

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

**In the Matter of the Application of Turkey Creek                    )**  
**Solar, LLC, for a Construction Certificate to Construct        ) Case No. 2020-00040**  
**a Merchant Electric Generating Facility                            )**

**APPLICANT’S MOTION FOR DEVIATION FROM SETBACK REQUIREMENTS**

Comes the Applicant, Turkey Creek Solar, LLC (“Turkey Creek”), 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, Turkey Creek states as follows:

**I. INTRODUCTION**

On March 27, 2020, Turkey Creek filed its Application for a Certificate to Construct a Merchant Electric Generating Facility in Garrard County, Kentucky (the “Application”). The setback requirements for the Turkey Creek Solar Project (“Project”) are addressed in the Application. (*See* Application, Volume 1, Section 5 and Attachment A). The setback requirements of KRS 278.704(2) are applicable to the Turkey Creek 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 within 2,000 feet of the proposed “structures or facilities used for generation of electricity.” (See attached Exhibit 1 for listing of the neighborhoods as well as a map showing the location). Additionally, the Garrard County High School is located within a 2,000-foot radius of the Project.<sup>1</sup>

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), Turkey Creek relieves 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).

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<sup>1</sup>The Garrard County School Board supports the Project and agrees that the deviation should be granted. See Exhibit 2 attached hereto for the Consent.

## 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 3, 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 subsequently followed the deviation procedure set forth in *ecoPower* when 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 2 to the Application) thoroughly evaluates the expected noise levels from the proposed Project and the surrounding properties. *See* Application, Volume 2, Attachment C at 1-5). The engineering consulting firm Pond, based in Atlanta, Georgia, performed the Noise and Traffic Assessment report (“NTA Report”) for Turkey Creek.

The noise study within the NTA Report analyzed the existing noise, proposed

construction noise, and operational noise conditions from the nearest receptor sites. The analysis was from the perspective of the “nearest noise receptor,” which is a single-family residential neighborhood on the eastern side of the Project. Thus, the school and other neighborhoods are further away than the neighborhood used as the nearest noise receptor.

With respect to existing noise, the study noted that a wrecking yard, automotive body shop, and flower wholesaler all contribute to existing noise as do trucks, ATVs, and tractors on the existing agricultural uses of the property.

With respect to construction, because the site is primarily cattle, pasture, and hay and crop production, the needed tree removal and earth moving will be “minimal.” The Report concludes that because of the location from receptors, construction “will not contribute to a significant noise increase” when compared to existing noise on site.

During operation, the solar array and tracking system will only produce noise the equivalent of a whisper (20dB). The thirteen inverters scattered evenly throughout the site will produce noise the equivalent of the output of an air conditioning unit and will not produce noise at night, when the solar facility is not collecting sunlight. Likewise, maintenance will consist of minor repairs and grounds maintenance such as mowing.

The Report concludes by stating that the predicted noise levels generated by all construction, operation, and maintenance activities are very similar to currently generated onsite by farming activities and offsite by commercial and other farming uses. All of the activities will take place during daylight hours and in compliance with the Garrard County Noise Ordinance (<https://garrardcounty.online.wordpress.com/ordinances/Garrard-county/noise-ordinance/>).

Therefore, based on the NTA Report, it is clear that noise levels will be minimal and will not have a negative contributing effect.

## **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 2 at Attachment A at 101-102).

There are a mixture of uses surrounding the subject property including a body shop, wholesale flower distributor, vacant commercial and industrial buildings, a wrecking yard, and a school, as well as agriculture and residential houses (Application, Volume 2, Attachment C at Figure 4). The property where the Project is located is at a raised elevation shielding the Project from its view from most of its neighbors. (Application, Volume 2, Section 2). The panels at their highest are less than 15 feet off the ground. As noted below in Mitigation Efforts section, the applicant has agreed to place a vegetative buffer to further shield neighbors from the Project visually.

As noted in the compatibility section of the Site Assessment Report, “Solar farms are comparable to larger greenhouses. This is not surprising given that a greenhouse is essentially another method for collective passive solar energy. The greenhouse use is well received in residential rural areas and has a similar visual impact as a solar farm.” (Application Volume 2 at Attachment A at 101-102).

## **3. Traffic**

The Application analyzes the traffic impact during both the construction and operation phases of the proposed facility. (*See* Application, Volume 2, Attachment C at 6-8).

There are two major roadways surrounding the property US 27 and SR 39; however, the increase in vehicles for the construction workers to the subject property is not anticipated to impact the traffic given the volume of traffic already on the adjoining roads.

Similarly, safety precautions will be taken to reduce the risk of collisions by the

temporary presence of flagmen and markings. Any significant degradation of the roadways resulting from project construction will be repaired.

Because the operations will only require approximately two persons to visit the site several times a month for mowing or other maintenance, the increased traffic during operations will be minimal.

#### **4. Turkey Creek's Mitigation Efforts**

Turkey Creek 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 1, Section 6). For those sections of the boundary that adjoin the roadways and other developed properties, Turkey Creek will plant a vegetative buffer, if one does not exist. The fifteen foot wide buffer will consist of two staggered rows of evergreen shrubs three feet tall at planting. In addition to this general commitment, Turkey Creek sought input on the location, met personally with two neighbors, and agreed to place these buffers on the neighbors' property. Likewise, Turkey Creek has agreed to plant two acres of native wildflowers for pollinator habitat on the property.

The Board should grant this motion for deviation because Turkey Creek 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, the plant once constructed would produce a negligible amount of noise and will have an extensive vegetative buffer.

#### **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). Turkey Creek can

demonstrate its Project satisfies those goals 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 set pursuant to KRS 224.10-100(20).

Upon researching the statute and accompanying regulations, Turkey Creek 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 Turkey Creek is unaware of any additional regulations promulgated since that order. Consequently, no fee has been established for Turkey Creek 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, Turkey Creek 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 Turkey Creek CEA, attached herein as Exhibit 4).

