

Brennan Punderson, PLLC

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NHPUC 16 JUL '14 AM 11:31

July 14, 2014

Ms. Debra A. Howland
Executive Director and Secretary
State of New Hampshire
Public Utilities Commission
21 S. Fruit St., Suite 10
Concord, NH 03301-2429

Re: Riverview Farm of Franklin, Vermont

Dear Ms. Howland:

I have enclosed for filing an original and three copies of an application for Renewable Energy Source Eligibility being filed on behalf of Riverview Farm of Franklin, Vermont.

If you have any questions or comments with regard to the application you may contact either Denna Franklin at the contact information provided in the application, or you may contact me.

Very truly yours,

BRENNAN PUNDERSON, PLLC

By:


Ebenezer Punderson, Esq.EP/cd
Enclosures

cc: Riverview Farm— letter only

Reply to Middlebury Office

Monkton P.O. Box 8, 1317 Davis Road, Monkton, Vermont 05469 Phone 802.453.8400 Fax 802.453.8411

Middlebury The Marbleworks, 99 Maple Street, Suite 10B, Middlebury, Vermont 05753 Phone 802.989.7342 Fax 802.989.7441

(2)

Franklin
(City)

Vermont
(State)

05457
(Zip code)

9. Latitude: 44°59'38.93" N Longitude: 72°49'56.96" W

10. The name and telephone number of the facility's operator, if different from the owner: Same

(Name)

(Telephone number)

11. The ISO-New England asset identification number, if applicable: _____ or N/A:

12. The GIS facility code, if applicable: _____ or N/A:

13. A description of the facility, including fuel type, gross nameplate generation capacity, the initial

commercial operation date, and the date it began operation, if different. An anaerobic digester producing biogas derived from the digestion of agricultural products and wastes. The nameplate capacity of the generating equipment is 130 kW. The commissioning date was 12/27/13.

14. If Class I certification is sought for a generation facility that uses biomass, the applicant shall submit:

- (a) quarterly average NOx emission rates over the past rolling year,
- (b) the most recent average particulate matter emission rates as required by the New Hampshire Department of Environmental Services (NHDES),
- (c) a description of the pollution control equipment or proposed practices for compliance with such requirements,
- (d) proof that a copy of the completed application has been filed with the NHDES, and
- (e) conduct a stack test to verify compliance with the emission standard for particulate matter no later than 12 months prior to the end of the subject calendar quarter except as provided for in RSA 362-F:12, II.
- (f) N/A: Class I certification is NOT being sought for a generation facility that uses biomass.

15. If Class I certification is sought for the incremental new production of electricity by a generation facility that uses biomass, methane or hydroelectric technologies to produce energy, the applicant shall:

- (a) demonstrate that it has made capital investments after January 1, 2006 with the successful purpose of improving the efficiency or increasing the output of renewable energy from the facility, and
- (b) supply the historical generation baseline as defined in RSA 362-F:2, X.
- (c) N/A: Class I certification is NOT being sought for the incremental new production of electricity by a generation facility that uses biomass, methane or hydroelectric technologies.

16. If Class I certification is sought for repowered Class III or Class IV sources, the applicant shall:

- (a) demonstrate that it has made new capital investments for the purpose of restoring unusable generation capacity or adding to the existing capacity, in light of the NHDES environmental permitting requirements or otherwise, and

- (b) provide documentation that eighty percent of its tax basis in the resulting plant and equipment of the eligible generation capacity, including the NHDES permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments.
 - (c) N/A: Class I certification is NOT being sought for repowered Class III or Class IV sources.
- 17. If Class I certification is sought for formerly nonrenewable energy electric generation facilities, the applicant shall:
 - (a) demonstrate that it has made new capital investments for the purpose of repowering with eligible biomass technologies or methane gas and complies with the certification requirements of Puc 2505.04, if using biomass fuels, and
 - (b) provide documentation that eighty percent of its tax basis in the resulting generation unit, including NHDES permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments.
 - (c) N/A: Class I certification is NOT being sought for formerly nonrenewable energy electric generation facilities.
- 18. If Class IV certification is sought for an existing small hydroelectric facility, the applicant shall submit proof that:
 - (a) it has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission, and
 - (b) when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects.
 - (c) N/A: Class IV certification is NOT being sought for existing small hydroelectric facilities.
- 19. If the source is located in a control area adjacent to the New England control area, the applicant shall submit proof that the energy is delivered within the New England control area and such delivery is verified using the documentation required in Puc 2504.01(a)(2) a. to e.
- 20. All other necessary regulatory approvals, including any reviews, approvals or permits required by the NHDES or the environmental protection agency in the facility's state.
- 21. Proof that the applicant either has an approved interconnection study on file with the commission, is a party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study.
- 22. A description of how the generation facility is connected to the regional power pool of the local electric distribution utility.
- 23. A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof.
- 24. A statement as to whether the facility's output has been verified by ISO-New England.

- 25. A description of how the facility's output is reported to the GIS if not verified by ISO-New England.
- 26. An affidavit by the owner attesting to the accuracy of the contents of the application.
- 27. Such other information as the applicant wishes to provide to assist in classification of the generating facility.

28. This application and all future correspondence should be sent to:

Ms. Debra A. Howland
Executive Director and Secretary
State of New Hampshire
Public Utilities Commission
21 S. Fruit St, Suite 10
Concord, NH 03301-2429

29. Preparer's information:

Name: Denna Benjamin

Title: owner

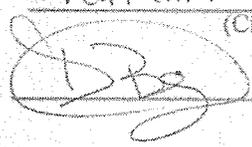
Address: (1) 4654 Middle Road

(2) _____

(3) _____

Franklin (City) Vermont (State) 05457 (Zip code)

30. Preparer's signature:



AFFIDAVIT

Riverview Farm
4420 Lake Road
Franklin, VT 05457

To: State of New Hampshire
Public Utilities Commission

I, Denna Benjamin, duly authorized agent of Riverview Farm, hereby certify that the information given in this application is true, accurate and complete to the best of my knowledge.

Dated: 3/26/14, 2014



Denna Benjamin

GENERATION INTERCONNECTION AGREEMENT

BETWEEN

VERMONT ELECTRIC COOPERATIVE, INC.

AND

RIVERVIEW FARM, INC.

FOR THE

RIVERVIEW FARM

RENEWABLE ELECTRIC GENERATING PROJECT

The purpose of this Agreement is to allow the operation of electrical generation facilities interconnected with and operated in parallel with VERMONT ELECTRIC COOPERATIVE'S electrical system.

Effective Date: December ___, 2013

VERMONT ELECTRIC COOPERATIVE
GENERATION INTERCONNECTION AGREEMENT
RIVERVIEW PROJECT GENERATING PROJECT

This AGREEMENT ("Agreement") made as of December ___, 2013 ("Effective Date"), by between VERMONT ELECTRIC COOPERATIVE, INC. ("VEC"), a consumer owned not-for-profit electric utility incorporated in Vermont, and RIVERVIEW FARM ("RIVERVIEW"), a subchapter S Corporation incorporated in the State of Vermont (individually a "Party" and together the "Parties").

WITNESSETH:

WHEREAS, RIVERVIEW proposes to own and operate a 190 kW farm methane generating system ("Riverview" or "Project") located at 4420 Lake Road in Franklin, Vermont, for the purpose of generating electric power; and

WHEREAS, under the terms contained in this Agreement RIVERVIEW desires to operate the Riverview Project interconnected in parallel with VEC's electric system;

WHEREAS, RIVERVIEW desires for the twenty-years of commercial operation the Project's electric output be sold pursuant to the Standard-Offer Program¹.

NOW, THEREFORE, in consideration of the mutual promises herein contained, the Parties hereto agree that the following terms and conditions shall govern the operation and maintenance of the interconnection of the Project with VEC's electric system.

1. DEFINITIONS

For the purposes of this Agreement, the terms shall have the following meanings:

- a. Force Majeure Event Shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control and which, after the exercise of commercially reasonable efforts, that Party is unable to overcome. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."
- b. Interconnection Point shall mean the point where VEC's distribution system connects with the Riverview Project to allow the generation equipment to operate interconnected in

¹ The Project will participate in the Standard-Offer Program for Qualifying Sustainably Priced Energy Enterprise Development ("SPEED") Resources pursuant to 30 V.S.A. § 8005, in accordance with the requirements established by the Vermont Public Service Board.

parallel with the VEC electric system. This point is defined as the primary (7.2kV) lead from the transformers to the single phase recloser 30-2F6 located on pole #38F 18 11D1 (confirm with Evan) on or about 4420 Lake Road in Franklin, Vermont.

- c. Project Metering Point shall be at the Interconnection Point.
- d. Prudent Engineering and Operating Practices shall mean the practices, methods and acts (including, but not limited to, the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry) that at a particular time, in the exercise of reasonable judgment in light of the facts known or that should have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with law, regulation (including, but not limited to the National Electric Safety Code, the National Electric Code and other applicable codes), reliability, safety, environmental protection, economy and expedition. With respect to the Project, Prudent Engineering and Operating Practices include but are not limited to taking reasonable steps to ensure that:
 - (1) Preventative, routine and non-routine maintenance and repairs are performed on a basis that ensures reliable long-term and safe operation, and are performed by knowledgeable, trained and experienced personnel utilizing proper equipment and tools; and
 - (2) Equipment is not operated in a reckless manner, or in a manner unsafe to the public or the environment.

2. DESCRIPTION OF THE FACILITY AND THE SITE

The Project shall have the characteristics as described in Section 5 of this Agreement and in the Technical Requirements which is an attachment to this Agreement.

3. GOVERNMENTAL ACTIONS

RIVERVIEW and VEC shall at all times comply with all valid and applicable Federal, State and Local laws, rules, regulations, orders and other governmental actions.

4. TERM

This Agreement shall become effective upon the Effective Date except for those obligations that the applicable Party(ies) may not perform until the conditions precedent set forth in Section 22 hereof have been satisfied or waived. This Agreement shall continue in full force and effect for a period of not less than twenty (20) years from the date RIVERVIEW declares commercial operations pursuant to the power purchase contract under the SPEED Standard-Offer Program. Nothing in this Agreement shall be deemed to preclude future agreements between the Parties. Following the end of the Term, the Parties hereto shall no longer be bound by the terms and conditions of this Agreement, except to the extent

necessary to enforce the rights and obligations of the Parties arising under this Agreement before the end of the Term.

5. GENERATION AND INTERCONNECTION FACILITIES

RIVERVIEW shall install generation and interconnection facilities as described below and on the **Technical Requirements** attached to this Agreement (Attachment 1) and maintain them in good working order, consistent with Prudent Engineering and Operating Practices, while interconnected with VEC's electric system.

RIVERVIEW is responsible for the design of these interconnection facilities and VEC has the right to approve or disapprove the design of the interconnection facilities in its reasonable discretion; provided, however, VEC shall not withhold, condition, or delay such approval unreasonably. Should a dispute concerning the interconnection facilities exist, either Party may initiate action pursuant to Section 14 Dispute Resolution. VEC takes no responsibility for the adequacy of the required interconnection equipment in protecting the Project.

Generation Equipment

Generator	kVA	RPM	kW	Volts	Pf*
Farm methane	94.5	1800	94.5	240	1.0

*See Section 6 of this Agreement for Power Factor restrictions.

Interconnection Facilities

The generator interconnection facilities consist of the required electrical system necessary to connect said generation equipment to VEC's distribution system. The Project shall interconnect to VEC at the Interconnection Point. The Riverview Project will own and maintain the 120/240V to 7.2kV transformation and protection equipment necessary to deliver the output of the Riverview Project to VEC's 12.47kV system.

