable statutes in this proceeding, AEUG Fleming has satisfied the goal of providing the required information utilizing the definition of any applicable term defined in KRS 278.010.

3. KRS 278.212. Filing of plans for electrical interconnection with merchant electric generating facility; costs of upgrading existing grid. AEUG Fleming has met the goals of KRS 278.212 because AEUG Fleming will comply with all applicable conditions relating to electrical interconnection with utilities by following the PJM interconnection process. Additionally, AEUG Fleming will accept responsibility for appropriate costs which may result from its interconnecting with the electricity transmission grid. With AEUG Fleming's commitment to comply with KRS 278.212, the proposed facility has been designed and located to meet the goals of KRS 278.212.

4. KRS 278.214. Curtailment of service by utility or generation and transmission cooperative. The goal of this statute is to establish the progression of entities whose service may be interrupted or curtailed pursuant to an emergency or other event. AEUG Fleming will abide by the requirements of this provision to the extent that these requirements are

applicable. By committing to comply with these requirements AEUG Fleming has met the goals anticipated by the statute.

5. KRS 278.216. Site compatibility certificate; site assessment report; commission action on application. KRS 278.216 requires a jurisdictional utility, as defined by KRS 278.010(3), which seeks to construct an electric generating facility to comply with many of the requirements that are included within KRS 278.700 to 278.716, including the submission of a site assessment report. However, KRS 278.216 specifically applies to jurisdictional utilities, as defined in KRS 278.010(3), and AEUG Fleming is not such a defined utility. Therefore, by complying with the requirements of KRS 278.700 *et seq*., AEUG Fleming has met the requirements and goals of KRS 278.216.

6.. KRS 278.218. Approval of commission for change in ownership or control of assets owned by utility. This statute specifically applies to utilities as those defined pursuant to KRS 278.010(3). The statute prohibits acquisition or transfer without prior approval of the Commission. AEUG Fleming is not a utility as described in 278.010(3), and therefore this statute does not apply to AEUG Fleming. However, to the extent Board approval may at some time be required for change of ownership or control of assets owned by AEUG Fleming, AEUG Fleming will abide by the applicable rules and regulations which govern its operation.

7. KRS 278.700 - 278.716. Electric Generation and Transmission Siting. These provisions of the Kentucky Revised Statutes govern the application of a merchant electric generating facility such as the one proposed by AEUG Fleming in its Application to the Board. According to the Board itself, the goals of these provisions include the following: to provide for the location of merchant electric generating facilities in a fashion which will not intrude upon or unnecessarily disrupt surrounding land uses including hospitals, nursing homes, residential areas,

schools, parks or otherwise have adverse environmental impacts which are not otherwise regulated; to include an evaluation of the economic impact of the proposed facility (KRS 278.710(l)(c)); to determine whether the facility is to be located at a site where existing generating facilities are located (KRS 278.710(l)(d)); to determine whether the facility will meet all applicable local planning and zoning requirements (KRS 278.710(l)(e)); to determine whether the facility will adversely impact the reliability of electrical service for retail customers of utilities regulated by the Public Service Commission (KRS 278.710(l)(f)); to determine the efficacy of any proposed mitigation measures (KRS 278.710(l)(h)); and to provide the applicant's history of environmental compliance (KRS 278.710(l)(i)). *ecoPower* at 39.

Thus, AEUG Fleming has met the goals set forth in these provisions as evidenced by the Application in its entirety. AEUG Fleming has provided a comprehensive Application with a detailed discussion of all of the criteria applicable to its proposed facility under KRS 278.700-278.716.

AEUG Fleming has engaged in public education and public notification, has held a public meeting and other meetings to respond to inquiries concerning the project, and has specifically discussed and made itself available for questioning by adjoining landowners concerning the property.

Because of the extensive outreach in person, the neighboring occupants and owners are aware of and have not complained to the Applicant about the Project.

AEUG Fleming has clearly met the goals of KRS 278.700 *et seq.* in locating its proposed facility in an environmentally compatible location, disclosing the facts surrounding its proposed operation, responding to inquiries, and obtaining the proper permits for the facility.

III. CONCLUSION

WHEREFORE, AEUG Fleming Solar, LLC requests a deviation from the setback requirements contained in KRS 278.704(2) as the proposed facility is designed and located to meet the goals of the statutory provisions set forth in KRS 278.704(4).

Respectfully submitted,

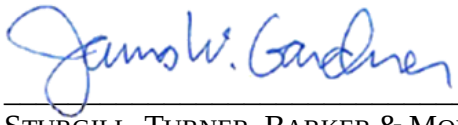

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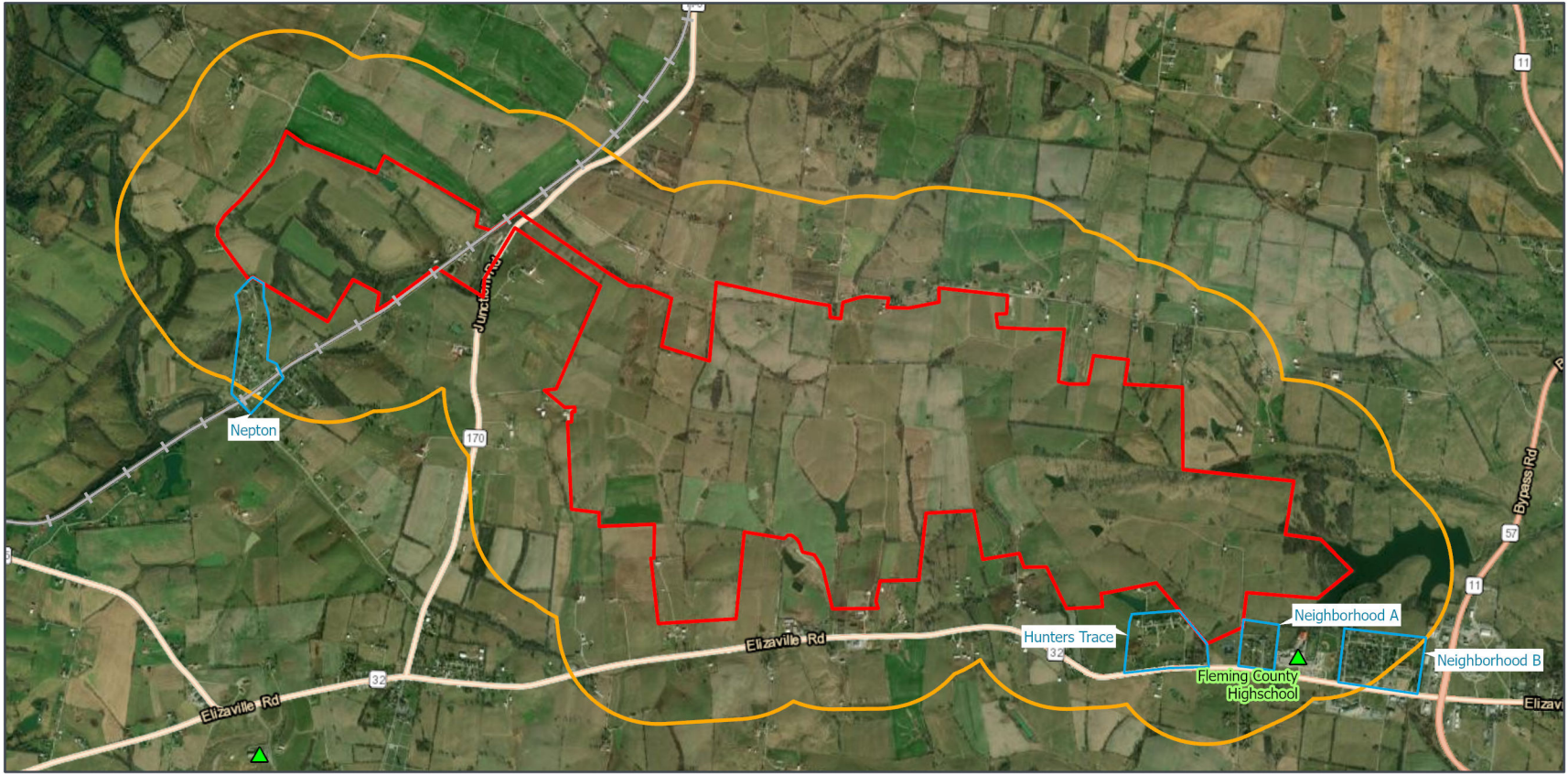
EXHIBIT 1



FLEMING SOLAR PROJECT

Overview Map

- School
- Railroad
- Residential Neighborhood
- 2000-foot Project Buffer
- Fleming Solar Project Boundary

SWCA ENVIRONMENTAL CONSULTANTS

Fleming County, KY

NAD 1983 UTM Zone 17N

Base Map: ESRI ArcGIS Online, accessed February 2021

Updated: 2/18/2021
Project No. 63272
File: ProjectAerial_Landscape

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1:42,000

0 1,000 2,000 Feet

0 500 1,000 Meters

Location Name	Location	Location Description	Distance to Estimated Project Boundary
Nepton	Nepton Road and Railroad Street	Approximatly 30 single family homes	0 feet
Hunters Trace	Highway 32	Approximatly 18 single family homes	0 feet
Neighborhhod A	Highway 32	Approximatly 8 single family homes	0 feet
Fleming County High School	Highway 32	Fleming County High School	`900 feet
Neighborhood B	Highway 32	Approximatly 60 single family homes	~800 feet

EXHIBIT 2

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

APPLICATION OF ECOPOWER GENERATION-HAZARD, LLC FOR A CERTIFICATE TO CONSTRUCT AND OPERATE A MERCHANT ELECTRIC GENERATING FACILITY AND A 69 KV TRANSMISSION LINE IN PERRY COUNTY, KENTUCKY	)	CASE NO. 2009-00530

O R D E R

PROCEDURAL HISTORY

On February 12, 2010, the Applicant, ecoPower Generation-Hazard, LLC[1] ("ecoPower-Hazard") filed an application with the Kentucky State Board on Electric Generation and Transmission Siting ("Siting Board" or "Board") for a certificate to construct a merchant 50 megawatt ("MW") biomass-fired electric generating facility and a 69 kilovolt ("kV") non-regulated transmission line in Perry County, Kentucky.

On February 18, 2010, the Board issued a letter to ecoPower-Hazard notifying it of a deficiency with its February 12, 2010 filing due to failure to comply with 807 KAR 5:110, Section 1(3), which requires that a Siting Board applicant's attorney of record

[1] In its February 12, 2010 Application, the Applicant identified itself as "ecoPower Generation, LLC." However, as described *infra*, the Applicant filed a Motion to Amend its Application to Change Name of Applicant to "ecoPower Generation-Hazard, LLC" ("Motion to Change Name") on April 19, 2010. The Motion to Change Name was granted by the Siting Board in an Order issued on April 22, 2010. Except in reference to the Motion to Change Name, the Applicant is referred to throughout this Order as "ecoPower-Hazard."

must sign all pleadings and provide his address thereon. On February 18, 2010, ecoPower-Hazard filed an amendment to its application, curing the filing deficiency. On February 19, 2010, the Board issued a letter stating that ecoPower-Hazard had cured the deficiency and that the application was administratively complete.

On February 26, 2010, the Board issued a procedural schedule providing for an evidentiary hearing to begin on May 5, 2010. The procedural schedule also established March 22, 2010 as the deadline for any person to file a request for intervention and for any person to file a request for a local public hearing. No one filed a request for intervention in this matter, nor did anyone file a request for a local public hearing. Therefore, a local public hearing was not held in this matter.

The procedural schedule provided for data requests to be issued to ecoPower-Hazard by March 29, 2010. Board Staff's First Data Request was issued to ecoPower-Hazard on March 26, 2010, and Board Staff's Second Data Request was issued to ecoPower-Hazard on March 29, 2010. EcoPower-Hazard provided its responses to Staff's first and second data requests on April 5, 2010 in compliance with the February 26, 2010 procedural schedule. On March 22, 2010, the Board filed the report of its consultant, BBC Research and Consulting ("BBC"), which evaluated the Site Assessment Report ("SAR") that had been filed as part of the application.

In its response to Board Staff's Second Data Request, ecoPower-Hazard explained that, on February 24, 2010, it had filed an amendment to its Articles of Organization with the Kentucky Secretary of State to change its name from "ecoPower Generation, LLC" to "ecoPower Generation-Hazard, LLC." On April 15, 2010, the Board

issued an Order to ecoPower-Hazard to file a motion to amend its Application to change its name to "ecoPower Generation-Hazard, LLC."

On April 19, 2010, the Applicant filed a Motion to Amend its Application to Change Name of Applicant to ecoPower Generation-Hazard, LLC. Applicant, "ecoPower Generation-Hazard, LLC," explained in its motion that "(s)pecifically, ecoPower Generation, LLC was initially organized under the laws of the Commonwealth of Kentucky on May 18, 2009, and is identified as Organization No. 0730121 in the Office of the Kentucky Secretary of State. On February 24, 2010, it filed Articles of Amendment to its Articles of Organization changing its name to ecoPower Generation-Hazard, LLC. Simultaneously, a separate limited liability company filed its Articles of Organization for a limited liability company named ecoPower Generation, LLC with the Kentucky Secretary of State, Organization No. 0757345, on February 24, 2010." EcoPower Generation-Hazard, LLC remains the Applicant and entity that has applied for the Siting Board's approval to construct an electric generation facility and 69 kV transmission line in Perry County, Kentucky, which is the subject of the present case.

