

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Docket No. 8454

Petition of Apple Hill Solar LLC for a certificate of public good, pursuant to 30 V.S.A. § 248, authorizing the installation and operation of a 2.0 MW solar electric generation facility at 1133 Willow Road in Bennington, Vermont	
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Entered:

9/26/2018

CERTIFICATE OF PUBLIC GOOD (“CPG”) ISSUED
PURSUANT TO 30 V.S.A. SECTION 248

IT IS HEREBY CERTIFIED that the Vermont Public Utility Commission (“Commission”) this day found and adjudged that the installation and operation of a 2.0 MW photovoltaic electric generation facility at 1133 Willow Road in Bennington, Vermont (the “Project”) by Apple Hill Solar LLC (“CPG Holder”), in accordance with the evidence and plans submitted in this proceeding, will promote the general good of the State, subject to the following conditions:

1. Construction, operation, and maintenance of the Project shall be in accordance with the plans and evidence submitted in this proceeding. Any material deviation from these plans or substantial change to the Project must be approved by the Commission. Failure to obtain advance approval from the Commission for a material deviation from the approved plans or substantial change to the Project may result in the assessment of a penalty pursuant to 30 V.S.A. §§ 30 and 247.

2. Prior to commencing site preparation or construction of the Project, the CPG Holder shall obtain all other necessary permits and approvals. Construction, operation, and maintenance of the Project shall be in accordance with such permits and approvals, and with all other applicable regulations.

3. The CPG Holder shall restrict clearing activities at the Project site to Monday through Friday between 8:00 AM and 5:00 PM. No clearing work will occur on Saturdays, Sundays, or state or federal holidays.

4. The CPG Holder shall restrict construction activities for the Project that will use motorized machinery to between the hours of 8:00 AM and 5:00 PM Monday through Friday.

Non-machinery construction activities will be limited to between the hours of 7:00 AM and 6:00 PM Monday through Friday and 8:00 AM to 5:00 PM on Saturday. No construction activities will occur on Sundays or state or federal holidays.

5. The CPG Holder shall be responsible for all costs of distribution and transmission system upgrades that are necessary in order to address adverse impacts on system stability and reliability due to the Project, as determined by the system impact study.

6. As required by 30 V.S.A. § 248(a)(7), within 45 days of the date of this Order, the CPG Holder shall record a notice of the CPG on the form available at <http://puc.vermont.gov/document/cpg-municipal-notice-form> in the land records of each municipality in which a facility subject to the CPG is located. The CPG Holder shall file proof of this recording with the Commission.

7. As provided in 30 V.S.A. § 248(t), notwithstanding any contrary provision of the law, primary agricultural soils as defined in 10 V.S.A. § 6001 located on the site of a solar electric generation facility approved under Section 248 shall remain classified as such soils, and the review of any change in the use of the site subsequent to the construction of the facility shall treat the soils as if the facility had never been constructed.

8. All Project infrastructure shall be removed once the Project is no longer in service, and the site shall be restored to its condition prior to installation of the Project to the greatest extent practicable.

9. Prior to the commencement of site preparation or construction, the CPG Holder shall file with the Commission and obtain Commission approval of a final executed letter of credit ("LC") from an A-rated financial institution or other financial institution approved by the Commission or shall file and obtain Commission approval of documentation demonstrating that a security deposit account has been established at a federally insured bank located in the United States. If the CPG Holder elects to establish the fund using an LC, the LC shall be an irrevocable standby LC that: (i) is bankruptcy-remote; (ii) includes an auto-extension provision (i.e., "evergreen clause"); and (iii) is issued solely for the benefit of the Commission. If the CPG Holder elects to establish the fund using a security deposit account, that account shall be established solely for the benefit of the Commission. No other entity, including the CPG Holder, shall have the

ability to demand payment under the LC or withdraw from the security deposit without the consent of the Commission. The amount of the LC or security deposit shall represent the full estimated costs of decommissioning without netting out any estimated salvage value for Project infrastructure.

10. The estimated cost of decommissioning shall be adjusted for inflation every three years based upon the net positive change in the annual average of the U.S. Bureau of Labor Statistics' Northeast Urban Consumer Price Index for the preceding three-year period. Every three years, the CPG Holder shall file a report with the Commission and the Vermont Department of Public Service ("Department") on the status of the decommissioning fund after each adjustment. The report shall include the inflation adjustment to determine a revised estimated cost of decommissioning. If the revised estimated cost of decommissioning exceeds the then-value of the LC or deposit account, the CPG Holder shall adjust the LC or deposit such funds as are necessary to ensure that the value of the LC or deposit account equals or exceeds the revised estimated cost of decommissioning. In the event the CPI has a negative value at the time the triennial adjustment is calculated, the value of the deposit account shall not be reduced.

