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2211 Oak Corner Road
Hamersville, OH 45130

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May 30, 2019

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RE: 18-1546-EL-BGN Nestlewood Solar Facility Local Public Hearing

PUCO

I like to submit the following written comments to be filed in the case record.

Nestlewood Solar I LLC seeks Board approval of an 80 megawatt solar electric generating facility located in Clark Township, Brown County and Tate Township, Clermont County, approximately 3 miles west of Hamersville, Ohio.

As a landowner with residence adjacent to the proposed site I have some areas of concern regarding this project.

- 1. Storm water drainage off the proposed site
- 2. Toxicity of solar panels
- 3. Wildlife habitat and site layout

## 1. Storm water drainage off the proposed site

The major portion of the proposed site lies east of Oak Corner Road. Rain water collects on the proposed site and then drains through a culvert under Oak Corner Road 2200 block to a rain water channel running to the west. This culvert was replaced in 2018 by the Clermont County Engineers from a metal pipe to a concrete pipe, believed to be to accommodate future larger amounts of storm water runoff.

Below is the Google Birdseye view of the proposed site south of Vandament Road and east of Oak Corner Road. In the middle of the right half of the picture a major ditch can be seen. Rain water from the north and south of this ditch drains into this ditch and then runs off to the culvert under Oak Corner Road and then through a rain water channel to the west.



Looking from Oak Corner Road to the east, the picture below shows recently, after a few hours of rain, water flowing from the proposed site. Rain water drains from the north and south into the earlier mentioned ditch, in the middle of the picture, and from there to the Oak Corner Road culvert.



Picture below: Looking from Oak Corner Road to the west-south-west, water then exits the culvert and drains through a rain water channel to the west.

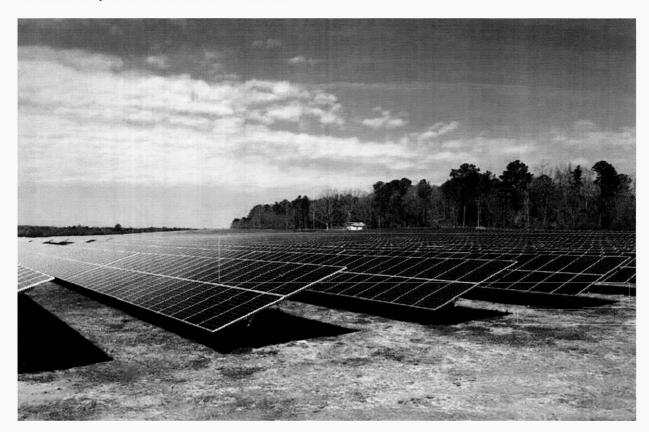


Picture below: Looking from Oak Corner Road to the west, it can be seen that the rain water channel to the west is at its capacity, partly already overflowing. This rain water channel runs further to the west, crosses the author's driveway and passes by his residence and septic mound.



In all these years that the author lives here, the proposed main site has been farmed with either corn or soybeans. Starting in 2018, the proposed site became dormant land with no farm crops. This is also when we experienced larger amounts of storm water coming from the proposed site draining off to the west of Oak Corner Road. With no or little vegetation on the proposed site, the soil is easily saturated and the water just runs off. This phenomenon will be even more pronounced with solar panels installed. Rain water will not wet the whole area evenly anymore, instead rain water will run off the solar panels, accumulates and drains towards the major ditch and then to the culvert. With existing climate change more severe weather can be expected, heavier than usual downpours of rain, and the existing culvert and especially the rain water channel to the west will not be able to handle these amounts of water. There is danger that the neighbors septic leach field will be flooded and further to the west, the author's septic mount.

Below is a picture of a solar farm presented by Nestlewood Solar I LLC at the Public Informational Meeting November 7, 2018. As can be seen, solar farms have no or little ground cover vegetation and rain water will just run off as described above.



It is therefore requested that, if granted approval, Nestlewood Solar I LLC be ordered to construct on site a storm water reservoir that collects the rain water runoff and discharges it in a controlled manner.

Storm water reservoirs are common in this area and can be found where developments have disturbed the natural drainage of rain water. Below are a few examples of storm water reservoirs.

Below: Storm water reservoir at Walmart, Amelia



Below: Storm water reservoir at Kroger, Amelia



Below: Storm water reservoir at Siena Gardens at Union Township



Next page is a copy of a letter from Clermont Soil & Water Conversation District to The attorney for Nestlewood Solar I LLC

Recommending post-construction storm water management practice or practices (e.g., detention or retention basins) be provided for the site.



