

Item 6 - Correspondence

From: [Michele Albornoz](#)
To: [MCP-Chair](#); [Anderson, Casey](#); [Patterson, Tina](#); [Fani-Gonzalez, Natali](#); [Cichy, Gerald](#); [Verma, Partap](#)
Cc: [Quentin Remein Cloverly Association](#); [Mary Hemingway](#); [Ellen Mann](#)
Subject: Cedar Ridge Community Solar 820200040
Date: Wednesday, July 1, 2020 11:51:54 AM
Attachments: [Cedar Ridge Community Solar-Comments-Michele Albornoz.docx](#)

Please see my comments regarding Cedar Ridge Community Solar(820200040) for the upcoming hearing scheduled for July 9, 2020.I would like my comments to be part of the record considering they were sent well before the deadline.

Respectfully,
Michele Albornoz

Montgomery County Planning Board
M-NCPPC
8787 Georgia Avenue
Silver Spring, MD 20910

Members and Staff of the Planning Board,
I write to you today in regards to the Cedar Ridge Community Solar project 820200040. I attended the meeting at Cedar Ridge on 7/17/2019. Although, I am not a fan of solar farms and how they are run I realize that you have requirement standards that need to be met state wide by 2030.

As you know my background is in the commercial construction industry. The two issues I would like to address are the abatement at the end of the project and the landscaping component. At the meeting I asked Stan Edwards from DEP about the abatement and disposal of the panels when the project is complete. He responded that, "nothing is in place and they are working on it". This is putting the cart before the horse and I am a bit surprised that Councilmember Hucker did not address this when he brought it to the floor. These panels are made with materials that are considered hazardous waste they need to be disposed of properly. There are specific protocols and disposal regulations along with a very detailed log that are required for hazardous abatement work and solar panels should require the same protocol.

Secondly, I would like the board to consider as a condition the installation of a Solar Sited Pollinator Habitat. This consists of many native plants installed under and around these solar panels. Native plants can thrive with little maintenance. So converting this acreage into a pollinator habitat can have a lasting benefit to the pollinators during and after the life of this project. Currently Cedar Ridge will be

removing a meadow to make way for the panels and the plan is to replace with low grass containing clover that needs to be mowed regularly. I feel the Solar Sited Pollinator Habitat with native plants is a better option considering that data shows that more than half of the native bee population has declined and 25% are at risk of extinction. Monarch Butterflies have declined by 68%. This is due to climate change, pesticides and shrinking habitats. Installing this pollinator habitat can aim in a push to reverse the decline of bees, butterflies and key pollinating species. Our food source depends on them.

In closing I ask the board to seriously consider requiring a Solar Sited Pollinator Habitat as part of the approval for this project. These solar farms are starting to take up very large tracts of land and we need a long range viable plan to do our part in supporting the environment and those that rely on it. I see this as a good option for both sides.

Sincerely,
Michele Albornoz
712 Snider Lane
Silver Spring, MD 20905

From: [Sebastian Smoot](#)
To: [MCP-Chair](#)
Cc: [Casey, Jonathan](#)
Subject: Cedar Ridge Community Solar
Date: Thursday, July 2, 2020 10:24:17 PM

Dear Planning Board Members:

I encourage you to approve the Cedar Ridge Community Church application for the solar collection system, which will be presented before you on July 9.

I have been following this project closely for over three years. Me and two neighbors met with the church on March 21, 2017 to discuss the possibility of community solar on their property. The church was interested in the concept, but County zoning policy prohibited it. We then discussed with our local council member's office the possibility of amending the zoning code. The council approved ZTA 18-08 about a year later, which legalized community solar projects on private land.

Community Solar, as you are aware, allows households to benefit from PV systems that otherwise could not (renters, lack of access to capital, multi-family housing, excessive shade, etc). Solar is not only cleaner and better for the environment but also less expensive. Everyone should have access to participate in solar--not just owners of single family detached houses. Allowing community solar is one tool to expand access and reduce barriers to entry.

I have been told that this project could be the first community solar project in Montgomery County since the approval of ZTA 18-08. Please approve the project and allow more people to participate in the clean energy movement.