#### **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 4, p. 3). The solar panels produce zero emissions. Therefore, the proposed Turkey Creek Solar Facility is not expected to emit any of the following criteria pollutants: Particulate Matter (PM), Particulate Matter 10 microns diameter and smaller (PM10), Particulate Matter 2.5 microns diameter and smaller (PM2.5), Carbon Monoxide (CO), Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NO<sub>x</sub>), Volatile

Organic Contaminants (VOCs), or lead. Similarly, the facility is also not expected to emit Hazardous Air Pollutants (HAPs). The CEA describes the estimated emissions of each air pollutant. (See Exhibit 4, pp. 3-4).

Indirect air emissions from the Project would occur during construction from the use of vehicles and equipment and during facility operation from ancillary activities, such as mowing. No air quality permit is required for these construction or ancillary activities. The CEA describes the air pollution mitigation measures for construction and ancillary activity emission sources including construction equipment, worker vehicles, and maintenance equipment. (See Exhibit 4, p. 4).

#### **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 4, pp. 4-5). Turkey Creek expects the Project to result in the discharge of stormwater during construction. Turkey Creek intends to comply with the Kentucky Division of Water's Construction Storm Water Discharge General Permit for those construction activities that disturb one acre or more. (See Exhibit 3, p. 5). Turkey Creek intends to submit a Notice of Intent prior to the commencement of construction and a notice of termination upon completion. To manage stormwater during construction, use of stormwater Best Management Practices (BMPs), such as silt fences, will be implemented. A stormwater pollution prevention plan (SWPPP) also will be prepared and implemented to comply with Kentucky Division of Water (KDOW) requirements.

### **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 Exhibit 4, pp. 6-7). Construction activities will generate solid waste consisting of construction debris and general trash, such as wooden crates, pallets, flattened cardboard module boxes, plastic packaging, and excess electrical wiring. To the extent feasible and practicable, construction waste will be recycled and material that cannot be recycled will be disposed offsite at a permitted facility.

The Project will also generate very small amounts of hazardous waste. (See Exhibit 4, pp 6-7). The Project would be considered a conditionally exempt small quantity generator (CESQG). Any hazardous waste will be managed offsite at a permitted facility.

In addition, operation generated trash and other solid waste will also be disposed offsite at a permitted facility. Finally, portable chemical toilets will be provided for construction workers during development. (See Exhibit 4, pp 6-7).

### **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, if applicable) 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 photovoltaic 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). Turkey Creek 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, Turkey Creek 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.** Turkey Creek has met the goals of KRS 278.212 because Turkey Creek will comply with all applicable conditions relating to electrical interconnection with utilities by following the PJM interconnection process. Additionally, Turkey Creek will accept responsibility for appropriate costs which may result from its interconnecting with the electricity transmission grid. With Turkey Creek'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. Turkey Creek will abide by the requirements of this provision to the extent that these requirements are applicable. By committing to comply with these requirements Turkey Creek 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 Turkey Creek is not such a defined utility. Therefore, by complying with the requirements of KRS 278.700 *et seq.*, Turkey Creek 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. Turkey Creek is not a utility as described in 278.010(3), and therefore this statute does not apply to Turkey Creek. However, to the extent Board approval may at some time be required for change of ownership or control of assets owned by Turkey Creek, Turkey Creek 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 Turkey Creek 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, Turkey Creek has met the goals set forth in these provisions as evidenced by the Application in its entirety. Turkey Creek 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.

Turkey Creek 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.

The only properties within the 2,000-foot radius are Garrard County High School and four residential neighborhoods. Although consent of the high school is not sufficient by itself to

grant a deviation, the school board nonetheless supports the Project and agrees to the deviation<sup>2</sup>. Further, representatives of Turkey Creek have participated in activities and classes at the Garrard County High School. (*See* Application, Volume 1, Section 6).

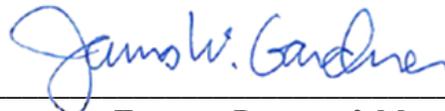
Because of the extensive outreach in person, the vegetative buffer and even agreeing to provide an additional buffer on certain neighbors' properties, the neighboring occupants and owners are aware of and have not complained to the applicant about the Project.

Turkey Creek 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, Turkey Creek 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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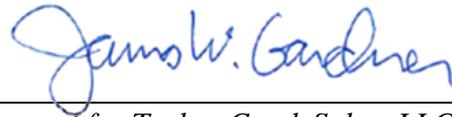
*Counsel for Turkey Creek Solar, LLC*

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<sup>2</sup> *See* Exhibit 2.

**CERTIFICATE OF SERVICE**

This is to certify that an electronic copy has been uploaded into the electronic case file. Ten paper copies of the foregoing shall be filed in the office of the Kentucky State Board on Electric Generation and Transmission Siting, 211 Sower Blvd., Frankfort, Kentucky 40601 on request or within 30 day after the state of emergency is lifted, which is consistent with the findings in Case No. 2020-00085.



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*Counsel for Turkey Creek Solar, LLC*

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# Turkey Creek Solar Context Map



Deer Run South

Garrard County High School

Neighborhood B

Neighborhood A

Merriwood Estates

Turkey Creek Solar Property Boundary



<b>Location Name</b>	<b>Location</b>	<b>Location Description</b>	<b>Distance to Estimated Project Boundary</b>
Neighborhood A	Southway Rd, off of HWY 27	Approx 25 Single family homes	~1780ft
Neighborhood B	Crab Orchard Rd and Fall Lick Rd, including Glenmore Heights and Estes Dr	Approx 72 Single family homes	~1550ft
Merriwood Estates	Industry Rd	Approx 47 single family homes	300ft
Deer Run South	Deer Run Dr Acc	Approx 29 Single family homes	~1730ft
Garrard County High School	Industry Rd	Public High School	~1700ft



Larry K. Woods  
Board Chairman

Michael McQueary  
Vice-Chair

Jerry Browning  
Kenneth Hurt  
Connie Lamb  
Board Members



Ronald "Sonny" Fentress  
Acting Superintendent

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March 23, 2020

Kentucky State Board on Electric Generation and Transmission Siting  
% Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40602-0615

RE: Letter of Support For Application of Turkey Creek Solar, LLC

Members of the Board:

The Garrard County Board of Education has unanimously authorized this letter of support for the application of Turkey Creek Solar, LLC ("Turkey Creek Solar"), for approval of the siting of its proposed solar power generating project in Garrard County (the "Project").

