STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Petition of Lincoln Renewable Natural Gas, LLC ("Lincoln RNG") pursuant to 30 V.S.A. Sections 231 and 248(j), seeking approval for the construction, ownership, and operation of a renewable natural gas facility in Salisbury, Vermont (the proposed "Project")	)	Docket No. 8596
In re Salisbury AD 1, LLC's construction, ownership, and operation of a renewable natural gas facility in Salisbury, Vermont	)	ePUC Case No. 18-_____-PET
Petition of Salisbury AD 1, LLC for a Certificate of Public Good, pursuant to 30 V.S.A. § 231, to own and operate a renewable natural gas facility in Salisbury, Vermont, and for de minimis regulation	)	ePUC Case No. 18-_____-PET

AFFIDAVIT OF MARIA SOL UCCIANI

1. My name is Maria Sol Ucciani.

2. My affidavit supports Salisbury AD 1, LLC's ("Salisbury AD 1") Motion to Transfer the Certificate of Public Good ("CPG") granted to Lincoln Renewable Natural Gas, LLC ("Lincoln RNG") by the Vermont Public Utility Commission ("PUC" or "Commission") on April 8, 2016 to construct and operate an anaerobic digester at the Goodrich Farm at 592 Shard Villa Road in Salisbury, Vermont ("the Project"). My affidavit also supports Salisbury AD 1's Motion to Amend the CPG, and its Petition for a CPG under 30 V.S.A. § 231.

3. I am employed by Vanguard Renewables ("Vanguard") as a Project Manager. I am responsible for managing the Project, which is part of Vanguard's portfolio. I have been working for Vanguard in the Anaerobic Digestion field for three years, first as a Senior Associate Engineer and then as Project Manager. As a Project Manager I have been involved in permitting, developing, and constructing several projects in Massachusetts, the latest of which is currently under construction in Spencer, Massachusetts.

4. Before taking a position at Vanguard I worked for five years in the Process Design Department of Techint Engineering and Construction. At Techint I performed basic and detailed engineering design for oil and gas and mining projects in Argentina, Brazil, Trinidad and Tobago, and the United States.

5. I earned a combined BS-MS in Chemical Engineering from the University of Buenos Aires, Argentina in 2008 and a Masters in Civil and Environmental Engineering with a focus in renewable energy from Tufts University in 2015.

I. DESCRIPTION OF SALISBURY AD 1

6. Salisbury AD 1 is a Vermont limited liability company with a principal business address of 20 Walnut Street, Suite 308, Wellesley, MA 02481. Salisbury AD 1 is a single-purpose entity, created and wholly owned by Vanguard for the purpose of developing, owning, and operating the Project. Its leadership team is made up of individuals employed by Salisbury AD 1's parent company, Vanguard.

7. Salisbury AD 1 is a "company" as defined by 30 V.S.A. § 201, and as such is subject to the Commission's jurisdiction pursuant to 30 V.S.A. § 203. Salisbury AD 1 is not a retail distribution utility that could incur expenses to be passed on to ratepayers.

8. Salisbury AD 1's technical experience and expertise, financial credentials, and business reputation are summarized below.

Technical Expertise

9. Vanguard develops, builds, owns, and operates anaerobic digesters on dairy farms producing renewable energy and other agricultural by-products such as liquid fertilizer and bedding. Committed to the long-term sustainability of the American farmer, Vanguard created Farm

Powered™ renewable energy for its host sites and third-party power off-takers including Polar Beverage, Whole Foods, Cabot, The City of Haverhill (MA), and Middlebury College.

10. Vanguard is currently the largest food waste recycler in Massachusetts with a current capacity of over 500 tons per day. Its four operating Massachusetts farm-based digesters provide consistent pick-up and dependable service for organic waste. A fifth is currently under construction.

11. Vanguard uses CH Four Biogas (http://www.ch4biogas.com/) ("CH Four") in the design of its projects. CH Four Biogas is a design and consulting firm that has successfully adapted more than 20 years of biogas "know-how" to the North American market, incorporating advanced anaerobic digestion technology into their projects. The company has administrative support and engineering staffs with expertise in the electrical, mechanical, and biochemical disciplines, permitting support, and computer-aided design.

