



March 22, 2019

Culpeper County Department of Development

Sam McLearen, Director

302 North Main Street

Culpeper, VA 22701

(Transmitted via email)

Re: March 13, 2019 Work Session -- Utility Scale Solar Application -- Cricket Solar, LLC

Dear Sam,

The Piedmont Environmental Council (PEC) respectfully submits this supplemental letter to our original comment letter, *Utility Scale Solar Application -- Cricket Solar, LLC*, dated March 6, 2019. The purpose of these supplemental comments is to further address issues raised in the March 13, 2019 Work Session for the Utility Scale Solar Application - Cricket Solar, LLC (Cricket), submitted to the Culpeper County Department of Development on December 21, 2018.

As previously stated in our March 6, 2018 letter, PEC recommends that the County rejects the Cricket application in its current form. Based on the nature and quantity of questions asked by the Planning Commission (Commission) during the March 13, 2019 Work Session, it is apparent that the Commission and PEC share many of the same concerns previously raised by PEC. Additionally, the Applicants did not appear prepared, failing to address many of the Commission's inquiries, raising questions about the Application's completeness.

The Cricket Application is being filed as a conditional use permit (CUP); as such, the Commission's role is to provide comment and recommendation to the Board of Supervisors (Board). Subsequent to the Commission's involvement, the Board will base their determination on the CUP's compliance with (A) public health and safety; (B) public welfare and neighborhood health; and (C) the Comprehensive Plan. If the CUP is not found to be in accord with these three (3) matters, the Board will not have a basis for issuance.

I have attached brief comments outlining additional points that PEC is raising, in regards to the March 13, 2019 Work Session for the Cricket application.



Thank you for taking the time to review PEC's concerns on this important matter. Please feel free to contact me with any questions or requests for additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Hawk", enclosed within a large, hand-drawn circle.

Christopher Hawk  
Land Use Representative - The Piedmont Environmental Council  
(804)337-6716

Attachment:

Supplemental Letter -- March 13, 2019 Work Session -- Cricket Solar, LLC Application

## **SUPPLEMENTAL COMMENTS -- MARCH 13, 2019 WORK SESSION -- CRICKET SOLAR, LLC (PROJECT) APPLICATION**

### **1. QUESTIONABLE CLAIMS**

The following questionable claims were made by the Applicant during the Work Session (please note that PECs comments have been provided as bullet points under each questionable claim):

- *The Project does not go into Core Battlefield areas.*
  - Properties associated with the Project will be located on 77-acres of the Core Battlefield Area associated with Morton's Ford. The fenced-in area will be located within 0.2-acres of the Core Battlefield Area. The fence/buffer associated with the Project will directly adjoin an additional 1,200-feet of the Core Battlefield Area.
- *There will be 28 permanent, full-time positions consisting of landscaping, groundskeeping, site operations, and site monitoring.*
  - The Project has yet to offer specific quantities of full-time positions that will impact regional Virginia citizens. How can Culpeper County understand the fiscal impacts of this Project, if the Project does not provide specific quantities of full-time positions? Although the Project will generate tax income for the County, it has yet to prove its impact on job creation for regional Virginia citizens; similar utility uses have not produced anywhere near the number of full-time positions in the counties in which they operate.
- *A Workforce Development Program will be formed as a cooperative between Cricket and surrounding higher education facilities (i.e., Germanna Community College) to provide educational resources for solar-related employment.*
  - There is no documentation of this supposed Workforce Development Program in the Project's submitted application documents.
  - Other solar applicants are making similar claims in their applications and project narratives. Besides questions surrounding how this program would be accomplished, PEC is now left questioning whether multiple efforts are being coordinated by the Applicant and institutions involved.
- *Subsequent to the Project, the associated land can be used as its original agricultural purposes.*
  - The County should consider the implications on the agricultural soils associated with this Project. The Applicant has made many statements, such as this one, that can not be backed up with reliable evidence, due to the relatively young age of Utility-scale solar projects. Without details on grading and treatment of soils over

the life of the Project, associated lands may be limited to passive pastureland, subsequent to decommissioning, and not useful as cropland.

- Preliminary soil testing should be completed prior to grading/construction, subsequent to grading/construction, and every three (3) years throughout the life of the Project.<sup>1</sup>
  - Soils should be analyzed for typical agricultural nutrients and important factors (i.e., pH, nutrient deficiencies, toxicities), Resource Conservation and Recovery Act (RCRA) 8 Metals, and Perfluorooctanoic Acid (PFOA)/Perfluorooctane Sulfonate (PFOS).
- *There are no migratory waterfowl associated with Virginia that will be affected by the Project. The fowl will observe the intermittent coloring (blue and green) associated with the Project's solar arrays, and dismiss the Project as being a body of water.*
  - Virginia is included in the Atlantic Flyway, including approximately 20 waterfowl species that are either migratory or year-round residents.<sup>2</sup>
  - The “lake effect” can cause waterfowl to land within the Utility-scale solar area, as they misinterpreted the solar panels for a body of water; and some waterfowl species can only take off from water bodies.<sup>3,4</sup> More needs to be done to confirm the number of species common to the Culpeper area that may be affected by this phenomenon. PEC recommends that the County consults the National Fish and Wildlife Service, or a similar organizations with experience in this area (i.e., Ducks Unlimited), to obtain useable information for the County's reviewing.
  - Intermittent coloring (blue and green) associated with the solar arrays will likely not dismiss waterfowl from landing within the Project. Many waterfowl species, including those that are common to the area such as wood ducks and mallards, prefer areas with a mixture of water, trees, and vegetation, such as marshes and swamps.<sup>5</sup>
- *The Project will not have any issues with growing grass throughout the Project area.*
  - The Project will be located within floodplains and along the Rapidan River and smaller streams, resulting in saturated soils year round. PEC contends the applicant needs to provide the County with a specific plan (including species, maintenance practices, etc.) to maintain appropriate grass throughout the Project area given the site conditions..
- *The Project's solar arrays will have a 20 year manufacturers warranty and retain 80% of their value after 35 years.*