- a. RIVERVIEW shall pay for all costs incurred by VEC necessary to ensure the proper installation of the generator step-up transformers and associated facilities required to convert the output of the generation equipment to the voltage, frequency, and phase of VEC's electric system at the designated Interconnection Point. The generator interconnection facilities shall be owned and maintained by RIVERVIEW.
- b. RIVERVIEW shall pay the cost incurred by VEC to install an approved, visible, lockable disconnect device, 30-2F6 in-line cut-out, adequate to provide safe working clearance for VEC personnel. The device shall be accessible to and available for control by VEC personnel at all times following notification to RIVERVIEW, except when such notification would tend to prolong a dangerous situation. When VEC has opened and tagged the disconnect device, RIVERVIEW **SHALL NOT OPERATE** the device.

- c. RIVERVIEW shall pay the cost incurred by VEC to install a recloser with SCADA communications. This device will be owned, operated, and controlled by VEC.
- d. RIVERVIEW is prohibited from operating any equipment beyond the Interconnection Point on VEC's distribution system. VEC's primary disconnect device for the 7.2 kV line serving the Riverview Project is the single phase recloser 30-2F6 located on pole38F 18 11D1 (confirm with Evan). This device is located on VEC's 12.47 kV distribution system and it is owned and operated exclusively by VEC. VEC may open the interconnection whenever reasonably necessary to perform either routine or emergency maintenance or repairs to VEC's own facilities.
- e. RIVERVIEW shall install relaying and protective devices that will automatically and physically disconnect Riverview's generation equipment from the VEC electric system whenever required by a fault, abnormal frequency, voltage condition, or islanding condition on the VEC electric system. Once the VEC system is restored to normal operation and operates normally for a suitable time period (typically 5 minutes), the Project can resynchronize to VEC's system.

The protective equipment owned and operated by RIVERVIEW shall include:

- Circuit Breaker (52) or circuit breaking contactor equipment
 - Over/Under Voltage Relays (27 / 59)
 - Over/Under Frequency Relay (81 O/U)
 - Anti-islanding Protection
 - Unbalanced VEC System Fault Detection Relay (59N)
 - Voltage Restrained Time Over-current Relay (51V)
 - Loss of Excitation Relay (40)
 - Synchronism Check Relay (25)
 - The ability to implement a transfer trip signal initiated by VEC
 - Additional Required Devices based on Interconnection Studies
- f. RIVERVIEW shall install such reactive power generating facilities as necessary so that the Project operates within the power factor requirements specified in Section 6.b of this Agreement.
 - g. RIVERVIEW shall pay the costs for the installation, testing, and commissioning of the approved protection equipment. This protection equipment shall be accessible to and available for inspection by VEC personnel at all times following notification to RIVERVIEW.
 - h. RIVERVIEW shall pay for, and VEC shall install, maintain, and own the revenue-quality metering equipment necessary to accurately measure and record the generation, capacity, and energy delivered to the 12.47 kV Interconnection Point with VEC, in a manner consistent with the SPEED Facilitator's requirements for "Vermont Standard Offer Projects", and VEC's tariff provisions.

- i. During the period that RIVERVIEW is participating in the Standard Offer Program, RIVERVIEW shall pay for and VEC shall install such communications equipment as necessary so that the hourly production of the Project can be reported in a timely manner to the SPEED Facilitator, or the SPEED Facilitator's designee. RIVERVIEW will be responsible for paying the costs associated with interrogating the generation meter; including but not limited to any reoccurring communication costs.
- j. RIVERVIEW is responsible for making any future enhancements to its facilities that may become necessary to operate the Project in a safe and prudent manner due to improvements and/or changes made to the VEC electric system. Failure to do so will result in disconnection of the Project from the VEC system.
- k. VEC will be responsible for delivering the output from the Project to an interconnection with Vermont Electric Power Company ("VELCO"). These transmission services will be provided pursuant to VEC's Transmission Tariff (Schedule 21-VEC of ISO-NE's Open Access Transmission Tariff or a successor agreement).
- l. The SPEED Facilitator will be responsible for obtaining transmission services under VEC's Transmission Tariff.

6. ELECTRIC CHARACTERISTICS

- a. RIVERVIEW shall generate electricity at the Project in such a manner that it is compatible with the VEC's electrical system at the Interconnection Point.
- b. RIVERVIEW shall produce power at power factor levels than are no less than 95% lagging at the Interconnection Point, unless otherwise requested, in writing, from VEC.
- c. Should RIVERVIEW fail to meet the power factor levels required under this section of the Agreement, in addition to any other remedies that may be available, RIVERVIEW shall pay VEC a charge for excess reactive power delivered by VEC to RIVERVIEW as determined by the following formula.

$$\text{Charge} = \left[\left[\frac{\text{Maximum Generation}}{(0.05 + \text{Power Factor})} \right] - \text{Maximum Generation} \right] \times \text{Demand Rate}$$

Where:

- Maximum Generation is the highest measured hourly generation in kilowatts during the billing period, and
- Demand Rate is the appropriate industrial demand rate under VEC's retail tariff (i.e., Service Classification #3, Subtransmission – Firm Demand Charge Rate (\$/kW-month).

7. TESTING AND MAINTENANCE OF PROTECTION EQUIPMENT

- a. Prior to the initial closing of the interconnection, RIVERVIEW shall have a determination made by an entity unaffiliated with RIVERVIEW that all protection and interconnection equipment meets the specifications and is functioning properly, and notify VEC of the determination in writing. RIVERVIEW shall promptly certify the results of such testing to VEC.
- b. Prior to the commissioning of the Project, RIVERVIEW and VEC shall jointly conduct protective equipment testing (SCADA, frequency and voltage limits, power quality, non-islanding, transfer trip scheme, and non-closing on a dead utility bus) through on site testing to ensure compliance with the Standards and Technical Requirements. If the Project successfully demonstrates compliance during this joint on site commissioning, it will be allowed to operate interconnected in parallel with the VEC electric system.
- c. RIVERVIEW shall be responsible for the maintenance of the protection equipment owned by it and for keeping the same in good working order while interconnected with the VEC system.
- d. VEC shall have the right, at all reasonable mutually agreeable times and upon reasonable notice to RIVERVIEW, to inspect the Project and to conduct such operating tests as are necessary to ascertain that the generation, interconnection, and metering facilities function properly, to review any data collected from such facilities, and to independently monitor the energy delivered to VEC.
- e. Any inspection, operational testing, or witnessing of testing by VEC under the provisions of this Agreement shall not be construed as any warranty of safety, durability or reliability of the Project or the generator interconnection facilities. VEC shall not, by reason of such inspection or failure to inspect, be responsible for the strength, safety, design, adequacy, or capacity of RIVERVIEW's production, protection and interconnection equipment.

8. DISCONNECTION OF PROJECT

- a. RIVERVIEW agrees to operate the Project and the generator interconnection facilities in a reasonable manner to avoid and/or minimize and mitigate any adverse effect on the VEC electric system or to any of its other customers. Should such adverse effects occur, as reasonably defined by VEC, or should the potential for such adverse effect exist, RIVERVIEW agrees to take such corrective action, as VEC deems reasonably necessary; provided, however, that RIVERVIEW shall retain the right to contest the reasonableness of the VEC actions in any appropriate forum.
- b. VEC has the right to immediately disconnect, without liability, the Project from the VEC electric system if, in VEC determines, in accordance with Prudent Engineering and Operating Practices, that there is an electric system emergency that directly affects

the Project or is directly affected by the Project's continued operation, the Project's interconnection represents a condition that is likely to result in significant disruption of service to VEC customers or is likely to endanger life or property. VEC shall provide the RIVERVIEW a written explanation regarding any action taken pursuant to this Section 8(b). Should a dispute concerning the need to immediately disconnect exist, the Project shall comply with VEC's directions, but, after the fact, may initiate action pursuant to Section 14 Dispute Resolution.

- c. If VEC determines, in accordance with Prudent Engineering and Operating Practices, that the interconnection presents a risk, which if left uncorrected, could result in an electric system emergency or the imminent significant disruption of service to VEC's customers, or could become likely to endanger life or property, VEC will give RIVERVIEW notice in writing of the corrective measures it seeks to have implemented and a reasonable time period for such implementation. If the corrective measures are not implemented within the reasonable time period VEC may immediately disconnect the Riverview generation equipment. Should a dispute concerning the need to immediately disconnect exist, the Project shall comply with VEC's directions, but, after the fact, either Party may initiate action pursuant to Section 14 Dispute Resolution.
- d. VEC may open, or require RIVERVIEW to open, the interconnection whenever reasonably necessary to perform either routine or emergency maintenance or repairs to VEC's own facilities or facilities of interconnected utilities. Except for emergencies, VEC shall give RIVERVIEW at least ten (10) days advance written notice of such maintenance or repairs and shall attempt to schedule the same in order to accommodate RIVERVIEW's operating schedule. Should a dispute concerning the need to disconnect exist, the Project shall comply with VEC's directions, but, after the fact, either Party may initiate action pursuant to Section 14 Dispute Resolution.
- e. VEC may open, or require RIVERVIEW to open, the interconnection whenever necessary to comply with VELCO, ISO-NE or NERC directives.
- f. In all cases when VEC has caused the Project to be disconnected from its electric system, VEC shall resume the interconnection as soon as the system emergency directly affecting or affected by the Project's operation has passed or the non-emergency related maintenance or repair work ceases or when RIVERVIEW has completed required corrective actions.

9. INTERRUPTION OF VEC'S SYSTEM

VEC shall endeavor to make the interconnection under this Agreement as continuous and uninterrupted as it reasonably can. If VEC declares a Force Majeure Event or determines, in accordance with Prudent Engineering and Operating Practices, that there is an electric system emergency that directly affects or threatens the Project, the electric service may be varied or such service to the Project may be interrupted, curtailed, or suspended. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party

affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party(ies), either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party(ies) informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

10. ELECTRIC SERVICE

Except as otherwise provided for herein, RIVERVIEW will receive and pay for electricity from the VEC system in accordance with all relevant terms and conditions in the VEC tariffs for electric service, as filed with the Vermont Public Service Board and as the same shall be modified from time to time.

11. INDEMNIFICATION AND LIMITATION OF LIABILITY

- a. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages.
- b. Each Party shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, and all other obligations by or to third parties, arising out of or resulting from the indemnifying Party's negligence or willful misconduct action or failure to meet its obligations under this Agreement. This indemnification obligation shall not apply to the extent that injuries, death, loss, damage or destruction is caused by the negligence or willful misconduct of the party seeking indemnification or its employees.
- c. If the indemnifying Party is obligated to indemnify and hold the indemnified Party harmless under this Article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.
- d. Promptly after receipt of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not

affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

12. INSURANCE

- a. RIVERVIEW shall maintain in force, claims made based general liability coverage with limits of \$1,000,000 per occurrence and \$2,000,000 in the aggregate for the term of this Agreement; provided, however, RIVERVIEW shall maintain this coverage in effect for three (3) years after termination of this Agreement. The coverage shall be in the form of tail coverage or extended reporting period coverage.
- b. RIVERVIEW shall maintain in full force and effect a policy or policies of insurance sufficient to insure their respective obligations under workers compensation law.
- c. RIVERVIEW shall provide VEC a certificate(s) of insurance evidencing the existence of the above required insurance coverage. RIVERVIEW shall name VEC as additional insured within the general liability coverage as their indemnity interests may appear in this Agreement.
- d. The option of insuring the electrical generating equipment and generator interconnection facilities owned by RIVERVIEW for physical damage, loss, et al, shall remain the responsibility of RIVERVIEW.
- e. The insurance coverage described above shall be primary to any other coverage available to RIVERVIEW and shall not be deemed to limit RIVERVIEW's liability under this Agreement.
- f. Should RIVERVIEW fail to provide the insurance required pursuant hereto, nothing herein shall release RIVERVIEW of the obligation to pay any claims that arise hereunder.