12. CH Four has designed 19 digesters, and provides operations support to many more that they did not design (including Vanguard's Rutland and Hadley facilities, both in Massachusetts).

13. CH Four's staff includes Ethan Werner who has been active in the anaerobic digestion industry since early 2011 when he came to work for CH Four Biogas to coordinate on-farm, municipal and industrial anaerobic digester projects. In this capacity he developed numerous working relationships with government, NGO's, and private sector industry to enhance and progress the industry throughout North America.

Facility Maintenance

14. Vanguard operations team has a staff of highly trained operators that work on site to maintain and operate the projects. Maintenance is conducted daily per vendor specifications for each piece of equipment. Vanguard has developed a detailed preventive maintenance program to ensure the proper operation of all the digesters at all times.

15. Vanguard's operations support team includes biology engineers, environmental engineers, and construction and operations managers who work closely with on-site operators to make sure any issue is addressed promptly and in the best possible way. This highly experienced and skilled operations team is what differentiates Vanguard from other companies and is very unique within the biogas industry.

16. The Salisbury AD 1 facility will be Vanguard's sixth facility in New England. It will follow the same operating and maintenance program currently followed by the existing facilities. Having multiple sites provides Vanguard spare parts and equipment within the region.

Financial Stability

17. Salisbury AD 1 is a financially stable entity. As a wholly-owned subsidiary of Vanguard, Salisbury AD 1 is backed by the funding available to Vanguard.

18. Vanguard is fully funded by Tulum Trust, a mission-drive institutional investor seeking to impact climate change by removing food waste from landfills, capturing the latent methane in animal manure, and creating renewable electricity and renewable natural gas. With Tulum Trust as its partner and backer, Vanguard has successfully financed each of the above-mentioned assets through a strategic alliance with Farm Credit East and CoBank.

Ability to Obtain Financing

19. Vanguard secured financing for its projects with $72M in project equity in its first fund and project debt financing from CoBank and local farm credit banking partners.

20. The Dairy Farmers of America Cooperative ("DFAC") has also provided Vanguard with a $2M financing facility for predevelopment capital in markets important to its members. DFAC is a leading milk cooperative with more than 14,000 farm members and representing 25% of US milk production assets and $15 billion in annual sales.

21. Previously-financed projects are described in the paragraphs below.

22. Rutland AD1 is a 760-kW farm-based Quasar anaerobic digester located on Jordan Dairy Farm in Rutland, Massachusetts, which is currently operational. The project was acquired in June of 2015, followed by the installation of facility upgrades. Further upgrades to the facility occurred between February and September of 2017. In February of 2018, Vanguard made its first ISA payment to obtain additional net metering cap allocation as part of plans to expand the plant capacity in late 2018. In June of 2015, Vanguard closed on $5.5M of funding for the Rutland AD1 project consisting of $2.50M of equity capital from Tulum and $3.0M of debt financing through Farm Credit East and CoBank. In February of 2017, Vanguard closed on an additional $316k of equity capital from Vanguard Capital Investments ("VRCI"). In July of 2017, Vanguard closed on an additional $1.0M of equity capital from VRCI. In February of 2018, Vanguard closed on an additional $359k of equity capital from VRCI.

23. Hadley AD1 is a 760-kW farm-based RCM anaerobic digester located on Longview Farm in Hadley, Massachusetts, which is currently operational. The project was acquired in June of 2015, followed by the installation of facility upgrades. In July of 2016, the plant capacity was expanded from 285 kW to 760 kW, with interconnection of the additional capacity occurring in March 2017. In June of 2015, Vanguard closed on $4.78M of funding for the Hadley AD1 project consisting of $1.88M of equity capital from VRCI and $2.90M of debt financing through Farm Credit East and CoBank. In July of 2016, Vanguard closed on an additional $1.4M of equity capital from VRCI.

24. Deerfield AD1 is a 1-MW farm-based CH Four Biogas anaerobic digester located on Bar-Way Farm in Deerfield, Massachusetts, which is currently operating. Construction commenced in April of 2016 and operation started in December of 2016.

