

BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of)	
Carroll County Energy LLC for a)	
Certificate of Environmental)	Case No. 13-1752-EL-BGN
Compatibility and Public Need to)	
Construct an Electric Generation Facility)	
in Carroll County, Ohio)	

DIRECT TESTIMONY OF LYNN GRESOCK

Q.1. Please state your name, title and business address.

A.1. My name is Lynn Gresock. I am Vice President – Energy Program with Tetra Tech, Inc., 160 Federal Street, 3rd Floor, Boston, MA 02110. Tetra Tech is a provider of consulting, engineering, construction and technical services focused on resource management and infrastructure.

Q.2. What are your duties as Vice President – Energy Program?

A.2. In my role at Tetra Tech, I coordinate the company’s national practice for the conventional generation market, and provide consulting services for a broad range of energy projects. For the Carroll County Energy project, I am the lead environmental consultant, directing environmental technical studies and providing input regarding environmental issues. As such, I have been directly involved and am familiar with the full range of environmental assessments completed for the Facility. In addition to involvement with specific technical assessments, I have been responsible for coordinating other contributions to the Ohio Power Siting Board application.

Q.3. What is your educational and professional background?

A.3. I have a B.S. degree from the University of Massachusetts in Landscape Architecture and Regional Planning, and almost 30 years of professional experience

providing environmental permitting and compliance services. I have supported a wide range of projects nationwide, including permitting over 20,000 megawatts of energy facilities. Through this work, I have gained a strong knowledge of the range of related issues and work closely in directing technical experts to provide strategic, technical, and regulatory support for facility development and operations. My work includes Ohio Power Siting Board permitting for nine generating facilities either successfully approved or currently in process.

Q.4. On whose behalf are you offering testimony?

A.4. I am testifying on behalf of the Applicant, Carroll County Energy LLC (“CCE”).

Q.5. What is the purpose of your testimony?

A.5. The purpose of my testimony is to describe the studies my firm undertook on behalf of the Applicant and summarize the results of those studies.

Q.6. Please describe and summarize those studies that you and your firm undertook on behalf of the Applicant.

A.6. The studies undertaken by Tetra Tech are described and summarized below and are attached to the application as Appendices E, F, J, N and O. In addition, Tetra Tech supported obtaining the air permit for the Facility, and coordinated other contributions to the Ohio Power Siting Board application, including such issues as Federal Aviation Administration stack height review and species review.

Appendix E: Preliminary Subsurface Exploration Report

Tetra Tech was contacted by CCE to conduct a preliminary geotechnical exploration at the location of the Facility. The Facility is located east of State Route 9 (“SR 9”), and is currently occupied by an agricultural field in a wooded area.

The purpose of the report was to evaluate subsurface conditions on the Facility site and provide documentation of the geotechnical investigation to CCE in support of the Ohio Power Siting Board application. The exploration included a review of published geologic and soils information, drilling nine preliminary test borings, laboratory soil testing, and a geotechnical engineering evaluation of the test results. Test boring locations were selected to be representative of the geotechnical conditions on the site at the proposed locations of structures. The test boring locations and depths were determined by CCE prior to mobilizing to the site.

The purpose of the exploration was to 1) determine the generalized subsurface conditions to the depth penetrated by the borings; 2) evaluate the engineering characteristics of the subsurface materials; and 3) provide preliminary geotechnical information and recommendations to assist in designing the proposed facility. The geotechnical characteristics of the site encountered during the investigation appear to be satisfactory for the proposed Facility.

There are a few key areas, however, that should be evaluated and addressed during the final design phase of the Facility. Slope stability of the fill embankments and natural slopes should be carefully evaluated. The cohesive soils, clay stones and clay shales at the site have the potential to be unstable when loaded or cut due to their weak shear strengths. Additional exploration, laboratory testing, and stability analyses will be required to determinate the allowable slopes and any mitigation measures that might be needed.

Based on the findings of the preliminary borings, cut and fill operations at the site will result in some buildings or structures potentially founded in both rock and soil. Buildings

or structures founded in both rock or soil could be adversely impacted by differential settlement. This factor will require consideration in the final design. It is anticipated that rock excavation will be required to develop the Facility. Based on the rock cores obtained from the borings, it is anticipated that the softer shales and sandstones at the site are rippable. However, harder, more competent sandstone was also encountered, and this harder, more competent bedrock may require special efforts, such as blasting, to excavate efficiently.

Appendix F: Wetland Delineation and Stream Identification Report

Tetra Tech also prepared the Wetland Delineation and Stream Identification Report for the proposed Facility. Wetland areas were delineated on site using methodology enumerated in the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory, 1987) (1987 Manual) and the Eastern Mountains and Piedmont Regional Supplement (USACE, 2012) (Regional Supplement), as well as the Ohio Rapid Assessment Method (ORAM) for wetlands (Mack, 2001). Headwater streams were evaluated using the Field Evaluation Manual for Ohio's Primary Headwater Streams (Ohio EPA, 2012).