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<sup>1</sup> <https://extension.psu.edu/soil-testing>

<sup>2</sup> <https://www.chesapeakebay.net/discover/field-guide/all/birds/waterfowl>

<sup>3</sup> <https://www.audubon.org/news/why-solar-power-good-birds>

<sup>4</sup> <https://www.ducks.org/conservation/waterfowl-research-science/understanding-waterfowl-ducks-in-motion>

<sup>5</sup> <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Birds/Wood-Duck>

- PEC contends that the Project was unclear about the 80% retention of solar panel value after 35 years. Was the Applicant referring to energy production value or fiscal value? The County should ask the Applicant to speak further on this matter.
  - Solar panel energy production degrades approximately 0.5 to 1% per year.<sup>6</sup>
    - In this case, PEC agrees with the Applicant that the solar arrays would retain approximately 80% of their energy production value after 35 years.
  - Solar panel technologies are constantly evolving, resulting in the creation of cheaper, more efficient panels.
    - If the Applicant's statement was made in regards to fiscal value, PEC would contend that an 80% retention of fiscal value in 35 years is a stretch.

## **2. GENERAL ISSUES**

The following statements were provided by the Applicant during the Work Session, and should be further considered when addressing the Project (please note that PEC's comments have been provided as bullet points under each statement of general issue):

- *The Project has pier-driving noise studies and associated data, as well as a consultant that could provide mobile noise blockers to mitigate pier-driving activities.*
  - PEC recommends that the County requests this information, including specific technologies employed, the projected reduction of noise (in dB), and additional data related to the duration of the activity.
- *The Project Surety (\$500,000) reflects the price of recyclables that the County could sell off for additional revenue. The solar panels will retain approximately 80% value after 35 years.*
  - PEC applauds the Commission for questioning the Project's proposed Surety (\$500,000); the value of Project-related recyclables should be not be deducted from the Surety. PEC contends that the County requires a much larger Surety. The County should have absolutely no responsibility for decommissioning, other than approval of decommissioning plan's adherence to the conditions provided to, and agreed upon by, the County.
- *Baywa r.e does not have experience with decommissioning activities.*
  - PEC raises this lack of experience to further define the financial discrepancies associated with the Project's proposed Surety and general decommissioning issues raised in our previous letter.

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<sup>6</sup> <https://energyinformative.org/lifespan-solar-panels/>

- *Subsequent to the Project's life, a small parcel (~2 acres) containing the Project's switchyard will be given to Dominion Energy for future use (i.e., residential, commercial, etc.).*
  - PEC warns the County that Dominion's ownership of the switchyard may lead to undesired zoning requests made in areas that are not consistent with the Comprehensive Plan.
- *The Project team proposed construction activities in floodplains, and was unaware of the proposed FIRM updates that will directly impact the Project.*
  - PEC applauds the Commission's knowledge of ordinances associated with floodplain and floodway construction, as well as the updated Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) floodplains that will occur in the near future. The County should request that all Project related materials be updated to address the FEMA FIRM updates, and appropriately manage construction according to County ordinances.
- *The Project's solar arrays will be approximately 6-7 feet tall during solar noon. The rotating nature of the solar arrays will reach up to 12 feet tall during dusk and dawn hours.*
  - The rotation of the solar arrays during dusk and dawn hours will result in panel heights that exceed the proposed screening. The screening should block the solar panels' maximum height (~12 feet) from day one, as dusk and dawn hours consist of heavy traffic times for community members traveling to and from work.
- *Matched pairs analysis has not yet been applicable to the Project, due to the lack of real estate transactions on adjoining properties in similar Virginia communities.*
  - If concrete evidence has yet to be located for matched pairs analysis, PEC contends that a different approach should be taken to address potential land value impacts associated with the Project.
  - PEC cautions the County that this lack of evidence will likely continue, and may result in economic impacts to real estate transaction in proximity to the Project.
  - As stated in our previous letter to the County, the following example should be considered when evaluating land value:
    - If faced with the option to buy two (2) otherwise identical parcels of land, a potential landowner (agricultural, residential, etc.) would rather buy the parcel without an adjoining Utility-scale solar facility over the parcel with an adjoining Utility-scale solar facility.