25. Haverhill AD1 is a 1-MW farm-based CH Four Biogas anaerobic digester located on Crescent Farm in Haverhill, Massachusetts, which is currently in the start-up phase. Construction commenced in September of 2017 and operation started in August of 2018. In September of 2017, Vanguard closed on $11.23M of funding for the Haverhill AD1 project consisting of $5.62M of equity capital from VRCI and $5.62M of debt financing through Farm Credit East and CoBank.

26. Spencer AD1 is a 1-MW farm-based CH Four Biogas anaerobic digester located on Jordan Heifer Farm in Spencer, Massachusetts, which is currently under construction. Construction commenced in May of 2018 and operation is set to start in December of 2018. In March of 2018, Vanguard closed on $11.26M of funding for the Spencer AD1 project consisting of $5.75M of equity capital from VRCI and $5.51M of debt financing through Farm Credit East and CoBank.

Business Reputation

27. Vanguard is recognized nationally for its organics-to-energy business. By the end of 2018, the firm's operating portfolio will represent the largest organics disposal destination in New England, with over 190,000 tons/year of combined on-farm and off-farm organics being processed and converted to green energy and value-added products for dairy and agricultural use. Vanguard is led by partners John Hanselman and Kevin Chase. Vanguard has a world-renowned investor in Tulum Trust, which is led by George Polk.

Awards and Recognition

28. Vanguard was the 2018 National Waste & Recycling Association ("NWRA") Organics Recycler of the Year. The NWRA award recognizes innovation in organics recycling and commitment to enhancing organics recycling channels and opportunities nationwide.

29. The partnership between Vanguard and Barstow's Longview Farm was awarded the 2016 American Biogas Council Agricultural Project of the Year. The zero-waste Farm Powered™ anaerobic digester at Barstow's combines 10,000 tons of farm waste and more than 20,000 tons of recycled food waste from supermarkets, food manufacturers, and institutional food users annually to produce more than 7,000 MWh of renewable energy per year. The Barstow project produces enough energy to power the Cabot Creamery/Agri-Mark Cooperative butter production facility in West Springfield, MA and provides reduced-cost power, heat, hot water, and organic fertilizer to the farm.

Organizations/Memberships

30. Vanguard is an active member of the Massachusetts Food Association, the National Waste & Recycling Association, the American Biogas Council, the New York Farm Bureau, Food Tank, and numerous other associations and organizations in the renewable energy and food waste recycling arenas.

Leadership

31. Vanguard has unparalleled leadership, with decades of unique experience.

32. John Hanselman is Chairman and CEO of Vanguard. He has deep ties to Vermont, growing up on a farm in Isle La Motte. He currently has a home in Londonderry. He has thirty years of experience in renewable energy, environmental, and mission-based entrepreneurial companies. Mr. Hanselman has helped define the growth of the American renewable energy markets, first pioneering solar on brownfields, and now championing farm-based anaerobic digestion. Mr. Hanselman focuses on the energy, food production, and farm aspects of the business.

33. Previously, Mr. Hanselman founded Active Impulse Systems, Inc., and served as President and CEO until Philips Electronics acquired the company. He also served as President and CEO of LingoMotors, Inc., a natural language software company. Mr. Hanselman is the Founder of Brightfields Development, a solar brownfields development company and Renova Partners, a brownfield redevelopment company.

34. Mr. Hanselman was the developer and prior owner of the Elizabeth Mine Solar Project in Strafford and Thetford, VT.

35. Mr. Hanselman has been an invited speaker at Harvard Business School and both MIT's Sloan Business School and Center for Real Estate Development. He has numerous published papers and holds patents in the semiconductor and natural language software areas.

36. Kevin Chase is Chief Investment Officer of Vanguard. He oversees the company's investments and manages all permitting, design, and construction initiatives. Mr. Chase comes to Vanguard with a proven real estate career spanning over two decades.

37. Mr. Chase is also the President of Trilogy Development LLC, a boutique real estate acquisition/development and advisory company specializing in a range of services for the residential, commercial, and hospitality market sectors.

38. Prior to Trilogy, Mr. Chase served as the Vice President for LNR Property Corporation, where he oversaw the Northeast Region and managed all aspects of SouthField, the $2.5 billion redevelopment of the 1,400-acre former naval air station in South Weymouth, Massachussets into one of the country's premier smart-growth, master-planned communities.

