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October 15, 2021

Dale Warner, Town Planner
Town of Duanesburg
5853 Western Turnpike
Duanesburg, NY 12056

Re: Oak Hill 1 and 2 Solar Project Review
Our Project No. 18510-01

Dear Mr. Warner:

On October 1, 2021, PRIME AE received from AMP a Comment Response Letter 2, Revised IFC Plan, Revised SWPPP, Revised EAF Part 1, Water Quality Analysis Breakdown, Revised Appendix 2 Decommissioning Costs, Revised IFC Mechanical Drawings 1 and 2, TenCate Mirafi Additional Load Bearing Qualifications, Schletter Tracking System Assembly and Installation Manual, and Wolf Engineering LLC Memo Letter. Additionally, on September 8, 2021, our office received the Supplemental Visual Impact Assessment as prepared by Environmental Design Partnership, LLP. Based on a review of the documents we provide the following comments (comment numbers have been kept the same as previous letters for clarity):

IFC Site Plan Drawings

5. Survey as performed by Environmental Design Partnership, LLP. (EDP), and as shown on sheet C1.01, indicates a maximum tree clearing of 0.27 acres, or 11,814 sf which is in conformance with local solar code. HydroCAD calculations are said to have been updated to incorporate updated land types.
9. Sheet C2.00 has been revised to show the correct limits of disturbance for Oak Hill 1 (32.68 ac), Oak Hill 2 main (36.28 ac), and Oak Hill 2 Landscape (0.79 ac) for a total of 69.75.
10. Proposed pad details have been revised in a way that we find satisfactory, however, further structural pad details should be provided at the time of construction permit submission for review and approval.
11. Infiltration trench locations are satisfactory. We would just ask the applicant to clarify why the infiltration trenches surrounding the energy storage systems will be lined with non-woven geotextile while equipment pad related infiltration trenches will not be lined.

13. Longitudinal slopes will not exceed 9% and a 2' shoulder will be provided at all areas along the 10' wide access road.

Site Plan C2 – all prior comments have been satisfactorily addressed

Grading Plan C3 – all prior comments have been satisfactorily addressed

IFC Landscape & Planting Plan – all prior comments have been satisfactorily addressed

IFC Mechanical Drawings 1 &2

1. The height of the panels is shown in millimeters. When they are parallel to the ground, the height of a panel is 2754 mm which equates to approximately 9' above grade. When a panel is at a maximum tilt of 60 degrees, the height of a panel is 4431 mm which equates to approximately 14.5' above grade. This is below the threshold of 20' in height at maximum tilt as required by Duanesburg Town Solar Code.
2. We appreciate the resubmission of mechanical drawings with units shown. A formal response was transmitted by Wolf Engineering LLC stating that all units are shown in millimeters. We find this to be acceptable.
3. Racking installation manual with figures and labels has been found to be acceptable.

IFC Electrical Drawings 1&2 – all prior comments have been satisfactorily addressed

SWPPP

8. The SWPPP has been revised to remove the construction phasing portion that is included on the IFC plans for clarity purposes. The SWPPP has been revised to add that construction will take place within the 12-month time frame. We find these items acceptable.
9. Revisions to Table 3 in Section 9.3 show sufficient information pertaining to the installation and removal of all erosion and sediment control practices listed in table.
10. Drawing C6.00 has been revised to show the minimum required erosion and sediment control measures to be employed at each location of the site. We acknowledge the statement made on Sheet C0.01 that it is the responsibility of the contractor to determine the erosion and sediment control measures to be taken as they are responsible for the means and methods of work to achieve the end goal.
14. The HydroCAD pre-construction calculations submitted in the appendix differ from the FEAF "current acreage"

FEAF	SWPPP
Roads & Impervious Surfaces = 0.25 acres	Unconnected Pavement = 0.15 acres
Forest = 24.98 acres	Woods = 31.253 acres
Meadows/ grasslands = 71.98 acres	Meadow & Pasture/ grasslands = 34.69 acres
Agricultural = 35.82 acres	Row Crops = 39.721 acres
Wetlands (Other) = 7.7 acres	
Total: 140.73 acres	Total: 105.814 acres

We reviewed the land types and grouped them as made sense. Ultimately – these categories should reflect one another and equate the associated category from the FEAF to the SWPPP. Applicant should clarify the reason for the differences or revise accordingly.
Furthermore, in the plans, a total of 0.302 acres are shown to be removed of trees. This does not correlate with FEAF's change in forested cover, nor does it correlate with the SWPPP, which shows a change of 4.83 acres of wooded area being removed.

15. We find the contributing area of the site (105.814 acres) as defined by the SWPPP satisfactory.
16. We find the newly defined sub-catchments acceptable.

19. Total area of disturbance and total area of new impervious cover are stated in Appendix J- Stormwater Management Report.
21. We find the applicant's response to meeting runoff reduction requirements and the use of infiltration basins to be acceptable, as long as the results of the test pit & perc tests to be performed support the design. If the data does not support the design, revised stormwater plans will need to be submitted for review.
26. Appendix K has been revised to include a table highlighting changes made to the SWPPP.
27. In the plans, a total of 0.302 acres are shown to be removed of trees. This does not correlate with FEAF's change in forested cover (0.27 acres), nor does it correlate with the SWPPP, which shows a change of 4.83 acres of wooded area being removed. Applicant should clarify and revise accordingly.
28. We find the applicant's explanation for the use of level spreaders in stormwater management design acceptable.
29. Applicant states that perc tests are anticipated to take place soon. Applicant will modify the infiltration trench and level spreader design if modifications are deemed necessary.