The limited liability company, "ecoPower Generation, LLC" with Organization No. 0757345, was organized to be a holding company and will be the sole member of ecoPower Generation-Hazard, LLC upon the completion of the transfer of all members' interest in that limited liability company to ecoPower Generation, LLC. Applicant, ecoPower Generation-Hazard, LLC, stated, "(t)his change, while somewhat confusing, became necessary because of continuing changes in the interpretation of the law relating to the financing of this proposed project." The new entity, ecoPower Generation, LLC, will initially have the same ownership as the original limited liability

company and, after the transfer of all membership interests, ecoPower Generation-Hazard, LLC will become a wholly owned subsidiary of ecoPower Generation, LLC. The Board granted Applicant's motion to amend its February 18, 2010 Application to change its name to "ecoPower Generation-Hazard, LLC" as identified by the Kentucky Secretary of State Organization Number 0730121 in an Order issued on April 22, 2010.

On April 8, 2010, pursuant to KRS 278.704(4), ecoPower-Hazard filed a motion for deviation from the 1,000-foot setback requirement in KRS 278.704(2) ("motion for deviation"). KRS 278.704(4) provides that the Siting Board may grant an applicant's request for a deviation from the 1,000-foot setback requirement in KRS 278.704(2) if "the proposed facility is designed and located to meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than those provided in subsection (2) of this section."

In its April 8, 2010 motion for deviation, ecoPower-Hazard argued that "the statutory language and legislative history suggest that the primary purpose of the setback requirement is to protect the expectations of property owners who had no reason to expect the construction of a merchant power plant near their property." In support of its motion for deviation, ecoPower-Hazard provided copies of letters from representatives of the owners of the two properties which would be closer than 1,000 feet to the exhaust stack of the proposed facility. In the letters, the representatives of the property owners state that they are aware of the 1,000-foot setback requirement and that the exhaust stack will be closer than 1,000 feet to their properties; and both property owners state their support for the proposed facility and exhaust stack despite the fact that it will not be in compliance with the 1,000-foot setback requirement.

In an Order issued on April 22, 2010, the Siting Board denied ecoPower-Hazard's April 8, 2010 motion for deviation from the setback requirements of KRS 278.704(2) on grounds that the motion for deviation did not provide sufficient support for the Siting Board to make a finding that the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 have been met by the design and location of the proposed facility.[2]

On April 27, 2010, ecoPower-Hazard filed a revised motion for deviation from the 1,000-foot setback requirements of KRS 278.704(2). In the revised motion, ecoPower-Hazard explains in detail how its facility is designed and located to meet the goals of the statutes listed in KRS 278.704(4).

On April 8, 2010, ecoPower-Hazard filed a motion to dispense with the formal evidentiary hearing, which was initially scheduled for May 5, 2010, pursuant to the scheduling Order issued on February 26, 2010. However, as the Siting Board had denied ecoPower-Hazard's motion for deviation from the 1,000-foot setback requirement of KRS 278.704(2), the Board determined not to cancel the evidentiary hearing but, rather, to reschedule the hearing to May 19, 2010 in order to provide ecoPower-Hazard additional time to file an amended application or to file an amended motion for deviation from the setback requirements. As explained above, an amended

[2] In its Order, the Board noted that KRS 224.10-280, which is one of the statutes referenced in KRS 278.704(4), requires that any person wishing to construct a facility for the generation of electric power must submit a cumulative environmental assessment to the Energy and Environment Cabinet, along with a fee for processing the assessment. The Board found that ecoPower-Hazard's April 8, 2010 motion for deviation did not adequately explain how its facility is designed and located to meet the goals of KRS 224.10-280 despite being closer than 1,000 feet to the adjacent properties.

motion for deviation was filed on April 27, 2010 and, on May 4, 2010, the Board issued an Order canceling the May 19, 2010 evidentiary hearing and submitting the application for a decision on the existing administrative record.

EcoPower-Hazard provided public notice of the Application by publication in the Hazard Herald on December 16, 2009 and on January 13, 2010.[3] The public notice provided the location of the proposed merchant generating facility and the proposed 69 kV transmission line, stated that the facilities are subject to Board approval, and provided the Kentucky Public Service Commission's ("PSC") address and telephone number.[4] EcoPower-Hazard filed an affidavit from the newspapers attesting to the publication. EcoPower-Hazard also filed proof of service for the Application. The Applicant mailed notification letters to landowners whose properties border the proposed site and transmission line by registered mail, return receipt requested, beginning on December 15, 2009.[5] Copies of the letters and the certified mail return receipts for all property owners of record except one were included in the Application.[6] EcoPower-Hazard discovered the missing certified mail receipt and filed it into the record of this matter on April 16, 2010.[7]

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[3] See Application, Exhibit B2.

[4] The Board is attached to the PSC for administrative purposes. See KRS 278.702(3).

[5] Id., Exhibit B1.

[6] Id.

[7] Applicant's Notice of Filing Return Receipt.

In response to the letters and public notices, the Board received no protests, requests for public hearings, or motions to intervene. Following the expiration of the time for formal intervention in the case and for any request for a local public hearing, the Siting Board determined that a formal evidentiary hearing in this matter was not necessary. Therefore, no local public hearing or formal evidentiary hearing was held in this matter and, pursuant to KRS 278.710(1), the Siting Board has issued this Order granting ecoPower-Hazard's application within 90 days of the February 18, 2010 filing date.

BACKGROUND

In its Application, EcoPower-Hazard states that it plans to build and operate an approximate 50 MW renewable fuel electric generating facility on a 125-acre tract of reclaimed coal mine land situated within the Coal Fields Regional Industrial Park ("industrial park"), approximately 10 miles north/northwest of the city of Hazard in Perry County, Kentucky. The plant will be fueled with wood biomass or byproducts (sawdust, bark, wood chips, tip wood, low quality logs, etc.).[8]

EcoPower-Hazard also proposes to construct a 69 kV transmission line sufficient to transmit the electric power generated to the existing Kentucky Power Engle substation. EcoPower-Hazard indicates that the substation is located at the entrance to the industrial park, a distance of approximately one mile from the proposed project property boundary, and a distance of approximately 1.54 miles overall.[9]

[8] Application, pp. 2-4.

[9] Id.

SITE CONDITIONS, VICINITY, AND INFRASTRUCTURE

In its Application, EcoPower-Hazard provided detailed information about the industrial park where it proposes to locate its facility. The industrial park contains both developed and undeveloped industrial tracts and is located in a rural area with commercial, industrial, and institutional (i.e., public airport) land uses generally located along major transportation routes. EcoPower-Hazard states that reclaimed coal mining land is located adjacent to the property, with active mining operations in the nearby area. The property has previously been surface-mined and reclaimed for industrial uses. EcoPower-Hazard notes that the nearest incorporated community is Hazard, Kentucky, approximately 10 miles to the south. It further identified nearby unincorporated communities and their approximate distance from the industrial park, including Lamont, approximately 2.75 miles southwest; Rowdy, approximately 1.75 miles northeast; and Chavies, approximately five miles southwest.[10] EcoPower-Hazard states that the industrial park is serviced by the city of Hazard for its water and sewer service and Kentucky Power Company for its electrical power service.

WATER

EcoPower-Hazard indicates that the design of the project calls for air cooling, which reduces potential water needs from those of a water-cooled system. As a result of this design decision, ecoPower-Hazard states that it plans to obtain all process and other water from the city of Hazard pursuant to a Water Supply Agreement. EcoPower-Hazard further states that, in the event of an interruption in service from the city of Hazard's water supply, it has designed water holding tanks as part of the project that

[10] Id. at 9.

will immediately supply the approximate 35 gallons-per-minute demand of the process.[11]

EcoPower-Hazard has likewise identified two secondary sources of water for use in the event the water supply from the city of Hazard becomes unavailable. The first option for secondary water supply identified by EcoPower-Hazard is the Hollybush impoundment, located approximately 4,000 feet northeast of the Project. EcoPower-Hazard states that this impoundment was constructed in the 1980s and has been maintained to service Pine Branch Coal Company in the immediate area. EcoPower-Hazard states that the impoundment no longer supplies water to the coal company.[12]

A second option for secondary water supply identified by EcoPower-Hazard is groundwater present beneath the site within the overburden emplacement. EcoPower-Hazard states that preliminary calculations indicate that these resources will be adequate to supply the low volume required by the process and that a more comprehensive study with several test wells is being designed to confirm the preliminary data.[13]

WASTEWATER DISCHARGE

EcoPower-Hazard indicates that wastewater discharge is low-volume and that it plans to discharge to the city of Hazard subject to a pre-treatment agreement which will be entered into as the potential wastewater constituents are determined during final design tasks. EcoPower-Hazard states that the city of Hazard has confirmed that the

[11] Id. at 8.

[12] Id. at 8-9.

[13] Id. at 9.

sewage treatment system has adequate capacity to handle the approximate 20 to 25 gallons-per-minute flow likely from the facility.[14]

ELECTRIC SERVICE

EcoPower-Hazard states that electric service to the project will be accomplished through the proposed transmission line, using a transformer to allow the project to access service.[15]

THE PROPOSED ELECTRIC GENERATING PLANT

According to EcoPower-Hazard, the proposed electric generating facility will include several buildings and the following equipment:

- One fluidized bed boiler ("FBB") with a maximum heat input of 672 mmBtu/hr (fired exclusively on biomass with propane available as the startup fuel), and a steam turbine generator with a nominal gross output of 50 MW;
- One propane-fired auxiliary boiler;
- An air-cooled condenser;
- Material handling systems that include, but are not limited to, two truck dumps, receiving hopper, conveyors, roads, storage piles, silos, screens, wood chipper, and wood hog;[16]

[14] Id.

[15] Id.

[16] According to ecoPower-Hazard's Air Permit Application Technical Support Document, "[i]n the Wood Hog Building the mixed fuel [wood, sawdust, wood chips, bark, etc.] is screened and sized (or hogged) as needed for use in the boilers." Id., Exhibit K, Attachment 3 at page 2-10.

- Ancillary equipment (i.e., emergency generator, fire water pump, and fuel tanks); and
- Several buildings, including: a boiler building; a turbine building; a wood hog building; a chipper building; a warehouse/shop building; and a service building.[17]

EcoPower-Hazard further states that the boiler and steam turbine generator will produce a nominal 50 MW gross electrical output. The FBB will be designed to generate 450,000 lbs./hr. of steam, operate at 950 degrees Fahrenheit and 1,800 psig, and have an air-cooled condenser to reduce water use. The boiler will be fired by blended biomass that includes bark, wood chips, chipwood, and sawdust. A propane-fired auxiliary boiler will be utilized to provide steam during startup of the main boiler.[18]

EcoPower-Hazard states that a planned 1,600 kW, diesel-fired emergency generator and a 450 hp, diesel-fired emergency fire water pump will be used in emergency situations (i.e., interrupted electrical supply, wood fires) at the facility. Diesel storage tanks for these two units, as well as a tank to supply diesel fuel for facility heavy equipment, will be located on-site.[19]

STATUTORY REQUIREMENTS

Introduction

Pursuant to KRS 278.704(1), no person shall commence to construct a merchant electrical generating facility until that person has applied for and obtained a construction certificate for the proposed facility from the Siting Board. KRS 278.710(1) directs the

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[17] Id. at 3.

[18] Id.

[19] Id.

Board to consider the following criteria in rendering its decision: impact on scenic surroundings; property values; adjacent property; surrounding roads; anticipated noise levels; economic impact on the affected region and state; existence of other generation facilities; local planning and zoning requirements; potential impact on the electricity transmission system; compliance with statutory setback requirements; efficacy of proposed mitigation measures; and history of environmental compliance. In addition, the Board may consider the policy of the General Assembly to encourage the use of coal as a principal fuel for electricity generation.[20] Moreover, KRS 278.708(6) authorizes the Board to condition a construction certificate upon the implementation of any mitigation measures that the Board finds appropriate. This Order will consider separately each of these statutory requirements and related mitigation measures.

KRS 278.710(1)(a) directs the Board to consider the impact of a proposed merchant plant on scenic surroundings, property values, adjacent property, and surrounding roads before deciding whether to grant or deny a construction certificate.

Impact on Scenic Surroundings

By choosing to locate its proposed generation facility and transmission line in an existing industrial park, EcoPower-Hazard has largely mitigated the effects the proposed facilities may have on the scenic surroundings of the site. As BBC notes in its report on ecoPower-Hazard's SAR, "[t]he site topography, coupled with the baseline setting of the industrial park and former and active surface mining, renders the proposed [ecoPower-Hazard] facility, including the stack, compatible with its scenic

[20] KRS 278.710(2).

surroundings in large part."[21] During the Board's April 14, 2010 site visit, the Board members were able to see the existing land uses at the industrial park, including industrial manufacturing facilities, a commercial call center, and the nearby surface mining areas.