Among the economic benefits the Project will bring to Garrard County, perhaps the most important will be the *payments* the Project will make to Garrard County during the life of the Project in connection with the issuance of industrial revenue bonds associated with the Project ("Payments in Lieu of Taxes"). The largest portion of those Payments in Lieu of Taxes will be allocated to the Garrard County School District. The Garrard County School District will receive these new revenues without any associated increase in enrollment or other burden on the school district.

The Project will be located closer than 2,000 feet from Garrard County High School (the "School"). The Board of Education has considered the proximity of the Project to the School and is confident that the Project will have no adverse effect on the health and safety of the students and staff of the School.

As part of its application, Turkey Creek Solar has requested a deviation from the requirement set forth in KRS 278.704(2) that a facility used for the generation of electricity be constructed at least 2,000 feet from any school. In addition to its general support for the application, the Board of Education has no objection to, and specifically supports, the requested deviation from the requirements of KRS 278.704(2).

Very truly yours,

Ronald "Sonny" Fentress

In the Matter of the Application of Turkey Creek )  
Solar, LLC, for a Construction Certificate to Construct ) Case No. 2020-00040  
a Merchant Electric Generating Facility )

**MOTION FOR DEVIATION FROM SETBACK REQUIREMENTS**

# Exhibit 3

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 )	CASE NO.
ELECTRIC GENERATING FACILITY AND A 69 )	2009-00530
KV TRANSMISSION LINE IN PERRY COUNTY, )	
KENTUCKY )	

O R D E R

PROCEDURAL HISTORY

On February 12, 2010, the Applicant, ecoPower Generation-Hazard, LLC<sup>1</sup> ("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

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<sup>1</sup> 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.<sup>2</sup>

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

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<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup> Copies of the letters and the certified mail return receipts for all property owners of record except one were included in the Application.<sup>6</sup> EcoPower-Hazard discovered the missing certified mail receipt and filed it into the record of this matter on April 16, 2010.<sup>7</sup>

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<sup>3</sup> See Application, Exhibit B2.

<sup>4</sup> The Board is attached to the PSC for administrative purposes. See KRS 278.702(3).

<sup>5</sup> Id., Exhibit B1.

<sup>6</sup> Id.

<sup>7</sup> 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.).<sup>8</sup>

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.<sup>9</sup>

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<sup>8</sup> Application, pp. 2-4.

<sup>9</sup> 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.<sup>10</sup> 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

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<sup>10</sup> Id. at 9.

will immediately supply the approximate 35 gallons-per-minute demand of the process.<sup>11</sup>

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.<sup>12</sup>

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.<sup>13</sup>

#### 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

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<sup>11</sup> Id. at 8.

<sup>12</sup> Id. at 8-9.

<sup>13</sup> Id. at 9.

sewage treatment system has adequate capacity to handle the approximate 20 to 25 gallons-per-minute flow likely from the facility.<sup>14</sup>

### 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.<sup>15</sup>

### 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;<sup>16</sup>

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<sup>14</sup> Id.

<sup>15</sup> Id.

<sup>16</sup> 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.<sup>17</sup>

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.<sup>18</sup>

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.<sup>19</sup>

## 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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<sup>17</sup> Id. at 3.

<sup>18</sup> Id.

<sup>19</sup> 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.<sup>20</sup> 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

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<sup>20</sup> KRS 278.710(2).

surroundings in large part.”<sup>21</sup> 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.<sup>22</sup> 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.<sup>23</sup> However, as BBC notes, “the current view sheds of all the residences include several other major industrial structures within the industrial park.”<sup>24</sup>

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.<sup>25</sup> 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.<sup>26</sup> EcoPower-Hazard has also committed to minimize the installation and use of lighting at the

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<sup>21</sup> BBC Report at 23.

<sup>22</sup> Id. at 17.

<sup>23</sup> Id.

<sup>24</sup> Id.

<sup>25</sup> Id.

<sup>26</sup> 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.<sup>27</sup>

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.<sup>28</sup>

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).<sup>29</sup> 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."<sup>30</sup>

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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<sup>27</sup> Id. at 22.

<sup>28</sup> Id.

<sup>29</sup> Id. at 23.

<sup>30</sup> 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.<sup>31</sup>

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.<sup>32</sup> 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.<sup>33</sup> 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.<sup>34</sup> Therefore, BBC did not recommend any mitigation measures to reduce traffic impacts to Ky. 28.

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<sup>31</sup> Id. at 40.

<sup>32</sup> Id. at 36.

<sup>33</sup> Id. at 37.

<sup>34</sup> 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.<sup>35</sup> 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.<sup>36</sup> 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.<sup>37</sup>

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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<sup>35</sup> Id.

<sup>36</sup> Id. at 39.

<sup>37</sup> 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.<sup>38</sup> EcoPower-Hazard offered to undertake such mitigation measures in its SAR.<sup>39</sup>

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.<sup>40</sup> This recommended mitigation measure was also suggested by ecoPower-Hazard in its SAR.<sup>41</sup>

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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<sup>38</sup> Id. at 37 and 40.

<sup>39</sup> Application, Exhibit J at 24.

<sup>40</sup> BBC Report at 37 and 40.