Thank you,

Sebastian Smoot

www.GrowingEastCounty.com
growingeastcounty@gmail.com
cell: 240-308-1006

(typed with thumbs, pardon brevity)

From: [Quentin Remein](#)
To: [MCP-Chair](#)
Cc: [Casey, Jonathan](#); [Pereira, Sandra](#); [Weaver, Richard](#)
Subject: Cedar Ridge Community Solar, Site Plan No. 820200040 MCPB, Item No. 6, Date: 7-9-2020
Date: Wednesday, July 8, 2020 5:54:33 AM
Attachments: [Cloverly Civic Submission on MCPB No6 7-9-2020.pdf](#)

Chairman Casey Anderson and Board members,

Please find attached our submission to Cedar Ridge Community Solar, Site Plan No. 820200040 MCPB, Item No. 6, Date: 7-9-2020.

Thank You

Quentin Remein for Cloverly Civic

Cloverly Civic Association
PO Box 233
Spencerville, Maryland 20868-0233

July 7, 2020

Montgomery County Planning Board Chair Casey Anderson at mcp-chair@mncppc-mc.org, (301) 495-1320.
Jonathan Casey, Senior Planner, Area 3, Jonathan.Casey@montgomeryplanning.org, 301-495-2162
Sandra Pereira, Supervisor, Area 3, Sandra.Pereira@montgomeryplanning.org, (301) 495-2186
Richard Weaver, Chief, Area 3, Richard.Weaver@montgomeryplanning.org, (301) 495-4544

Subject: Cedar Ridge Community Solar, Site Plan No. 820200040 MCPB, Item No. 6, Date: 7-9-2020

Description

Request to install a solar collection system

2420 Spencerville Road

on the north side of Spencerville Road (MD 198)
opposite of Thompson Road

RC zone, RE-1 zone

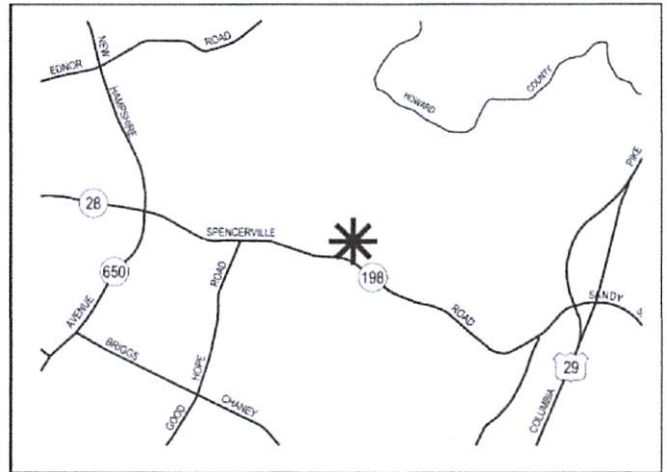
Upper Paint Branch Overlay one, 62.71 acres

1997 *Cloverly Master*

Plan Applicant: Turning Point Energy

Owner: Bryan Peterson (Cedar Ridge Community Church)

Accepted Date: December 9, 2019



SITE PLAN NO. 820200040: Cloverly Civic Association recommends approval of the Site Plan subject to improving the following public safety issues and other concerns.

Cloverly Civic members attended the pre-submission meeting with the owner and developer on July 17, 2019, at the Cedar Ridge Community meeting hall. They outlined the general plan and location of the panels. At that time, the applicant was still considering many details and aspects of the plan so there were many questions they could not answer. Questions concerned such issues as disposal procedures for the panels at the end of the project, the exact placement of the panels, and how the solar project would work with community members. Cedar Ridge agreed to provide written answers to our questions when they were available. Cloverly Civic members never received any of the promised information about the project. Later we learned from notes of a Cedar Ridge Church Annual Meeting on 10/21/18 (attachment A), that the Cedar Ridge Church would receive approximately \$25,000 annual rental from the solar project. The solar project would be providing a solar sited pollinator habitat, a "pollinator-friendly groundcover, which should be good for our bees and other wildlife". Civic Members hoped to see this in the project.