In its report, BBC notes that there are five residences in or adjacent to the industrial park.[22] The proposed generation facility will be visible to four of these five residences, and the one which does not have a view of the generation facility will have a view of the proposed transmission line and support structures.[23] However, as BBC notes, "the current view sheds of all the residences include several other major industrial structures within the industrial park."[24]

The report also notes that a residential neighborhood is located approximately one mile northeast of the ecoPower-Hazard site across Kentucky Highway 15 and adjacent to the southeastern portion of the Wendell H. Ford Airport.[25] Neighborhood residents will be able to see the proposed generation facility; but, as with the residential homes in and adjacent to the industrial park, their current view of the industrial park includes a number of existing industrial, commercial, and mining facilities.[26] EcoPower-Hazard has also committed to minimize the installation and use of lighting at the

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[21] BBC Report at 23.

[22] Id. at 17.

[23] Id.

[24] Id.

[25] Id.

[26] Id.

proposed facility in order to reduce any additional adverse visual concerns that nighttime lighting might cause to the occupants of the residences in the industrial park and the residences in the neighborhood.[27]

Adverse visual impacts from the expected increase in traffic during construction and operation of the facility are expected to be minimal, if any. Therefore, BBC recommends no mitigation measures regarding visual impact from cars and trucks going to and from the proposed facility.[28]

In order to mitigate any visual effects the proposed facility might have on the residential occupants, BBC agrees with ecoPower-Hazard's proposal to paint its facility, including the exhaust stack, with a "neutral" (non-contrasting) color, with the exception of any markings that may be required by state or federal aviation safety standards or otherwise necessary for the protection of its workers (e.g., warning signs).[29] BBC also recommends that ecoPower-Hazard be required to "ensure that the final design of nighttime lighting of the facility minimizes potential visual concerns, subject to safety and security requirements."[30]

The Siting Board agrees with the mitigation measures recommended by BBC to reduce visual impacts of the proposed facility. Therefore, the Siting Board will require ecoPower-Hazard to implement those visual mitigation measures as a condition of its approval of ecoPower-Hazard's application. With implementation of the proposed visual

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[27] Id. at 22.

[28] Id.

[29] Id. at 23.

[30] Id.

mitigation measures, the Siting Board finds that ecoPower-Hazard's proposed generation facility and transmission line will have minimal impact on the scenic surroundings of the proposed location.

Impact on Property Values

With regard to the impact the proposed generation facility and transmission line may have on the values of the surrounding properties, the Siting Board finds that any impact on property values will be negligible. As described above, the existing property uses at the industrial park make it very unlikely that there will be any adverse impact on property values as a result of the construction and operation of the proposed ecoPower-Hazard facility.

From its review and investigation, BBC concludes that there may, in fact, be positive effects from the additional employment opportunities that will accompany the construction and operation of the facility. BBC notes that ecoPower-Hazard has stated its intent to maximize local hiring where possible and states that "beneficial impacts are most likely if much of the construction and operations workforce is drawn from the local area."

The Siting Board agrees with BBC's conclusion. However, the Board will not assign any specific goals for the number of local workers that ecoPower-Hazard must employ during the construction and operation of its facility as a condition of the grant of a certificate in this case. The Siting Board notes that the positive atmosphere engendered by ecoPower-Hazard's efforts to proactively engage the public, local, and state officials to develop support for its proposed project depends, to a substantial degree, on any commitments or promises it has made to provide a number of new jobs

for the local population in constructing and operating the proposed facility. The Board encourages ecoPower-Hazard to honor the welcome extended to it by the local community by living up to those non-binding commitments and honoring promises to the greatest degree possible and practicable.

Impact on Surrounding Roads

According to BBC's report, the industrial park is well-located with regard to the regional transportation system:

> In general, and relative to previous siting evaluations conducted by the study team for the Board, the proposed ecoPower site is well situated from a transportation standpoint. Close proximity to KY 15, one of the three State Primary System highways in Perry County (along with KY 80 and the Hal Rodgers Parkway) provides considerable volume and load capacity to the site.[31]

Access to the ecoPower-Hazard site is provided via Coalfields Industrial Drive, which is a paved, two-lane road accessible by Ky. 15, approximately 10 miles north of Hazard.[32] According to BBC, Ky. 28 will also provide a limited amount of access to the site, but it is expected that traffic volume on Ky. 28 will increase by less than 4 percent above current figures.[33] Most of that increased traffic is expected to be workers driving their personal vehicles to and from the site, as opposed to construction vehicles and wood-hauling trucks which will most likely use Ky. 15.[34] Therefore, BBC did not recommend any mitigation measures to reduce traffic impacts to Ky. 28.

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[31] Id. at 40.

[32] Id. at 36.

[33] Id. at 37.

[34] Id. at 38.

According to data BBC obtained from the local Kentucky Transportation Cabinet ("KTC") office in Jackson, Kentucky, traffic volume on Ky. 15 is currently at 37 to 47 percent of its maximum capacity.[35] Pursuant to the information provided in the SAR and further information gathered by BBC from ecoPower-Hazard during its review of the SAR, BBC concludes that traffic to and from the ecoPower-Hazard property on Ky. 15 during the construction phase will be moderately elevated—to between 41 and 54 percent of its maximum capacity.[36] Once the facility is constructed, traffic volume on Ky. 15 during normal operations is expected to be between 38 and 49 percent of maximum capacity.[37]

BBC also states that, during construction, there may be several "heavy hauls" of oversized loads along Ky. 15, including equipment for the turbine, generator, and main and auxiliary transformers. While ecoPower-Hazard will have to apply for special permits and coordinate such hauls with KTC, BBC concludes that "KY 15 is well designed to accommodate these types of oversize loads," as it is a part of the Coal Haul Extended Weight System, which is designed to accommodate trucks carrying 40-ton loads. As such, BBC states that "construction and operations of the proposed [ecoPower-Hazard] facility should have little impact on road maintenance requirements or costs for these roads."

There will likely be some increase in noise and dust from the increased traffic levels. BBC recommends that ecoPower-Hazard be required to mitigate fugitive dust

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[35] Id.

[36] Id. at 39.

[37] Id. at 38.

emissions from traffic by paving all roads and parking lots on its property in the industrial park and by requiring all trucks to comply with applicable load cover rules to prevent fugitive dust emissions and reduce the amount of materials spilled onto the surrounding roads.[38] EcoPower-Hazard offered to undertake such mitigation measures in its SAR.[39]

BBC also recommends that deliveries of fuel wood to the ecoPower-Hazard generating facility be scheduled primarily during daytime hours in order to reduce nighttime traffic on the surrounding roads and to reduce truck noise at times when area residents would likely be sleeping.[40] This recommended mitigation measure was also suggested by ecoPower-Hazard in its SAR.[41]

The Siting Board finds that truck and car traffic to and from the proposed generation facility will impact the surrounding roadways both during the anticipated two-year construction phase and during normal operations. However, the overall traffic impact will be relatively minor and will not overburden the capacity of the surrounding roads. In order to mitigate the effects that traffic noise and dust may have on the surrounding properties, the Siting Board will require ecoPower-Hazard to implement the mitigation measures recommended by BBC and described above as a condition of its grant of a certificate in this matter.

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[38] Id. at 37 and 40.

[39] Application, Exhibit J at 24.

[40] BBC Report at 37 and 40.

[41] Application, Exhibit J at 24.

Anticipated Noise Levels

KRS 278.710(1)(b) requires the Board to consider the anticipated noise levels expected to result from the construction and operation of the proposed facility.

In its report, BBC concludes that noise from additional traffic during construction and operation of the proposed ecoPower-Hazard plant will not substantially increase baseline noise levels. BBC also concludes that noise impacts from the operation of the proposed facility will be minimal.[42] The primary sources of noise from the facility will be the induction draft fan, transformer, air-cooled condenser, log building and wood hog building.[43]

As there are no current state, county, or local noise regulations governing noise emissions from the proposed facility, ecoPower-Hazard's SAR references the guidelines established by the U.S. Environmental Protection Agency ("EPA") to protect public health and welfare. The EPA guidelines recommend that constant sound thresholds of 55 decibels ("dBA") during daytime hours and 45 dBA during nighttime hours not be exceeded. EcoPower-Hazard's noise impact study indicates that EPA guidelines may be exceeded on the southwestern edge of the site, but also demonstrates that no sensitive noise receptors, such as residences or businesses, are located in that vicinity.[44]

BBC concludes that steam blows—which it states are a necessary part of the operation of all steam generating plants—will be the most significant noise impact from

[42] BBC Report at 35.

[43] Application, Exhibit J2 at 11.

[44] BBC Report at 31.

the proposed facility.[45] BBC notes that, as designed, ecoPower-Hazard's facility will require only one steam blow prior to initial facility startup and, therefore, the peak noise impact of the facility will be "a short-duration, one-time event,"[46] although BBC indicates that other steam plants it has evaluated require steam blows at least once a year following routine outages for maintenance.[47] In an addendum to its noise impact study, EcoPower-Hazard states that the anticipated duration of a steam blow event would be approximately 18 seconds and that it would anticipate such steam blows to occur in the morning hours but not prior to 7:00 a.m. local time.[48]

BBC recommends that the ecoPower-Hazard plant be required to enclose its wood processing equipment to mitigate both dust emissions and noise migration. BBC further recommends that, if ecoPower-Hazard determines that steam blows are to occur more than once, it should be required to install silencers to dampen the resulting noise and should also be required to develop a system to notify residents in the vicinity of the plant prior to the occurrence of planned steam blows. BBC recommends that such a notification system include a telephone warning system in which interested residents would receive an automated telephone call alerting them to the pending noise event, newspaper advertisements regarding planned steam blows, or both.

The Siting Board finds the recommendations made by BBC to mitigate noise impacts from the proposed generation facility to be appropriate and reasonable.

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[45] Id. at 35.

[46] Id.

[47] Id.

[48] Response of ecoPower-Hazard to Board Staff's First Data Request, Tab B.

Therefore, the Board will require ecoPower-Hazard to implement those noise control measures as conditions of its grant of a certificate in this matter.

Economic Impact on the Affected Region

KRS 278.710(1)(c) requires the Board to consider the economic impact that the proposed facility will have upon the affected region and the Commonwealth.

EcoPower-Hazard asserts that the total capital expenditure for the proposed project will exceed $150 million with over 60 percent of that amount allocated to materials and 40 percent allocated to labor.[49] EcoPower-Hazard projects that the construction phase of the project will utilize an average of 200 skilled craft and contract workers on-site. The total economic impact on the region during the two-year construction phase is estimated to exceed $82.5 million.[50] Once construction is completed, ecoPower-Hazard expects to retain a workforce of approximately 40 full-time employees to operate and maintain the plant, which has an operating life of 30 years or more. The annual payroll for the plant will be in excess of $2.6 million.[51] Including payroll, the first-year operating budget for the plant is in excess of $16 million.[52]

In addition to the workforce to be utilized during construction and ongoing operations, ecoPower-Hazard asserts that it will purchase wood biomass, by-products, pulp wood, and forest product residuals for fuel. Supply of these fuel types will impact

[49] Application at 22-27.

[50] Id.

[51] Id.

[52] Id.

various loggers and truck drivers within the affected area, adding an additional indirect economic impact to the region. The annual labor expense for fuel transportation is expected to be in excess of $1.5 million.[53] These fuel types will utilize the abundance of low-quality, under-utilized wood resources in the area. EcoPower-Hazard asserts that use of these wood products as fuel is not expected to impact any other existing or potential wood-use industries in the area.

While the Board is hopeful that the ecoPower-Hazard project will result in economic growth for the Perry County region, the Board believes that any positive economic impact resulting from this project greatly depends upon the extent to which ecoPower-Hazard employs local workers and utilizes local resources. In its report to the Board, BBC recommends that local hiring be maximized to the extent possible.[54] In approving this project, the Board relies upon ecoPower-Hazard's commitments to hire construction and operation workers from the local population and to utilize local materials and fuels whenever practical and possible.

Existence of Other Generation Facilities

KRS 278.710(1)(d) provides that the Board must consider whether a merchant plant is proposed for a site upon which facilities capable of generating 10 MW or more of electricity are already located. The site upon which the ecoPower-Hazard generating facility will be located does not contain any other generating facilities. Therefore, the proposed project is not entitled to the statutory *preference* afforded by KRS 278.710(1)(d). However, the Siting Board recognizes that the ecoPower-Hazard facility

[53] Id. at 23.

[54] BBC Report, Section D at 1.

will be located at an existing industrial park, and the impact of the facility on the surrounding land uses is likely to be minimal, as the surrounding land is already occupied by existing industrial, commercial and mining facilities. Any impacts that the ecoPower-Hazard facility will have on the surrounding properties are, therefore, consistent with what reasonable persons would expect a facility constructed at an existing industrial park may have.

Local Planning and Zoning Requirements

In deciding whether to grant or deny a construction permit, KRS 278.710(1)(e) directs the Board to consider whether the proposed facility will meet all the local planning and zoning requirements that existed on the date the application was filed. EcoPower-Hazard has demonstrated that the area in Perry County where the proposed project is to be located is not subject to local planning and zoning regulation. Therefore, the Board does not need to consider the issue of ecoPower-Hazard's compliance with local planning and zoning laws in rendering its decision in this matter.

TRANSMISSION LINE SITING

KRS 278.714(3) provides that the Board must consider whether the proposed route for a nonregulated transmission line, 69 kV or larger, will minimize significant adverse impact on the scenic assets of Kentucky and that the applicant will construct and maintain the line according to all applicable legal requirements.