<sup>41</sup> 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.<sup>42</sup> The primary sources of noise from the facility will be the induction draft fan, transformer, air-cooled condenser, log building and wood hog building.<sup>43</sup>

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.<sup>44</sup>

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

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<sup>42</sup> BBC Report at 35.

<sup>43</sup> Application, Exhibit J2 at 11.

<sup>44</sup> BBC Report at 31.

the proposed facility.<sup>45</sup> 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,"<sup>46</sup> although BBC indicates that other steam plants it has evaluated require steam blows at least once a year following routine outages for maintenance.<sup>47</sup> 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.<sup>48</sup>

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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<sup>45</sup> Id. at 35.

<sup>46</sup> Id.

<sup>47</sup> Id.

<sup>48</sup> 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.<sup>49</sup> 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.<sup>50</sup> 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.<sup>51</sup> Including payroll, the first-year operating budget for the plant is in excess of \$16 million.<sup>52</sup>

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

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<sup>49</sup> Application at 22-27.

<sup>50</sup> Id.

<sup>51</sup> Id.

<sup>52</sup> 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.<sup>53</sup> 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.<sup>54</sup> 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

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<sup>53</sup> Id. at 23.

<sup>54</sup> 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.”<sup>55</sup> The transmission line will be supported by 13 wood pole structures and two tubular steel poles.<sup>56</sup>

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.<sup>57</sup> 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’].”<sup>58</sup> 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.<sup>59</sup> The Siting Board finds that ecoPower-

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<sup>55</sup> Application at 4.

<sup>56</sup> Id. at 4-5.

<sup>57</sup> Id. at 4.

<sup>58</sup> Id.

<sup>59</sup> 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.<sup>60</sup> A residential neighborhood is located approximately 2,200 feet from the proposed transmission line route at its closest point<sup>61</sup> 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.<sup>62</sup> However, the Siting Board notes that the location of that residence is also approximately 800 feet from, and in view of, the existing Weyerhaeuser manufacturing facility.<sup>63</sup>

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."<sup>64</sup>

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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<sup>60</sup> Id., Exhibit J at 11 and Figure 5.

<sup>61</sup> Id., Figure 5 (Residential Neighborhood #6).

<sup>62</sup> 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.

<sup>63</sup> Application, Figure 5.

<sup>64</sup> 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.<sup>65</sup>

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.<sup>66</sup>

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

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<sup>65</sup> Id. at 7.

<sup>66</sup> Id.

survey identified any such structures or sites in the vicinity of the proposed generation or transmission line facilities.<sup>67</sup>

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.<sup>68</sup> 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

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<sup>67</sup> See Id., Exhibit J3 (Cultural, Historic and Archeological Studies).

<sup>68</sup> 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.<sup>69</sup> 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.<sup>70</sup>

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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<sup>69</sup> See Application, Exhibit G1-G2, and EcoPower-Hazard's Response to Board Staff's First Data Request, Tab G.

<sup>70</sup> 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.”<sup>71</sup> 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

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<sup>71</sup> 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.”<sup>72</sup>

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

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<sup>72</sup> 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.<sup>73</sup> 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

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<sup>73</sup> 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.<sup>74</sup> 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.<sup>75</sup> 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.<sup>76</sup>

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

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

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

<sup>76</sup> 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.<sup>77</sup> 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."<sup>78</sup> The Applicant describes the meetings with the environmental organizations as "cordial and encouraging."<sup>79</sup>

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.<sup>80</sup>

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<sup>77</sup> Application, Exhibits E8-E12.

<sup>78</sup> Id. at 16.

<sup>79</sup> Id.

<sup>80</sup> Id.

EcoPower-Hazard has established a website located at: <http://www.ecopg.com>, to provide public information about the project.<sup>81</sup> 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.<sup>82</sup>

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

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<sup>81</sup> Id. at 17.

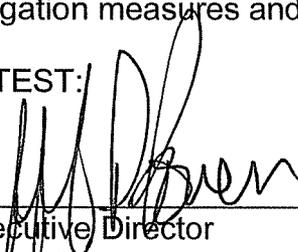
<sup>82</sup> Id.

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.<sup>83</sup>

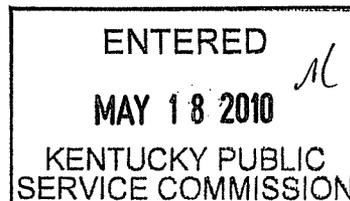
IT IS THEREFORE ORDERED that:

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:

  
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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



<sup>83</sup> 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 18 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](http://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:

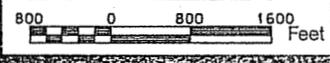
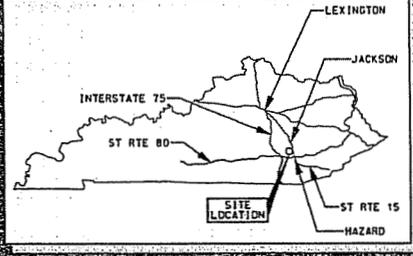
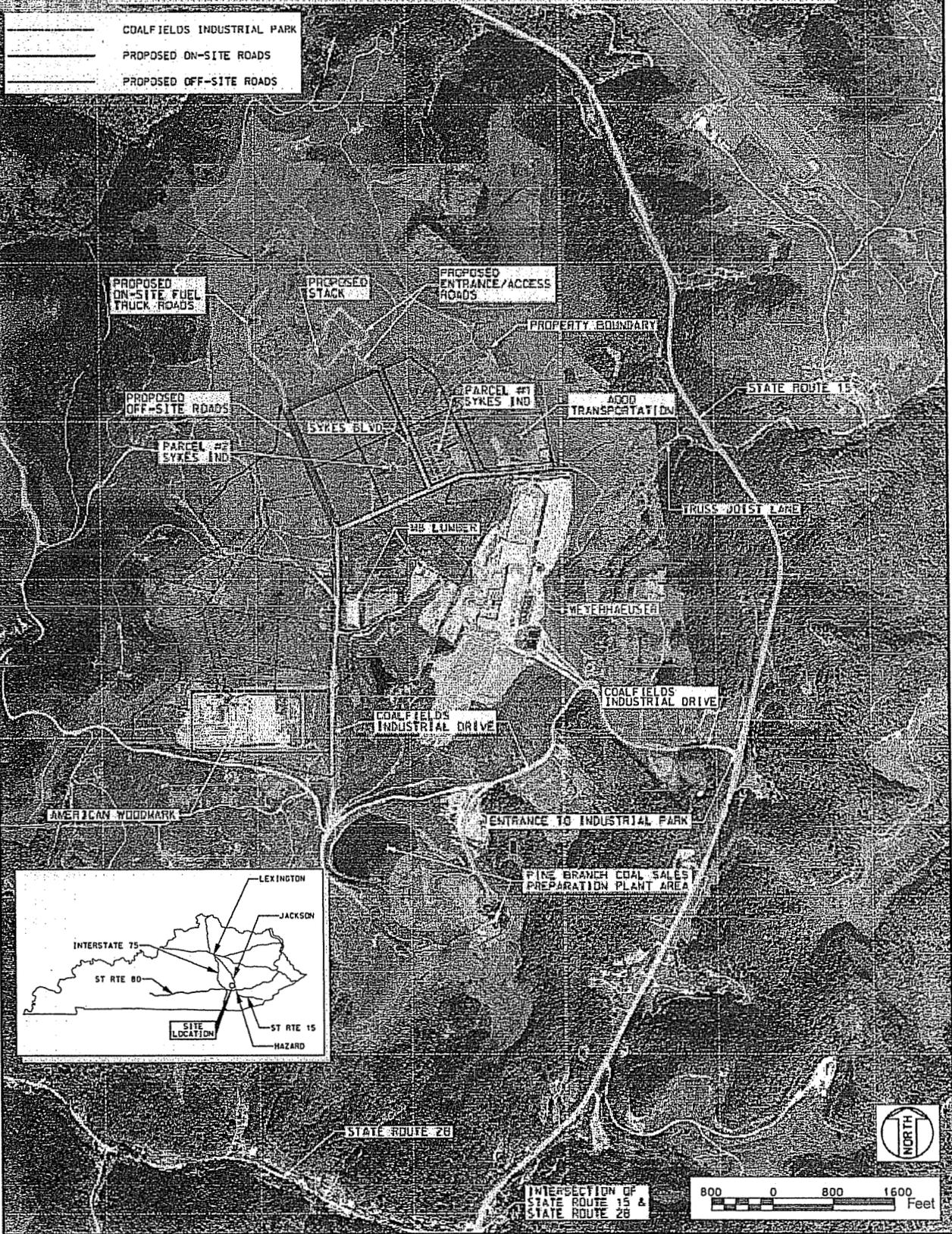
- a. The acquirer has a good environmental compliance history; and
  - b. The acquirer has the financial, technical, and managerial capacity
- to meet the obligations imposed by the terms of the approval or has the ability to contract to meet these obligations.

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 Transmission Line in Perry County, KY**

- COALFIELDS INDUSTRIAL PARK
- PROPOSED ON-SITE ROADS
- PROPOSED OFF-SITE ROADS



INTERSECTION OF  
STATE ROUTE 15 &  
STATE ROUTE 26

**In the Matter of the Application of Turkey Creek )  
Solar, LLC, for a Construction Certificate to Construct ) Case No. 2020-00040  
a Merchant Electric Generating Facility )**

**MOTION FOR DEVIATION FROM SETBACK REQUIREMENTS**

**Exhibit 4**



**COPPERHEAD**  
ENVIRONMENTAL CONSULTING

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# Cumulative Environmental Assessment for Proposed Turkey Creek Solar, LLC Project Garrard County, Kentucky



Prepared for:

Turkey Creek Solar, LLC

Marty Marchaterre  
Senior Environmental Planner  
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8 April 2020

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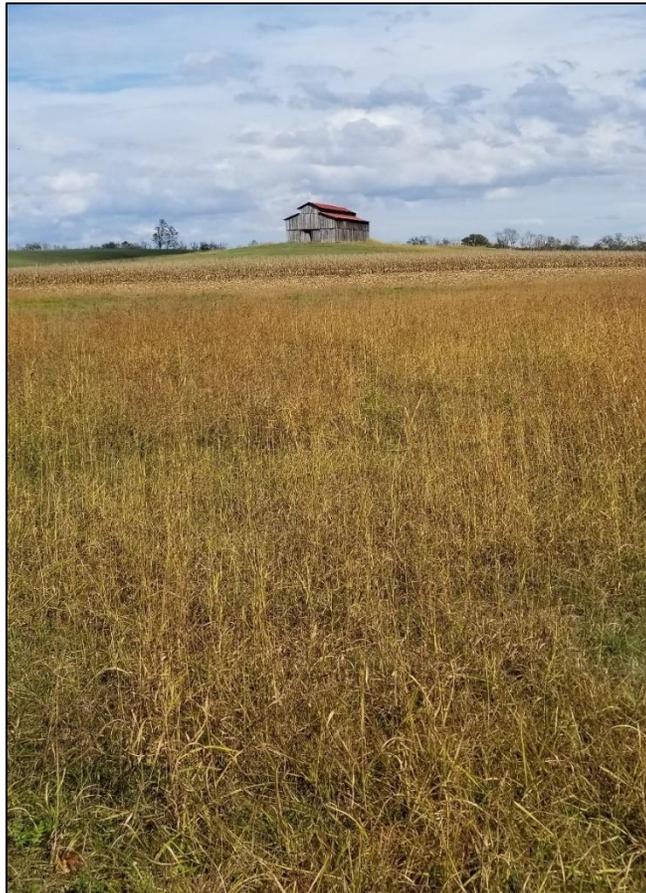
## Introduction

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 submits a cumulative environmental assessment (CEA) to the Kentucky Energy and Environment Cabinet with the permit application. The Turkey Creek Solar, LLC Project (Turkey Creek or Project) is a proposed 540-acre solar farm that will generate electricity through the use of photovoltaic solar panels. Turkey Creek is located approximately one mile south of Lancaster in Garrard County. The proposed project site was formerly used as a livestock farm.