## Clermont Soil & Water Conservation District

1000 Locust St., PO Box 549 Owensville, OH 45160 513-732-7075 • www.clermontswcd.org

April 26, 2019

Michael. J Settineri Vorys, Sater, Seymour and Pease LLP 52 East Gay Street P.O. Box 1008 Columbus, OH 43216-1008

The Clermont Soil and Water Conservation District (SWCD) appreciates the opportunity to review the Nestlewood Solar Application to the Ohio Power Siting Board. Clermont SWCD does not wish to intervene in the proceeding; however, we would like to make recommendations regarding storm water management for the site.

It is our recommendation that post-construction storm water management practice or practices (e.g., detention or retention basins) be provided for the site. Though the ground under the solar panels will remain open, the large number of panels (284,000), being installed in close proximity to one another and in linear arrays, will likely lead to concentrated flow paths following the drip lines of the panels. Additionally, the soils on site are poorly drained (Clermont soils, which cover 75% of the site, are considered hydric) and erode easily. Recognizing that some infiltration will occur under the panels, we don't believe it is necessary to treat the panels as 100% impervious, but their contribution should be taken into account when designing post-construction practices.

Clermont County's Building Inspection Department administers and enforces the "Water Management and Sediment Control" regulations for the county. In addition, Ohio EPA's Construction General Permit covers post-construction management requirements. We recommend that Nestlewood Solar I LLC work with these two agencies to determine appropriate post-construction storm water control measures for the site. Clermont SWCD would also be willing to provide assistance, if desired.

If you have any questions, please contact John McManus, Clermont SWCD Administrator, at jmcmanus@clermontcountyohio.gov, or at (513) 732-7075 ext. 3.

Sincerely,

Dave Anspach Chair

Clermont SWCD Board of Supervisors

CC: Clermont County Board of Commissioners
Clermont County Building Inspection Department

## 2. Toxicity of solar panels

It is known that solar panels contain toxic substances like lead and cadmium. As long as the panels are intact they seem not to impose any danger. But as soon as the solar panels are damaged, broken, due to severe weather like tornados and high winds, these toxic pollutants, lead and carcinogenic cadmium, can be almost completely washed out by rainwater of the fragments of solar modules and accumulate in the soil of the proposed site, drain off to the west and rendering the land useless for future farming.

Below picture: Solar farm in Puerto Rico damaged by 2017 hurricane



The same or similar damage can occur due to tornados or high winds in the area of the proposed site.

Tornados and high winds have occurred in this area in recent history. Following are some of them listed (source is the National Weather Service):

August 17, 2016	Tornado in Sardinia, Ohio
March 1, 2017	Tornado near Amelia, Ohio
March 1, 2017	Straight-Line, 70 – 80 mph Winds in Clermont and Brown counties in Ohio
March 26, 2017	Tornado near Williamsburg, Ohio
February 25, 2018	Tornado West of Felicity, Ohio
February 25, 2018	Tornado Northeast of Hamersville, Ohio
May 21, 2018	Tornado near Mount Orab, Ohio

It seems that these severe weather conditions have increased in recent years and can be expected to occur in increased numbers and intensity in the future.

It is therefore requested that, if granted approval, Nestlewood Solar I LLC be ordered to construct the solar farm in a manner to withstand tornados and high winds which are common in this area.

## 3. Wildlife habitat and site layout

The area of the proposed site between Oak Corner Road and Bethel Maple Road is partly wetland and habitat for a variety of wildlife. Deer and turkey raise their off springs in this area. The author has counted at one time over hundred (100) turkeys and in the spring a flock of over forty (40) that stayed in this area. Deer population has varied between four (4) and up to twenty (20) and more. A seven (7) foot fence around this wooded area would be an insurmountable obstacle for wildlife to get access to this wooded area.



Also, existing Solar farms are normally built on one continuous area of land. Here in this case the outline of the proposed site looks more like a large area with tentacles sticking out from the main site.

The part of the proposed site between Oak Corner Road and Bethel Maple Road has standing tall trees. It makes no sense whatsoever to install just a few solar panels in the remaining clear area. The contributing effect to the rest of the proposed solar farm is minimal and these solar panels will be partly shaded by the trees which diminishes their effect even further.



It is therefore requested that Nestlewood Solar I LLC be denied approval for the proposed site between Oak Corner Road and Bethel Maple Road.

Picture below shows the full layout area of the proposed site