EcoPower-Hazard requests the Siting Board's permission to construct a 69 kV nonregulated transmission line 1.54 miles in length and sufficient to transmit the electric power generated to the existing Kentucky Power Company Engle substation, which is located at the entrance to the Coal Fields Regional Industrial Park. The Application

explains that the transmission line route "will exit the [ecoPower-Hazard] property at its southeast corner and will traverse south-southeast over currently existing easements or easements to be acquired for this purpose."[55] The transmission line will be supported by 13 wood pole structures and two tubular steel poles.[56]

EcoPower-Hazard states that the transmission line will operate nominally at 69 kV, will be located along the center of a 100-foot right-of-way, and will have a current capacity of 650 amperes.[57] EcoPower-Hazard further states that "[t]he proposed transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code ['NESC']."[58] The Siting Board finds that ecoPower-Hazard's description of the transmission line facilities complies with the requirements of KRS 278.714(2)(c) and that ecoPower-Hazard's statement regarding its intent to construct and maintain the proposed transmission line in compliance with accepted engineering practices and the NESC complies with the requirements of KRS 278.714(2(d).

EcoPower-Hazard provides a detailed description of the proposed transmission line route, accompanied by two large topographic maps showing the transmission line route and its supporting structures and identifying the owners of the tracts of property that the proposed transmission line will cross.[59] The Siting Board finds that ecoPower-

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[55] Application at 4.

[56] Id. at 4-5.

[57] Id. at 4.

[58] Id.

[59] See Id., Figures 5 and 6.

Hazard's description of the proposed route and its accompanying maps are in compliance with the requirements of KRS 278.714(2)(b).

There are no schools or public or private parks within one mile of the proposed transmission line route.[60] A residential neighborhood is located approximately 2,200 feet from the proposed transmission line route at its closest point[61] and, according to the Siting Board's consultant, at least one residence located at the industrial park property will have a view of the proposed transmission line.[62] However, the Siting Board notes that the location of that residence is also approximately 800 feet from, and in view of, the existing Weyerhauser manufacturing facility.[63]

According to ecoPower-Hazard, "the route for the transmission line was selected to minimize impact to residences or sensitive land, minimize impact on property parcels, minimize overall route length, maximize use of existing linear corridors by following existing transmission lines or roads, minimize number of line angles, and minimize crossings of public roads."[64]

Prior to selecting the transmission line route, ecoPower-Hazard analyzed several alternative routes and initially chose two primary routes for analysis. The first was the selected route, which follows the eastern edge of the industrial park. The second was a

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[60] Id., Exhibit J at 11 and Figure 5.

[61] Id., Figure 5 (Residential Neighborhood #6).

[62] BBC Report at 17. BBC notes that the residence within sight of the proposed transmission line is visually obstructed from any view of the proposed generation facility.

[63] Application, Figure 5.

[64] Id., Exhibit J at 11.

route leading west from the substation to Coalfields Industrial Drive, where that road turns northward toward the proposed generation facility site. The second route would have then followed the road parallel from that point to the ecoPower-Hazard property.[65]

EcoPower-Hazard did not choose the second route for a number of reasons. According to ecoPower-Hazard, had it chosen the second route, it would have to widen the existing right-of-way in a number of areas; the alternative route and right-of-way could interfere with current uses of the property; and the transmission line would have to cross property where the ownership is in dispute, clouding the possibility of obtaining necessary easements. Had ecoPower-Hazard chosen the second route, the proposed transmission line would also be longer and more expensive—due, in part, to the larger number of easements that would be required to construct the line along that route. In addition, ecoPower-Hazard notes that, if the second route were utilized, it would probably have to construct the transmission line above some existing distribution lines, which would require coordination with the owner of the distribution lines and would increase the expense and risk of the construction project.[66]

In the course of preparing its Application, ecoPower-Hazard engaged the services of a consultant who surveyed the property in the vicinity of the proposed generation facility and transmission line for any archeological sites or cultural historic sites listed on (or eligible for listing on) the National Register of Historic Places. Neither

[65] Id. at 7.

[66] Id.

survey identified any such structures or sites in the vicinity of the proposed generation or transmission line facilities.[67]

The Siting Board's consultant notes that the transmission line "will be visible from various locations in the industrial park" and cites ecoPower-Hazard's conclusion that the transmission line and support structures are "unlikely to alter the scenic view of any observer" given the current surrounding land use and views.[68] The consultant makes no recommendations for any mitigation measures to lessen any impact of the transmission line on the surrounding area.

The Siting Board finds that the proposed 69 kV transmission line has been designed and located to minimize any adverse impact on the scenic assets of Kentucky. In choosing to locate the generation facility and the accompanying transmission line at an existing industrial park, the risk that the transmission line could have any significant impact at all on the Commonwealth's scenic assets is inherently minimized. In addition, there are no sites of historical significance or archeological interest along the proposed transmission line route that might be disturbed by the construction of the transmission line. Therefore, the Siting Board approves ecoPower-Hazard's application to construct the 69 kV transmission line as designed and proposed along the route identified in its Application.

Potential Impact on the Electricity Transmission System

Before the Board may grant a merchant plant construction certificate, KRS 278.701(1)(f) requires the Board to consider whether the additional load imposed upon

[67] See Id., Exhibit J3 (Cultural, Historic and Archeological Studies).

[68] BBC Report at 18 (quoting Application, Exhibit J at 14).

the electricity transmission system by the proposed facility will adversely affect the reliability of service for retail customers of electric utilities regulated by the Commission.

EcoPower-Hazard will interconnect, at the Engle substation, with the Kentucky Power transmission network through its proposed 69 kV transmission line. It has filed an interconnection request with PJM, Inc., the regional transmission operator of which Kentucky Power Company is a member.

PJM is in the process of conducting studies to evaluate any possible constraints on the transmission system that might result from the integration of the proposed 50 MW generation facility into the transmission system.[69] The System Impact Study is now in progress and is anticipated to be completed by June 30, 2010. Based on a mutually agreed scope of work, PJM has advised ecoPower-Hazard that an expedited Interconnection Services Agreement ("ISA") is possible by the end of July 2010.[70]

Based on this information, the Board finds that, upon receiving approval from PJM of its ISA, interconnection of the proposed generation facility will not adversely affect the reliability of service for Kentucky customers. The Board will require ecoPower-Hazard to file a copy of the final ISA within 30 days of execution of the ISA by all necessary parties as a condition of its approval of ecoPower-Hazard's Application in this matter.

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[69] See Application, Exhibit G1-G2, and EcoPower-Hazard's Response to Board Staff's First Data Request, Tab G.

[70] EcoPower-Hazard's Response to Board Staff's First Data Request, Item 31.

Compliance with Statutory Setback Requirements

KRS 278.710(l)(g) requires the Board to consider whether the proposed facility will comply with any applicable setback requirements. On April 27, 2010, in response to the Siting Board's April 22, 2010 Order denying its April 8, 2010 Motion for Deviation from Setback Requirements, ecoPower-Hazard filed a Renewed Motion for Deviation from Setback Requirements ("renewed motion"). The Siting Board finds that ecoPower-Hazard's renewed motion sets forth the necessary and appropriate factors for the Board to find that the proposed facility is designed and located to meet the goals of the applicable statutes listed in KRS 278.704(4).

KRS 278.704(2) provides that:

> Except as provided in subsections (3), (4), and (5) of this section, no person shall commence to construct a merchant electric generating facility unless the exhaust stack of the proposed facility is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility.

Pursuant to KRS 278.704(4), the Siting Board may grant an applicant's request for a deviation from the 1,000-foot setback requirement in KRS 278.704(2) if "the proposed facility is designed and located to meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than those provided in subsection (2) of this section."

In its original motion for deviation filed on April 8, 2010, ecoPower-Hazard asserted that "the statutory language and legislative history suggest that the primary purpose of the setback requirement is to protect the expectations of property owners who had no reason to expect the construction of a merchant power plant near their

property." In support of its motion, ecoPower-Hazard attached letters from the owners of the adjoining properties indicating their understanding that the facility would not be in compliance with the 1,000-foot setback requirement and their support for the facility nonetheless. In its renewed motion, ecoPower-Hazard notes that the above-quoted language regarding the "primary purpose" of KRS 278.704(2) is found in the Siting Board's September 5, 2002 Order granting Kentucky Mountain Power, LLC/ EnviroPower, LLC ("KMP") a certificate for construction of a merchant generating facility.

In the KMP case, the exhaust stack of the applicant's proposed facility was located less than 1,000 feet from the adjoining property. However, as the Siting Board noted in the September 5, 2002 Order, the applicant had a "significant ownership interest in the land adjacent to the proposed site." According to the Order, KMP had a 96-year lease with the property owner, which was renewable for an additional 99-year period. The Board noted that, under those facts, "a strong argument can be made that there is no 'adjoining property owner' within 1,000 feet within the meaning of KRS Chapter 278, and that the setback requirements do not apply because KMP essentially 'owns' the entire 4,000 acres."[71] The Siting Board also considered the language of the lease agreement and the property owner/lessor's testimony at the evidentiary hearing in the case that it was aware of the planned use for the land and did not have any objection. The Siting Board also considered other evidence which gave it assurance

[71] Case No. 2002-00149, The Application of Kentucky Mountain Power, LLC/EnviroPower, LLC for a Merchant Power Plant Construction Certificate in Knott, County, Kentucky Near Talcum (Siting Board, September 5, 2002 at 15).

that the applicant had "made every effort to protect property owners from any adverse impact that may result from the proposed project."[72]

The facts of the present case are quite different than the facts of the KMP case. In the present case, the exhaust stack of ecoPower-Hazard's proposed facility is located less than 1,000 feet from four adjoining properties in the Coalfields Regional Industrial Park, in which ecoPower-Hazard does not have any demonstrated ownership interest. The three adjoining properties to the south-southeast of the property upon which the ecoPower-Hazard facility will be constructed are undeveloped properties owned by the Perry, Harlan, Leslie, Breathitt, Knott Regional Industrial Authority ("regional industrial authority"). The property to the east of ecoPower-Hazard's proposed site is owned by a mining company, which has an active surface mining operation several thousand feet from the adjoining property line. A property immediately adjacent to the easternmost adjoining property owned by the industrial authority is currently occupied by a commercial call center, which employs several hundred people at that location.

While the call center is outside the 1,000-foot setback boundary pursuant to KRS 278.704(2), its presence indicates that development at the industrial park is not strictly limited to industrial facilities. Its presence also indicates that the properties located adjacent to the ecoPower-Hazard facility could, in the future, be occupied by several hundred persons.

The setback provisions of KRS 278.704(2) were enacted to afford some level of protection for persons occupying a property adjacent to a property where a merchant generating plant is to be constructed and operated. The Siting Board notes that the

[72] Id. at 16.

occupants of nursing homes and schools are not normally the owners of the properties upon which those facilities are located. However, the language of the statute is clearly concerned with ensuring that the impacts of the proposed facility on nearby students and nursing home occupants are considered by the Siting Board when it makes its decision to either grant or deny an application for a merchant generating facility construction certificate.

While the owner of a nursing home or a school might endorse the construction of a merchant generating facility upon a neighboring property, it is the effects of the planned facility on the students or the nursing home residents that the Siting Board must consider when determining whether to grant a deviation pursuant to KRS 278.704(4). In that regard, the Siting Board notes that while the regional industrial authority is the current owner of the adjoining property, it is unlikely that it will be an *occupant* of the property. Therefore, the Siting Board gives appropriate weight to the opinions expressed in its January 6, 2010 letter regarding the proposed use of the adjoining property.[73] If the adjoining properties were occupied, the Siting Board would necessarily consider the effects of the planned facility on those persons. However, as the adjoining properties are currently vacant, any future occupants will have prior notice of the use of the ecoPower-Hazard property.

In the KMP case, the adjoining property was comprised of thousands of acres which were to be leased by KMP for many decades—possibly 195 years. As such, the Siting Board's determination in the KMP case to allow a deviation from the 1,000-foot

[73] EcoPower-Hazard's Renewed Motion for Deviation from Setback Requirements, Exhibit II.

setback requirement was reasonable, especially as the Siting Board had been assured that the applicant had made every effort to protect property owners from all adverse impacts that might result from the construction and operation of its facility.

In the present case, the ecoPower-Hazard facility is to be sited at an existing industrial park where a number of industrial facilities are already located. Persons entering an established industrial park must have a reasonable expectation of exposure to a certain amount of noise, visual obstruction of scenic views, and traffic that may result from the construction and operation of an industrial facility—including those that will result from the construction and operation of a merchant generation plant. The Siting Board has taken those factors into consideration in making its determination regarding ecoPower-Hazard's request for a deviation from the 1,000-foot setback requirement in this case.

The fact that the ecoPower-Hazard facility is to be located in an industrial park does not, by itself, eliminate the need for the applicant to provide a discussion of the "goals" of the statutes listed in KRS 278.704(4) and the ways in which its facility is designed and located to meet those goals in sufficient detail to allow the Siting Board to make a reasoned decision. EcoPower-Hazard has provided that information to the Board in its renewed motion for deviation.