The subject of the report was the potential site for the Facility. Although the Facility site will be much smaller, a 182-acre Study Area was considered for this wetland delineation in order to identify and avoid jurisdictional features to the greatest extent possible. The 182-acre Study Area extended from Mobile Road NE to the east and continues approximately 1,000 feet beyond Route 9 (Kensington Road) to the west. Pasture lands, agricultural areas and forested uplands are located north of the site, with forested uplands and residential properties to the south. The Study Area contains active agricultural areas

as well as upland field, upland thicket, forested upland and wetland vegetational communities.

The Study Area is located in the Tuscarawas River Watershed (05040001). East of Route 9 (Kensington Road), the Study Area contains ephemeral, intermittent, and perennial unnamed tributaries (UNTs) to Pipes Fork. An intermittent UNT and ephemeral UNT to Pipe Run are located west of Route 9. Pipe Run, Pipes Fork, and associated tributaries are designated as Warm Water Habitat (WWH), Agricultural Water Source (AWS), Industrial Water Source (IWS), and Primary Contact Recreation (PCR) under Ohio Administrative Code 3745-1-07.

As a result of the on-site investigation, eighteen areas were identified within the Study Area that exhibited all three criteria necessary to be classified as a wetland according to the 1987 Corps Manual and the Regional Supplement:

- The areas had a vegetative community that contained a predominance (greater than 50% aerial coverage) of hydrophytic plant species.
- Hydric soil conditions were present at each location.
- There were indicators of wetland hydrology at each location.

Of the eighteen wetlands that occur within the Study Area, two were classified as a Category 1, fifteen were classified as a Category 2, and one was classified as a Category 3, based on the ORAM scoring system for assessing quality and function of wetlands. Of the 182-acre Study Area, only 0.85 acres were identified as containing wetlands.

Fourteen streams were also identified during field investigations. Two streams (Streams 12 and 13) had upper and lower segments that scored as Class I and Class II Primary Headwater Habitat (PHWH) streams. Of the remaining twelve streams, eight were

classified as Class I PWH streams, three were classified as Class II PWH streams and one was classified as a Class III PWH stream.

Of the total wetland and stream resources identified in the Study Area, only two wetlands will be unavoidably impacted. Wetland C (287 square feet) and Wetland D (117 square feet) are both located within a historic diversion ditch. Hydrology of both wetlands is supported by precipitation and drainage from adjacent uplands. Dominant vegetation within both wetlands consists of reedtop (*Agrostis gigantea*). The soil within the upper 12 inches of both wetlands exhibited a low chroma matrix color with a clay loam texture that contained redoximorphic features. For Wetland C, indicators of wetland hydrology included surface water in portions of the wetland, saturation within the upper 12 inches of the soil profile, and geomorphic position, while Wetland D's indicators of wetland hydrology included water-stained leaves and geomorphic position. Although both are isolated in nature, the USACE intends to consider them jurisdictional for the purpose of the Nationwide Permit review of the single-and-complete project.

Appendix J: Baseline Sound Survey Report

Tetra Tech completed a Baseline Sound Survey Report for Carroll County Energy in June 2013. A survey was taken from May 8, 2013 to May 15, 2013 to document the existing baseline acoustic environment in the area surrounding the Facility. The survey included both long-term and short-term measurements, taken at 10 monitoring locations, which were selected to be inclusive of quiet locations that may be affected by sound from the proposed Project.

The monitoring was completed in accordance with industry-accepted practices and standards, and utilized a Larson Davis 831 real-time sound level analyzer equipped with a

PCB model 377B02 ½-inch precision condenser microphone. This instrument has an operating range of 5 dB to 140 dB, and an overall frequency range of 8 to 20,000 Hz, and meets or exceeds all requirements set forth in the American National Standards Institute (“ANSI”) standards for Type 1 sound level meters for quality and accuracy (precision). All instrumentation components, including microphones, accelerometers, preamplifiers and field calibrators, had current laboratory certified calibrations traceable to the National Institute of Standards Technology (“NIST”).

Appendix N: Phase I Archaeological Survey

Tetra Tech conducted a Phase I Archaeological Survey in Washington Township, Carroll County, Ohio, during May 2013. The survey was undertaken to support the Facility’s permit application to the Ohio Power Siting Board. Tetra Tech conducted a literature review and archaeological site file review of the area within five miles of the proposed Facility, utilizing resources available on file at the Ohio Historic Preservation Office (OHPO) in Columbus, Ohio, and searchable databases of the Ohio Archaeological Inventory, the National Park Service, the Ohio Department of Transportation, the Ohio Department of Natural Resources, and other accessible websites. The five-mile review resulted in the identification of ten archaeological sites, seventeen cemeteries, and one park. Tetra Tech concluded that the proposed undertaking will have no adverse impacts on documented sites, cemeteries or parks.