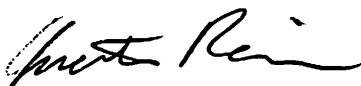
Footnote 1 on the conditions in the reports reads "For the purposes of these conditions, the term "Applicant" shall also mean the developer, the owner or any successor (s) in interest to the terms of this approval." Cloverly Civic would like all the conditions to be changed to be the responsibility of the owner. In the pre-submission meeting, the developer indicated that their efforts would be taken over by many successors. The owner is the only permanent participant.

Most of the project is surrounded by public parkland, the Spencerville Academy, and a landscaper. Many safety issues such as vandalism, vegetation overgrowth, natural damage, animal nuisance, and unauthorized access, can be mitigated with good fencing. This project will be protected by a 7 or 6-foot chain link fence without barbed wire. Considering that the solar collectors are located adjacent to public property and a school we feel that there needs to be more restrictive access to the solar collectors. As far as appearance the historical structures require screening so the appearance of the barbed wire should not be an issue and barbed wire or other protective properties included on the fencing. Other safety issues include proper use and maintenance of equipment and environmental damage. These are discussed in the Included paper "Anything Can Go Wrong on a Solar Farm" by Maureen McHale (attachment B). Also of special concern on this site is the protection of the Patuxent watershed and the drinking water in the Duckett Reservoir. Solar panels are often made up of metals that are poisonous and harmful to the environment. Handling of the solar collectors during and particularly at the end of the project is an important issue to preserving the drinking water in the Reservoir.

Cloverly Civic supports Historic Preservation Commissioner's concern for the long-term survival of the Spencer-Carr House and that more effort could be dedicated to the rehabilitation and continued upkeep of the historic house. Changes to the site by the solar system need to review by the Historic Preservation Commissioners as a condition of final approval of the solar project.

Cloverly Civic has made a few comments to Johnathan Casey following the DRC review. Cloverly Civic members have not been able to get sufficient information about the project to represent the community. Most of the surrounding property to the solar project is parkland owned by the M-NCPPC. The Board is in a better position to get and review the information that is of concern to Cloverly Civic. Thank you for your help in the review of this project.

For the Cloverly Civic Association



Quentin Remein, President

Phone 301-421-1152 x2

Community Solar Farming at Cedar Ridge

For Discussion at Annual Meeting 10/21/18

As owners of 63 acres of historic property, Cedar Ridge has a unique set of opportunities and challenges. We are committed to using this beautiful land to directly support our vision. We also have an opportunity to leverage the property to generate revenue that will allow us to carry out that vision while offsetting property-related expenses. As we deliberated these opportunities, we learned about Maryland's Community Solar Pilot Program. Solar developers rent land from landowners in order to establish solar farms that will provide energy credits to subscribers around the area. Although county restrictions prevent us from using the front of our property, the back portion provides an attractive location for solar developers.

Community solar provides a number of **benefits** for the environment and, potentially, for our community. It helps reduce reliance on fossil fuels, thereby lowering carbon emissions that contribute to climate change (see www.ipcc.ch/report/sr15/). Each solar farm can allow for up to 350 subscribers (who for whatever reason may not be able to install their own solar panels), who would benefit from reduced rates and solar energy. Hosting in Maryland at this time can help build a case for making the state's pilot project permanent, could generate positive publicity in the county and region, and could become a showcase or educational site that may inspire others to go solar. By hosting a community solar project, we would also generate at least \$24,000 per year—an amount that would increase throughout the term of the lease. With one proposal, we would also see significant energy cost savings. Because the developers would be responsible for all mowing and maintenance of the area, we would have less grass to mow. In short, this could be a revenue-generating opportunity that is also directly aligned with our commitment to be a "community that treasures the Earth."

Hosting a community solar project also presents some **challenges**. In order for a project to be financially feasible for a developer, no less than 1 MW must be generated on a given site, which translates into a significant amount of acreage. For us, that would mean devoting most of the rear meadow (which totals about 10 acres) to a solar farm. Trees and plants can be used to reduce the visual impact of the panels, and the labyrinth and a slightly modified prayer walk would be preserved, but this would significantly change the appearance and usability of our back property. The construction phase would be noisy and disruptive during the week, and there is the potential that some external opposition may materialize. Fortunately, using the back of the property minimizes the likelihood of this opposition, and the relevant county departments seem to look favorably upon the idea.