13. DISPUTE RESOLUTION

RIVERVIEW and VEC shall attempt in good faith to resolve between themselves any disputes that may arise hereunder. In the event that RIVERVIEW and VEC are unable to resolve any such dispute, the Parties shall have recourse to mediation, arbitration, or other alternative dispute resolution device of their mutual selection. If the Parties cannot agree on an alternative dispute resolution device, the dispute shall be determined by arbitration before one (1) arbitrator. Any arbitration shall be conducted in accordance with the commercial arbitration rules of the American Arbitration Association unless otherwise agreed upon. The award rendered by any arbitrator or resolution reached in any alternative dispute resolution proceeding shall be final and binding and judgment may be entered upon it in accordance with the applicable law in any court having jurisdiction thereof. This clause shall not preclude parties from seeking provisional remedies in aid of arbitration from a court of appropriate jurisdiction. Notwithstanding the foregoing, because time is of the essence for this Agreement, the Parties specifically reserve the right

to seek a judicial temporary restraining order, preliminary injunction, specific performance or other short term equitable relief, and hereby grant the arbitrators the right to make a final determination of the Parties' rights, including whether to make permanent or dissolve such court order. Any arbitration proceeding initiated pursuant to this Paragraph shall be held at a site reasonably agreed to by the parties.

14. ASSIGNMENT / SUCCESSORS

- a. Neither RIVERVIEW nor VEC may voluntarily assign its rights or delegate its duties under this Agreement or any part thereof, without the written consent of the other (which consent shall not be unreasonably withheld), except in connection with the sale, merger, or unbundling of services as a result of legislative and regulatory electric restructuring approved by the Vermont Public Service Board. Except as may be agreed to in a consent to assignment, no assignment or delegation shall discharge any Party from obligations which shall have accrued under the terms of this Agreement prior to such assignment or delegation, whether such accrual is known or unknown.
- b. Notwithstanding anything to the contrary in Section 14(a), the parties may assign this Agreement without the consent of the other party: (i) to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; or (ii) for collateral security purposes to aid in providing financing. The assigning party promptly shall notify the other party of any such assignment.

15. NOTICES

- a. Except as otherwise specified in this Agreement, any notice, demand, or request required or authorized by this Agreement to be given in writing to a Party shall be (a) personally delivered; (b) sent in the form of a signed letter on the sending Party's letterhead, transmitted by email in Portable Document Format (pdf) or similar format; or (c) mailed postage prepaid to such Party at the following address:

**VEC: VERMONT ELECTRIC COOPERATIVE
Attn: Chief Operating Officer
42 Wescom Road
Johnson, VT 05656**

**with a copy
to: VERMONT ELECTRIC COOPERATIVE
Attn: General Counsel
42 Wescom Road
Johnson, VT 05656
Telephone: 802-635-2331
Facsimile: 802-635-7645
E-mail: ybrown@vermontelectric.coop**

RIVERVIEW: East Franklin Cow Power, LLC
4654 Middle Road
Franklin, VT 05457
Telephone: 802-285-2010
E-mail: dbenjamin@franklinVT.net

- b. The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

VEC: VERMONT ELECTRIC COOPERATIVE
Attn: Control Center
42 Wescom Road
Johnson, VT 05656
Telephone: 802-730-1219
Facsimile: 802-635-1130
E-mail: dispatch@vermontelectric.coop

RIVERVIEW: East Franklin Cow Power, LLC
4654 Middle Road
Franklin, VT 05457
Telephone: 802-285-2010
E-mail: dbenjamin@franklinVT.net

- c. The designation of such person(s) and/or address(es) may be changed at any time by either Party upon written notice given pursuant to the requirements of this Section.

16. APPLICABILITY

This Agreement constitutes the entire understanding between the Parties with respect to the generation interconnection, supersedes any and all previous understandings between the Parties, and binds and inures to the benefit of the Parties, their successors and assignees.

17. WAIVER

No waiver by either Party of the performance of any obligation under this Agreement or with respect to any Default or any other matter arising in connection with this Agreement shall be deemed a waiver with respect to any subsequent performance, default, or matter.

18. MODIFICATION

No modification or waiver of all or any part of this Agreement shall be valid unless it is in writing and signed by both Parties.

19. INTERPRETATION

Interpretation and performance of this Agreement shall be in accordance with, and shall be controlled by, the laws of the State of Vermont and the United States.

20. NO DUTY TO THIRD PARTIES

Nothing in this Agreement nor any action taken hereunder shall be construed to create any duty, liability or standard of care to any person not a Party to this Agreement.

21. CONDITIONS PRECEDENT

This Agreement shall become effective as of the Effective Date, except for those obligations that the applicable Party(ies) may not perform until the following conditions precedent shall have been satisfied; provided, however, until satisfaction of the applicable condition precedent, each Party shall take all actions as may be reasonably necessary to achieve each of the following conditions precedent; and, provided, further, the Project may not synchronize with VEC's electric system until all the conditions precedent have been satisfied or waived:

- a. The Parties shall have established appropriate relay and protection requirements for the interconnection of the Project that are acceptable to VEC, which requirements shall be reflected in **Technical Requirements** (Attachment 1) to be made a part hereof; and
- b. The Parties shall have established appropriate operating protocols for the interconnected operation of the Project in parallel with the VEC electric system, which protocols shall be reflected in the **Generation Operation Protocol** (Attachment 2) to be made a part hereof; and
- c. The arrangement by the SPEED Facilitator and/or RIVERVIEW for transmission services over VEC's system pursuant to the terms of VEC's Transmission Tariff.

22. MULTIPLE COUNTERPARTS

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

23. SEVERABILITY

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

24. CONFIDENTIALITY

- a. Confidential Information shall include without limitation, all information governed by the ISO New England Information Policy, all information obtained from third parties under confidentiality agreements, and any confidential and/or proprietary information provided by a Party to the other Party that is clearly marked or otherwise designated "Confidential."
- b. Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by governmental authorities (after notice to the other Party(ies) and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
 - i. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party(ies) as it employs to protect its own Confidential Information.
 - ii. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

25. ACKNOWLEDGEMENT OF ARBITRATION

THE PARTIES HERETO UNDERSTAND THAT THIS AGREEMENT CONTAINS AN AGREEMENT TO ARBITRATE. EXCEPT AS OTHERWISE PROVIDED HEREIN, AFTER SIGNING THIS DOCUMENT, THE PARTIES UNDERSTAND THAT THEY WILL NOT BE ABLE TO BRING A LAWSUIT CONCERNING ANY DISPUTE THAT MAY ARISE WHICH IS COVERED BY THIS AGREEMENT UNLESS THE DISPUTE INVOLVES A QUESTION OF CONSTITUTIONAL OR CIVIL RIGHTS. INSTEAD, THE PARTIES AGREE TO SUBMIT ANY SUCH DISPUTE TO AN IMPARTIAL ARBITRATOR.

IN WITNESS WHEREOF, VEC and RIVERVIEW have caused this Agreement to be executed by their respective duly authorized officers as of the date first above written.

Riverview Farm



Name: Mike Benjamin
Its: Co-Owner



Name: Denna Benjamin
Its: Co-Owner

Vermont Electric Cooperative, Inc.

Name: Jeffery Wright
Its: Chief Operating Officer

Riverview Project Interconnection Agreement
Between Vermont Electric Cooperative, Inc. and Riverview Farms

Attachment 1

Technical Requirements

INTERCONNECTION TECHNICAL REQUIREMENTS

BETWEEN

VERMONT ELECTRIC COOPERATIVE, INC.

AND

RIVERVIEW FARMS

FOR THE

RIVERVIEW

RENEWABLE ELECTRIC GENERATING PROJECT

These Interconnection Technical Requirements are designed to provide protection to the public, Vermont Electric Cooperative, Inc. (“VEC”) and to VEC’s personnel and equipment from the physical and financial risks associated with the interconnection and parallel operation of generation equipment. The Interconnection Technical Requirements accomplish this task by:

1. Ensuring proper protective devices are installed at the site, at the interconnection point, and on the VEC system;
2. Ensuring proper metering equipment is installed to properly measure all power flows resulting from the interconnection;
3. Establishing performance criteria to minimize the probability that the generation equipment will reduce the quality of service on the VEC system;
4. Establishing financial and insurance requirements that protect VEC and its customers from costs that may result from the interconnection; and
5. Establishing general operating procedures to govern the interconnection.

The interconnected generating facility operator shall be responsible for the installation, operation, and maintenance of all equipment required for the interconnection of its generation equipment with the VEC system. The interconnected generating facility operator has paid the cost for the interconnection and system studies initially deemed necessary to properly design and operate the interconnection.

I. PROTECTIVE DEVICES

The protective devices are grouped into two classifications, required and recommended. Required devices must be installed at all interconnection points between the VEC system and the generation facility operator's generation equipment, both synchronous and asynchronous. While asynchronous generation equipment is generally not capable of operating without the VEC grid, it is capable of maintaining operation if sufficient capacitance is present to supply the reactive requirements of the generation equipment and the coexisting load. Since capacitors are used for voltage support on the VEC grid and for power factor correction on asynchronous generation equipment, it may be possible for asynchronous generation equipment to become self-excited during abnormal system conditions and behave as if it were synchronous generation equipment. Recommended devices may be installed at the generation facility operators' discretion to provide additional protection to the VEC system and to the generation facility's equipment.

All protective devices and systems shall be designed, installed, operated, and maintained in accordance with Prudent Engineering and Operating Practices. Riverview shall install and maintain inverters and interconnecting facilities that comply with IEEE 1547 Standards for Interconnecting Distributed Resources with Electric Power Systems (the “Standards”).

Prior to the initial closing of the interconnection, Riverview shall have a determination made by an entity unaffiliated with Riverview that all protection and interconnection equipment meets the specifications and is functioning properly, and notify VEC of the determination in writing. Riverview Project shall promptly certify the results of such testing to VEC.

Prior to the commissioning of the Project, Riverview and VEC shall jointly conduct IEEE 1547 production testing (frequency and voltage limits, power quality, non-islanding, and non-closing on a dead bus) through on site testing to ensure compliance with the Standards and Technical Requirements. If the Project successfully demonstrates compliance during this joint on site commissioning, it will be allowed to operate interconnected in parallel with the VEC electric system.

A. Interconnections

1. The Interconnection Point shall mean the point where VEC's distribution system connects with the Riverview to allow the generation equipment to operate interconnected in parallel with the VEC electric system. This point is defined as the primary (12.47kV) lead from the transformers to the single phase recloser 30-2F6 located on pole #38F 18 11D1 on or about 4420 Lake Road in Franklin, Vermont.
2. The Generator Interconnection Facilities consist of the required electrical system necessary to connect said generation equipment to VEC's distribution system. The Project shall interconnect to VEC at the Interconnection Point. Riverview will own and maintain the 240V to 7.2kV transformation and protection equipment necessary to deliver the output of the Riverview Project to VEC's 12.47kV system.