11. Prior to commencing construction, the CPG Holder shall file with the Commission and the parties a letter confirming that it has fulfilled all requisite pre-construction CPG conditions and that it intends to commence construction of the Project.

12. Prior to commencing operation, the CPG Holder shall file with the Commission and the parties a letter confirming that it has fulfilled all requisite CPG conditions and that it intends to commence operation of the Project.

Department of Public Service Conditions

13. The CPG Holder shall comply with the MOU between the CPG Holder and the Department as amended on February 22, 2018.

14. The CPG Holder shall comply with the National Electrical Safety Code and the National Electrical Code, as applicable.

15. The CPG Holder shall ensure that the central equipment skid referenced on page 4 of the prefiled testimony of Brad Wilson will be a dark grey color.

16. The CPG Holder shall, for the life of the Project, maintain the landscape mitigation plan as depicted in exhibit AHS-MK-12.

17. The CPG Holder shall make a good faith effort to work with the Department and the Vermont Agency of Transportation to investigate and implement visual mitigation in the form of landscape screening of the line extension corridor as visible from Route 7 and the Vermont Welcome Center.

18. The CPG Holder shall make a good faith effort to request that Green Mountain Power Corporation (“GMP”) alter the line extension design to ensure that the portion of the line extension design that begins at the Project and is comprised of GMP metering equipment, including but not limited to meters, reclosers, and physical disconnect switch mechanisms, be ground mounted as opposed to placed above ground on utility poles in order to reduce the number of poles used so long as such placement is consistent with good utility practice and does not significantly increase the CPG Holder’s cost of interconnection.

19. The CPG Holder shall make a good faith effort in working with GMP on the line extension to encourage GMP to install interconnection facilities and equipment that are dark grey in color.

20. The CPG Holder shall schedule a post-construction site visit to determine if additional landscape mitigation is necessary. In the event the Department or the CPG Holder determines that additional mitigation is warranted, they may petition the Commission to require additional mitigation.

Vermont Agency of Natural Resources Conditions

21. The CPG Holder shall comply with the MOU between the CPG Holder and the Vermont Agency of Natural Resources (“ANR”) agreed to on February 26, 2018.

22. The CPG Holder shall not commence site preparation or construction, including tree clearing, at the Project site without first obtaining an authorization to discharge under Construction General Permit 3-9020 from ANR’s Department of Environmental Conservation (“DEC”) Stormwater Program. All Project site preparation and construction activities shall be performed in accordance with such permit.

23. If any authorization to discharge under the Construction General Permit or other applicable construction stormwater permit is required by DEC to authorize the discharge of stormwater runoff from construction activities in connection with the GMP line extension, then the CPG Holder shall ensure that neither GMP nor the CPG Holder shall commence site preparation or construction on the line extension without first obtaining such authorization. All line extension site preparation and construction activities shall be performed in accordance with such permit.

24. To the extent any tree-clearing activities associated with the Project's site preparation or construction are not covered by the DEC's Construction General Permit, the CPG Holder shall perform such tree clearing in accordance with the *Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont*.

25. Within 60 days of commencement of operations, the CPG Holder shall provide ANR's DEC Stormwater Program with as-built calculations of all impervious surfaces associated with the Project. If it is determined by the Stormwater Program that the total impervious area associated with the Project, in combination with the total impervious surface area of any other project deemed by the Stormwater Program to be part of a common plan of development (as defined by DEC's rules) results in a total amount of impervious surfaces that exceeds the 1-acre threshold, the CPG Holder shall obtain an operational stormwater discharge permit and the Project shall be retrofitted with stormwater treatment requirements pursuant to the *Vermont Stormwater Management Manual, Volume I*.

26. The CPG Holder shall avoid disturbing all wetlands and their associated 50-foot buffers during site preparation and construction at the Project site. In order to ensure that wetlands and buffers are not disturbed, the CPG Holder shall demarcate all wetlands and their 50-foot buffers at the Project site with visible flagging prior to site preparation or construction and shall instruct all work crews to avoid those areas.

27. Within 60 days of the commencement of Project operation, the CPG Holder shall provide the DEC Wetlands Program with a written certification that the Project site has been built outside the Class II wetlands and their associated 50-foot buffer zones.