39. Mr. Chase lives in Rhode Island and holds a BA from Denison University in Granville, Ohio.

40. George Polk is the Managing Partner of Tulum Trust, a private equity firm which manages private equity investments on behalf of a small number of large family offices with a focus on generating excellent returns while having a meaningful impact on climate change.

41. Mr. Polk is also a member of the investment committee of Low Carbon Ltd and SystemIQ Ltd and the Chairman of Crowley Carbon.

42. In the past, Mr. Polk worked with Mr. George Soros on climate investments and was Senior Advisor on Climate Change to McKinsey. Mr. Polk also has a range of philanthropic engagements around climate. He was the founding Chairman of the European Climate Foundation, and is on the executive committee and Chairman of the program and strategy committee of the Board of the Rocky Mountain Institute.

43. For most of his career, Mr. Polk was a technology entrepreneur, most recently founder and CEO of The Cloud, the leading broadband wireless network operator in Europe, which was sold to Sky/News Corporation.

44. Mr. Polk was named a Global Technology Pioneer by the World Economic Forum in Davos, a Pioneer of the City of London, and has been ranked several times in the top 25 global technology agenda setters by Silicon.com. He is a graduate of Harvard University and is a fellow of the Royal Geographical Society and of the Royal Institute of International Affairs.

II. PROJECT OVERVIEW

45. On April 8, 2016, the Vermont Public Utility Commission ("PUC" or "Commission") granted Lincoln RNG a Certificate of Public Good ("CPG") in this docket to construct and operate an anaerobic digester at the Goodrich Farm at 592 Shard Villa Road in Salisbury, Vermont ("the As-Approved Project").

46. Lincoln RNG is no longer pursuing development of the As-Approved Project. Lincoln RNG has agreed to and will transfer the CPG to Salisbury AD 1, LLC, subject to the Public Utility Commission's prior approval of such transfer.

47. Salisbury AD 1 has modified some aspects of the As-Approved Project's design to prepare the Final Project design. The modifications to the Project's design fall into three categories: the physical layout and location ("the Layout/Location Changes"); equipment selection ("the Equipment Changes"); and to the Project's material inputs and gas output ("the Input/Output Changes") (together, the "Proposed Modifications").

48. The Proposed Modifications, and their potential for impacts under the criteria of 30 V.S.A. § 248(b), are set forth in detail in Exhibits SAD1-1 through -3, and are summarized below.

49. In many ways the Final Project will remain essentially the same as the As-Approved Project which has already received a CPG from the Commission. The features of the Final Project that will remain unchanged are described below.

50. The Final Project will consist of an anaerobic digester tank system that produces biogas, as well as gas upgrade and purification equipment that refines the biogas into the finished renewable natural gas ("RNG") product.

51. Salisbury AD 1 is entering a long-term supply/purchase agreement with Middlebury College, and a purchase/supply contract with Vermont Gas Systems ("VGS"), for sale of the Project's RNG output.

52. Salisbury AD 1 is also entering into an agreement with Goodrich Farm, Inc. and Goodrich Family Farm, LLC ("the Goodrich Farm") in order to have rights of access to the farm property for construction and operation, to lease approximately 3.5 acres for the Project's

components ("Final Project Site"), and for the partial supply of the Project's manure fuel supply requirements.

53. The RNG will be injected into and transported to market by VGS's pipeline facilities using a spur line to the VGS distribution line to Middlebury that was previously approved by the Commission in Docket No. 7970. If the distribution network is not completed prior to the Project being ready to interconnect, the spur line would connect to the "gas island" Vermont Gas is currently operating to serve Middlebury College.

54. The Final Project, like the As-Approved Project, will provide a portion of the Project's RNG to Middlebury College, which will use it in place of the No. 6 heating oil currently used in its campus boilers. Exhibit SAD1-5 at 2.

III. OVERVIEW OF PROPOSED MODIFICATIONS

55. As set forth in this affidavit and the other exhibits to Salisbury AD 1's Motion to Amend the CPG, the Project with the Proposed Modifications in place ("the Final Project") either: (i) does not have the potential for significant impact under certain section 248(b) criteria, as detailed below; or (ii) even if such potential exists, will not have an undue adverse effect with respect to any of the section 248(b), or on the general good of the state under Section 248(a).