Upon researching the statute and accompanying regulations, Turkey Creek is unaware of any regulations that have been promulgated regarding CEAs.

To comply with KRS 224.10-280, the cumulative environmental assessment will evaluate project impacts to four areas:

- 1) Air Pollutants
- 2) Water Pollutants
- 3) Wastes
- 4) Water Withdrawal



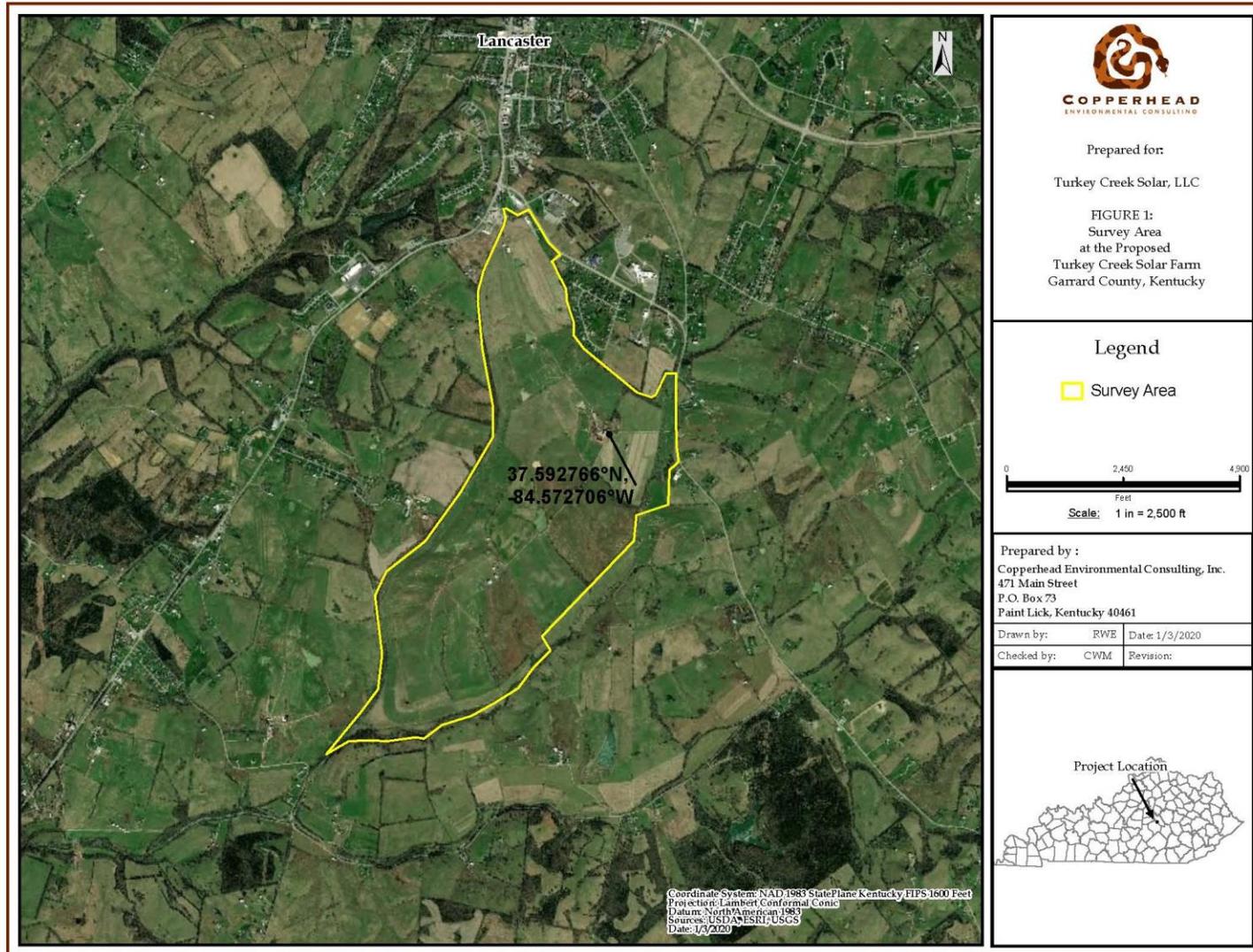


Figure 1. Project Location

## **Air Pollutants**

The Clean Air Act regulates the emission of air pollutants and, through its implementing regulations, establishes National Ambient Air Quality Standards (NAAQS) for several “criteria” pollutants that are designed to protect the public health and welfare with an ample margin of safety. The criteria pollutants are ozone, particulate matter (PM), carbon monoxide (CO), nitrous oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and lead.

Specified geographic areas are designated as attainment, nonattainment, or unclassifiable for specific NAAQS. Areas with ambient concentrations of criteria pollutants exceeding the NAAQS are designated as nonattainment areas and new emissions sources in or near these areas are subject to more stringent air permitting requirements.

Garrard County and all surrounding counties (Boyle, Mercer, Jessamine, Madison, Rockcastle, and Lincoln) are in attainment for all criteria pollutants (EPA 2020). Garrard County is also protected by Air Quality Regulations found in Title 401, Chapters 50–68 of the Kentucky Administrative Regulations (KAR).

