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AUG 04 2025
PUBLIC SERVICE COMMISSION

**Kenneth D. Ratliff**
Environmental Specialist and Inspector
Retired – Phillips Coal Company

July 31, 2025

Kentucky State Board on Electric Generation
211 Sower Boulevard
PO Box 615
Frankfort, KY 40602

Re: Wood Duck Solar 2024-00337

To Whom It May Concern:

I worked as an environmental specialist for Phillips Coal Company and Phillips Petroleum Company for 20 years and as an environmental inspector in the pipeline construction industry for an additional 20 years. I have many years of experience dealing with electric providers and the studies which must be completed before, during and after construction.

I have reviewed the **4 Interconnectivity reports by PJM that were submitted to the PSC** and would like to make the following observations and notations of concern.

Wood Duck submitted two system **impact** studies and two **feasibility** studies of the Bon Ayr connection site all of which were completed in 2021. These were completed by PJM, the world's largest power provider, which the substation feeds to EKPC, then to PJM.

The reports were studied as two different queues at different Mega Watts (MW) for capacity and energy.

Since these were written in 2021, it is possible that additional solar projects have been added to the queue and some have been cancelled, so it is unknown if these reports are accurate and therefore, should be updated. We request updated studies.

Why did Wood Duck submit 2 sets of reports for different mega watts?

One request 45 megawatts and the other requests 55 megawatts, which total 100. The reports from PJM state **there are additional stipulations** if the proposal is for **100 megawatts or greater**. It states, the developer "shall install and maintain, at its expense, phasor measurement units." Page 8.

Was this an effort to avoid this requirement? Why wasn't the project studied for the complete 100 megawatts?

These reports also are conflicting on the type of project. Two state **"solar generating facility"** and two state, **"storage generating facility"** and these are submitted for each of the different queue numbers.

Which is it? Does "storage" mean battery? Why are these conflicting??

Wood Duck has told Mammoth Cave there will be no batteries and the public is going to require this to be true. Absolutely no batteries, anywhere. Therefore, others have requested a review by an independent engineer and a signed statement by Mr. Juergen Fehr, the owner of Geenex that there are no batteries.

Is this project generating energy all day and feeding directly to the grid **OR** is energy stored via batteries, which residents will not accept. It seems even PJM doesn't know for certain.

Will Wood Duck submit a constant flow of electricity during the day and nothing at night? Or will they transmit energy 24 hours a day which requires storage?

According to these reports by PJM, the energy will be sold to East Kentucky Power (EKPC), but it is unclear if they are going to buy the power from Wood Duck or if Wood Duck will sell directly to PJM? Is there a split between the two? What does the purchase power agreement say (PPA)?

Will they allow the influx of the energy all day, stopping with the sun goes down, or will energy be processed all night, creating noise for all residents who live close to the 35 inventers?

This needs to be answered in relation to the question of "will the inverters run all night" and if so, the Sound Study by Stantec must be adjusted and must ADDRESS each property that is in close proximity to an inverter. The study be Stantec failed to address 35 inverters.

Does East Kentucky Power buy all of Summershade's electricity? Residents have heard they are not buying all of Summershade's electricity. We ask the PSC to explore this. If they are not buying all of Summershade's electricity which is just down the road, is there a need for this project? In my opinion, Wood Duck has failed to substantiate the need.

If the energy is going directly to the grid, these reports do not indicate that the station can accept 100%. It appears the study is based on a commercial probability of only 53% of the energy. However, if the solar "farms" are developing at 100% where does this energy go? Storage in batteries, perhaps?

The DC energy for the inverters must be stored somewhere or inverted to AC and fed directly into the transmission system. Which is it Wood Duck? The community does not know.

**Let's talk about the 35 inverters.** Residents do not know where these will be located. **A map has never been provided to the public of these locations and that is WRONG.** The maps presented to the information hearings said 25 inverters, but they were not on the maps.

Residents do not know if they will run all day and all night. It they store DC, they will run all night if converting from DC to AC. The noise study from Stantec calculated time off "for the quiet time" creating their calculations of dBA LEQ, which is not accurate.

Wood Duck has not provided any information to the public about how the inverters will be temperature controlled. Will water be required to cool the power inverters? If so, how much? Daily? Continuous? What is the source of the water? What is the point of discharge of the cooling water and what monitoring will be done to assure the water is not contaminated? Will it be cooled with AC?

What is the noise level for the cooling and how long will they run? Will the inverters run until sun down and then the cooling system will run all night?

The noise levels for cooling were not studied in the Sound Study by Stantec.

However, Stantec did state the **inverter noise is 99** decibels which is a **very loud noise**, generally considered to be potentially damaging to hearing, especially with prolonged exposure. It's in the range of noises like lawnmowers, power tools, or a concert at a loud volume. For reference, 85 dB is the threshold **where long-term exposure can cause damage**, and 100 dB is considered a high noise level. ***This is unacceptable in a residential neighborhood.***

Wood Duck states in their application is it 90 decibels. These numbers are in conflict.