28. No later than six months in advance of the Project's decommissioning, the CPG Holder shall complete, and shall provide to the DEC Wetlands Program, an updated wetlands

assessment to determine if any of the Project infrastructure is located within any Class II wetlands or 50-foot wetland buffer zones.

29. If, at the time of decommissioning, any Project infrastructure is determined to be located within a Class II wetland or its 50-foot buffer zone, then the CPG Holder shall obtain from the DEC Wetlands Program a jurisdictional determination as to whether the decommissioning activities require a Vermont Wetland Permit, in which case the CPG Holder shall obtain such permit prior to performing any decommissioning activities and shall comply with its terms and conditions. If, at the time of decommissioning, any Project infrastructure is determined to be located within a Class II wetland or its 50-foot buffer zone and a Vermont Wetland Permit is not required, the CPG Holder shall, sufficiently in advance of decommissioning, submit a wetlands restoration plan to the DEC Wetlands Program for review and approval as an allowed use under the Vermont Wetland Rules (see Section 6.23 of the Vermont Wetland Rules). The restoration plan shall address the removal of the solar array and other Project infrastructure located in any wetland and shall, at a minimum, contain the following elements:

- a. Identification of phasing and staging areas;
- b. Utilization of methods that prevent rutting in the wetland, including removal of structures during frozen or dry conditions, or use of construction mats or similar techniques to minimize soil disturbance;
- c. Revegetation of all disturbed areas within the wetland and buffer zone with appropriate conservation seed mix(es); and
- d. Provisions for inspection by ANR prior to and following site restoration.

30. If any Project infrastructure is located within a Class II wetland or its 50-foot buffer zone at the time of decommissioning, then decommissioning of the Project shall not take place until ANR has issued a Vermont Wetland Permit or has approved the wetlands restoration plan as an allowed use under the Vermont Wetland Rules, whichever is applicable.

31. All electric distribution line upgrades associated with the Project shall be performed in accordance with Section 6.22 of the Vermont Wetland Rules. If utility poles are to be located within a Class II wetland or its 50-foot buffer in excess of what is permitted under Section 6.22 of the Vermont Wetland Rules, the CPG Holder shall ensure that a Vermont Wetland Permit is

obtained prior to construction of such line upgrade, through contract or otherwise. This distribution line upgrade condition shall apply only to the specific site preparation and construction activities that are necessary for purposes of interconnecting the Project and shall terminate upon completion of construction of such Project-specific upgrades in accordance with their terms. This condition shall not apply in any way to any independent utility construction activities that are not necessitated by the Project and over which the CPG Holder has no direct or indirect control, or to any of the utility's current operations and maintenance activities along the existing distribution route, or to any future operations, maintenance, or construction activities associated with the utility's distribution facilities.

32. If any wetland permit is required by DEC's Wetlands Program, the CPG Holder shall ensure that neither the CPG Holder nor GMP will commence site preparation or construction prior to obtaining such wetland permit. All site preparation and construction activities shall be performed in accordance with any such permit.

33. The CPG Holder shall comply with the following conditions in order to mitigate impacts to the following plants, so that such impacts are not unduly adverse: arrow-leaved American aster (*Symphotrichum urophyllum*), an S1-ranked very rare species, and nimblewill muhly (*Muhlenbergia schreberi*), an S2-ranked rare species.

a. Prior to site preparation or construction of the Project:

- i. The CPG Holder shall establish and designate two Conservation Areas shown on the site plan included as attachment C to the Rare, Threatened, and Endangered ("RTE") Plant Mitigation Report dated November 11, 2014 (the "Plant Report") and admitted into evidence in this proceeding as exhibit AHS-DB-2. The Conservation Areas shall encompass the entire polygons of the areas shown to the southwest ("Conservation Area 1") and southeast ("Conservation Area 2") corners of the property on the site plan. The Conservation Area polygons shall include the totality of the contiguous diagonal line markings shown in the site plan and illustrated in various colors designating the RTE survey information for "S3 – Uncommon," "S1 – Very Rare," and "Proposed Mitigation area" in the southwest and southeast corners of the property.