56. The Proposed Modifications are set forth in detail in Exhibits SAD1-1 through -3. They are summarized at a high level below.

57. A schematic diagram of the Final Product's equipment, inputs, and outputs is provided as Exhibit SAD1-4.

A. Layout/Location Changes

58. The Layout/Location Changes are depicted on Exhibit SAD1-3, which shows the site plan of both the As-Approved Project and the Final Project.

59. Like the As-Approved Project, most of the Final Project's components will be clustered near the western end of the existing access drive on the Goodrich Farm. Exhibit SAD1-3.

60. The Final Project's separator building and manure tank will be located to the north of the access drive, as they were for the As-Approved Project. Exhibit SAD1-3.

61. The Final Project will also include a new nutrient storage tank, located to the south of the access drive. Exhibit SAD1-3.

B. Equipment Changes

62. The Final Project will include many of the same components as the As-Approved Project, including the digesters, utility building, office/lab, separator building, manure tank, biogas upgrader, VGS metering station, flare, and a nutrient management building. Exhibit SAD1-3.

63. The Final Project will add a combined heat and power ("CHP") building, hydrolyzer, nutrient storage tank, truck turnaround, and back-up generator. Exhibit SAD1-3.

64. The Final Project will not include the pump house and compost pad included in the As-Approved Project. Exhibit SAD1-3.

65. Unlike the As-Approved Project, which would have used approximately 7,500 kWh of grid electricity per day and would have required a new 3-phase GMP line extension to the site, the Final Project will utilize the CHP to meet the Project's electrical and heat requirements and not require the line upgrade. Steckler pf. (Original Petition) at 20; Exhibit SAD1-3.

C. Input/Output Changes

66. The As-Approved Project planned to use manure from the host farm, corn silage, and some food waste as raw material. Exhibits SAD1-1, -2; Final Order at 11.

67. The Final Project will use approximately the same volume of manure, in addition to a larger volume of pre-processed food waste, as feedstock to increase and optimize the RNG output of the digester. Exhibits SAD1-1, -2, -4.

68. The Final Project will include a nutrient recovery system, which consists of a dissolved air flotation ("DAF") tank or similar system that removes suspended solids in the effluent from the digestion tank. The result is a liquid with reduced nutrient content and a dry solid product, known as "nutrient cake," both of which contain nutrients that can be applied to fields on the Goodrich Farm in accordance with the farm's nutrient management plan, or exported from the farm. Exhibits SAD1-1 through -4, -6 at 4.

69. The Final Project will produce 172,000 Mcf of RNG per year, compared to 130,000 Mcf per year for the As-Approved Project. Exhibits SAD1-1 through -4.

IV. SECTION 248 CRITERIA

70. As explained below, and in the other attachments to Salisbury AD 1's Motion to Amend the CPG, the Proposed Modifications either: (i) do not have the potential for a significant impact under certain section 248(b) criteria; or (ii) will not have an undue adverse effect with regard to any of the criteria of Section 248(b).

Orderly Development of the Region – 30 V.S.A. § 248(b)(1)

71. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to orderly development of the region. It is in the same location: the existing Goodrich Farm. It is the same type of project: an anaerobic biodigester producing renewable natural gas. As such, the Proposed Modifications do not have the potential for a significant impact under this criterion.

Need for the Project – 30 V.S.A. § 248(b)(2)

72. The Final Project will not be materially different from the As-Approved Project with regard to the need for renewable natural gas, as the Commission previously found. Final Order at 14. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

System Stability/Reliability – 30 V.S.A. § 248(b)(3)

73. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to system stability and reliability. With respect to the natural gas distribution system, Vermont Gas will construct and operate the same type of line as was previously authorized. And with respect to the electric system, the Final Project design does not require the 7,500 kWh of daily electricity use proposed in the As-Approved Project, and thus arguably has fewer potential impacts. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

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

74. The Final Project will not be materially different from the As-Approved Project with regard to economic benefit. The Final Project, like the As-Approved Project, will allow Middlebury College to replace No. 6 heating oil with a locally generated renewable fuel, will employ workers during construction, and will allow VGS to offer RNG to its customers as an alternative fuel. Final Order at 16–17. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

Use of Natural Resources – 30 V.S.A. § 248(b)(5)

75. As discussed in the attached technical memoranda, and in the remainder of my affidavit, the Proposed Modifications will not cause undue adverse impacts with respect to any of the environmental criteria considered under Section 248(b).