A summary of the reports:

There are 2 sets of studies: 2 for 071 and 2 for 070 requiring millions of dollars in upgrades that must be made before the project can proceed. Upgrades are essential because of line size, breakers and controls must be increase and updated to handle the increased energy. Each can overheat causing breakers to trip, leaving residents in the dark.

1. **The Feasibility Study for 071 from January 2021** states the developer has proposed a **SOLAR GENERATING FACILITY** (this does **NOT say storage**) that requires **$3.19 Million** in upgrades and improvements for this project.

It is anticipated that these costs have changed and may have been reallocated in the last 4 years. It is unclear how much will be paid by Wood Duck. It does however state, the project was studied with commercial probability of 53%. (this is noted on pages 10 and 28)

All 4 of the reports require upgrades if 100 mega watts, upgrades for metering and meteorological data feeds. These cost estimates are not provided. Again, why are these studies for less mega watts than Wood Duck has told the public they are building?

2. **The Impact Study for 071 from August 2021** states this is a **STORAGE GENERATING FACILITY** **(note the word STORAGE) – that indicates batteries of some sort.** requires upgrades of **$3.8 million** with Wood Duck paying a small amount of $15,000. How do we know these updates have been made or will be made? When would these upgrades be anticipated to be made?

How do we know if the other companies have committed to the upgrades which must occur to make this project feasible? Cost have undoubtedly increased substantially since this was completed in 2021.

**The second set of studies raise similar questions and financial requirements**

1. **The Feasibility Study for 070 from January 2021** states it is a **SOLAR GENERATING FACILITY**. It states there are cost updates of **$6.265** million for physical interconnection costs and system network upgrade costs. PLUS this one refers to Revenue Metering and real time data on page 9, in addition to the costs mentioned previously and the additional upgrades

2. **The Impact Study for 071 from August 2021** states it is a **STORAGE GENERATING FACILITY**, which again indicates **Batteries** and requires total physical interconnection costs **$5.205M** Other upgrades to other agencies **$2.52M**

**An interesting note: This report states" project 071 was submitted as an uprate from 070."**

**Why is Wood Duck uprating at the beginning....is it one project, or two or are they both added together to reach 100 mega watts? We do not know.**

**How will** Wood Duck will be "firming" their supply of energy? Has Wood Duck representative been sharing actual generation mega watt in permitting efforts, or simply the mega watt values used in planning the project?

I **would suggest that** Wood Duck provides updated studies for 100MW of energy, and to clarify the type of facility **and if batteries** are involved, then this needs to be brought back to the community and to Mammoth Cave.

Since the 2 feasibility studies prepared by PJM indicated no power storage, **is it possible that off-site battery storage is being contemplated** as a late addition to the project? Two of the studies indicate batteries. Which is it?

Again, it would be advisable to have an independent engineer review the site plans and determine if any batteries will be used.

Since these studies are nearly 5 years old, they are updated with current costs for the upgrades. Additionally, they must be updated since many projects have been cancelled due to the changes in funding availability. Where does this project stand at this time and what is the new cost associated with the proposed project? Has each power company committed to the required updates and costs associated with each? This would include LG&E, KU, EKPC and others.

Once new reports and estimates are obtained, please require that Wood Duck/Geenex Solar provides evidence of the money for upgrades. Please require them to provide proof of the $130 million for the

project, the upgrades and at least one year of lease payments by making said deposit into a KY bank in Wood Duck's name.

Wood Duck has no history as a developer, no experience, no assets. They have a clean environmental record because it is a new LLC. We ask that the PSC inquire into Geenex Solar's projects that are developed by other companies for a complete and thorough assessment of performance.

In email correspondence with EKPC, Nick Coomer advised that as of July 10, 2025, Wood Duck solar has **NOT contractually committed** to proceeding with transmission upgrades on EKPC's transmission system identified in the studies.

Failure to commit to the upgrades makes the project null and void.

We respectfully ask the PSC to consider the financial cost for the upgrades and ensure that Wood Duck/Geenex Solar can financially meet the obligations.

Thank you for your consideration of these concerns.

Sincerely,

Kenneth D. Ratliff
397831 W 1200 Rd
Dewey, OK 74029

Attachment: email from Nick Coomer

RE: Research questions - 3rd

From: Nick Comer [redacted]

To: [redacted]

Date: Thursday, July 10, 2025 at 10:08 AM CDT

The developer of the Wood Duck solar project has not at this time contractually committed to proceeding with transmission upgrades on EKPC's transmission system identified in the studies.

**From:** [redacted]
**Sent:** Tuesday, July 8, 2025 11:20 PM
**To:** Nick Comer [redacted]
**Subject:** Re: Research questions - 3rd

**CAUTION:** This email originated from outside of EKPC. Do not click links or open attachments unless you recognize the sender and know the content is safe.