- ii. The Conservation Areas shall be identified with GPS coordinates, as shall the three two-foot-by-two-foot transplant plots identified in the Plant Report. The GPS coordinates shall be provided to the ANR National Heritage Inventory program, and the locations of the transplant plots shall be added to, and clearly shown on, a larger-scale version of the site plan (or a current aerial photo), which shall also be provided to ANR.
- iii. The arrow-leaved American aster plants located in the area of the proposed solar array shall be transplanted to the transplant plots in a manner, under conditions, and within a date range approved in advance by ANR.
- iv. The CPG Holder shall carry out tree and shrub removal as described in the Plant Report for establishment of the Conservation Areas, taking care not to damage or disturb the arrow-leaved American aster plants existing in, or transported to, those areas. All equipment shall be cleaned of soil and plant material prior to entry into the Conservation Areas in order to minimize the spread of invasive species by reducing the transportation and introduction of seeds and plant material.
- v. Prior to site clearing and construction, the CPG Holder shall place a temporary perimeter fence, consisting of an orange snow fence, or similar fencing, to ensure that construction workers and machinery avoid the Conservation Areas. The CPG Holder shall have a representative of Arrowwood Environmental (“AE”) inspect the fencing prior to construction to confirm it is appropriately located, secured, and clearly visible. The AE representative shall also brief the construction crew on the locations of, and need for avoidance of, the Conservation Areas prior to commencement of construction and site preparation activities.
- vi. The CPG Holder shall remove the temporary perimeter fencing upon completion of all construction activities.
- vii. The nimblewill muhly plant populations located in the northeast corner of the easterly-most portion of the property shall also be fenced off and avoided during construction and site preparation activities, using the protocols in

subpart v, above. The temporary fencing shall also be removed upon completion of all construction activities.

- b. Post-Construction Monitoring of the Conservation Areas:
 - i. The Conservation Areas shall be monitored by AE for a period of three years from completion of construction to document survivorship of the transplanted plants further described in the Plant Report.
 - ii. The Conservation Areas, and a surrounding 50-foot zone, shall be inspected by AE at least one time per year for a period of three years from completion of construction to monitor and control any invasive plants within the Conservation Areas and the surrounding 50-foot zone. All invasive plants shall be removed from these areas. The use of herbicides is not permitted without the express written permission of ANR. Mechanical removal is allowed.
 - iii. An annual report detailing the activities identified in subparts b.i and b.ii, above, shall be submitted to the ANR National Heritage Inventory program by December 31 of each year during the three-year monitoring period.
 - iv. Representatives of the ANR National Heritage Inventory program shall be permitted to access the Conservation Areas, at reasonable hours, in order to independently inspect the conditions of those areas and the plants growing therein during the life of the Project.
- c. Project Operations and Maintenance:
 - i. The CPG Holder shall make its operations and maintenance contractors aware of the Conservation Areas. All operations and maintenance activities shall be conducted in a manner that avoids damage or harm to the arrow-leaved American aster plants, and other plants noted in the Plant Report. The Conservation Areas shall be mowed at least once every three years. All mowing in these areas shall take place after October 15.
 - ii. All equipment shall be cleaned of soil and plant material prior to entry into the Conservation Areas in order to minimize the spread of invasive species by reducing the transportation and introduction of seeds and plant material.

- d. Project Decommissioning:
 - i. Prior to decommissioning activities, the CPG Holder shall place a perimeter fence, consisting of an orange snow fence, or similar fencing, to ensure that construction workers and machinery avoid the Conservation Areas. The CPG Holder shall have a qualified botanist inspect the fencing prior to decommissioning to confirm that it is appropriately located, secured, and clearly visible. The qualified botanist shall also brief the decommissioning crew on the locations of, and need for avoidance of, the Conservation Areas prior to the commencement of decommissioning activities. All decommissioning activities shall avoid the Conservation Areas.
 - ii. The temporary perimeter fencing shall be removed upon completion of all decommissioning activities.
- e. GMP Line Extension
 - i. Prior to any vegetation disturbance and tree clearing taking place, the populations of arrow-leaved American aster shall be flagged by AE. In addition, a qualified botanist shall be present to supervise tree clearing work done along Willow Road between poles 14 and 16 to ensure that there is no earth disturbance and no placement of wood chips or fill within the boundaries of the identified arrow-leaved American aster plant population.
 - ii. All tree clearing along Willow Road between poles 14 and 16 shall be conducted during the dormant season for the arrow-leaved American aster or be performed entirely from the road. Trees shall be cut at the ground surface without earth disturbance, and stumps shall remain in place.

34. The CPG Holder shall perform an updated RTE plant survey if Project site preparation or construction does not commence by April 30, 2019. In that case, site preparation or construction shall not take place until the Vermont Fish and Wildlife Department has reviewed the updated RTE plant survey and determined that there are no undue adverse impacts to RTE plants or has approved appropriate avoidance or mitigation measures.