B. Required Protection

1. **Principal Interconnection Point Protection** – Riverview shall install relaying and protective devices that will automatically and physically disconnect the Riverview's generation equipment from the VEC electric system whenever required by a fault, abnormal frequency, voltage condition, or islanding condition on the VEC electric system. Riverview shall pay the cost incurred by VEC to install two reclosers with SCADA communications. These devices will be owned, operated, and controlled by VEC.
2. **Principal Interconnection Point Disconnects** – Riverview shall pay the cost incurred by VEC to install an approved, visible, lockable disconnect device, 30-2F6 and in-line cutout, adequate to provide safe working clearance for VEC personnel. The devices shall be accessible to and available for control by VEC personnel at all times following notification to Riverview, except when such notification would tend to prolong a dangerous situation. When VEC has opened and tagged the disconnect devices, the Riverview **SHALL NOT OPERATE** these devices.
3. Riverview is prohibited from operating any equipment beyond the Interconnection Point on VEC's distribution system. VEC's primary disconnect device for the 12.47kV line serving the Project is the single phase recloser 30-2F6 located on pole 38F 18 11D1. This device is located on VEC's 12.47kV distribution system and it is owned and operated

exclusively by VEC. VEC may open the interconnection whenever reasonably necessary to perform either routine or emergency maintenance or repairs to VEC's own facilities.

4. **Riverview Project Protection** – Riverview shall install relaying and protective devices that will automatically and physically disconnect the Riverview's generation equipment from the VEC electric system whenever required by a fault, abnormal frequency, voltage condition, or islanding condition on the VEC electric system. Once the VEC system is restored to normal operation and operates normally for a suitable time period (typically 5 minutes), the Project can resynchronize to VEC's system.

The protective equipment owned and operated by Riverview shall include:

- Circuit Breaker (52) or circuit breaking contactor equipment
- Over/Under Voltage Relays (27 / 59)
- Over/Under Frequency Relay (81 O/U)
- Anti-islanding Protection
- Unbalanced VEC System Fault Detection Relay (59N)
- Voltage Restrained Time Over-current Relay (51V)
- Loss of Excitation Relay (40)
- Synchronism Check Relay (25)
- The ability to implement a transfer trip signal initiated by VEC
- Additional Required Devices based on Interconnection Studies

Relay Functions – Over and under-voltage, over and under-frequency, phase over current with voltage control, and either zero-sequence over-voltage or neutral over-current and synchronizing relay functions are required. Additional relay functions may be specified by VEC. Settings will be in compliance with IEEE 1547, or acceptable engineering practices, unless otherwise specified by VEC. The generation facility operator shall provide relaying functions to clear both phase and ground short circuit faults on the VEC system. The operating characteristics shall be reviewed and approved by VEC at commissioning, but VEC assumes no responsibility for the adequacy of these settings.

Additional Equipment – The generation facility operator is responsible to make any future enhancements to its facilities that may become necessary to operate the generating facility in a safe and prudent manner due to improvements and/or changes made to the VEC electric system.

D. Generation Equipment

Generator	kVA	RPM	kW	Volts	Pf*
Farm Methane	94.5	1800	94.5	240	1.0

*See Section 6 of the Interconnection Agreement for Power Factor restrictions.

Attachment 2

Generation Operation Protocol

GENERATOR OPERATION PROTOCOL

BETWEEN

VERMONT ELECTRIC COOPERATIVE, INC.

AND

RIVERVIEW FARMS

FOR THE

RIVERVIEW

RENEWABLE ELECTRIC GENERATING PROJECT

**VERMONT ELECTRIC COOPERATIVE, INC.
GENERATION OPERATION PROTOCOL**

RIVERVIEW GENERATING PROJECT

This OPERATIONAL PROTOCOL is to be used between VERMONT ELECTRIC COOPERATIVE, INC. (“VEC”), a consumer owned not-for-profit electric utility incorporated in Vermont, and RIVERVIEW FARMS (“RIVERVIEW”), a subchapter S Corporation incorporated in the State of Vermont (individually a “Party” and together the “Parties”).

Location: 4420 Lake Road in Franklin, Vermont

OPERATING REQUIREMENTS

1. General Operating Requirements

Riverview shall operate and maintain the generating facility in accordance with Prudent Engineering and Operating Practice and comply with all aspects of VEC’s Interconnection Agreement and Technical Requirements. In the event that VEC has reason to believe that the Riverview generating facility may be a source of problems on VEC’s electrical power system, VEC shall have the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Riverview generator equipment interferes with VEC’s equipment and/or operations or other customer’s equipment, Riverview must immediately take corrective action to resolve the problem. If Riverview fails to take immediate corrective action then VEC may disconnect the generating facility pursuant to this Agreement. The cost of the monitoring equipment will be borne by VEC unless the problem or problems are demonstrated to be caused by Riverview’s generating facility or if the test was performed at the request of Riverview.

2. No Adverse Effects; Non-interference

VEC shall notify Riverview if there is evidence that the operation of Riverview’s generating facility could cause disruption or deterioration of service to other VEC customers served from the same VEC electrical power system or if operation of Riverview’s facility could cause damage to VEC’s electrical power system or affected systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE STD519, as well as voltage fluctuations caused by large step changes in loading at the generating facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facility which could affect the operation of the other Party’s equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

VEC will operate its electric system in such a manner so as to not unreasonably interfere with the operation of Riverview’s generating facility. Riverview will protect itself from normal disturbances propagating through the VEC electric system. Examples of such disturbances

could be, but are not limited to, single-phase events, voltage sags or swells from remote faults on the VEC electric system, and outages on VEC's electric system.

SAFE OPERATIONS MAINTENANCE

1. General

Each Party shall operate, maintain, repair and inspect and shall be fully responsible for, the respective generating facility or electric system facilities that it now or hereafter may own unless otherwise specified in this Agreement. Each Party shall be responsible for the maintenance, repair, and condition of its respective lines and appurtenances. VEC and Riverview shall each provide equipment that adequately protects the VEC electric system, personnel, and other persons from damage and injury. If VEC has constructed or owns facilities that are identified at the time of interconnection as specifically required by or as a result of the interconnection, Riverview will be required to pay VEC's cost of maintaining and repairing those facilities.

2. Ongoing Maintenance -Testing of generating facilities.

Maintenance and testing of the protective relaying is imperative for safe, reliable operation. The test cycle for protective relaying must not be less frequent than once every 60 calendar months or the manufacturer's recommendation, whichever is more frequent. Riverview should provide copies of these test records to VEC. Failure to adhere to these guidelines may be sufficient cause to require the generating facility to be disconnected from VEC's electric system.

ACCESS

1. VEC and Riverview Representatives

Each party shall provide and update as necessary the telephone number that can be used at all times to allow either party to report an emergency.

2. VEC Rights to Access Cooperative-Owned Facilities and Equipment

Riverview shall allow VEC access to VEC equipment and the VEC facilities located on the generating facility's premises. To the extent that Riverview does not own all or part of the property on which VEC is required to locate its equipment or facilities to serve the generating facility, Riverview shall secure and provide to VEC the necessary rights for access to such equipment or facilities, including easements in a form acceptable to VEC.

3. Right to Review Information

VEC shall have the right to review and obtain copies of Riverview's operations and maintenance records, logs, or other information such as generator unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Riverview's generating facility or its interconnection with the

VEC electric system. This information will be treated by VEC as confidential and used only for the purpose of determining Riverview's compliance with this Agreement.

DISCONNECTION

1. Temporary Disconnection

- a. **Emergency Conditions:** VEC shall have the right to immediately and temporarily disconnect Riverview's generating facility without prior notification in cases where, in the reasonable judgment of VEC, continuance of such service to the generating facility is imminently likely to (1) endanger persons or damage property or (2) cause a material adverse effect on the integrity or security of, or damage to, the VEC electric system or to the electric system of others to which the VEC electric system is directly connected.

A Riverview representative shall notify VEC promptly when Riverview becomes aware of an emergency condition that affects the generator that may reasonably be expected to affect the VEC electric system. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

- b. **Routine Maintenance, Construction and Repair:** VEC shall have the right to disconnect Riverview's generating facility from the VEC electric system when necessary for routine maintenance, construction and repairs on the VEC electric system. See the details found in the document below regarding routine line maintenance and emergency line work disconnect procedures. If Riverview requests disconnection by VEC at the Principal Interconnection Point Disconnects, Riverview will provide a minimum of three (3) days' notice to VEC. VEC shall schedule such curtailment or temporary disconnection with Riverview.
- c. **Forced Outages:** During any forced outage, VEC shall have the right to suspend interconnection service to effect immediate repairs on the VEC electric system. VEC shall use reasonable efforts to provide Riverview with prior notice. Where circumstances do not permit such prior notice to Riverview, VEC may interrupt interconnection service and disconnect the Riverview's generating facility from the VEC electric system without such notice.
- d. **Non-Emergency Adverse Operating Effects:** VEC may disconnect Riverview's generating facility if the generating facility is having an adverse operating effect on the VEC electric system or other VEC customers. VEC may disconnect Riverview's generating facility if the generator fails to correct such adverse operating effect after written notice has been provided and a minimum of ten (10) calendar days to correct such adverse operating effect has elapsed.
- e. **Modification of Riverview's Generating Facility:** VEC has the right to immediately suspend interconnection service in cases where material modifications to the Generator

Interconnection Facilities or Riverview have been implemented without prior written authorization from VEC.

- f. **Re-connection:** Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. Riverview and VEC will cooperate with each other to restore Riverview's generator and the VEC electric system respectively, to their normal operating state as soon as reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

2. Permanent Disconnection

- a. Riverview has the right to permanently disconnect at any time with thirty (30) calendar days written notice to VEC.
- b. VEC may permanently disconnect Riverview's generating facility upon termination of this Agreement in accordance with the terms hereof and in the case of Riverview's inability to correct an adverse operating effect after notice thereof.

GENERATOR RECONNECT

Riverview's generator can be reconnected to VEC once live line conditions on the VEC electric system are detected for a minimum of five (5) minutes. Riverview shall auto-synchronize the generator to the VEC system.

ROUTINE LINE MAINTENANCE (VEC Distribution Line - live line work):

Disconnection

- a. VEC System Operations will not notify Riverview of required routine "LIVE" line maintenance work on the line connecting the Interconnection Point to the VEC system, unless there is an unplanned line outage due to the work.
- b. Upon arrival at Riverview, VEC line personnel will communicate with VEC System Operations.
- c. VEC System Operations will place the line reclosers 30-2F2 and the 30-2F6 in hotline tag mode via SCADA.

Reconnection

- d. When work has been completed, VEC System Operations will not notify Riverview that the work is completed.
- e. VEC System Operations will remove the line recloser from hotline tag mode via SCADA.

ROUTINE LINE MAINTENANCE (VEC Distribution Line - de-energized work):

Disconnection

- a. VEC System Operations will notify Riverview via telephone of a required disconnection of the generator for grounded line maintenance work on the line connecting the Interconnection Point to the VEC system. No less than 48 hours of prior notice shall be given. Such notice shall communicate the reason for the disconnection to Riverview and the expected duration of the disconnection.
- b. Riverview will then have its generator disconnected from the VEC system by the required time.
- c. Upon arrival at Riverview, VEC line personnel will communicate with VEC System Operations.
- d. After verifying that VEC's distribution line is either de-energized or can safely be de-energized by the VEC line personnel, the VEC System Operations will open the line recloser via SCADA.
- e. VEC line personnel will verify that the line recloser has been opened, and then open the 30-2F6 in-line cutout to create a visual opening to the generator.
- f. VEC line personnel will then test, ground, and red tag the 30-2F6 in-line cutout.

Reconnection

- g. When work has been completed, VEC System Operations will notify Riverview via telephone that the work is completed and they are ready for VEC to re-energizing its distribution.
- h. VEC line personnel will return to the Riverview facility.
- i. Upon arrival at the Riverview facility, VEC line personnel will contact VEC System Operations for permission to close the 30-2F6 in-line cutout.
- j. The VEC System Operations will verify with Riverview that it is OK to re-energize the feed to Riverview.
- k. VEC System Operations will close the recloser via SCADA.