After receiving four proposals from solar developers, we currently have **two viable proposals**, the highlights of which are compared below. The following should be noted for both proposals:

- "Option" year(s) would be used for feasibility studies, and during this phase the developer may terminate the agreement.
- We would begin receiving rental rates once the solar units become operational.
- The solar farms would use pollinator-friendly groundcover, which should be good for our bees and other wildlife.
- The developers would provide vegetative screening (trees/plants) around part of or the entire project.

- We would preserve the labyrinth in its current location, and retain access to the rear of the property.
- BG&E customers within the congregation would have an opportunity to become community solar subscribers, leading to about a 10% savings on their BGE utility bill.
- The actual acreage used may be decreased during the Option period, based on the results of the feasibility studies.
- The contract would include removal of the system at the end of the lease term and restoration of above-ground conditions to their original state.
- The solar company would pay any additional property tax attributable to the project.

	Company 1	Company 2
Proposed Acreage (MW)	8.7 acres (1.75 MW)	8.0 acres (1.3-1.6 MW)
Rental Rate Per Acre	\$3,000/acre	\$3,000/acre
Annual Rent (1 st operational yr)	\$26,100	\$24,000
Rental increase	1.5% per annum	5% at end of each 5-year period
Rental Rate in Yr. 25 (annual)	\$4,352/acre (\$37,862)	\$3,646/acre (\$29,172)
Term of Lease	25 years (up to 40 years)	25 years (up to 35 years)
Energy bill savings	Free community solar credits to offset 100% of annual baseline energy usage for full 25-yr term (approx. \$9,500/year value)	Most likely <10% savings on energy bills, due to current low rate we pay (<\$1,500/year value)
Option Year(s) Rent	Expected to be <1 year \$10,000 annually after 6 month "free look"	Up to 3 years. \$8,500 during feasibility and development year(s)
Walkways through solar farm (may reduce acreage rented)	None	Possible walkway(s) through solar farm
Distinctive features	\$1,500 donation to a cause of our choice	30% of subscribers will be Low-to-Moderate Income.

Company 1



Company 2



Attachment B

White Papers
Events Calendar
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Company Directory



Online Trade Magazine
Alternative Energy from Solar, Wind, Biomass,
Fuel Cells and more...

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Here are 16 of the potential failures or damages that can occur on a solar farm and how they could impact operations if not addressed in a timely manner.

Anything Can Go Wrong on a Solar Farm

Maureen McHale for | ESA Renewables

08/16/12, 12:12 PM | Solar & Wind | Photovoltaic Systems

When it comes to solar power plants, a critical consideration to achieving maximum power output is the ongoing operation and maintenance (O&M) following the commissioning of the system. Although solar installations are highly reliable and designed to run with minimal manpower, efficiency will be lost and energy generation decreased if not maintained properly.

Solar equipment can be kept in service for decades with regular and proper attention to all major and ancillary features; however, many asset managers may not have a handle on what is really needed in the day-to-day operations of a power plant. Undetected failures and small issues impact the overall operations of the system, which leads to lost revenues and lower energy generation compounding with each undetected, unmanaged issue.



Protect Your Investment

Having an O&M company that can service utility scale and commercial photovoltaic systems takes much of the stress out of the equation. Not only can this type of company perform the necessary scheduled maintenance, they also will manage anomaly alerts, make system repairs, evaluate network voltage and frequency, monitor and report on energy production, and other critical factors related to the solar array.

An O&M agreement provides a working plan to cover repairs, protect warranties, and perform preventive maintenance. To ensure a facility is operating at optimum efficiency and not losing money, an O&M provider will generally install a monitoring system to not only keep a close watch on all of the arrays working components to achieve maximum performance, but also to analyze and report on energy production, trend costs, produce quick budgets on site and more.

Utilizing state-of-the art technology and highly experienced solar energy engineering staff, an O&M company has the ability to track all of the indicators and parameters to optimize performance and to carry out the required maintenance of each solar farm.

16 Potential O&M Issues

Here are 16 of the potential failures or damages that can occur on a solar farm and how they could impact operations if not addressed in a timely manner.