Public Health and Safety – 30 V.S.A. § 248(b)(5)

76. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to public health and safety.

77. The technology vendor for the Final Project will be CH Four Biogas. As noted above, CH Four, like Weltec, is a design and consulting firm with significant experience with anaerobic digestion technology. The company has administrative support and engineering staffs with expertise in the electrical, mechanical, and biochemical disciplines, permitting support, and computer-aided design. CH Four has designed 19 digesters, and provides operations support to many more that they did not design (including Vanguard's Rutland and Hadley facilities in Massachusetts).

78. Therefore, the Proposed Modifications will not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with respect to public health and safety.

Greenhouse Gas Emissions – 30 V.S.A. § 248(b)(5)

79. Salisbury AD 1 retained VHB, who in turn retained John Hinckley of GeoInsight Environmental Strategy & Engineering, to evaluate the Proposed Modification in terms of any new potential impacts related to air emissions from the Project. Mr. Hinckley prepared a memorandum, submitted as Exhibit SAD1-5.

80. The Final Project, like the As-Approved Project, will provide RNG to Middlebury College, which will use it in place of the No. 6 heating oil currently used in its campus boilers. Exhibit SAD1-5 at 2.

81. RNG combustion produces less carbon dioxide than combustion of the equivalent volume of No. 6 oil. Exhibit SAD1-5 at 2; Final Order at 20 ¶ 91.

82. Moreover, the Final Project will produce approximately 22 percent more RNG than the As-Approved Project, which could result in greater reductions in carbon dioxide. Exhibit SAD1-5 at 3.

83. Therefore, the Proposed Modifications will not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with regard to greenhouse gas emissions. Final Order at 21.

Primary Agricultural Soils – 30 V.S.A. § 248(b)(5)

84. The Final Project will result in less permanent impacts to primary agricultural soils ("PAS") than the As-Approved Project. Exhibit SAD1-8 at 9.

85. Salisbury AD 1 will implement mitigation measures to ensure that the Final Project will not result in a change in landform or create a new type of land cover that is not consistent with the existing agricultural land use. These measures will include pre- and post-construction bulk density testing, and restoration of any compacted areas of PAS. *Id.*

86. Therefore, the Proposed Modifications will not have an undue adverse impact with respect to PAS.

Air Pollution – 10 V.S.A. § 6086(a)(1)

87. As noted in Mr. Hinckley's memorandum, the Final Project, like the As-Approved Project, will need to obtain an Air Permit from the Department of Environmental Conservation's Air Quality & Climate Division. Exhibit SAD1-5 at 2.

88. The Final Project, like the As-Approved Project, will include equipment to control odor and H_2S emissions. Exhibit SAD1-5 at 2.

89. The Final Project, like the As-Approved Project, will provide RNG to Middlebury College, which will use it in place of the No. 6 heating oil currently used in its campus boilers. Exhibit SAD1-5 at 2.

90. Since No. 6 oil combustion overall produces more criteria pollutants, hazardous air pollutants (HAP), and greenhouse gas (GHG) emissions than pipeline quality RNG, the Final Project will result in less air pollution from Middlebury College's heating system. Exhibit SAD1-5 at 2.

91. Moreover, the Final Project will produce approximately 22 percent more RNG than the As-Approved Project, which could result in greater reductions in air pollutants. Exhibit SAD1-5 at 3–4.

92. Therefore, the Proposed Modifications will not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with regard to air pollution. Final Order at 21.

Water Pollution – 10 V.S.A. § 6086(a)(1)

93. The Final Project, like the As-Approved Project, will apply for a construction stormwater permit, an operational stormwater permit, and an air quality permit. Final Order at 21; Exhibit SAD1-5 at 1; Exhibit SAD1-8 at 3–4.