The Phase I Archaeological Survey encompasses a total of 232 acres (the Project Study Area). Of this total area, the majority was determined to have low archaeological sensitivity due to the presence of wetlands, steep terrain or other factors. Tetra Tech surveyed the remaining 50.9 acres of the Project Study Area by using a combination of

field methods including pedestrian walk over and shovel testing. Tetra Tech identified three cultural finds during the survey. The first is chipped-stone knife or projectile point fragment. This isolated find is attributable to an unspecified prehistoric Native American period and has been designated Site 33CA0444 by OHPO. Supplemental shovel testing around the find identified no further artifacts or cultural features. Tetra Tech concluded that this isolated find did not possess significant archaeological value.

The second cultural find was a 19th Century stone foundation spatially corresponding to a map-documented structure depicted on the *1874 Carroll County Atlas*. On the basis of form, size and historic documentation, Tetra Tech concluded that this foundation was a barn on the John Shook Farm during the period circa 1860 to 1880. Shovel testing around and in the barn structure yielded no cultural artifacts or features. This structure has been designated as Site 33CA0445 by OHPO. Current project designs will not impact this site.

The third cultural find is the ruins of a modern hunting cabin. The cabin was built circa 1990 on the site of a residence depicted on the 1874 County Atlas. After investigation of these modern ruins, Tetra Tech concluded that there are no significant remnant archaeological traces of the former 19th Century structure.

Tetra Tech recommended that no further archaeological investigations are necessary. However, should the Facility design be modified to include areas that were not examined within the original Project Study Area, Tetra Tech recommends that further archaeological surveys should be performed to determine whether potentially significant archaeological resources are present.

Appendix O: Historic Architecture Survey

In June 2013, Tetra Tech conducted a literature review and historic architecture site file review of the area within five miles of the proposed Facility site, utilizing resources available on file at the Ohio Historic Preservation Office in Columbus, Ohio and searchable databases of the Ohio Historic Inventory, the National Park Service, the Ohio Department of Transportation, the Ohio Department of Natural Resources, and other accessible websites. The five-mile review resulted in the identification of five sites listed in the National Register of Historic Places (NRHP), no sites previously determined eligible for NRHP, and no national historic landmarks. In addition, Tetra Tech performed a reconnaissance survey of the areas within five miles of the Facility from which it would be visible. With the concurrence of the OHPO, Tetra Tech undertook a tiered approach to this fieldwork. Within 0.75 miles of the Facility, Tetra Tech identified and recorded 15 previously unrecorded properties greater than 50 years old that may be NRHP-eligible previously; no previously recorded properties were located within this area. Between 0.75 and 5.0 miles from the Facility, Tetra Tech field checked and reviewed the impact of the Facility on the five National Register-listed and 158 Ohio Historic Inventory-listed properties. Tetra Tech concluded that the proposed undertaking would have no adverse impacts on newly or previously documented sites, cemeteries or parks. Tetra Tech recommended that a finding of no adverse effect be made for all historic properties, as the presence of the Facility will not change the attributes of the historical properties which have qualified them to be listed in the NRHP, to be recommended potentially NRHP-eligible, or to be listed within the Ohio Historic Inventory, or diminish the continued meaningfulness of these resources.

Q.7. Have you reviewed the February 5, 2014 Notice of List of Commitments filed by CCE with the OPSB and the February 19, 2014 Staff Report of Investigation issued in this proceeding?

A.7. Yes.

Q.8. Do you have observations or responses to any of the conditions listed in the Notice or the Staff Report of Investigation?

A.8. Not from an environmental or ecological perspective. The Facility is well sited, taking advantage of open, agricultural land to minimize the need for clearing, avoid and minimize wetland and stream impacts, avoid impacts to threatened or endangered species or significant cultural resources, and avoid impacts to air transportation facilities. The Facility has also been designed to meet air quality standards, incorporate significant noise attenuation, minimize water demand, and limit Facility-related impacts to a compact area within Carroll County that has been identified as a location for economic development.

Q.9. Does this conclude your direct testimony?

A.9. Yes, it does. However, I reserve the right to offer testimony in support of any stipulation reached in this case.

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing document was served via electronic mail on the following persons this 7th day of March, 2014.

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Case No(s). 13-1752-EL-BGN

Summary: Testimony Direct Testimony of Lynn Gresock electronically filed by Mr. Michael J. Settineri on behalf of Carroll County Energy LLC