Compliance with the Goals of KRS 224.10-280

As ecoPower-Hazard notes in its renewed motion, KRS 224.10-280 provides that no person shall commence to construct a facility to be used for the generation of electricity unless that person has submitted a cumulative environmental assessment to the Energy and Environment Cabinet ("Cabinet") with its permit application and remits a

fee which has been set pursuant to KRS 224.10-100(20). EcoPower-Hazard states that it discussed the requirements of KRS 224.10-280 with the Department of Environmental Protection ("DEP") and was advised that "the Cabinet's practice is to request applicants to file the environmental assessment at the time of the filing of the last environmental permit which will be required for the facility." EcoPower-Hazard notes that it must apply for a Kentucky Pollution Discharge Elimination System ("KPDES") permit to regulate industrial stormwater from its proposed facility but that it has not yet filed that application. EcoPower-Hazard was also advised by DEP that no regulations have been promulgated regarding cumulative environmental assessments and, thus, no fee has been established for an applicant to pay.

EcoPower-Hazard states in its renewed motion that its goal is to provide the cumulative environmental assessment as set forth in KRS 224.10-280 "in accordance with the instructions of the Department for Environmental Protection," and that "it is the intent and commitment of [ecoPower-Hazard] not to begin construction of the facility described in this Board proceeding unless and until such cumulative environmental assessment has been properly filed with the Department for Environmental Protection." EcoPower-Hazard notes that it has already applied for and received a permit from the Division for Air Quality to control the air pollution emissions from its proposed facility and argues that "[a]ny earlier submission of a cumulative environmental assessment would be premature as it could not take into account all environmental impacts envisioned by KRS 224.10-280."

With regard to water withdrawal needs, which is a factor to be discussed in a cumulative environmental assessment pursuant to KRS 224.10-280(3)(d), ecoPower-

Hazard has contracted with the city of Hazard to provide water for its facility and is exploring two additional water sources that it could use if the city of Hazard is unable to supply its needed water.[74] As to the disposal of waste from the facility, which is a consideration under KRS 224.10-280(3)(c), ecoPower-Hazard intends to mix the waste fly ash from its facility with sand to form a soil amendment that can be used for surface mining reclamation at nearby mining sites, which is a beneficial reuse pursuant to KRS 224.[75] EcoPower-Hazard is also consulting with cement and concrete block manufacturers to determine if some of its fly ash byproduct can be sold to those facilities for their manufacturing processes.[76]

The Siting Board agrees with ecoPower-Hazard's assessment that "[t]he goal of this statute clearly is to provide the Cabinet a central location for a cumulative overview of environmental impacts which may result from the construction of an electric generating facility." It is also apparent that the filing of a cumulative environmental assessment with the Cabinet affords DEP the opportunity to determine if any additional environmental permits not already identified by the applicant are necessary before the facility can be constructed and operated. Therefore, the Siting Board concludes that the ecoPower-Hazard facility is designed and located to meet the goals of KRS 224.10-280, based on our findings that the applicant: has already received its air emissions permit

[74] Review and Evaluation of [ecoPower-Hazard] Site Assessment Report, BBC Research and Consulting at 6.

[75] Application, Exhibit K, Air Quality Permit at 6; Response of ecoPower-Hazard to BBC Informal Information Request of February 24, 2010 at 8.

[76] Response of ecoPower-Hazard to BBC Informal Information Request of February 24, 2010 at 8-9.

from the Division for Air Quality; has committed to file its cumulative environmental assessment with DEP at the time it files its KPDES industrial stormwater permit application; has contracted for water to be supplied by the city of Hazard and is exploring two other options for water supply, if necessary; and intends to beneficially reuse the waste fly ash from its facility.

Compliance with the Goals of KRS 278.010

KRS 278.010 is the definitions section of KRS Chapter 278. EcoPower-Hazard argues that "in filing a complete Application pursuant to the applicable statutes in this proceeding it has satisfied the goal of providing the required information utilizing the definition of any applicable term defined in KRS 278.010." The Siting Board agrees with ecoPower-Hazard's assessment of the goals of KRS 278.010. Therefore, the Board finds that the ecoPower-Hazard facility is designed and located to meet the goals of KRS 278.010.

Compliance with the Goals of KRS 278.212

EcoPower-Hazard argues in its renewed motion that KRS 278.212 is a "mandate to 'utilities,'" which, it observes, ecoPower-Hazard is not. However, it is clear from the language of KRS 278.212(2) that the statute does apply to merchant generating facilities:

> Notwithstanding any other provision of law, any costs or expenses associated with upgrading the existing electricity transmission grid, as a result of the additional load caused by a merchant electric generating facility, shall be borne solely by the person constructing the merchant electric generating facility and shall in no way be borne by the retail electric customers of the Commonwealth. [Emphasis added.]

Nonetheless, ecoPower-Hazard has committed to "ensure compliance with all applicable conditions relating to electrical interconnection with utilities" and states that it "fully intends and will accept responsibility for appropriate costs which may result from its interconnecting with the electricity transmission grid." The Siting Board finds that, with ecoPower-Hazard's commitment to comply with KRS 278.212, its proposed facility has been designed and located to meet the goals of KRS 278.212.

Compliance with the Goals of KRS 278.214

KRS 278.214 provides that:

> When a utility or generation and transmission cooperative engaged in the transmission of electricity experiences on its transmission facilities an emergency or other event that necessitates a curtailment or interruption of service, the utility or generation and transmission cooperative shall not curtail or interrupt retail electric service within its certified territory, or curtail or interrupt wholesale electric energy furnished to a member distribution cooperative for retail electric service within the cooperative's certified territory, except for customers who have agreed to receive interruptable [sic] service, until after service has been interrupted to all other customers whose interruption may relieve the emergency or other event.

EcoPower-Hazard argues in its renewed motion for deviation that "[t]he goals of this statute are to establish the progression of entities whose service may be interrupted or curtailed pursuant to an emergency or other event." EcoPower-Hazard states that it "intends to abide by the requirements of this provision to the extent that these requirements are applicable to a wholesale generator of electric power." The Siting Board finds that ecoPower-Hazard's commitment to abide by the requirements of KRS 278.714 is sufficient, under the facts of this case, to establish that its facility is designed and located to meet the goals of KRS 278.714.

Compliance with the Goals of KRS 278.216

KRS 278.216 requires a jurisdictional utility, as defined by KRS 278.010(3), which seeks to construct an electric generating facility to comply with many of the same requirements applicable to merchant generating facilities under KRS 278.700-278.716, including the submission of a site assessment report as prescribed in KRS 278.708(3) and (4). The Siting Board agrees with ecoPower-Hazard's argument that, as an applicant for a merchant generating facility, by complying with the requirements of 278.700-278.716, ecoPower-Hazard has met the requirements and goals of KRS 278.216. Therefore, the Siting Board finds that the ecoPower-Hazard facility is designed and located to meet the goals of KRS 278.216.

Compliance with the Goals of KRS 278.218

KRS 278.218 requires jurisdictional utilities to acquire the approval of the Public Service Commission prior to a change in ownership or control of assets owned by a utility as defined by KRS 278.010(3)(a). As ecoPower-Hazard correctly notes, it is not a utility as defined by KRS 278.010(3)(a); and, therefore, it does not appear that KRS 278.218 is applicable to ecoPower-Hazard. The Siting Board notes that pursuant to KRS 278.710(3), the owner of a merchant plant who has received a Siting Board certificate must obtain the Board's approval prior to transferring its rights and obligations under the certificate.

However, ecoPower-Hazard states in its renewed motion that "to the extent commission approval may at some time be required for change of ownership or control of assets owned by [ecoPower-Hazard], [ecoPower-Hazard] will abide by the applicable rules and regulations which govern its operation." The Siting Board finds that

ecoPower-Hazard's commitment to abide by the requirements of KRS 278.218, if required, is sufficient, under the facts of this case, to establish that its facility is designed and located to meet the goals of KRS 278.218.

Compliance with the Goals of KRS 278.700-278.716

The statutes governing the Siting Board's authority are encompassed by KRS 278.700-278.716. EcoPower-Hazard argues in its renewed motion that:

> The goals of those provisions are to provide for the location of merchant electric generating facilities in a fashion which will not intrude upon or unnecessarily disrupt other surrounding land uses, including hospitals, nursing homes, residential areas, schools, parks or otherwise have adverse environmental impacts which are not otherwise regulated.

The Siting Board does not disagree with this abbreviated summary of its statutory obligations. However, the statutory criteria also specifically include an evaluation of the economic impact of the proposed facility (KRS 278.710(1)(c)); whether the facility is to be located at a site where existing generating facilities are located (KRS 278.710(1)(d)); whether the facility will meet all applicable local planning and zoning requirements (KRS 278.710(1)(e)); whether the facility will adversely impact the reliability of electrical service for retail customers of utilities regulated by the Public Service Commission (KRS 278.710(1)(f)); the efficacy of any proposed mitigation measures (KRS 278.710(1)(h)); and the applicant's history of environmental compliance (KRS 278.710(1)(i)).

EcoPower-Hazard argues that it has demonstrated that its facility is designed and located to meet the goals of KRS 278.700-278.716 through "its Application in its entirety." EcoPower-Hazard further notes that its facility will be located in an existing industrial park and that the adjoining properties will likely be used for future industrial facilities.

The Siting Board agrees that ecoPower-Hazard has provided a comprehensive Application with a detailed discussion of all of the criteria applicable to its proposed facility under KRS 278.700-278.716. Therefore, the Siting Board finds that, for the purpose of granting ecoPower-Hazard's motion for a deviation from the setback requirement under KRS 278.704(2), the proposed facility has been designed and located to meet the goals of KRS 278.700-278.716.

History of Environmental Compliance

KRS 278.710(1)(i) directs the Board to consider whether the applicant has a good environmental compliance history. EcoPower-Hazard states in its Application that:

> Neither [ecoPower-Hazard], nor any person with an ownership interest in the Project, have violated any federal or state environmental laws, rules or administrative regulations. There are no pending judicial or administrative actions for violating any environmental requirement that have been filed against [ecoPower-Hazard] or any person with an ownership interest.

The Board is unaware of any evidence to the contrary and, therefore, finds that ecoPower-Hazard has a good environmental compliance history pursuant to KRS 278.710(1)(i).

Efficacy of Proposed Mitigation Measures

KRS 278.710(l)(h) requires the Board to consider the efficacy of measures proposed to mitigate any adverse impact that the proposed facility may have on the affected region. Pursuant to this statute, the Board has reviewed and considered the measures BBC has proposed to mitigate the negative impact that the ecoPower-Hazard project may have on the Perry County region.

With regard to access control issues, adequate security is essential to protecting residents from the dangers that may result from security breaches. The Board believes that the implementation of standard industry practices for security and access control will successfully mitigate the risk of security breach.

In assessing the scenic compatibility of the proposed facility with surrounding land, BBC concludes that minimal visual impairment to the scenic surroundings may occur for residents living in the industrial park and in the residential neighborhood to the east of the proposed facility location. In response to this potential impairment, ecoPower-Hazard has proposed and BBC recommends that ecoPower-Hazard select colors for the facility structures that do not contrast with the surroundings, except where markings or signs may be required for purposes of compliance with aviation regulations or to maintain worker safety. The Board concludes that implementation of these mitigation strategies will render the ecoPower-Hazard project compatible with the scenic surroundings of the industrial park.

Mitigation strategies related to impact on surrounding roads are discussed on pages 16 through 18 of this Order. Mitigation strategies related to anticipated noise levels are discussed on pages 19 and 20 of this Order.

Finally, the Board is sensitive to the fact that some of ecoPower-Hazard's proposed plans, permits, and agreements have not been finalized. If ecoPower-Hazard failed to honor the commitments it has made to the Board in its Application, it would substantially affect the projected impact the proposed plant will have on the region. For these reasons, the Board has a responsibility to make every effort to ensure that the project is constructed as ecoPower-Hazard has represented throughout this proceeding.

To that end, the Board finds that the submission of an annual project impact report would help to successfully mitigate any additional adverse impacts caused by the project which were not anticipated by ecoPower-Hazard, the Siting Board, or its consultant and which are not specifically addressed by the conditions imposed in this Order and the attached Appendix.

OTHER FACTORS

Although no local public hearing was held by the Siting Board, the Board notes that ecoPower-Hazard held an "Informational Open House" in Chavies, Kentucky on January 5, 2010, which was attended by approximately 35 persons from the local area.[77] In its Application, ecoPower-Hazard also provides several examples of its efforts to interact with the public prior to filing its application. These efforts include meetings with representatives of the Sierra Club in November 2009 and January 2010 and a meeting with representatives of the Kentucky Resources Council in November 2009 "to describe the Project and encourage questions from this community."[78] The Applicant describes the meetings with the environmental organizations as "cordial and encouraging."[79]

EcoPower-Hazard's Application also describes its efforts—both through personal contacts and through letters—to meet with and inform the owners of the adjacent properties about the project and its potential impacts on the surrounding area.[80]

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[77] Application, Exhibits E8-E12.

[78] Id. at 16.

[79] Id.

[80] Id.

EcoPower-Hazard has established a website located at: http://www.ecopg.com, to provide public information about the project.[81] The company has also established a local office in Hazard, Kentucky, which will be staffed by its Vice President for Fuel Procurement, who is a professional forester with over 20 years' experience in wood procurement and sustainable forest management.[82]

The Siting Board believes that it would be beneficial to the public to require ecoPower-Hazard to maintain its existing website and to update it regularly to provide the public with ongoing information about the progress of the project until the facility has been constructed and placed into operation. The website might also be supplemented to provide a place for interested persons to request electronic notification when major noise events, like steam blows, are planned.