1. Perimeter Fence Damage. Damage caused to the perimeter fence can immediately have a negative effect on facility operations. Whether the damage was due to vandals, a storm or even an animal, this is an item that needs immediate attention. Not only can people be injured due to the high voltage produced by the system, but the expensive equipment is at risk if intruders enter the area with intent to destroy or steal items. Regular inspection and quick response to this is crucial for all solar farms.
2. Ground Erosion. A naturally occurring process in nature, soil and ground erosion are caused by water and wind. Expected as a gradual occurrence and planned for at a certain periodic rate, sudden erosion can have a deleterious effect on a PV plant. Loss of topsoil can lead to reshaping of the ground and the creation of channels, holes and slopes in earth. This could cause racking to shift affecting the ability of panels to generate the energy. It could also lead to flooding and destruction of equipment. Proper and frequent site monitoring will alert asset managers to anything out of the ordinary happening that could put operations at risk.
3. Transformer Leakage. Routine maintenance that certifies that transformers are in good condition every year helps avoid transformer leakage. A transformer leak can cause land contamination and other safety risks. Knowing if a leak is present and planning for maintenance to repair or replace it can be key in keeping energy generation at a maximum. There several ways to carry out preventive maintenance in transformers; however, monitoring transformer oil temperature, pressure and level to prevent a transformer from leaking in the first place is the best way to avoid down time issues. To prevent fatal errors, a parameter range is set and automatic alarms can be issued to check on site before the problem scales.
4. Various Inverter Damage. Taking the low voltage, high current signals from PV panels and converting into the voltage compatible with the utility grid, inverters are core components of grid-connected systems. Monitoring of inverters is of high importance, since changes to voltage and frequency may occur that affect performance as well as the safety of those in proximity. Inverter damage may lead to the complete failure of the PV plant or partial string outages as a result of defective inverters. Inverter failures are responsible for roughly 80% of PV system downtime. Clearly a response to any inverter damage must be taken quickly.
5. Broken Conduit. A broken conduit poses danger of shock as well as chaos on the operating system as charges are uncontained. When the construction of a site is

finished and the plant goes into operation, earth movements may happen as the ground stabilizes. These movements can cause broken conduit and other issues with cables. Measuring isolation on cables ensures underground runs are damage free. This is important because broken conduit can cause a cable to break or damage the insulation which can cause a fire and personal hazards.

6. Combiner Box Damage. With the ability to simplify wiring, combiner boxes combine inputs from multiple strings of solar panels into one output circuit. Normally 4 to 12 strings are connected to a combiner box. If damaged, they pose a safety risk as well as a major decrease in productivity.
7. Vegetation Overgrowth. Vegetation can transform from a benign nuisance in to a major issue very quickly. In addition to attracting animals that then cause their own brand of destruction, vegetation can shade cells, interfere with wiring and affect structural integrity.
8. Cell Browning/Discoloring. In addition to providing power, UV radiation will lead to aging in panel cells, seen as browning and discoloration. This degradation in the film leads to impaired output and productivity.
9. Panel Shading. When designing a PV plant, it is critical that trees and other obstructions are cleared. PV cell electrical output is very sensitive to shade. If shaded, cells do not add to the power produced by the panel, but they absorb it. A shaded cell has a much greater reverse voltage compared to the forward voltage of an illuminated one, it can absorb the power of many cells in the string and the output will fall drastically. Removal of any trees or structures causing shading will help optimize power output.
10. Shorted Cell. A shorted cell can impact productivity if not addressed in a timely manner. Production defects in semiconducting material often go undetected before PV cells are put into solar panel assemblies. Identifying these defects through testing via infrared imaging has been used for more than a decade. This efficient, cost-effective test and measurement methods for characterizing a cell's performance and its electronic structure help ensure maximum energy production.
11. Natural Damage. A hail storm or hurricane can wreak havoc on a solar power plant. Damaged panels, or wind torn racking and other equipment can severely decrease output or completely put a system out of commission. Keeping a pulse on the severe weather and inspecting the equipment following a storm is necessary for the overall health of the solar farm.
12. Vandalism Damage. Vandals pose a major threat to any PV facility. Whether they are stealing or destroying wiring, panels or other equipment, system damage can occur. A

solar farm in North Carolina had golf ball damage by a neighbor who decided to use the array as the 18th hole. Detecting this damage through the use of solar monitoring equipment minimized outages and losses.