94. The addition of the hydrolyzer and of additional digestate storage, and the production of nutrient cakes, will be consistent with the As-Approved Project. Liquid digestate and nutrient cake will be applied by the Goodrich Farm in accordance with its Nutrient Management Plan and Large Farm Operating Permit, to prevent undue water pollution from excess nutrient loading. Exhibit SAD1-7 at 1, 6.

95. Therefore, the Proposed Modifications will not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with respect to water pollution. Final Order at 21.

Headwaters – 10 V.S.A. § 6086(a)(1)(A)

96. The Final Project, like the As-Approved Project, will not be located in an area that functions as a headwater. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 22 ¶ 97; Exhibit SAD1-6 at 3.

Waste Disposal – 10 V.S.A. § 6086(a)(1)(B)

97. The Final Project will meet the applicable health and DEC regulations regarding the disposal of waste that have been considered and does not involve the injection of waste materials into groundwater or wells. Exhibit SAD1-8 at 3.

98. The Final Project, like the As-Approved Project, will use a composting toilet and hand sanitizer for employee restroom and handwashing. If necessary, the Final Project will seek an amendment to the Wastewater System and Potable Water Supply Permit WW-9-1927, previously obtained for the As-Approved Project. *Id.* at 2.

99. The Final Project will be materially the same as the As-Approved Project with regard to the management of construction waste and process wastewater. *Id.*

100. Digestate will be treated with a DAF (or similar) nutrient recovery system that will produce a solid nutrient "cake." Liquid, and solids as appropriate and in accordance with the farm's NMP, will be returned to the farmer for use as fertilizer. Salisbury AD 1 will find a market for exportation/sale of excess nutrient cake if it cannot all be utilized by the farm. *Id.*

101. The Final Project will result in more than one acre of impervious surface, and will therefore require an operational stormwater permit. Salisbury AD 1 will obtain the required permit prior to commencement of construction. *Id.* at 3.

102. The fuel tank for the Final Project's backup generator will have rupture containment and alarms, and the spill pallet will be sized to capture the entire storage volume of the used oil from the CHP. *Id.*

103. The Final Project, like the As-Approved Project, will require a Solid Waste Certification for operation of an Anaerobic Waste Digester that proposes to accept food waste. Salisbury AD 1 has consulted with the VT DEC Solid Waste Management and Prevention Division and has been

coordinating with the Town of Salisbury to add the Project to the Town's Solid Waste Implementation Plan. Final Order at 5.

104. Therefore, the Proposed Modifications will not have an undue adverse impact with respect to this criterion.

Water Supply and Water Conservation – 10 V.S.A §§ 6086(a)(1)(C), (2), and (3)

105. The Final Project will use up to 500 gallons per day as process water for the gas upgrader, for truck washing, and in the laboratory compared to 10 gallons per day for the As-Approved Project. Final Order at 24 ¶ 118; Exhibit SAD1-8 at 4.

106. Like the As-Approved Project, the Final Project will drill a new well for water, which is projected to meet all of the Final Project's water needs. Exhibit SAD1-8 at 4.

107. The new well and water distribution system will comply with all applicable parts of the Vermont DEC Drinking Water and Groundwater Protection Division, Wastewater System and Potable Water Supply Rules. *Id.*

108. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

Floodways – 10 V.S.A. § 6086(a)(1)(D)

109. The Final Project, like the As-Approved Project, will not be located in a floodway or floodway fringe. The previously authorized gas distribution line will not be affected by the Proposed Modifications. Final Order at 24–25; Exhibit SAD1-6 at 3–4. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

Streams – 10 V.S.A. § 6086(a)(1)(E)

110. The Final Project has been designed to avoid impacts to streams. All components of the anaerobic digester will be located outside the 50-foot riparian buffers for all streams, except along an existing road way and over an existing culvert where piping to the nutrient storage tank is proposed. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 25–26; Exhibit SAD1-6 at 4–5.

Shorelines – 10 V.S.A. § 6086(a)(1)(F)

111. The Final Project, like the As-Approved Project, will not be located near any shorelines. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 26; Exhibit SAD1-6 at 5.