The Siting Board acknowledges ecoPower-Hazard's proactive approach to providing information to the public about its planned project. The Siting Board also acknowledges ecoPower-Hazard's efforts to interact with concerned organizations to answer their questions and address their concerns prior to filing its Application. The Siting Board's decision not to hold a local public hearing in this matter was influenced by ecoPower-Hazard's pre-application efforts to discuss its project with the public, local, and state officials and concerned organizations.

CONCLUSION

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that ecoPower-Hazard has presented sufficient evidence to support the

[81] Id. at 17.

[82] Id.

issuance of a deviation from the setback requirements of KRS 278.704(2) and a certificate to construct the proposed merchant power plant and a non-regulated electric transmission line. The Board conditions its approval upon the full implementation of all monitoring, reporting, and mitigation measures described herein and listed in Appendix A to this Order. A map showing the location of the proposed generating facility is attached hereto as Appendix B.[83]

IT IS THEREFORE ORDERED that:

1. EcoPower-Hazard's Renewed Motion for Deviation from Setback Requirements is granted.

2. EcoPower-Hazard's Application for a Certificate to Construct an approximately 50 MW merchant electric generating facility and a 69 kV nonregulated transmission line in Perry County, Kentucky is granted.

3. EcoPower-Hazard shall fully comply with all monitoring, reporting and mitigation measures and conditions prescribed in Appendix A attached hereto.

ATTEST:

Executive Director
Public Service Commission
on behalf of The Kentucky State Board on
Electric Generation and Transmission Siting

By the Kentucky State Board on
Electric Generation and
Transmission Siting

ENTERED
MAY 18 2010
KENTUCKY PUBLIC
SERVICE COMMISSION

[83] The map at Appendix B was created by a member of the Siting Board Staff professionally trained and experienced in the use of Geographic Information Systems ("GIS"). The map was created from images excerpted from ecoPower-Hazard's Response to Board Staff's First Data Request at Tab F. The original map image is too large to append to this Order, and reducing the original image renders many features of the original map illegible. Coalfields Industrial Drive is also mislabeled "Gambill Drive" in the original map image, and the Appendix B map has been corrected to eliminate that error. The location of the 69 kV transmission line is not shown on the Appendix B map due to restrictions on the disclosure of information regarding critical infrastructure.

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2009-00530 DATED MAY 13 2010

MONITORING PROGRAM AND REPORTING REQUIREMENTS

The following monitoring program is hereby imposed on ecoPower-Hazard to ensure that the facility proposed in this proceeding is constructed as ordered:

A. EcoPower-Hazard shall file an annual report throughout the duration of the construction of its facility and the construction of its transmission line. The initial report shall be filed within one year of the date of this Order granting ecoPower-Hazard a Construction Certificate for its merchant electric generating facility and its 69 kV transmission line. Subsequent reports shall be filed annually from the date of the filing of the first report.

B. The obligation of ecoPower-Hazard to file annual reports pursuant to this Appendix to the Final Order of the Kentucky State Board on Electric Generation and Transmission Siting in Case No. 2009-00530 shall continue until such time as the merchant electric generating facility and the 69 kV transmission line have been finally constructed and have been placed into normal operation as designed.

C. The report shall be filed in the form of a letter to the Chairman of the Kentucky State Board on Electric Generation and Transmission Siting. The report shall contain the following sections:

Overview – EcoPower-Hazard shall provide a short narrative summary of the progress of construction of the generating facility and the progress of construction of the transmission line and any and all changes in the construction plans which have been

made during the reporting period. EcoPower-Hazard shall also identify the primary contractor(s) responsible for the largest portion of the construction effort, if applicable.

Implementation of Site Development Plan – EcoPower-Hazard shall describe: (1) the implementation of access control to the site; (2) any substantive modifications to the proposed buildings, transmission lines, and other structures; and (3) any substantive modifications to the access ways, internal roads, or other access to the site. A map shall accompany any change to the above items.

Local Hiring and Procurement – EcoPower-Hazard shall describe its efforts, if any, to encourage the use of local workers and vendors. At a minimum, ecoPower-Hazard shall include a description of the efforts it has made and those efforts made by contractors and vendors to use local workers and local vendors to build and operate the generating facility and to build the 69 kV transmission line. EcoPower-Hazard shall also include an informed estimate of the proportion of the construction and operational workforce who resided in the region (e.g., within a 50-mile radius) of the plant site prior to becoming employed to construct or work at the ecoPower-Hazard generating facility. Eco-Power-Hazard shall include an informed estimate of the proportion of the construction workforce who resided in the region (e.g., within a 50-mile radius) of the plant site prior to becoming employed to construct the 69 kV transmission line.

Public Comments and Responses – EcoPower-Hazard shall provide a summary of any oral, telephone, e-mail or otherwise written complaints or comments received from the public during the reporting period. EcoPower-Hazard shall also summarize the topics of public comments, the number of comments received, and its response to each topic area. True copies of all written complaints and comments shall be attached to the

report, as well as any transcriptions of telephone conversations or notes documenting such telephone conversations.

Specific Mitigation Conditions – EcoPower-Hazard shall include in its report a brief narrative response to describe the progress made toward completion of the project, any obstacles encountered, and plans to fulfill each and every condition or mitigation requirement required by the Board, including whether it plans to install steam blow silencers pursuant to paragraph 11 below and a description of its plans, if required pursuant to paragraph 12 below, to implement a system to contact residents in the vicinity of the generating facility prior to planned steam blows.

D. Within six months of the conclusion of construction, ecoPower-Hazard shall invite the Board, its staff, and its consultants for a site visit to review and ascertain that the constructed facility followed the description provided by ecoPower-Hazard in its site assessment report and that the mitigation conditions imposed by the Board were successfully implemented. EcoPower-Hazard shall also submit, subject to appropriate confidentiality or security restrictions, "as-built" plans in the form of maps that illustrate the implementation of the Site Development Plan.

SPECIFIC CONDITIONS IMPOSED

1. EcoPower-Hazard shall provide access control and security that meet industry standards suitable to its particular operation. Listed below are industry standards that the Board considers appropriate, based on the Review and Evaluation of ecoPower-Hazard's Site Assessment Report filed by its consultant, BBC, in this matter. If ecoPower-Hazard subsequently determines that there is a preponderance of industry

standards which suggest an exception to the standards listed below, it may request and substantiate such an exception in its periodic compliance reports.

a. Approved parking areas for employees.

b. Fenced, lighted plant perimeter.

c. Access to waste disposal areas must be locked.

d. Storage buildings with hazardous or dangerous chemicals shall be locked.

e. Only personnel who have attended an induction course shall be permitted to work on-site.

f. All employees and subcontractors working at the site shall have a site security pass which shall be carried at all times.

g. Entry to the site shall be controlled, and only persons approved for work on the site shall be allowed access. Access for site personnel shall be via a security gate controlled by site security.

h. Commercial vehicle drivers delivering and removing materials to and from the site shall first register with ecoPower-Hazard.

i. Documentation of all drivers shall be subject to examination by ecoPower-Hazard security, and only those holding the necessary documents for the type of vehicle, plant, or equipment to be driven, shall be allowed on the site.

j. All vehicles entering and leaving the site shall be subject to search by ecoPower-Hazard security.

k. Vehicle speeds on site shall not exceed 15 miles per hour unless there are signs indicating other limits.

l. EcoPower-Hazard shall conduct a security assessment after construction plans are finalized and shall review its security plans and systems with the Perry County Sheriff prior to the commencement of actual, physical construction of the facilities.

m. At a minimum of once every three months, throughout the construction of its facilities, ecoPower-Hazard shall have regular contact and share information about the construction workforce with the Perry County Sheriff.

n. During the construction phase of the proposed project, ecoPower-Hazard shall implement dust control measures consistent with industry standards.

2. EcoPower-Hazard shall ensure that the building contractors responsible for constructing all facility buildings and the exhaust stack select neutral background colors which will minimize contrast with existing surroundings, except for any markings which may be required for worker safety or compliance with state or federal aviation regulations. Industry standards for accomplishing this permit condition shall be applied.

3. EcoPower-Hazard shall continue to evaluate all reasonable water supply options to ensure that its water supply needs can be met without adversely impacting the city of Hazard's water supply.

4. If ecoPower-Hazard determines to obtain water for its generating facility from a source other than the city of Hazard, ecoPower-Hazard shall provide a detailed description of its plans for obtaining water from the alternative source in its next annual report or, if no further annual reports are to be filed, in a separate report filed no later than 60 days prior to the startup date of the generating facility and directed to the

attention of the Chairman of the Siting Board, with a true copy sent to the attention of the Perry County Judge/Executive.

5. EcoPower-Hazard shall file a copy of its final Interconnection Services Agreement ("ISA") with the Siting Board within 30 days of execution of the ISA by all necessary parties.

6. EcoPower-Hazard shall comply fully with KRS 278.212 and shall pay for any and all costs or expenses associated with upgrading the existing electricity transmission grid as a result of the additional load caused by its generating facility, and said costs or expenses shall in no way be borne by the retail electric customers of the Commonwealth.

7. EcoPower-Hazard shall pave all roads and parking lots on the facility property to minimize fugitive dust and visual impact.

8. EcoPower-Hazard shall schedule all wood fuel deliveries to its generating facility primarily during daytime hours, as far as practicable.

9. EcoPower-Hazard shall require all fuel delivery trucks to comply with any and all applicable load cover rules.

10. EcoPower-Hazard shall ensure that the final design of nighttime lighting of the facility minimizes potential visual concerns, subject to safety and security requirements.

11. EcoPower-Hazard shall enclose its wood processing equipment in order to mitigate noise migration from the equipment and to minimize fugitive dust emissions.

12. If ecoPower-Hazard determines that steam blows will occur on a regular, even if infrequent, basis – such as once or twice per year following routine outages for

maintenance – ecoPower-Hazard shall install silencers to dampen the resulting noise. If ecoPower-Hazard determines that only one steam blow of less than a minute's duration will occur prior to initial startup, the requirements of this paragraph shall not be mandatory.

13. If ecoPower-Hazard determines that steam blows will occur on a regular, even if infrequent, basis – such as once or twice per year following routine outages for maintenance – it shall also develop a system to notify residents within two miles of the plant in advance of planned steam blows by telephone or automated telephone calls, newspaper publication, or other communication means, such as e-mail or social networking.

14. EcoPower-Hazard shall maintain its website located at www.ecopg.com and shall update the website on a quarterly basis, or more frequently if ecoPower-Hazard determines it to be feasible, until startup of the facility. The Siting Board encourages ecoPower-Hazard to maintain the website after the facility is placed into operation as a means of providing information to the public about the facility and to provide a portal for persons to request electronic notification prior to major noise events.

15. Within 30 days of filing its cumulative environmental assessment ("CEA") with the Kentucky Energy and Environment Cabinet, ecoPower-Hazard shall file a copy of the CEA with the Siting Board, including a copy of its KPDES industrial stormwater permit application.

16. EcoPower-Hazard shall not transfer any of its rights and obligations under the Siting Board certificate, without having first applied for and received a board determination that:

a. The acquirer has a good environmental compliance history; and

b. The acquirer has the financial, technical, and managerial capacity to meet the obligations imposed by the terms of the approval or has the ability to contract to meet these obligations.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING IN CASE NO. 2009-00530 DATED MAY 18 2010

Figure 1 for Case 2009-00530: Application of EcoPower Generation-Hazard, LLC for a Certificate to Construct and Operate a Merchant Electric Generating Facility and a 69 kV Transmisison Line in Perry County, KY

