

**From:** [Puco ContactOPSB](#)  
**To:** [Puco Docketing](#)  
**Subject:** public comment: 20-1605-EL-BGN  
**Date:** Friday, May 7, 2021 2:25:58 PM

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**Subject:** Birch Solar Clarification Request

In reviewing the multiple responses Birch Solar 1, LLC has made to your office, I request the following clarifications or follow-up information be provided. The following pertains specifically to Birch Solar 1, LLC's second data request dated April 6, 2021. I am working on similar clarifications for the remaining requests made by your office.

**OPSB Request Question: 2. Is the photograph in Figure 9 of Exhibit U, Visual Resources Technical Report, a depiction of the cedar farm fencing described on page 8 of the Application? If not, please provide an example photo of cedar farm fencing. 2**

*LSBP Response:* Yes, the photosimulation in Figure 9 of Application Exhibit U includes the cedar farm fencing that is proposed for use as part of the Project and is referenced on page 8 of the Application Narrative.

*Against Birch Solar Inquiry:* The Birch Solar 1, LLC the response to fourth data request, dated April 12, 2021 states the following, "In designing the Project, the Applicant took the goal of "maintaining rural character" into mind. Chain link fence, which is common in energy generation projects for security, has been changed to **cedar plank** and farm style fencing for external facing areas."

The photosimulation, referenced in Figure 9 of Exhibit U, does not reflect a plank fence, as stated will be used in the fourth data request response. Figure 9 reflects what appears to be wooden, assumed cedar, posts with woven wire fencing strung between said posts. The response to the fourth data requests states that vertical planking will be used as, as opposed to the woven wire. Which is type of fencing is to be utilized for this project? Please provide a detailed engineered drawing depicting said fencing installation with dimensions.

**OPSB Request Question: 6. Does Birch Solar I, LLC anticipate any electrical interference from the existing transmission line to the solar panels, inverters, and electrical collection system?**

*LSBP Response:* No, the Applicant does not anticipate any electrical interference from the existing transmission line to the solar panels, inverters, and electrical collection system. Construction setbacks, as outlined below, will be put in place around existing transmission lines and transmission line setbacks are in place for modules and inverters as part of the current site design.

*Against Birch Solar Inquiry:* Since LSBP does not "anticipate" electrical interference, this implies that such interference is possible. Please explain, in detail, why interference is anticipated to not be realized and mitigation measures utilized to reduce/eliminate such interference.

**OPSB Request Question: 7. Is there an applicable national electrical code that Birch Solar I, LLC would be required to conform to regarding the distance or buffer between the existing transmission line and the solar panels, inverters, and electrical collection system?**

*LSBP Response:* Yes, there are applicable National Electric Code ("NEC") requirements and the Project will comply with those requirements.

*Against Birch Solar Inquiry:* Please provide the portion of the National Electric Code (including edition and date of publication) stating the specific standards to which the installation of the transmission line, solar panels, inverters, and electrical collection system will comply with.

**OPSB Request Question: 10. Provide the following information for the gen tie line**

referenced on page 14 of the Application:

**a. Tower designs, pole structures, conductor size and number per phase, and insulator arrangement.**

LSBP Response: The Project is currently planning a cut-in power design comprised of two steel 3-pole, self-supporting, dead-end structures on drilled shaft foundations with Aluminum Conductor Steel-Reinforced (“ACSR”) cable “Drake” conductors. Seven #7 Alumoweld shield wires will be installed on the tap spans. Below is a sample structure design.

Against Birch Solar Inquiry: Only a “sample structure design” was provided and fails to provide clarity as to items such as pole height, clear distance beneath overhead lines, etc. Please provide detailed design as requested.

**b. Base and foundation design.**

LSBP Response: The foundation will consist of a drilled shaft, which is a cylindrical excavation from which all of the soil and rock has been removed.

Against Birch Solar Inquiry: Per the applicant’s application, extensive geotechnical investigation has been performed which would allow for the design of foundations. Please provide detailed pole base and foundation designs. Additionally, will said designs be conducted by a registered structural engineer registered in the State of Ohio?

**OPSB Request Question: 13. Confirm that the project substation will be designed according to regional utility practices, PJM Standards, ReliabilityFirst Organization Standards, the National Electrical Code (NEC), and/or the Rural Utility Service Code.**

LSBP Response: The substation will be designed according to all regional utility practices including PJM Interconnection LLC Standards, ReliabilityFirst Organization Standards, the NEC, and the Rural Utility Service Code.

Against Birch Solar Inquiry: In the case that there is varying/conflicting code, standards, practices and or regulations, with will take precedence and govern the work?