Contact Information

Vermont Electric Cooperative

Person: VEC System Operator
Mailing Address: 42 Wescom Road
Johnson, VT 05656
Telephone Number: (802) 730-1219
Fax Number: (802) 635-1130
E-mail: dispatch@vermontelectric.coop

Riverview Project

Person: Denna Benjamin
Mailing Address: East Franklin Cow Power
4654 Middle Road
Franklin, VT 05457
Telephone Numbers: (802) 285-2010
E-mail: dbenjamin@franklinVT.net

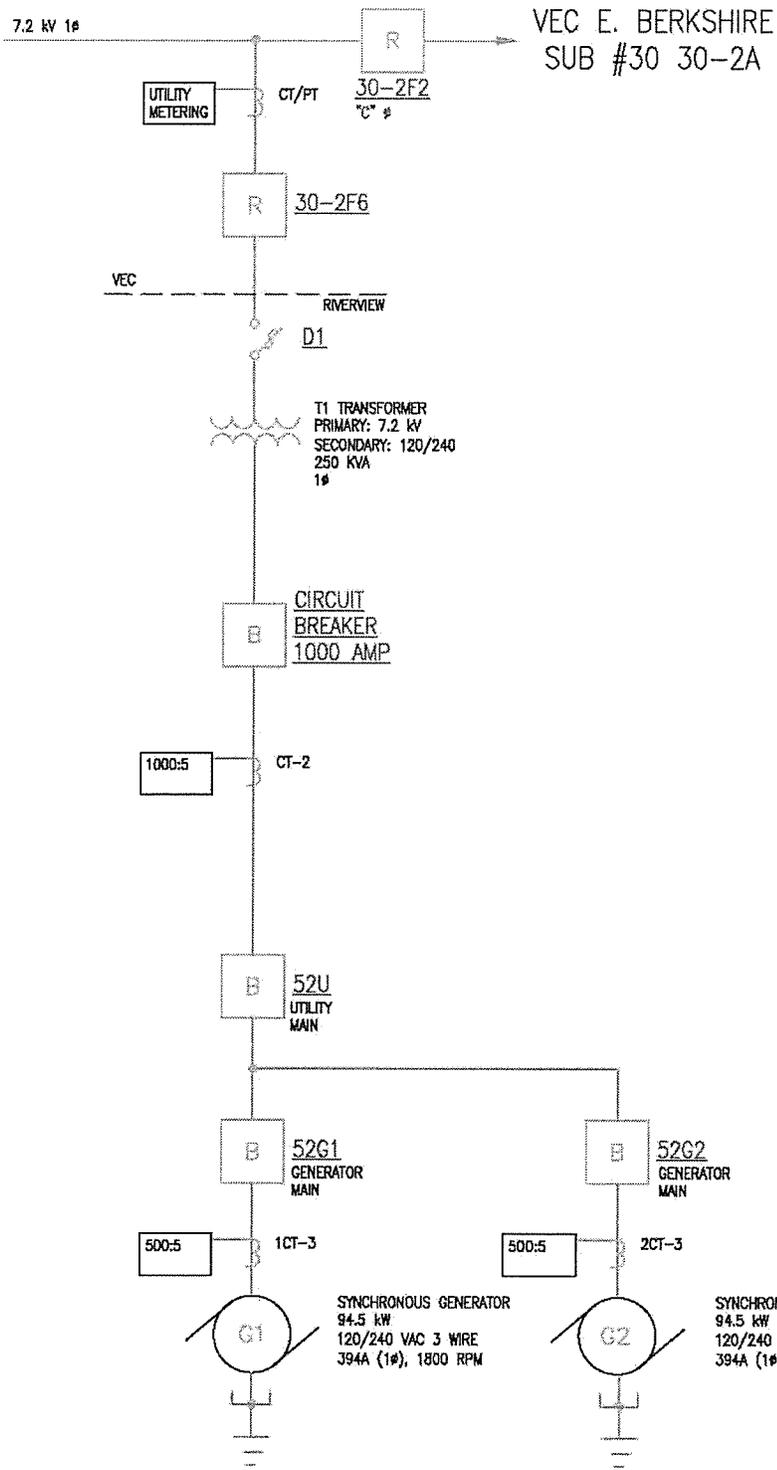
Riverview can call VEC System Operations for updates and to report or check on the status of an outage at any time. VEC System Operations will summon additional resources as needed.

Operating Committee. Representative of each of the Parties shall meet from time to time, upon the request of either party, to confer on issues related to the interconnection operations of the Riverview generating facility with the VEC electric system. At such meetings, the Parties shall provide each other updates to information necessary to ensure that operations are conducted in accordance with Prudent Engineering and Operating Practices. The Parties shall have the right to modify, amend or restate the requirements hereof, upon consultation, with the mutual written consent of the Parties hereto.

Riverview Project Interconnection Agreement
Between Vermont Electric Cooperative, Inc. and Riverview Farms

Attachment 3

One-line Diagram



					VERMONT ELECTRIC COOP	
					JOHNSON, VT	
					RIVERVIEW ANEROBIC DIGESTER	
					ONE-LINE DIAGRAM	
REV	DATE	REVISION DESCRIPTION	DRN	CKD	DES: DRD	DRN: RJP
					SCALE: NONE	
					DATE: 11/5/13	
					DWG. NO.	RV-100
						REV 0

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7886

Petition of Michael and Denna Benjamin for a)
certificate of public good ("CPG"), pursuant to)
30 V.S.A. Section 248(j), authorizing the installation)
and operation of a 189 kW agricultural-methane)
electric generation facility at the Riverview Farm,)
4420 Lake Road, Franklin, Vermont)

Order entered:

9/7/2012

I. INTRODUCTION

This case involves a petition filed by Michael and Denna Benjamin requesting a certificate of public good ("CPG") under 30 V.S.A. § 248(j) to install and operate a 189 kW agricultural-methane electric generation facility at the Riverview Farm, 4420 Lake Road, Franklin, Vermont. In today's Order, we conclude that the proposed project will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

II. PROCEDURAL HISTORY

On June 8, 2012, Michael and Denna Benjamin filed a petition with the Public Service Board ("Board") requesting a certificate of public good under 30 V.S.A. § 248(j) to install and operate a 189 kW agricultural-methane electric generation facility at the Riverview Farm, 4420 Lake Road, Franklin, Vermont. The Benjamins submitted prefiled testimony, proposed findings, and a proposed order pursuant to the requirements of 30 V.S.A. § 248(j). Leslie A. Cadwell, Esq., and Matthew S. Stern, Esq., of Gravel & Shea PC, filed notices of appearance on behalf of the Benjamins.

On June 26, 2012, Diane E. Zamos, Esq., filed a notice of appearance on behalf of the Vermont Agency of Agriculture, Food and Markets ("AAFM").

Notice of the petition was sent on July 13, 2012, to all entities specified in 30 V.S.A. § 248(a)(4)(C) and other interested parties. The notice stated that any party wishing to submit comments as to whether the petition raises a significant issue with respect to the substantive criteria of 30 V.S.A. § 248 needed to file comments with the Board on or before August 10, 2012. A similar notice of the filing was posted on the Board's website.

Also on July 13, 2012, the Clerk of the Board issued a memorandum requiring the Benjamins to file additional information regarding the proposed project.

On July 13, 2012, AAFM filed a Motion to Intervene in this proceeding.

On July 23, 2012, Judith L. Dillon, Esq., filed a notice of appearance on behalf of the Agency of Natural Resources ("ANR").

On July 30, 2012, the Benjamins filed a response to the Board's July 13 memorandum.

On July 31, 2012, Geoffrey Commons, Esq., filed a notice of appearance on behalf of the Department of Public Service ("DPS").

On August 1, 2012, the Board issued an Order granting, on a permissive basis, AAFM's motion to intervene, pursuant to Board Rule 2.209(B).

On August 10, 2012, the DPS and ANR each filed comments on the proposed project, and recommended certain CPG conditions.

On August 13, 2012, AAFM filed comments on the proposed project.

On August 21, 2012, the Benjamins filed a letter confirming their support for the proposed CPG conditions as recommended by the commenting parties.

On August 23, 2012, the Clerk of the Board issued a memorandum requiring the Benjamins to file additional information regarding the proposed project.

On August 24, 2012, Vermont Electric Cooperative, Inc. ("VEC"), filed a letter regarding its commitment to consult with Central Vermont Public Service Corporation ("CVPS"), d/b/a Green Mountain Power ("GMP")¹ with regard to any interconnection issues.

1. On June 15, 2012, the Board issued an Order in Docket 7770 approving a number of corporate transactions, some involving CVPS. Among those transactions is the merger of CVPS and GMP, with GMP remaining as the surviving entity. We understand that, while some of the initial transactions have been completed, as of the date of this Order, the merger of CVPS and GMP has not been completed. Accordingly, throughout this Order we refer to CVPS because it remains a separate corporate entity for now, even though it is currently doing business as Green

On August 30, 2012, the Town of Franklin filed comments on the proposed project, in response to the Board's August 23 memorandum.

III. FINDINGS

1. Michael and Denna Benjamin own and operate Riverview Farm, located at 4420 Lake Road in Franklin, Vermont. The farm is a family-run 625-cow dairy farm that also includes approximately 1,000 acres of crop land to cultivate corn and hay to feed the cattle. Benjamin pf. at 2.

2. The farm's existing facilities include a barn, milking parlor, and waste storage facility (manure pit). Benjamin pf. at 2.

3. The Benjamins currently store waste in a synthetic-lined wastewater-storage facility for up to 230 days. Treated waste is applied to fields as nutrients twice a year. Current farming operations produce approximately 440,352 cubic feet of waste per year. Benjamin pf. at 3.

4. The proposed project will improve waste management practices at the farm by treating manure and other wastes in an anaerobic digester where bacteria will break down the waste and capture methane gases to produce electricity. The remaining solid wastes will be recycled as bedding for the cows. Liquid waste will be stored, treated, and spread on fields under the current waste management plan. Benjamin pf. at 3-4.

5. The proposed project includes the installation of a 317,000 gallon digester tank, a 9,000 gallon reception tank to store off-farm co-substrate, and a 13,000 gallon concrete preparation tank. Guay pf. at 4; exh. Pet. SG-2.

6. Two new buildings will be constructed to house the project equipment. The cylindrical digester building will measure 34.75 feet high and 49 feet in diameter. The generator set ("gen set") and digestate building will measure 64 feet by 30 feet and will be 25 feet tall. Both buildings will be set back from Lake Road by approximately 100 feet. Benjamin pf. at 5, 6; letter of July 27, 2012, from Matthew S. Stern, Esq., to Susan Hudson, Clerk of the Board, Responses at 1.

1. (...continued)
Mountain Power. Once the merger between CVPS and GMP is complete, any references in this Order to CVPS shall be read to apply to GMP with full force and effect.

7. The 9,000 gallon reception tank will be placed inside the gen set/digestate building. The 13,000 gallon concrete preparation tank will be placed underground. Guay pf. at 4.

8. The two 94.5 kW combined heat and power ("CHP") generators will be located inside the gen set/digestate building. Guay pf. at 5, Benjamin pf. at 5.

9. Operation of the proposed project will include collecting manure from the dairy barn and diverting it into the preparation tank where it may be combined with other materials or co-substrates to reach a desired humidity and texture. Waste will be pumped from the preparation tank into the airtight digester tank. Co-substrates or other wastes may be added from the reception tank as needed. Waste will be held in the digester tank for approximately three weeks (20 days), during which time the digester tank will be kept at a temperature of around 100 degrees Fahrenheit. Bacteria naturally present in the manure and additional co-substrates will break down the waste and produce the biogas byproduct, which will be a mix of approximately 60% methane and 40% carbon dioxide. The biogas will be burned by the generators to produce electricity. Guay pf. at 6; exh. Pet SG-2.