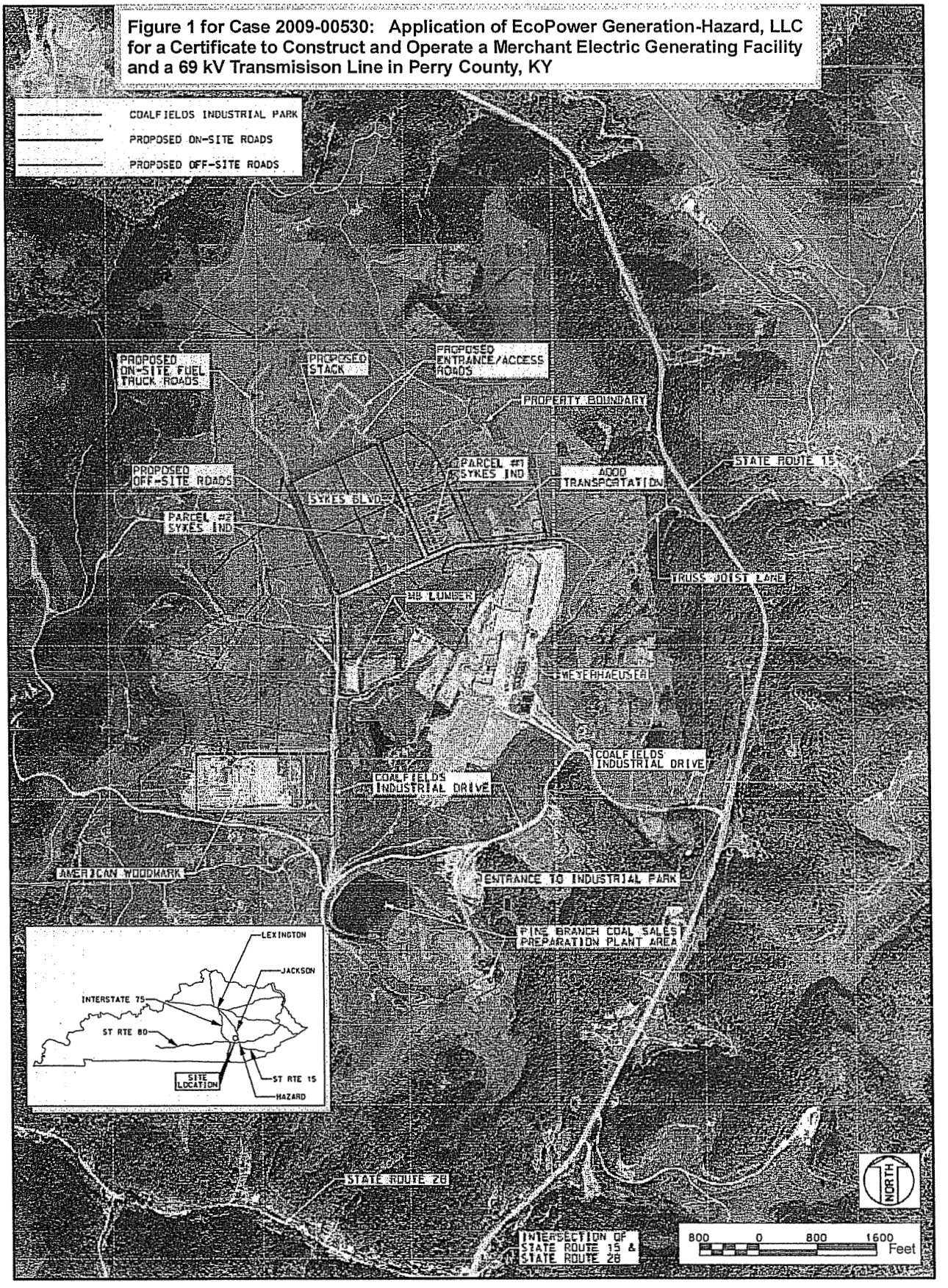

EXHIBIT 3

Fleming Solar Project:

Cumulative Environmental Assessment

FEBRUARY 2021

PREPARED FOR

AEUG Fleming Solar, LLC

PREPARED BY

SWCA Environmental Consultants

FLEMING SOLAR PROJECT:
CUMULATIVE ENVIRONMENTAL ASSESSMENT

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SWCA Project No. 63271

February 2021

CONTENTS

Figure

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1 INTRODUCTION

AEUG Fleming Solar, LLC (AEUG Fleming Solar) proposes to develop the Fleming Solar Project (Project) in Fleming County, Kentucky (Figure 1). The proposed Project will be situated on approximately 1,590 acres (Project area) that is currently primarily crop and pastureland. The Project will consist of monocrystalline solar photovoltaic panels and associated racking (approximately 188-megawatt [MW]) inverters, a warehouse, an Operations and Maintenance (O&M) building, and a Project substation, which will connect the Project to East Kentucky Power Cooperative's Flemingsburg-Spurlock 138-kilovolt (kV) transmission line near the City of Flemingsburg.

Kentucky Revised Statute (KRS) 224.10-280 provides that no person shall commence to construct a facility to be used for the generation of electricity unless the person submits a cumulative environmental assessment (CEA) with a permit application. This document serves as the CEA for the Project.

To comply with KRS 224.10-280, this CEA describes potential Project impacts to the following resources:

1. Air pollutants;
2. Water pollutants;
3. Wastes; and
4. Water withdrawal.

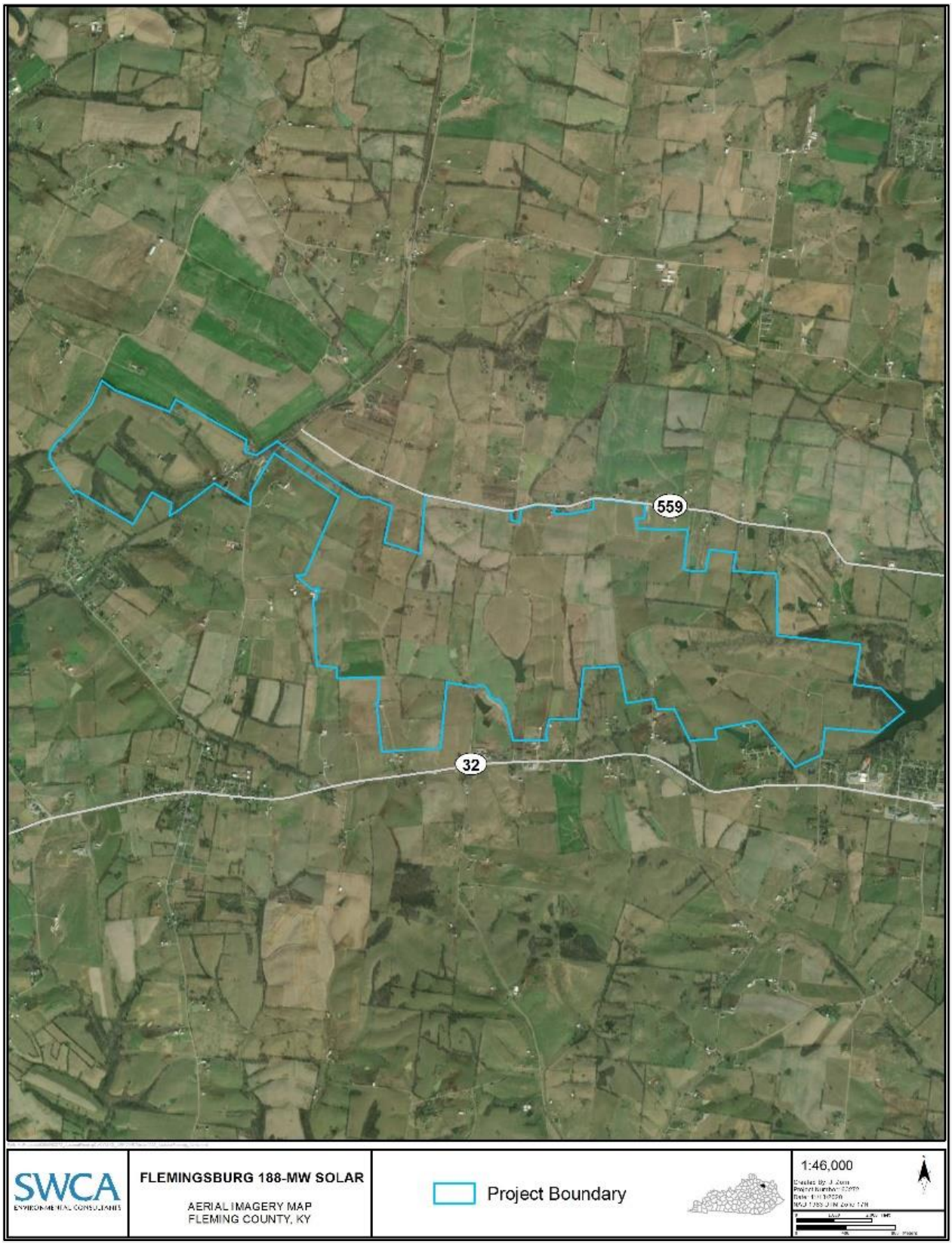

Figure 1. Fleming Solar Project location and boundary.

2 AIR POLLUTANTS

The Clean Air Act regulates the emission of air pollutants and establishes National Ambient Air Quality Standards (NAAQS) for several criteria pollutants considered harmful to public health and the environment. These criteria pollutants include ozone, particulate matter (PM), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Areas with ambient concentrations of criteria pollutants below the NAAQS are considered in attainment for those pollutants. Areas with ambient concentrations of criteria pollutants that exceed the NAAQS are designated as nonattainment areas for those pollutants. Certain emissions' sources within nonattainment areas are subject to more stringent air permitting requirements. Fleming County and all surrounding counties (Mason, Lewis, Rowan, Bath, Nicholas, and Robertson) are currently in attainment for all criteria pollutants (U.S. Environmental Protection Agency [EPA] 2020).

2.1.1 *Potential Effects – Construction*

Project construction activities are anticipated to last approximately 11 months, commencing in September 2021 and ending in July 2022. Combustion of gasoline and diesel fuels during Project construction will generate local emissions of PM, NO_x, CO, volatile organic compounds (VOCs),and SO_2. Construction may require small gas-powered generators to power hand tools and welders. Project-related construction vehicles could include, but not necessarily be limited to, bulldozers, backhoes, flatbed semi-trucks and other delivery equipment, forklifts, bobcats, specialized tractors with extenders or drills with auger or pile driver, concrete trucks, and workers' personal vehicles. Only a portion of these vehicles and equipment will be in use at any given time during most of the construction period. Heavier traffic may occur for the first few weeks of the construction period to support delivery of heavy machinery to the site, but such traffic will likely decrease for the remainder of the construction period. There will be a 10-week period from March to May 2022 when all major construction phases will be in progress concurrently. The number of construction workers traveling to the site will vary depending on specific construction activities occurring on a given day, with an average of 330 workers per day up to a maximum of 600 workers per day during the 11-month construction period.

Project roads will be built of compacted gravel. Driving Project roads may result in fugitive dust emission resulting from the disturbance and release of airborne dust particles, especially during dry conditions. An estimated 11.94 tons of PM_{10} (PM 10 microns or less in diameter) and 1.19 tons of $PM_{2.5}$ (PM 2.5 microns or less in diameter) may be released during Project construction due to fugitive dust (SWCA 2020). To minimize dust impacts, the construction contractor(s) will implement best management practices (BMPs), such as properly cleaning and maintaining construction equipment, revegetating disturbed areas, covering spoil piles and open truck loads, and applying water to Project roads to suppress dust as needed.

No open burning of any materials, including tree clearing debris, is proposed.

Air quality impacts resulting from Project construction activities will be temporary and localized. The severity of air quality impacts may be naturally mitigated by environmental conditions such as wind speed and direction, soil moisture, and other factors. Even under unusually unfavorable environmental conditions, Project construction emissions are not expected to have a meaningful impact on regional air quality and will not contribute to regional NAAQS exceedance.

2.1.2 *Potential Effects – Operations and Maintenance*

The Project will generate zero emissions of criteria pollutants during operation. During Project operations, emissions will be limited to those resulting from the occasional presence of maintenance and

inspection vehicles and equipment, such as mid- to full-size trucks or all-terrain vehicles during routine inspections, and mowers or trimmers during vegetation maintenance. The production of solar energy will reduce the demand for electricity produced by high-emission sources, such as oil, gas, coal, or other fossil fuels and therefore will result in a long-term, regional benefit to local and regional air quality during the operational life of the Project.

AEUG Fleming Solar does not anticipate that air quality permits will be required for the Project.

3 WATER POLLUTANTS

3.1 Surface Water

The Project is located within the Licking River Watershed (Hydrologic Unit Code 05100101). According to a Phase I ESA prepared for the Project area, surface water runoff originating within the Project area generally flows west or north into tributaries of Johnson Creek, east into tributaries of Town Branch, or south and west into tributaries of Cassidy Creek and Mud Lick Creek. The Phase I ESA also included a review of the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI). Two freshwater emergent wetlands were identified within the Project area: a 0.33-acre wetland immediately south of Convict Pike on the north side of the Project area, and a 0.32-acre wetland immediately north of Highway 32 on the south side of the Project area (Tetra Tech 2020).

All construction projects exceeding 1 acre of ground disturbance require coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Construction (KYR10), which is administered by the Kentucky Division of Water (KDOW). However, projects that discharge to certain types of surface waters may be subject to additional restrictions and limitations and/or may be required to obtain an individual KPDES permit. Streams and other surface waters that are classified as impaired waters, High Quality Waters, Outstanding National or State Resource Waters (ONRW/OSRW), Exceptional Waters, and waters that are used for drinking water are subject to more stringent protections related to water quality.

- Section 305(b) of the Clean Water Act requires states to assess and report current water quality conditions to the EPA every 2 years. The 305(b) list is a list of all waterbodies that have been assessed. Water bodies designated as "impaired" on the 305(b) list are waters that are either not supporting or only partially supporting their designated uses (e.g., recreational activities, aquatic species habitat, domestic water supply, etc.) due to excessive levels of one or more pollutants. Construction projects that discharge to a receiving stream listed as impaired for sediment are not eligible for coverage under KYR10 and must apply for an individual permit. Sediment-impaired streams also require an increased 50-foot vegetated buffer zone between any disturbance and the edge of the receiving water, as opposed to the 25-foot minimum buffer zone required for waters with non-construction related impairments (University of Kentucky 2009).

- 401 KAR 10:030 lists the designated ONRW, OSRW, and Exceptional Waters within the Commonwealth. Water bodies not listed as impaired on the 305(b) list are considered High Quality Waters (401 KAR 10:030). Construction projects that discharge stormwater to these waters may be subject to additional antidegradation requirements in compliance with 401 KAR 10:030. These waters also require 25- to 50-foot vegetated buffers.