<u>SPDES General Permit Owner Operator Certification, Contractor Certification, and SWPPP Preparer Certification</u>

1. If the SWPPP is revised, each certification shall be re-signed.

<u>NOI for Coverage under Stormwater General Permit for Construction Activity</u>

2. After discussions with NYSDEC regarding the intent and interpretation of what is meant by "phasing" for question 7, we accept the applicant's response.
4. We find the revised answer to number 9, indicating the presence of onsite wetlands acceptable.
5. We find the revision to section 26, the addition of Protecting Vegetation During Construction to this response, acceptable.
6. We find the applicant's response regarding section 27 acceptable.
8. We find the applicant's response regarding section 30 acceptable.

<u>USACE Permit Package</u>

1. USACE shall make a determination on the modified project plans before construction may commence. This determination shall be forwarded to the Town for review prior to construction.
2. Applicant showed us in AutoCAD, during a Zoom call, the true proposed wetland disturbances, which correlate with what was included in the USACE application. Therefore, we find this response acceptable.

<u>NYSDOT Application and Minor Commercial Driveway Plans</u> – all prior comments have been satisfactorily addressed

<u>Agricultural Data Statement</u> – all prior comments have been satisfactorily addressed

Full EAF Part 1

4. Applicant showed us in AutoCAD, during a Zoom call, the true proposed wetland disturbances, which correlate with what was included in the Full EAF. Therefore, we find this response acceptable.
6. Question D.2.m.i has been revised to include potential noise expected to occur during construction.
7. The HydroCAD pre-construction calculations submitted in the appendix differ from the FEAF "current acreage"

FEAF	SWPPP
Roads & Impervious Surfaces = 0.25 acres	Unconnected Pavement = 0.15 acres
Forest = 24.98 acres	Woods = 31.253 acres
Meadows/ grasslands = 71.98 acres	Meadow & Pasture/ grasslands = 34.69 acres
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Total: 140.73 acres	Total: 105.814 acres

We reviewed the land types and grouped them as made sense. Ultimately – these categories should reflect one another and equate the associated category from the FEAF to the SWPPP. Applicant should clarify the reason for the differences or revise accordingly.
Furthermore, in the plans, a total of 0.302 acres are shown to be removed of trees. This does not correlate with FEAF's change in forested cover, nor does it correlate with the SWPPP, which shows a change of 4.83 acres of wooded area being removed.

Full EAF Part 2 – all prior comments have been satisfactorily addressed

Full EAF Part 3 – all prior comments have been satisfactorily addressed

Decommissioning Plan Summary of Changes Letter – all prior comments have been satisfactorily addressed

Decommissioning Agreement Executed – all prior comments have been satisfactorily addressed

Revised Decommissioning Statement

8. We appreciate the applicant's act of good faith as to increase Oak Hill Solar 1 and Oak Hill Solar 2 decommissioning costs to $224,441.34 and $224,210.20 respectively to account for inflation from 2019 to 2021.

Glare Analysis and Module Specifications – all prior comments have been satisfactorily addressed

Battery Storage Specification and Photos – all prior comments have been satisfactorily addressed

Pervious Access Road Questions Received by the Town from Concerned Citizen

Pervious access road questions received by the town from concerned citizen on 7/27/2021 and provided for our review. Answers provided by AMP on 8/6/2021

1. TenCate representative states that a system could be designed to an H20 rating. The applicant still has not verified that this specific design has a rating of H20 or otherwise.
2. TenCate representative states that a system could be designed to an H20 rating. The applicant still has not verified that this specific design has a rating of H20 or otherwise.
4. No further comments at this time.

52'x8' Enclosure Drawings – all prior comments have been satisfactorily addressed

Powin Fire Alarm SOP

1. Powin fire alarm SOP will be provided to ESRG for review.

Permit VS IFC Comparison Plan

1. Sheet C2.00 has been revised to show the accurate limits of disturbance for Oak Hill 1, Oak Hill 2 main, and Oak Hill 2 Landscape

Powin 53' Enclosure Stack Drawings – all prior comments have been satisfactorily addressed

UL 9540A Test Date Letter – all prior comments have been satisfactorily addressed

Amp Storage System Risk Mitigation Strategy

2. It is noted Powin reference documents will be presented to ESRG for review.
3. We find the applicant's response regarding the anticipated internal temperature of the enclosure acceptable.

Fire and Off-Gas Emergency Procedure

1. No further comments.

Powin's Approach to Safety Product Guide, Powin Stack230P Product Manal, Fire Suppression Cut Sheet, & Powin Stack Technical Specifications

1. No further comments.

Supplemental Visual Impact Assessment

1. We have reviewed the Supplemental Impact Assessment. Much of the buffer for the proposed solar array is currently located on the Susan L. Biggs property. The applicant is proposing installing a landscaped buffer on this edge of the property. Visual impact appears to be small.
2. We do not believe vegetation will be an issue with regard to cross gears at the site, as panels will be mounted approximately 5' above grade.

Schletter Tracking System Assembly and Installation

1. In Section 5.2 of this Informational booklet, it is said that the proposed solar panel system shall be installed on level ground. Yet, the proposed terrain of the site contains slopes varying from 10-15%. Applicant should verify how system will be installed according to manufacturer's recommendations while minimizing disturbance to the site.

TenCate Mirafi Additional Load Bearing Qualifications

1. TenCate representative states that a system could be designed to an H20 rating. The applicant still has not verified that this specific design has a rating of H20 or otherwise.

If you have any questions, please feel free to contact me.

Sincerely,
KB Group of NY, Inc. dba PRIME AE Group of NY

Douglas P. Cole, PE
Senior Director of Engineering

cc: Roger Tidball, Supervisor