10. The total thermal load of the two CHP generators is 286 kWh. The digester will require approximately 50 kWh for the heating process, and the remaining heat will be used to heat the barn. Benjamin supp. pf. at 4.

11. The proposed project is intended to be a Sustainably Priced Energy Enterprise Development ("SPEED") standard-offer project. The Benjamins have executed a standard-offer contract. Benjamin pf. at 4; exh. Pet. MB-1.

Discussion

Pursuant to 30 V.S.A. § 8007(b):

With respect to renewable energy plants that have a plant capacity that is greater than 150 kW and is 2.2 MW or less, the board shall establish by rule or order standards and procedures governing application for, and issuance or revocation of, a certificate of public good for such a plant under the provisions of section 248 of this title, and the interconnection of such a plant with the system of a Vermont retail electricity provider.

(1) In developing such rules or orders, the board:

(A) Shall waive the requirements of section 248 of this title that are not applicable to such a plant, including, for a plant that is not owned by a Vermont retail electricity provider, criteria that are generally applicable to such a provider.

(B) May modify notice and hearing requirements of this title as it deems appropriate.

(C) Shall simplify the petition and review process as appropriate.

By Order dated August 31, 2010, in Docket No. 7533, the Board established such standards and procedures. The Board conditionally waived, for renewable energy projects with plant capacities that are greater than 150 kW and less than 2.2 MW, the following criteria:

- 30 V.S.A. § 248(b)(2) — Need for the Project (with the exception of projects developed by utilities);
- The following criteria incorporated through Section 248(b)(5):
 - 10 V.S.A. § 6086(a)(1)(C) — Water Conservation
 - 10 V.S.A. §§ 6086(a)(2) and (3) — Sufficiency of Water and Burden on Existing Water Supply
 - 10 V.S.A. § 6086(a)(6) — Educational Services
- 30 V.S.A. § 248(b)(7) — Compliance with Electric Energy Plan
- 30 V.S.A. § 248(b)(6) — Least-Cost Integrated Resource Plan (with the exception of projects developed by utilities).

In addition, the Board conditionally waived, for standard-offer projects that have capacities that are greater than 150 kW and are 2.2 MW or less:

- 30 V.S.A. § 248(b)(4) — Economic Benefit to the State.

Accordingly, because the proposed project is a standard-offer project that has a capacity that is greater than 150 kW and less than 2.2 MW, the Benjamins do not need to demonstrate compliance with these criteria.

Orderly Development of the Region

[30 V.S.A. § 248(b)(1)]

12. The proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. This finding is supported by findings 13 and 14, below.

13. The proposed project will not violate any land conservation measures contained in the Franklin Municipal Plan (2007). The project will be consistent with the plan's goal of better

manure management practices as a way to reduce phosphorus loading and pollution to Lake Carmi. The project will be consistent with the renewable energy policies of both the Franklin Municipal Plan and the Northwest Regional Plan. Benjamin pf. at 7; exhs. Pet. MB-3 and MB-4.

14. The Benjamins sent notice of the proposed project to the Town of Franklin Select Board, the Town of Franklin Planning Commission, and the Northwest Regional Planning Commission. On April 3, 2012, the Northwest Regional Planning Commission wrote a letter of support for the project to the Benjamins. Benjamin pf. at 6; exh. Pet. MB-2.

System Stability and Reliability

[30 V.S.A. § 248(b)(3)]

15. The proposed project will not adversely affect system stability and reliability. This finding is supported by findings 16 through 21, below.

16. The proposed project is supplied power from the Berkshire #16 metering point at 7.2 kV single phase. The proposed generator is located 11.6 miles from the metering point, including 9.77 miles of three-phase 4/0 All Aluminum Alloy Conductor ("AAAC conductor"), 1.1 miles of two-phase 4/0 AAAC conductor, and 0.6 miles of single-phase #6A Copperweld/Copper wire ("CWC"). The proposed project will interconnect at the single-phase line. Denis pf. at 2, 3.

17. VEC performed a fast track analysis and a system impact study. The proposed project does not satisfy all of the Fast Track screening criteria described in Board Rule 5.500 because the project will necessitate upgrades to VEC's system to facilitate the interconnection. Denis pf. at 3, 4.

18. VEC will require the installation of a new single phase electronic line recloser to prevent the proposed generator from sourcing the line segment load where the existing line reclosers are located near the intersection of West Berkshire Road and Potato Hill Road ("2F2 point") in Berkshire, Vermont. Two new line reclosers will need to be installed: one at the existing VEC 2F2 point location, and one at the generator site. The two reclosers will be linked by radio communication. The system of reclosers will prevent islanding of the line segment loads. Denis pf. at 3.

19. The A-phase regulator on State Farm Road will need to have a control capable of reverse power operation. Denis pf. at 3.

20. The proposed project will not result in any loading or voltage issues. The output of the generator will be 27.8 Amps, while the single phase 6A CWC line is rated for 140 Amps. VEC ran a circuit model with the generator on and off at both peak periods and off-peak periods. The model shows that there are no serious voltage fluctuation problems anticipated with this generation level at this location in the system. Denis pf. at 4.

21. The Benjamins will be responsible for paying the costs of the required interconnection upgrades. Denis pf. at 5.

Discussion

Witness Dean Denis, Senior Engineer for VEC, states that the use of radio communications may not be effective at this location. If reception cannot be achieved by use of radio repeaters mid way, Mr. Denis asserts, other options will need to be explored. We condition our approval today on the Benjamins utilizing radio communications if effective. If radio communications are not feasible, we require the Benjamins to file prior to commencing construction, for Board approval, an alternate plan to achieve a direct transfer trip communication path between the two line reclosers.

The System Impact Study ("SIS") states that the Berkshire #6 Metering Point is served via a CVPS distribution line that originates at the CVPS Sheldon Springs Substation. The SIS includes the recommendation of a complete coordination study prior to energizing the project. The Benjamins assert that VEC will be responsible for any coordination studies. The DPS recommends that the Board require the Benjamins to consult with CVPS and report the results of the coordination study to the Board and parties. Alternatively, the DPS recommends that VEC provide a statement that it will undertake a coordination study in accordance with prudent utility practice.

On August 24, 2012, VEC provided a statement that it will "undertake consultation with [CVPS] in accordance with prudent utility practice with regard to any utility grid interconnection issues between the two utilities and specifically at the Berkshire metering point as a consequence of the Riverview Farm generation source."

We find that VEC's August 24 statement adequately addresses the DPS's concern. We conclude that with the full implementation by the Benjamins of the upgrades identified in the SIS, the proposed project will not have an undue adverse affect on system stability or reliability.

Aesthetics, Historic Sites, Air and Water Purity,
the Natural Environment and Public Health and Safety

[30 V.S.A. § 248(b)(5)]

22. The project, as proposed, will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 23 through 74, below, which are the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

Public Health and Safety

[30 V.S.A. § 248(b)(5)]

23. The proposed project will not have an undue adverse effect on public health and safety. This finding is supported by findings 24 and 25, below.

24. The proposed project will comply with the National Electrical Code. Benjamin supp. pf. at 3.

25. The proposed project has been designed with several layers of safety precautions. The biogas reservoir in the digester tank is protected from wind, rain, snow, and other elemental damage with a steel roof. The reservoir is air tight and maintained at ambient pressure to avoid any risk of explosion. An overpressure exhaust outlet is used to maintain safe pressure levels. The system will be equipped with an electronic control screen to monitor biogas volume, temperature, pH levels and other details. Guay pf. at 9.

Outstanding Resource Waters

[10 V.S.A. § 1424(a)(d)]

26. The proposed project will not be located on or in the vicinity of any outstanding resource waters. Benjamin pf. at 11.

Air Pollution

[10 V.S.A. § 6086(a)(1)]

27. The proposed project will not result in undue air pollution. This finding is supported by findings 28 through 34, below.

28. The anaerobic digester is part of an improved waste management plan for Riverview Farm. The digester will reduce odors from waste treatment and will reduce the amount of greenhouse gas emissions that enter the air. Benjamin pf. at 9, 10.

29. Project system design specifications and emissions specifications sheets from the engine manufacturer were submitted to the Vermont Air Pollution Control Division. The information verifies that the proposed system meets the minimum conditions required for biogas-to-energy projects. Guay pf. at 8; exh. Pet. SG-5.

30. The Vermont Air Pollution Control Division has determined that biogas-to-energy projects such as this agricultural methane project do not require an Air Pollution Control Permit provided that the project meets certain minimum criteria. The Vermont Air Pollution Control Division verified that the proposed project will not require an Air Pollution Control Permit. Guay pf. at 8; see exh. Pet. SB-5.

31. Normal operation of the generators produces some noise. The proposed project will employ two noise-reduction systems. The exhaust unit will include a high-grade exhaust silencer. The entire generator unit will be enclosed in a sound-attenuated enclosure. The maximum rated noise level with these measures in place is 65 dB at 10 meters (35 feet). Both generators will be placed inside of a larger building or engine room. Therefore, sound levels from the proposed project will be lower due to normal building insulation, which attenuates sound. Guay pf. at 7.

32. Noise levels from the generator system are expected to reach 50.4 dB at the nearest residence, located 180 feet from the proposed generator location. Benjamin supp. pf. at 4.

33. Noise levels from farm tractors are approximately 94 to 100 dBA and noise from milking cows is generally 72 to 75 dBA. Benjamin supp. pf. at 4.

34. Noise from construction of the proposed project will be temporary. Truck traffic noise will not be unusual or excessive. Guay pf. at 7.

Discussion

ANR recommends that the following conditions be incorporated into any CPG issued for this project:

- (1) Riverview Farm shall only install and operate two (2) MAN E0836 LE202 147 bhp (95 kW) engines, which the Agency has determined to comply with the Tier 2 non-road engine emission standards of 40 C.F.R. Part 89. Riverview Farm shall not install alternative engines without prior written approval from the Agency. The engines shall be maintained in good working order at all times and operated and maintained in accordance with the manufacturer's operation and maintenance recommendations. Riverview Farm shall also comply with all applicable requirements of 40 C.F.R. Part 60 Subpart JJJJ for new spark ignition engines.
- (2) Each engine exhaust stack must be vertical and extend a minimum of four (4) feet above the nearest point of the roof. The stacks shall not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed raincap. Flapper valves are acceptable provided they open fully at all loads.
- (3) Riverview Farm shall design and operate the biogas-to-energy facility in such a manner that any biogas which is not combusted in the engines is routed to a flare that is designed and operated in accordance with 40 C.F.R. Part 60, Subpart A, § 60.18. The flare shall also be equipped with a properly sized windscreen to prevent blowout of the flame. The flare shall be equipped and operated with an automatic ignition system, such as a spark ignition system or a continuous pilot light, to ensure immediate and continuous combustion of any biogas that is routed to it. Spark igniters may be powered by the grid or an acceptable alternative power source. All elements of the flare system shall be maintained in good working order at all times and operated and maintained in accordance with the manufacturer's operation and maintenance recommendations.
- (4) Riverview Farm shall register its air emissions with the Agency annually in accordance with Subchapter VIII of the Vermont Air Pollution Control Regulations. Annual registration is required for all facilities that emit more than five (5) tons of emissions annually. The proposed facility is estimated to exceed five (5) tons if the engines are operated for more than 3,000 hours per year, combined.
- (5) Should Benjamin/Riverview Farm alter the proposed biogas-to-energy project in any way from that presented to the Agency, such as by combusting an alternate fuel, altering the proposed engine or flare, or increasing the system capacity,

Benjamin/Riverview Farm shall notify the Agency prior to making such changes so that a new determination for the need for an Air Permit can be made.