- Surface waters used for public drinking water are protected under the Safe Drinking Water Act (SDWA) and Kentucky's Source Water Assessment and Protection Program (SWAPP). Public water suppliers in Kentucky that use surface water as a source are required to prepare a

SWAPP plan that defines areas of land in which certain activities may impact the quality of the drinking water source. These SWAPP areas are divided into three zones with different levels of restrictions: the Critical Zone, the Zone of Responsibility, and the Zone of Potential Impact (Kentucky Energy and Environment Cabinet [KEEC] 2019). No KPDES discharges are permitted to protected waters within a Critical Zone.

The Kentucky Special Waters online mapping application was used to identify surface waters within or adjacent to the Project area that are subject to enhanced water quality protections (KEEC 2020). The following features were identified:

- Cassidy Creek is designated as an Impaired Water on the 305(b) list due to high levels of fecal coliform bacteria, likely from animal feeding operations and livestock grazing (KEEC 2018). No sediment-impaired water bodies were identified within or adjacent to the Project area.
- Flemingsburg Lake, located adjacent to the Project area to the east, is a High-Quality Water currently supporting its designated use for drinking water for the town of Flemingsburg. The Project area encroaches into the Critical Zone of the Flemingsburg Lake SWAPP area (KEEC 2020).
- The Project area overlaps with Zone 3 of the SWAPP for Cynthiana Municipal Water Works, associated with Licking River (KEEC 2020).
- No streams or waterways within or adjacent to the Project area are designated as Outstanding State Resource Waters, Coldwater Aquatic Habitat, or other Special Use Waters as defined by KDOW (KEEC 2020).

AEUG Fleming Solar will conduct a wetland delineation in accordance with the *USACE Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (USACE 2012) to identify all waters of the United States (WoUS), including streams and wetlands, within the Project area that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act (CWA). AEUG Fleming Solar will request an Approved Jurisdictional Determination (AJD) from the U.S. Army Corps of Engineers (USACE) – Louisville District to determine the presence or absence of jurisdictional features. AEUG Fleming Solar will design the Project to avoid impacts to WoUS, including wetlands, to the extent possible. If impacts to jurisdictional features are unavoidable, AEUG Fleming Solar will seek the appropriate permit(s) and authorizations from USACE and Kentucky DOW. The type of permit(s) required depends on the amount of impact (e.g., acres or linear feet) to jurisdictional features. If the proposed activity results in minimal impacts, it may be authorized under one or more Nationwide Permits and a Section 401 General Certification. If Project impacts exceed threshold requirements of the Nationwide Permits, an Individual Permit and Individual Section 401 Water Quality Certification may be necessary. AEUG Fleming Solar will provide mitigation for unavoidable impacts in accordance with the requirements of the applicable permits.

Project construction will result in ground disturbance of up to approximately 1,590 acres and resulting stormwater runoff, erosion, and sedimentation may affect receiving surface waters. As such, the Project requires coverage under KYR10. AEUG Fleming Solar will prepare a Stormwater Pollution Prevention Plan (SWPPP) in compliance with KYR10 requirements. The SWPPP will describe erosion and sediment control measures and BMPs to avoid or minimize the discharge of sediment and pollutants into waters of the Commonwealth. BMPs will be designed and selected based on Project area-specific conditions such as slope, drainage, soil types, and any designations or protections applicable to the receiving water. Discharges to special status waters will be avoided to the extent possible. BMPs may include but are not limited to installation or use of silt fences; on-site temporary sediment basins or sediment traps; erosion control mats/blankets, mulch, and straw; and buffer zones surrounding aquatic resources. Specifically,

AEUG Fleming Solar will revegetate and stabilize disturbed areas within 14 days of completion of activity using a mixture of certified weed-free, low-growing native and/or noninvasive grass and herbaceous plant seed. All areas where erosion control BMPs are utilized will be inspected and maintained regularly until disturbed areas are determined to be permanently stabilized.

In the SWPPP, AEUG Fleming Solar will also establish a 25-foot vegetated buffer zone around on-site aquatic resources. Where construction activities are necessary within the buffer zone (e.g., stream crossings), the SWPPP will prescribe alternative or additional BMPs and describe how these practices are adequate to avoid or minimize effects to aquatic resources. Such BMPs could include use of hand-held or low-impact equipment to the extent practicable. No receiving waters are designated as Coldwater Aquatic Habitat, Outstanding State Resource, or sediment impaired. Thus, an increased 50-foot buffer is not necessary or required.

Hazardous materials that could potentially contaminate stormwater runoff may be stored on-site during construction, creating a potential for incidental releases that could impact receiving surface waters. Petroleum fuels, lubricants, and hydraulic fluids use and storage during construction, operation, and maintenance will be minimized to the extent possible. The SWPPP, described above, will include BMPs to properly maintain vehicles to avoid and minimize the potential for leaks and spills to occur. Additionally, AEUG Fleming Solar will develop and implement a Spill Prevention Containment Countermeasures (SPCC) plan describing BMPs intended to avoid or minimize the likelihood for leaks and spills to occur and outlining response plans. BMPs will include spill control kits to be carried on all refueling vehicles for activities such as refueling, vehicle or equipment maintenance procedures, waste removal, and tank clean-out.

During construction, fertilizers and/or herbicides may be needed to establish and manage Project area vegetation. To minimize potential stormwater contamination resulting from application, only EPA-registered and approved substances will be used. Use of fertilizers and/or herbicides will be minimized to the extent possible near aquatic resources. All herbicides will be applied by Kentucky-licensed and certified commercial pesticide applicators and all applications will occur in accordance with label directions.

Effects to surface water resulting from Project construction are expected to be negligible due to the development and implementation of the SWPPP and SPCC plan described above. In the unlikely event that effects occur, they will be temporary and localized due to implementation of responses outlined in the SWPPP and SPCC plan.

Operations and maintenance activities will result in little to no ground disturbance. During operations and maintenance, low-intensity fertilizer and/or herbicide use may occur to manage Project area vegetation. To minimize potential stormwater contamination resulting from application, AEUG Fleming Solar will take the same precautions described above for construction activities.

The Project will involve a minimal increase in impervious surface area compared to current conditions due to the presence of the O&M building, warehouse, and substation. Standard construction practices include the design and installation of typical drainage systems to prevent impacts to runoff. Further, the conversion of existing crop and pastureland to presence of solar panels will eliminate animal wastes and high-intensity fertilizer and/or herbicide use commonly associated with crop production and livestock management.

As described under Section 3.1, and using BMPs such as those described above, Project operations and maintenance are expected to result in a net, long-term beneficial effect to surface waters.

3.2 Groundwater

The Project is located within the Outer Bluegrass physiographic province characterized by limestones, shales, and karst geological features. Groundwater within the Licking River watershed generally is high-quality, although nonpoint source pollution containing fertilizers, herbicides, pesticides, bacteria, petroleum products, and other contaminants poses a potential risk to groundwater quality in the area. The main sources of these contaminants within the watershed are agricultural and animal feeding operations (Webb et. al 2002; Fisher et. al 2004). Groundwater is not used for drinking water in the Project area. No known active water wells or Wellhead Protection Areas are located within the Project area.

Solar panels will not restrict groundwater infiltration and recharge; panels do not include a runoff collection system and rainwater will be allowed to run off panels directly to vegetated ground. Potential effects of Project construction and operations and maintenance to groundwater, and associated BMPs, are the same as those described above under Section 3.1.

4 WASTE

4.1 Construction and Demolition Debris

Construction activities will intermittently generate Construction and Demolition Debris (CDD) and general trash, including but not limited to wooden crates, pallets, flattened cardboard module boxes, plastic packaging, excess electrical wiring, and trees/vegetation from limited clearing. No special wastes as defined in KRS 224.50-760 are anticipated to be generated during construction or operations and maintenance. No existing structures will be demolished.

Waste generation during operations and maintenance will be minimal, resulting mainly from the maintenance and/or replacement of worn or broken equipment and defective or broken electrical materials.

All waste generated during Project construction and operations and maintenance will be handled and disposed of in accordance with local, state, and federal regulations to minimize the potential for effects to human health and safety. CDD will be recycled to the extent feasible. Solid waste material that cannot be recycled will be disposed of offsite at a permitted facility to be determined by the designated contractor(s), in accordance with applicable laws and regulations. As of November 2019, there are two active CDD landfills greater than one acre within approximately 50 miles of the Project area: the Rumpke Waste and Recycling landfill, located approximately 51 miles from the Project area in Pendleton County, and Thoroughbred Disposal Services, located approximately 50 miles south of the Project area near Lexington (KEEC 2019b). No waste will be disposed of within the Project area. Any vegetative debris will be chipped, ground, and either composted on-site or managed offsite at a permitted facility.

Designated contractor and subcontractor personnel will be responsible for daily inspection, cleanup, and proper labeling, storage, and disposal of all refuse and debris produced during Project construction and operations and maintenance. Disposal containers such as dumpsters or roll-off containers will be obtained from a proper waste disposal contractor and will be located on-site. The designated contractor(s) will be responsible for keeping records of all wastes by either weight or volume as applicable.

4.2 Hazardous Wastes

Hazardous materials stored at the Project area may include but are not limited to oil, diesel fuel, gasoline, hydraulic fluid, and other lubricants associated with construction vehicles. Small quantities (less than 55 gallons, 500 pounds or 200 cubic feet) of janitorial supplies, paint, degreasers, herbicides, pesticides, air conditioning fluids (chlorofluorocarbons [CFC]), gasoline, hydraulic fluid, propane, and welding rods typical of those purchased from retail outlets may also be used and stored at the Project area.

AEUG Fleming Solar and/or its designated contractor(s) will develop and implement a Hazardous Materials Plan (HMP) to identify the waste types and quantities, temporary storage locations, means and methods of transport and disposal, and means and documentation methods to track hazardous materials.

Additionally, and as is described above in Section 3.1, AEUG Fleming Solar will implement a SPCC plan to minimize the potential for fuel spills. Spill control kits will be carried on all refueling vehicles for activities such as refueling, vehicle or equipment maintenance procedures, waste removal, and tank clean-out. Facility personnel will be properly trained in the handling, use, and cleanup of hazardous materials used at the Project, and procedures to be followed in the event of a leak or spill. Adequate supplies of appropriate cleanup materials will be stored at the Project area.

On-site hazardous materials and wastes will be stored in storage tanks, vessels, or other appropriate containers specifically designed for management of such materials. The storage facilities will include secondary containment in case of tank or vessel failure. All containers, including waste containers, will be properly labeled in accordance with Global Harmonized Standard and/or applicable federal regulations. Waste oils and other waste liquids will be segregated from unused oils and liquids and labeled appropriately. Waste materials will be stored at the Project area only within time frames authorized by federal regulations. No unused chemicals, paints, lubricant material, or other unused liquids will remain at the Project area following completion of construction. All transportation and disposal of hazardous wastes will comply with federal regulations.

AEUG Fleming Solar has completed a Phase I Environmental Site Assessment for the Project to identify any Recognized Environmental Conditions (RECs) that could indicate the presence of hazardous substances or contamination at the Project area due to past activities. No RECs were identified (Tetra Tech 2020). In the event that unidentified storage tanks, hazardous substances, contaminated soils, or contaminated groundwater are discovered during construction activities, they will be removed, stored separately from usable materials, and disposed of at an approved facility in accordance with federal regulations.

Portable chemical toilets will be provided for employees during construction. Sewage waste will be pumped out regularly by a licensed contractor and disposed of at the Flemingsburg Wastewater Treatment Plant. The O&M building will include restroom facilities for use by operations personnel; however, the minimal volume of sewage to be generated is not expected to exceed the capacity of the plant or otherwise affect sewer services in the area. Therefore, no impact to the Flemingsburg sewer system is anticipated.

No environmental effects resulting from waste related to Project construction and operations and maintenance are expected due to the development and implementation of BMPs, the HMP, and the SPCC plan described above. In the unlikely event that a spill occurs, effects would be temporary and localized due to implementation of immediate responses outlined in the plans.

5 WATER WITHDRAWAL

The Western Fleming County Water District (WFCWD) provides water service in the Project area. The primary source of potable water is surface water via the Licking River. Groundwater wells are not used for drinking water in the Project area. No known water wells or Wellhead Protection Areas are located within the Project area (Kentucky Infrastructure Authority 2020).

During Project construction, water will be needed primarily for fugitive dust control; irrigation for seeded areas and screening vegetation plantings; and compaction for the grading of access roads, foundations, equipment pads, and other Project components. The expected water volume needed during construction activities is not anticipated to exceed the capacity of the WFCWD. AEUG Fleming Solar and its contractor(s) will coordinate with the WFCWD as needed to ensure that Project construction does not adversely affect the local water supply.

Likewise, water use will be minimal and infrequent during Project operations and maintenance. Natural weather patterns, including rainfall, are expected to be adequate to prevent excessive buildup of dust and debris on solar panels; therefore, no regular rinsing or washing of panels is proposed. Water may be needed intermittently to maintain screening vegetation during drought periods. Water for dust control is not expected to be necessary due to the infrequent vehicle use proposed. Any vehicle washing or potential dust control discharges during operations and maintenance will be implemented in accordance with BMPs described in the SWPPP for water-only cleaning. Due to the minimal volume of water needed, ongoing Project operation and maintenance is not expected to exceed the capacity of the local water supply.

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