Transient air pollutant emissions would occur during development and operation activities. Air quality impacts would primarily result from the staging and operation of construction vehicles, equipment, supplies, and worker personnel vehicles. The daily workforce for the Project would vary depending on specific construction activities occurring on individual days. It is estimated that the work force would comprise up to 300 workers onsite at any time during the 8- to 12-month construction period. Work would generally occur during daylight hours. Additional hours after dark could be necessary to make up schedule deficiencies or to complete critical construction activities. Construction and operation equipment would include, but not be limited to, bulldozers, backhoes, flatbed semi-trucks, forklifts, bobcats and/or specialized tractors with extender or drill with auger or pile driver for installation of solar panel array posts, and concrete trucks.

Combustion of gasoline and diesel fuels by internal combustion engines would generate local emissions of PM, NO<sub>x</sub>, CO, volatile organic compounds (VOCs), and SO<sub>2</sub>. Emissions associated with these vehicles and equipment are expected to result in minor impacts to air quality because the sizes, number of vehicles, and hours each piece of equipment would operate would be small. For example, combustion emissions from a 200-horsepower diesel truck operating eight hours every day for three months would include less than one ton each of NO<sub>x</sub>, CO, and PM. Emissions of SO<sub>2</sub> would be negligible because of the ultralow sulfur diesel fuel available on the market.

Tree clearing or vegetative debris is anticipated to be limited as most of the land is open as it was formerly used for cattle grazing or crop growing for cattle feed. Tree clearing or vegetative debris would not be burned onsite but would either be chipped, ground, and composted on-site or managed offsite at a permitted facility.

Construction activities would result in temporary fugitive air pollutant emissions (e.g., small particles suspended in the air or dust). Vehicles and construction equipment traveling over

unpaved roads and the construction site would result in the emission of fugitive dust. A large fraction of fugitive emissions from vehicle traffic in unpaved areas would also be deposited near the unpaved areas. To minimize air impacts, the Project will require all contractors to keep construction equipment properly maintained and to use best management practices (BMPs) (such as covered loads and wet dust suppression if needed) which can reduce fugitive dust emissions by as much as 95 percent.

Air quality impacts from construction activities would be temporary and would depend on both man-made factors (intensity of activity, control measures, etc.) and natural factors such as wind speed and direction, soil moisture and other factors. However, even under unusually adverse conditions, these emissions would have, at most, a minor transient impact on off-site air quality and would be well below the applicable ambient air quality standard. The effects to air quality from construction-associated activities would be temporary and localized. Overall, the potential impacts to air quality from construction-related activities for the project would be minor.

During operation, the solar panels produce zero emission and therefore, the solar facility is not expected to emit any of the following criteria pollutants: PM, CO, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, or lead. Similarly, the facility is also not expected to emit Hazardous Air Pollutants (HAPs).

The solar facility would only generate air emissions from worker vehicles and equipment for maintenance activities, such as mowers to control growth of vegetation. The Project anticipates two to four full-time staff to manage the facility and conduct regular inspections. Inspections would include identifying any physical damage to panels, wiring, central inverters, pad mount transformers, and interconnection equipment. Vegetation on developed portions of the Project Site would be maintained to control growth and prevent overshadowing or shading of the PV panels. Regular trimming and mowing would prevent vegetation from shading the panels. There would also be benefits to air quality because the solar panels produce zero emissions while generating electricity. This benefit to local and regional air quality would occur over the life of the Project. No air quality permit is required for construction or ancillary activities.

## **Water Pollutants**

### *Surface water*

The Project is located within the Dix River Watershed (Hydrologic Unit Code 05100205) and drains to the Kentucky River. Much of the hydrology within the Dix River Watershed is influenced by karst geology, ditching, and drainage for agriculture. No waterways in or adjacent to the Project are designated as Outstanding State Resource Waters or other Special Use Waters as defined by KDOW.

During construction activities, stormwater erosion and sedimentation may affect onsite surface water features (i.e., streams and wetlands). The Project would work with the existing landscape (e.g., slope, drainage, utilization of existing roads) where feasible and minimize or eliminate

grading work to the extent possible. Any required grading activities would be performed with portable earthmoving equipment and would result in a consistent slope to the local land.

Turkey Creek expects the project to result in the discharge of stormwater during construction. Turkey Creek intends to comply with the Kentucky Division of Water's Construction Storm Water Discharge General Permit for those construction activities that disturb one acre or more. Turkey Creek intends to submit a Notice of Intent prior to the commencement of construction and a notice of termination upon completion.

To manage stormwater, use of BMPs, such as silt fences, on-site temporary sediment basins, sediment traps, and/or buffer zones (e.g., 25 feet) surrounding jurisdictional streams and wetlands would be implemented. A stormwater pollution prevention plan (SWPPP) would be prepared and implemented to comply with Kentucky Division of Water (KDOW) requirements. These stormwater BMPs would minimize sediment from entering Waters of the Commonwealth and sediment migration off site during construction, prior to achievement of final vegetative stabilization.

Disturbed areas would be seeded after construction using a mixture of certified weed-free, low-growing native and/or noninvasive grass and herbaceous plant seed obtained from a reputable seed dealer. Erosion control measures would be inspected and maintained until vegetation in the disturbed areas has returned to the preconstruction conditions or the Project Site is stable. Water may be used for soil compaction and dust control during construction.

To minimize potential for water impacts, only USEPA-registered and approved herbicides would be used in accordance with label directions designed in part to restrict applications near receiving waters and to prevent unacceptable aquatic impacts. All herbicides would be applied by Kentucky licensed and certified commercial pesticide applicators.

Approximately 10-15 acres of the Project Site would be used as construction assembly areas (also called staging or laydown areas) for worker assembly, vehicle parking, and material storage during construction. Some of these areas would be staged within the areas proposed for the solar or photovoltaic (PV) arrays. The laydown areas would be on site for the duration of construction. Temporary construction trailers intended for material storage and office space would be parked on site. Following completion of construction activities, trailers, unused materials, and construction debris would be removed from the Project Site. An operations and maintenance building would remain on site during the life of the Project.