The DPS notes that in response to Board staff questions, the Benjamins represent that noise levels associated with the project at the nearest residence will exceed the maximum noise level set, for example, in the Kingdom Community Wind CPG (Docket No. 7628, CPG issued 5/31/11 at 8, ¶39). The DPS contends that existing, on-going farming activities and the adjacent road creates a different acoustic environment than that on Lowell Mountain. The DPS therefore recommends that any CPG include a condition similar to that imposed in CPG #NM-1978 (*Application of Michele Judd for a certificate of public good for an interconnected group net-metered wind turbine*, Order and CPG issued 7/11/12) that limits project-related noise to no more than 10 decibels above the ambient sound level. The DPS recommends that upon receipt of a complaint of excessive noise from the facility the Board may investigate, and if warranted, require measurement of noise levels and require mitigation if needed.

The Benjamins are amenable to the conditions proposed by ANR and the DPS.

We find that the proposed CPG conditions recommended by ANR are reasonable and will ensure that the proposed project does not result in undue air pollution. Accordingly, the conditions have been included in the CPG.

We find that compliance with the CPG condition proposed by the DPS may be difficult for the Benjamins. The proposed project will clearly be quieter than certain other farming operations, for instance, tractor use and milking. However, we note that those two farm activities are generally limited to daytime hours, whereas the proposed project will most likely be operating at all hours. It stands to reason that the proposed project may regularly exceed the DPS's proposed noise standard at night in the absence of farm operations and vehicle traffic, in what may be a relatively quiet rural acoustic environment. Nonetheless, because the Benjamins are amenable to the DPS's proposed condition to limit project-related noise to no more than 10 decibels above the ambient sound level, we will include it as a condition of our approval. The Benjamins bear the risk associated with complying with the noise level standard we impose, including the possible need for additional mitigation, including the need to adjust operations. In the event that the Board receives a complaint of excessive noise from the project, the Board may investigate, may require the Benjamins to conduct noise monitoring at their expense, and may

require mitigation for any excessive noise. Accordingly, prior to commencing operation of the project, we require the Benjamins to provide a copy of this Order to their nearest neighbors so that they are aware of the opportunity to file a complaint regarding project noise with the Board.

Water Pollution

[10 V.S.A. § 6086(a)(1)]

35. The proposed project will not result in undue water pollution. This finding is supported by finding 36, below, and by the specific findings under the criteria of 10 V.S.A.

§§ 6086(a)(1)(A) through (G), below.

36. The digester process reduces the total amount of waste that will be field-applied, as resulting waste digestate will be recycled for use as bedding for the dairy cows. Improved waste management practices through this system will reduce nutrient-loading on Riverview Farm's crop fields. Several of these fields drain toward Class II wetlands or tributaries of Lake Carmi such as the Pike River. Benjamin pf. at 9.

Headwaters

[10 V.S.A. § 6086(a)(1)(A)]

37. The proposed project is not located in a headwaters region. Benjamin pf. at 11; exh. Pet. MB-7.

Waste Disposal

[10 V.S.A. § 6086(a)(1)(B)]

38. The proposed project will meet applicable health and environmental conservation regulations regarding the disposal of wastes. This finding is supported by findings 39 through 45, below.

39. The proposed project will improve waste management practices at the farm. Solid waste remaining after the digestion process is complete will be recycled as bedding for the dairy cows. Benjamin pf. at 3.

40. Liquid waste remaining after the digestion process will be treated in the existing waste storage facility and will be field-applied consistent with the Benjamin's existing nutrient management plan. Benjamin pf. at 3-4.

41. Some co-substrates may be added from off-farm sources. The addition of cheese whey or fat as a co-substrate will benefit the performance of the digester by producing a more efficient biogas for combustion and electric generation. Guay pf. at 6.

42. Off-farm co-substrates are expected to come from nearby farms. Guay pf. at 6.

43. All off-farm feedstock will be immediately transferred to either the reception tank located inside the generator building, or directly to the concrete preparation tank located underground. Guay pf. at 6.

44. At all times, at least 51% of the feedstock for the system will be provided from waste produced from on-site farming operations at Riverview Farm. Guay pf. at 7.

45. Waste from the construction process will be discarded or recycled according to applicable state and local regulations. Guay pf. at 10.

Discussion

In previous Orders the Board has discussed how agricultural-methane projects that use or store off-farm feedstock likely invoke jurisdiction under both ANR's water quality regulations and AAFM's solid waste management programs.² Therefore, if the Benjamins intend to use off-farm feedstock for the proposed project, they must first notify ANR and AAFM and obtain all necessary permits or approvals as required by ANR and AAFM.

ANR recommends that, because the proposed project anticipates utilizing off-farm food stocks, the following conditions be added to any CPG:

1. Benjamin/Riverview Farm be required to apply for and obtain the appropriate Solid Waste Management Certification if off-site food waste will be utilized as feedstock for the facility.
2. If liquid food processing wastes from an off-site source are utilized as feedstock, Benjamin/Riverview Farm shall only accept such wastes from generators that have received an Indirect Discharge Permit from the Wastewater Management Division.

2. See *Petition of Agnorth BioPower*, Docket 7572, Order of 1/6/10 at 13.

This condition does not apply during any periods when Benjamin/Riverview Farm is testing such wastes to determine suitability as a feedstock.

The proposed conditions appear reasonable and will help ensure that the proposed project will meet applicable health and environmental conservation regulations regarding the disposal of wastes. The Benjamins do not oppose these conditions. Accordingly, we condition our approval of the proposed project upon the Benjamin's compliance with these requirements.

Floodways

[10 V.S.A. § 6086(a)(1)(D)]

46. The proposed project is not located within a floodway or floodway fringe. Benjamin pf. at 11; exh. Pet. MB-8.

Streams

[10 V.S.A. § 6086(a)(1)(E)]

47. The proposed project will not be located in the vicinity of any streams. Benjamin pf. at 11; exh. Pet. MB-7; Benjamin supp. pf. at 3

Shorelines

[10 V.S.A. § 6086(a)(1)(F)]

48. The proposed project does not involve any development along a shoreline. Benjamin pf. at 11; exh. Pet. MB-7.

Wetlands

[10 V.S.A. § 6086(a)(1)(G)]

49. The proposed project will not impact wetlands. Cross pf. at 2.

50. The ANR Environmental Interest Locator map shows a Class II wetland on the project site. The map is in error, as no wetland actually exists at this location. Cross pf. at 2; exh. Pet. MB-7.

51. The mapping error has been attributed to incorrect interpretations of aerial photographs used for compiling the Environmental Interest Locator and Vermont Significant Wetland

Inventory maps. An agricultural pond or manure pit may have been mistaken for a wetland. Exh. Pet. MB-9; exh. Pet. PC-2.

52. On May 10, 2012, the Vermont Department of Environmental Conservation District Wetland Ecologist confirmed during a field visit to the project site that the Class II wetland polygon appearing on the Environmental Interest Locator map is in error and that no other wetlands exist in the vicinity of the proposed project. Cross pf. at 3; exh. Pet. PC-2.

Soil Erosion

[10 V.S.A. § 6086(a)(4)]

53. The proposed project will not result in unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result. This finding is supported by findings 54 through 56, below.

54. The total amount of disturbed or impacted soil as a result of the construction of the proposed project will be less than one acre, therefore, a Stormwater Discharge permit is not required. Cross pf. at 3; exh. Pet. PC-3; Benjamin supp. pf. at 5.

55. Appropriate erosion control practices will be implemented during construction, including the standards provided by the Vermont Low Risk Site Handbook for Erosion Prevention and Sediment Control. Cross pf. at 3.

56. No vegetation or tree removal is required for the project. Cross pf. at 3.

Transportation Systems

[10 V.S.A. § 6086(a)(5)]

57. The proposed project will not cause unreasonable congestion or unsafe conditions with respect to transportation systems. This finding is supported by findings 58 through 61, below.

58. The construction period for the project is expected to last approximately seven months. During that time an average of two to three truckloads of material will be delivered to the site each week. Guay pf. at 9.

59. The project site will be accessed directly off of Lake Road by an existing driveway. Guay pf. at 9.

60. No special transportation accommodations such as oversized loads or modified traffic patterns are required or planned for project construction. Guay pf. at 9.

61. The maximum amount of off-farm co-substrate planned for this system will not exceed five truckloads per week and deliveries will be limited to Monday through Friday. Guay pf. at 6.

Discussion

AAFM states that it has no objection to the farm's importation of food processing waste or agricultural waste for use as off-farm substrates for the proposed digester. AAFM notes that it routinely collaborates with ANR for on-farm digester projects and makes recommendations for the amount of off-farm substrates available for digestion, taking into account a farm's current animal unit numbers, to ensure adequate capacity to lawfully manage manure and other nutrients produced on the farm. AAFM states that both it and ANR have used a preliminary volume limit for off-farm substrate of ten percent of the usable manure storage volume for the 180-day storage requirements. AAFM contends that this would equate to five truckloads per week for the proposed project.

The five-truckload-per-week preliminary volume limitation noted by AAFM is consistent with the maximum amount suggested by the Benjamins. Accordingly, we include as a condition of our approval this limit to the number of truckloads of off-farm substrate that may be transported to the generator site. The Benjamins must obtain Board approval prior to any increase in the volume of off-farm substrate transported to the site.

Municipal Services

[10 V.S.A. § 6086(a)(7)]

62. The proposed project will not place an unreasonable burden on the ability of the local government to provide municipal or governmental services. Letter from Peter Magnant, Town of Franklin Select Board Chair, and Clak Hubbard, Town of Franklin Planning Commission Chair, to Susan M. Hudson, Clerk of the Board, dated August 24, 2012.

**Aesthetics, Historic Sites
and Rare and Irreplaceable Natural Areas**

[10 V.S.A. § 6086(a)(8)]

63. The proposed project will not have an undue adverse impact on the scenic or natural beauty, aesthetics, historic sites, or rare and irreplaceable natural areas. This finding is supported by findings 64 through 71, below.

64. The structures involved with the proposed project are designed to appear similar to traditional agricultural structures and should fit in with the general appearance of the surrounding landscape. Benjamin pf. at 7.

65. The structures involved with the proposed project will be located immediately next to existing large farm buildings and will be painted green. Benjamin pf. at 7; Guay pf. at 4.

66. A popular view of the East Franklin Union Church located behind Riverview Farm is occasionally accessed from Lake Road adjacent to the project site. The project will be set back at least 100 feet from lake Road to preserve the view. Benjamin pf. at 7; exh. Pet. PC-3.

67. The distribution upgrades required for the system interconnection will not have an undue adverse impact on aesthetics. The upgrades include the replacement of existing equipment and the addition of radio repeaters and antennas, which are small in nature and will not add significantly to the existing facilities. One new primary riser pole will be installed at the farm, and will extend 34 to 38.5 feet above ground. The existing poles along Lake Road are 29.5 feet above ground. Denis pf. at 5; Benjamin supp. pf. at 5.

68. There are no registered historic sites or archaeological resources on or near the proposed project. Benjamin pf. at 8.

69. There are no historic properties affected by activities at Riverview Farm. Benjamin pf. at 8, 9.

70. The project site has been significantly disturbed during years of use in active farming operations. Benjamin pf. at 9.

71. The project will not impact any rare or irreplaceable natural areas. Benjamin pf. at 10; exh. Pet. MB-6.

Necessary Wildlife Habitat and Endangered Species

[10 V.S.A. § 6086(a)(8)(A)]

72. The proposed project will not impact any necessary wildlife habitats or threatened or endangered species. Benjamin pf. at 10.