**OPSB Request Question: 18. For the O&M building, would Birch Solar I, LLC install modern, efficient water fixtures for all water usage, and regular maintenance to keep water fixtures in proper working order?**

LSBP Response: Yes, the Operations and Maintenance (“O&M”) Building would install modern, efficient water fixtures based on local plumbing codes. Maintenance efforts at the

*Project would include regular maintenance of these fixtures.*

Against Birch Solar Inquiry: Will said O&M office building be required to comply with Ohio Building Code and be permitted by the Ohio Department of Commerce (Industrial Building Compliance)?

**OPSB Request Question: 21. What is the approximate total annual volume of water that would be required to clean solar farm equipment?**

LSBP Response: *If cleaning is needed, which is rare, approximately 3 gallons of water is used per module.*

Against Birch Solar Inquiry: Since the amount of water, when used, could amount to approximately 2,000,000 gallons, where does LSBP anticipate obtaining said water? Has coordination/discussions been had with Shawnee Township and/or Allen County Water Department to ensure that such a high use will not negatively impact drinking water supplies to the general public and surrounding businesses or present a negative impact to the Fire Department for potential firefighting operations, if said water is to be obtained via existing public water system? If local water is obtained via a drilled wells, will a 2,000,000 gallon draw negatively affect local ground water levels for those residents who rely on said aquifers for daily life? Will the estimated 2,000,000 be drawn from local rivers or streams?

**OPSB Request Question: 22. Provide a large-scale aerial map that depicts all inhabited residential dwellings adjacent to the project area that have a direct, unobstructed line-of-sight view to the project boundaries. Identify on the map which receptors are participating and nonparticipating, as well as any nearby roads and highways.**

LSBP Response: *To identify the residential dwellings adjacent to the Project Area where the solar modules will be visible, a Geographic Information Systems ("GIS") raster model viewshed analysis was created to determine the Project's theoretical visibility in its surrounding vicinity based on topography, existing vegetation, and the dimension of the Project components. Inputs to the model included a digital elevation model to reflect the topography. To determine the location and height of vegetation, the U.S. Department of Agriculture and U.S. Department of the Interior's LANDFIRE "Existing Vegetation Height" data was utilized (2021). The assumed panel height included in the model is consistent with the Application, with a maximum solar module height of 10 feet. As a conservative estimate, to capture the view from each residence, it was assumed that the home was one story with a height of approximately 12 feet and that the viewer is on the roof affording a 360-degree view.*

*A total of 101 residences were identified on parcels adjacent to the Project Area, of these, the model predicts 69 residences will have some view of the Project and 32 will have no visibility of the Project. The figure provided in Attachment 3 depicts the location of the residences relative to the Project and existing vegetation and whether the Project will be visible or not visible and the participation status of the residence.*

*While 69 residences are identified as having at least some visibility of the solar modules, few have completely unobstructed line-of-sight views of the Project. Additionally, the Applicant has committed to implementing vegetative screening in strategic locations along the perimeter of the Project to further screen the Project in views from the nearby residences and roadways. The location of the proposed vegetative screening is also depicted in Attachment 3. The Applicant proposes to plant arborvitae trees (Thuja spp.) or a similar evergreen tree species. The trees will be 6 feet tall at the time of planting and are anticipated to grow to a full height of approximately 8 feet. The trees will be spaced 6 feet on center. In addition to the vegetative screening, the Applicant will utilize cedar post farm fencing around the external facing areas of the Project rather than the originally proposed chain link fencing. This farm fencing will better blend into the existing agricultural landscape. The photosimulation below shows the vegetative screening proposed, as well as the cedar post farm fencing. The fencing and vegetation is also set back 300 feet from Breese Road, which will allow farming to continue between the road and the Project, creating an additional vegetative buffer during the growing season.*

Against Birch Solar Inquiry: Please clarify, as previously questioned, the type of fencing to be utilized on this project as the response to this question states cedar post fencing however previous response stated cedar plank fence.

As the topography, elevation, of the ground within the project area does vary there are areas in which the ground elevation quickly elevates, near residences, to a height equal to or in excess of the 10' panel height. Please describe what type of vegetation will be utilized in these areas as an 8' tall arborvitae tree will not provide any screening of the modules and in areas said screening will not screen even the base/bottom of said trees?

Jim Thompson

Against Birch Solar, LLC

**This foregoing document was electronically filed with the Public Utilities**

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Summary: Public Comment of Jim Thompson via website electronically filed by Docketing Staff on behalf of Docketing