The operations and maintenance of the solar facility would have little impact on surface water, and BMPs would be used during any maintenance activities that have the potential to cause runoff of sediment and pollutants. Beneficial indirect impacts to surface water are anticipated due to reduction in fertilizer and pesticide use compared with current agricultural use.

#### *Groundwater*

Groundwater is water located beneath the ground surface, within soils and subsurface formations known as hydrogeological units, or aquifers (USGS 1995). Aquifers have sufficient permeability to conduct groundwater and to allow economically significant quantities of water to be produced by man-made water wells and natural springs.

No direct adverse impacts to groundwater would be anticipated as a result of the Project. The PV panels would have a relatively minor effect on groundwater infiltration and surface water runoff because the panels would not include a runoff collection system. Rainwater would drain off the panels to the adjacent vegetated ground.

Hazardous materials that could potentially contaminate groundwater would be stored on the Project Site during construction. The minimal use of petroleum fuels, lubricants, and hydraulic fluids during construction and by maintenance vehicles would result in the potential for small on-site spills. However, the use of BMPs to properly maintain vehicles to avoid leaks and spills and procedures to immediately address any spills that did occur would minimize the potential for adverse impacts to groundwater.

Fertilizers and herbicides would be used sparingly and in accordance with manufacturer's recommendations to avoid contamination of groundwater. Additionally, beneficial indirect impacts to groundwater could result from the change in land use from agricultural uses due to reduction in fertilizer and herbicide use.

No direct adverse impacts anticipated; minor beneficial indirect impacts to groundwater due to reduction in fertilizer and herbicide use.

## **Waste**

Waste would be generated during the construction and operation of the solar facility and would be handled and disposed of in accordance with local, state, and federal regulations. Construction activities would generate intermittently solid waste consisting of construction debris and general trash, including wooden crates, pallets, flattened cardboard module boxes, plastic packaging, and excess electrical wiring. To the extent feasible and practicable, construction waste will be recycled and material that cannot be recycled will be disposed offsite at a permitted facility to be determined by the designated contractor(s). No waste will be disposed of on the Project Site. Designated construction contractor and subcontractor personnel would be responsible for daily inspection, cleanup, and proper labeling, storage, and disposal of all refuse and debris produced. Disposal containers such as dumpsters or roll-off containers shall be obtained from a proper waste disposal contractor and would be located in the on-site staging area or other areas, as appropriate. Records of the amounts generated shall be provided to the Project.

During construction of the proposed solar facility, materials would be stored on site in storage tanks, vessels, or other appropriate containers specifically designed for the characteristics of these materials. The storage facilities would include secondary containment in case of tank or

vessel failure. Construction-related materials stored on site would primarily be liquids such as used oil, diesel fuel, gasoline, hydraulic fluid, and other lubricants associated with construction equipment. Safety Data Sheets for all applicable materials present on site would be made readily available to on-site personnel.

Construction activities would involve use of machinery (e.g., semi-trucks, field trucks, tractors) fueled by petroleum products. Fueling of some construction vehicles would occur in the construction area. Other mobile equipment would return to the on-site laydown areas for refueling. Construction contractors would be responsible for preventing spills by implementing proper storage and handling procedures. Special procedures would be identified to minimize the potential for fuel spills, and spill control kits would be carried on all refueling vehicles for activities such as refueling, vehicle or equipment maintenance procedures, waste removal, and tank clean-out.

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 stored and used at the facility. Due to the small quantities involved and the controlled environment, a spill could be cleaned up without significant environmental consequences.

Turkey Creek would develop and implement a variety of plans and programs to ensure safe handling, storage, and use of hazardous materials (e.g., Hazardous Material Business Plan). Facility personnel would be supplied with appropriate personal protective equipment (PPE) and would be properly trained in the use of PPE as well as the handling, use, and cleanup of hazardous materials used at the facility and the procedures to be followed in the event of a leak or spill. Adequate supplies of appropriate cleanup materials would be stored on site.

Waste generation during operation would be minimal and would mainly result from the maintenance and/or replacement of worn or broken equipment and defective or broken electrical materials. All wastes would be managed by designated waste management company(ies) and disposed of in accordance with applicable federal and state requirements to minimize health and safety effects.

Portable chemical toilets would be provided for construction workers during Project development. Sewage would be pumped out by a licensed contractor and the sewage waste would be disposed at the Lancaster Wastewater Treatment Plant. No adverse effects are anticipated from wastewater treatment and disposal.

The Project Site has existing septic systems for sanitary waste related to the farmhouse. Due to the size of the facility, additional permanent bathroom facilities are not anticipated.

Based on a review of Project waste generation activities, no adverse effects from waste are anticipated.

## **Water Withdrawal**

Water service in the Project area is provided through existing private wells that provide water to the house and barns. Aquifers beneath the Project have sufficient permeability to conduct groundwater and to allow economically significant quantities of water to be produced by man-made water wells. The Project anticipates using these existing wells to provide water needed during construction and may either use an existing well for the construction manager trailer or develop a new water well.

Construction-related water use would support site preparation (including dust control) and grading activities. During earthwork for the grading of access roads, foundations, equipment pads, and other components, the primary use of water would be for compaction and dust control. Smaller quantities would be required for preparation of the equipment pads and other minor uses. The expected water volume needed for construction activities is not expected to adversely affect groundwater resources.

The internal access roads would not be heavily traveled during normal operation and consequently, water use for dust control is not expected. Some of the existing roads are paved and would not result in additional dust generation. Equipment washing and any potential dust control discharges would be handled in accordance with BMPs described in the SWPPP for water-only cleaning.

Operation of solar electricity generating 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 any other substance is likely not part of regular solar project maintenance. Water will be used for ongoing vegetation management needs, including: during screening vegetation installation; during prolonged times of drought; and for effective integrated vegetation management.