13. Defective Tracker. An exceptional tool to enhance early morning and late afternoon performance, trackers can increase total power produced by about 20-25% for a single axis tracker and about 30% or more for a dual axis tracker. Defective trackers can contribute significantly to lowered performance output and should be serviced as soon as detected.
14. Racking Erosion. Eroding structures can be a nightmare for a PV facility. Once the structural integrity is degraded, risks to proper water and wind flow within the facility are elevated which can gravely impact the functioning of the facility. As racking moves, panels are moved from their optimal positioning and energy generation suffers.
15. Unclean Panels. Dust, snow, pollen, leaf fragments, and even bird droppings – all can absorb sunlight on the surface of a panel, reducing the light that reaches the cells. Clean surfaces result in increased output performance over the lifespan of the equipment. Routine cleaning should be a part of all O&M plans.
16. Animal Nuisance. No matter whether an animal burrows under a perimeter fence, jumps over it or goes right through it - animals need to be kept out of a solar farm. Once inside the perimeter, they seem to have a way of finding wires to chew and unknowingly destroy equipment.

Having an O&M agreement for a solar farm is a must. Paired with a monitoring system, many of these issues can be prevented and energy production maximized. If you are an asset manager in need of an exceptional O&M company, contact ESA Renewables.

An Ideal Partner

Customized operations and maintenance packages offer customers a cost effective and efficient way to keep their renewable energy systems at optimal performance levels. For solar farm owners that do not have the staff on site to maintain the installation, ESA Renewables, LLC (ESA), a turnkey solar solutions provider, offers O&M contracts customized to each solar farms needs.

ESA proudly provides financing, engineering, procurement and construction (EPC), and O&M services to customers throughout the world. Additionally, ESA has developed its own proprietary renewable energy monitoring system complete with a newly developed cost project and control module and is one of the first O&M providers to offer a solar power production guarantee. With a local presence and the extensive reach of ESA's O&M

personnel for onsite repair services, customers are ensured that outages and faults are quickly resolved to provide optimal system performance.

Backed by years of experience gained from their testing facility, in the engineering of innovative products, inverter monitoring, and site expertise, ESA has not only installed multi-megawatts of power, but also currently provides ongoing O&M services for solar installations for customers worldwide.

For more information about ESA Renewables O&M services, their Power Productions Agreements or their proprietary Monitoring System, please visit their website, <http://esarenewables.com> or call 407-268-6455.



About the Author

Maureen McHale is a Marketing Consultant located in Central Florida. Maureen has extensive internet marketing experience and has successfully developed, launched and promoted products and services for companies in industries ranging from high-tech, to travel, funeral and more for over fifteen years. For more information about Maureen's capabilities, please visit her website, <http://hiremaureen.com> or call 352-406-2011.

The content & opinions in this article are the author's and do not necessarily represent the views of AltEnergyMag

08/16/12, 12:12 PM | Solar & Wind | Photovoltaic Systems

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From: [Mary Hemingway](#)
To: [MCP-Chair](#)
Subject: Site Plan 820200040 Cedar Ridge Community Solar
Date: Wednesday, July 8, 2020 10:50:46 AM

In looking at the Staff Report from Jonathan Casey, I see there are "bonding requirements" to assure the project is properly built.

But what happens after the project is completed?

Does Turning Point Energy remain responsible for the project?

If not, will there be conditions in the Resolution that a future owner of the solar energy farm and their maintenance will be maintained according to the Resolution?

What happens if Turning Point Energy goes bankrupt?

What assurance does the community have that this project could fail and become a blight on the community and the environment?

The Staff Report states the solar panels must be dismantled and removed within 12 months of no use.

Who is ultimately responsible for the removal of the solar panels?

What assurances does the community have that the solar panels will be removed in an environmentally safe procedure.

What disposal methods are in place for the solar panels that are environmentally safe?

If these questions are not answered by the Planning Board in their Resolution, then who is responsible?

Food for thought.

Please share this with the other Planning Board members.

Please make this part of the record since it will be received before 12 noon on July 8, 2020.

Thank you,

Mary Hemingway
718 Snider Lane
Silver Spring MD 20905