35. The CPG Holder shall provide ANR with the Project's "as-built" annual electric design estimate within 60 days of the commissioning date of the Project to assist ANR with compiling and analyzing greenhouse gas impacts.

36. The CPG Holder shall provide ANR with the following Project "as-built" information within 60 days of the commissioning date of the Project to assist ANR with compiling and analyzing greenhouse gas impacts:

- a. Solar panel manufacturer and model;
- b. Solar panel country of origin (manufacture);
- c. Solar panel cell technology (e.g., mono-Si, multi-Si, CdTe, etc.);
- d. Rated solar panel output (in watts DC);
- e. Total number of solar panels installed;
- f. Total number of spare panels required (if any);
- g. Array mounting type (fixed, 1-axis tracking, 2-axis tracking, ground, roof, other);
- h. For fixed or 1-axis tracking, panel orientation and mounting angle;
- i. Design system capacity (DC and AC);
- j. Rack system manufacturer and model;
- k. Rack system components, including the number of each type of major component (e.g. rails, mounting posts, ballasts) and material (e.g. aluminum, steel, concrete);
- l. Manufacturer, model, and number of inverters;
- m. Manufacturer, model, and number of transformers;
- n. Mass of concrete used (for ballasts, foundations, mounting pads, etc.);
- o. Percent of Portland cement composition of concrete;
- p. Description, quantity, and source of any recycled materials used (e.g., recycled content concrete, recycled aluminum racking, etc.);
- q. Amount (length) and gauge of wiring used for Project;
- r. Components for connection to grid (circuit boxes, circuit breaker panels, metering equipment, etc.);
- s. Distance (e.g., truck miles traveled) for transport of system components to site;
and
- t. Distance to grid connection.

37. By January 30 of each year, ANR may request that the CPG Holder provide an annual report for the previous calendar year of operations to ANR that shall contain the information set out below and will be used to assist ANR with compiling and analyzing greenhouse gas impacts. The CPG Holder shall have 60 days from the date of ANR's request to supply the information. Should ANR not request the information set out below by January 30, the CPG Holder will not have any obligation to provide an annual report from the previous year of operations. The information to be provided includes the following:

- a. Electric generation in kWh for the prior year, broken down by month; and
- b. Any information about the replacement of photovoltaic panels, inverters, transformers, or a complete racking system. In instances of failure and replacement of equipment (e.g., photovoltaic panels, inverters, etc.), the CPG Holder shall provide descriptions of both the failed and replacement components at the same level of detail as required by the "as-built" reporting requirements of Condition 36, above. This provision does not require the CPG Holder to provide information about *de minimis* replacement of system components (e.g., replacement of racking system hardware), or information regarding regular maintenance activities.

38. Should ANR not request the information in Condition 37, above, in any two consecutive years after Project commissioning, the CPG Holder's reporting obligations will automatically cease.

39. ANR and the CPG Holder, by mutual agreement, may cancel the CPG Holder's reporting obligations related to greenhouse gas impacts at any time.

40. The CPG Holder shall install and maintain fencing with a ground-level opening of six inches above the ground's surface.


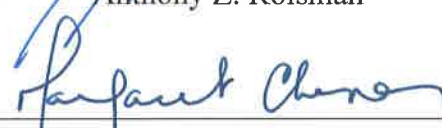

41. The CPG Holder shall use a non-toxic, bio-based coolant (FR3 or equivalent) for the Project transformer and shall install a secondary containment system sufficient to accommodate 110% of the transformer coolant volume, plus 5 inches of freeboard for rain. The secondary containment system's final design plans shall be submitted to the DEC Waste Management and Prevention Division for review and approval prior to any site preparation or construction. The CPG Holder's operations and maintenance contractor shall perform periodic inspections of the

secondary oil containment system and shall maintain the system in good working order for the life of the Project.

42. The CPG Holder shall obtain ANR's approval of the species composition for any vegetative screening to be planted in connection with the Project.

This CPG shall not be transferred without prior approval of the Commission.

Dated at Montpelier, Vermont, this 26th day of September, 2018.

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Anthony Z. Roisman)	PUBLIC UTILITY
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Margaret Cheney)	COMMISSION
)	
)	
Sarah Hofmann)	OF VERMONT

OFFICE OF THE CLERK

Filed: September 26, 2018

Attest: Judith C. Whitney
Clerk of the Commission

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Commission (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: puc.clerk@vermont.gov)