Development Affecting Public Investments

[10 V.S.A. § 6086(a)(9)(K)]

73. The proposed project will not unnecessarily or unreasonably endanger the public or quasi-public investments in any governmental public utility facilities, services, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of the public's use or enjoyment of or access to such facilities, services, or lands. This finding is supported by finding 74, below.

74. The proposed project and all construction activities will be located on the Benjamins' property. The only adjacent public investment is Lake Road. The proposed project will not adversely impact Lake Road as the additional traffic during construction and operation of the project will not be unreasonable. Benjamin pf. at 12.

Outstanding Resource Waters

[30 V.S.A. § 248(b)(8)]

75. The proposed project will not be located near any outstanding resource waters. Benjamin pf. at 11; exh. Pet. MB-7.

Existing or Planned Transmission Facilities

[30 V.S.A. § 248(b)(10)]

76. The proposed project can be served economically by existing or planned transmission facilities without undue adverse impact on Vermont utilities or customers. The Benjamins will assume the costs of all necessary upgrades to interconnect the generation facility to VEC's

system. The proposed project will not have any undue adverse impact on VEC or its customers. Denis pf. at 5, 6.

IV. CONCLUSION

Based upon all of the above evidence, we conclude that the proposed project will be of limited size and scope; the petition does not raise a significant issue with respect to the substantive criteria of 30 V.S.A. § 248; the public interest is satisfied by the procedures authorized by 30 V.S.A. § 248(j); and the proposed project will promote the general good of the state.

V. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board ("Board") of the State of Vermont that:

1. The proposed installation and operation of a 189 kW agricultural-methane electric generation facility by Michael and Denna Benjamin (the "Benjamins") at the Riverview Farm, 4420 Lake Road, in Franklin, Vermont, will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248, and a certificate of public good ("CPG") to that effect shall be issued.
2. Construction, operation, and maintenance of the proposed project shall be in accordance with the plans as submitted in these proceedings. Any material deviation from these plans must be approved by the Board. Failure to obtain advance approval from the Board for a material deviation from the approved plans may result in the assessment of a penalty pursuant to 30 V.S.A. §§ 30 and 247.
3. The Benjamins shall obtain all necessary permits and approvals and comply with any conditions that the permits or approvals might contain.
4. Prior to commencing construction, the Benjamins shall file with the Board, the Parties in this Docket, and the adjoining landowners, a letter stating that they have fulfilled all requisite CPG conditions, and that they intend to commence construction of the project.

5. The Benjamins shall comply with the recommendations contained in the System Impact Study ("SIS") to assure that the proposed project does not cause adverse impacts on system stability and reliability. The Benjamins shall pay for all costs associated with the recommendations in the SIS as well as all interconnection costs.

6. If radio communications are not feasible for establishing a communications path between the two required line reclosers, prior to commencing construction the Benjamins must submit for Board approval an alternative plan to achieve a direct transfer trip communications path between the two line reclosers.

7. The Benjamins shall comply with the five conditions for operating the engine and the flare established by the Agency of Natural Resources' ("ANR") Air Pollution Control Division in a letter dated August 10, 2012, and quoted on pages 10-11, above.

8. Noise from the proposed project shall not increase the ambient sound level measured at a residence on any property adjoining the property on which the project is located by more than 10 decibels [dB(A)]. Upon written notification of a complaint of excessive noise from the project, the Board, or its designee, may conduct a site visit to investigate the complaint. If noise levels are found to be potentially excessive, the Board may require the Benjamins to perform ambient and operating noise level measurements to determine whether the project is in compliance with the noise level standard established in this condition. Prior to commencing operation of the project, the Benjamins must provide a copy of this Order to their nearest neighbors so that they are aware of the opportunity to file a complaint regarding project noise with the Board.

9. If the Benjamins intend to employ off-farm feedstock for the proposed project, the Benjamins shall: (a) ensure that at all times, the amount of on-farm feedstock exceeds the off-farm feedstock used in the digester; (b) ensure that at least fifty-one percent of feedstock shall be derived from on-site agricultural operations; (c) notify ANR and the Agency of Agriculture, Food and Markets ("AAFM") and obtain all necessary permits or approvals as required by ANR and AAFM; (d) except for testing purposes, if using off-farm food waste, obtain a Solid Waste Management Certification from ANR's Waste Management Division; (e) except for testing purposes, if using off-farm liquid food-processing wastes, only accept such wastes from

generators that have received an Indirect Discharge Permit from ANR's Wastewater Management Division. All off-farm feedstock shall be immediately transferred to either the reception tank located inside the generator building, or directly to the concrete preparation tank located underground.

10. The Benjamins shall not import more than five truckloads per week of off-site substrate. The Benjamins must obtain Board approval prior to any increase in the volume of off-farm substrate transported to the site.

Dated at Montpelier, Vermont this 7th day of September, 2012.

s/James Volz)

) PUBLIC SERVICE

s/David C. Coen)

) BOARD

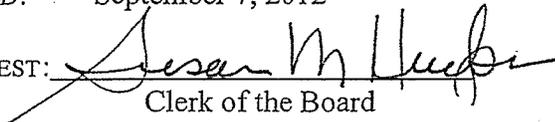
s/John D. Burke)

) OF VERMONT

A TRUE COPY
OFFICE OF THE CLERK

FILED: September 7, 2012

ATTEST:


Clerk of the Board

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

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7886

Petition of Michael and Denna Benjamin for a)
certificate of public good ("CPG"), pursuant to)
30 V.S.A. Section 248(j), authorizing the installation)
and operation of a 189 kW agricultural-methane)
electric generation facility at the Riverview Farm,)
4420 Lake Road, Franklin, Vermont)

Entered:

9/7/2012

CERTIFICATE OF PUBLIC GOOD ISSUED
PURSUANT TO 30 V.S.A. SECTION 248

IT IS HEREBY CERTIFIED that the Public Service Board ("Board") of the State of Vermont this day found and adjudged that the proposed construction of a 189 kW agricultural-methane electric generation facility by Michael and Denna Benjamin (the "Benjamins") at the Riverview Farm, 4420 Lake Road in Franklin, Vermont, 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 proposed project shall be in accordance with the plans and evidence as submitted in these proceedings. Any material deviation from these plans must be approved by the Board. Failure to obtain advance approval from the Board for a material deviation from the approved plans may result in the assessment of a penalty pursuant to 30 V.S.A. §§ 30 and 247.

2. The Benjamins shall obtain all necessary permits and approvals and comply with any conditions that the permits or approvals might contain.

3. Prior to commencing construction, the Benjamins shall file with the Board, the Parties in this Docket, and the adjoining landowners, a letter stating that they have fulfilled all requisite Certificate of Public Good ("CPG") conditions, and that they intend to commence construction of the project.

4. The Benjamins shall comply with the recommendations contained in the System Impact Study ("SIS") to assure that the proposed project does not cause adverse impacts on system stability and reliability. The Benjamins shall pay for all costs associated with the recommendations in the SIS as well as all interconnection costs.

5. If radio communications are not feasible for establishing a communications path between the two required line reclosers, prior to commencing construction the Benjamins must submit for Board approval an alternative plan to achieve a direct transfer trip communications path between the two line reclosers.

6. The Benjamins shall comply with the following five conditions for operating the engine and the flare established by the Agency of Natural Resource's ("ANR") Air Pollution Control Division in a letter dated August 10, 2012:

(1) Riverview Farm shall only install and operate two (2) MAN E0836 LE202 147 bhp (95 kW) engines, which the Agency has determined to comply with the Tier 2 non-road engine emission standards of 40 C.F.R. Part 89. Riverview Farm shall not install alternative engines without prior written approval from the Agency. The engines shall be maintained in good working order at all times and operated and maintained in accordance with the manufacturer's operation and maintenance recommendations. Riverview Farm shall also comply with all applicable requirements of 40 C.F.R. Part 60 Subpart JJJJ for new spark ignition engines.

(2) Each engine exhaust stack must be vertical and extend a minimum of four (4) feet above the nearest point of the roof. The stacks shall not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed raincap. Flapper valves are acceptable provided they open fully at all loads.

(3) Riverview Farm shall design and operate the biogas-to-energy facility in such a manner that any biogas which is not combusted in the engines is routed to a flare that is designed and operated in accordance with 40 C.F.R. Part 60, Subpart A, § 60.18. The flare shall also be equipped with a properly sized windscreen to prevent blowout of the flame. The flare shall be equipped and operated with an automatic ignition system, such as a spark ignition system or a continuous pilot light, to ensure immediate and continuous combustion of any biogas that is routed to it. Spark igniters may be powered by the grid or an acceptable alternative power source. All elements of the flare system shall be maintained in good working order at all times and operated and maintained in accordance with the manufacturer's operation and maintenance recommendations.

(4) Riverview Farm shall register its air emissions with the Agency annually in accordance with Subchapter VIII of the Vermont Air Pollution Control Regulations. Annual registration is required for all facilities that emit more than five (5) tons of emissions annually. The proposed facility is estimated to exceed five (5) tons if the engines are operated for more than 3,000 hours per year, combined.

(5) Should Benjamin/Riverview Farm alter the proposed biogas-to-energy project in any way from that presented to the Agency, such as by combusting an alternate fuel, altering the proposed engine or flare, or increasing the system capacity,

Benjamin/Riverview Farm shall notify the Agency prior to making such changes so that a new determination for the need for an Air Permit can be made.

7. Noise from the proposed project shall not increase the ambient sound level measured at a residence on any property adjoining the property on which the project is located by more than 10 decibels [dB(A)]. Upon written notification of a complaint of excessive noise from the project, the Board, or its designee, may conduct a site visit to investigate the complaint. If noise levels are found to be potentially excessive, the Board may require the Benjamins to perform ambient and operating noise level measurements to determine whether the project is in compliance with the noise level standard established in this condition. Prior to commencing operation of the project, the Benjamins must provide a copy of the Order to their nearest neighbors so that they are aware of the opportunity to file a complaint regarding project noise with the Board.

8. If the Benjamins intend to employ off-farm feedstock for the proposed project, the Benjamins shall: (a) ensure that at all times, the amount of on-farm feedstock exceeds the off-farm feedstock used in the digester; (b) ensure that at least fifty-one percent of feedstock shall be derived from on-site agricultural operations; (c) notify ANR and the Agency of Agriculture, Food and Markets ("AAF") and obtain all necessary permits or approvals as required by ANR and AAF; (d) except for testing purposes, if using off-farm food waste, obtain a Solid Waste Management Certification from ANR's Waste Management Division; (e) except for testing purposes, if using off-farm liquid food-processing wastes, only accept such wastes from generators that have received an Indirect Discharge Permit from ANR's Wastewater Management Division. All off-farm feedstock shall be immediately transferred to either the reception tank located inside the generator building, or directly to the concrete preparation tank located underground.

9. The Benjamins shall not import more than five truckloads per week of off-site substrate. The Benjamins must obtain Board approval prior to any increase in the volume of off-farm substrate transported to the site.

This Certificate of Public Good shall not be transferred without prior approval of the Board.

DATED at Montpelier, Vermont, this 7th day of September, 2012.

s/James Volz)

) PUBLIC SERVICE

s/David C. Coen)

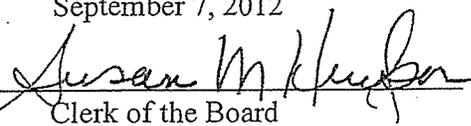
) BOARD

s/John D. Burke)

) OF VERMONT

A TRUE COPY
OFFICE OF THE CLERK

Filed: September 7, 2012

Attest: 
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)