Wetlands – 10 V.S.A. § 6086(a)(1)(G)

112. Two Class II wetlands have been delineated on the Final Project site. Exhibit SAD1-6 at 5.

113. An existing agricultural access road is located within portions of the buffers of these wetlands. *Id.*

114. No woody vegetation cutting or clearing is currently proposed within a Class II wetland or buffer. *Id.*

115. The Final Project will require some temporary trenching within the buffer of a Class II wetland in order to install a manure transfer pipe along the existing access road. In addition, minimal grading within the wetland buffer may be required. *Id.*

116. Salisbury AD 1 will obtain all necessary wetland permits from ANR and the U.S. Army Corps of Engineers prior to site preparation or construction. *Id.* at 4–5.

117. Because Salisbury AD 1 will obtain and comply with all necessary wetland permits, the Proposed Modifications will not have an undue adverse impact with respect to wetlands.

Soil Erosion – 10 V.S.A. § 6086(a)(4)

118. The Final Project will have comparable impacts as compared with the As-Approved Project with regard to soil erosion. Like the As-Approved Project, the Final Project will obtain construction- and operation-phase stormwater permits, and will implement a site-specific erosion prevention and sediment control ("EPSC") plan. Exhibit SAD1-8 at 4. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

Aesthetics, Historic Sites, and Rare and Irreplaceable Natural Areas – 10 V.S.A. § 6086(a)(8)

119. The Final Project will not have an undue adverse impact on the scenic or natural beauty of the area, aesthetics, historic sites, or rare and irreplaceable natural areas, as described below.

Aesthetics (Visual)

120. The Final Project, like the As-Approved Project, will not have an undue adverse effect with regard to visual aesthetics. Final Order at 31–32.

121. The Final Project has been designed to be integrated into the farm building complex, and will use colors and materials that are suitable and consistent with the context of both the immediate and greater surroundings. There will be no impact on open space. Exhibit SAD1-9 at 2.

122. There will be only limited visibility of the Final Project from publicly accessible locations along Route 7. The As-Approved Project would also have been visible from Route 7. There is one other area of potential visibility along approximately 750 feet of roadway on West Salisbury Road, but that view will be partial and limited due to the distance to the Project (approximately 0.63 miles) and intermittent vegetation. Exhibit SAD1-9 at 3.

123. Therefore, the Proposed Modifications will not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with respect to aesthetics. Final Order at 31.

Aesthetics (Noise)

124. The Final Project's sound levels will be materially the same as those of the As-Approved Project.

125. The As-Approved Project would have resulted in sound levels of 36 dBA at the nearest residence. Exhibit SAD1-10 at 4.

126. The Final Project's modeled sound levels at the nearest residence are 33 dBA under ordinary conditions (i.e., when the CHP is operating), and 38 dBA on the rare occasions when the emergency generator is running. *Id.*

127. The Final Project's estimated sound levels will be below the World Health Organization's nighttime guidelines of 40 dBA. *Id.*

128. In order to be discernible by the human ear, the difference between two sound levels must be at least 3 dB. The 2 dB difference in sound levels between the As-Approved Project and the Final Project will not be noticeable. *Id.*

129. Therefore, the Proposed Modifications will not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with respect to noise. Final Order at 33.

Historic Sites

130. The Final Project will not be materially different from the As-Approved Project with regard to extant historic sites. As the Commission previously found, there are no historic sites in the area of the Project. Final Order at 33.

131. The University of Vermont Consulting Archaeology Program ("UVM CAP") inspected the Final Project site for its potential to be the site of archaeological resources on September 24 and 27, 2018. Exhibit SAD1-11 at 3.

132. The majority of the Final Project site is highly disturbed or contains extensive ledge, and is thus not archaeologically sensitive. Exhibit SAD1-11 at 3.

133. Two sensitive areas where archaeological resources could potentially be found were identified: one where the nutrient storage tank will be located, and one where the gas metering station will be located (the location of which was part of the As-Approved Project). Exhibit SAD1-11 at 3; Final Order at 8 ¶ 8.

134. UVM CAP recommended a Phase I site identification survey of these areas. Exhibit SAD1-11 at 4.

135. Salisbury AD 1 will have a Phase I survey performed this Fall, will submit the report to the Commission thereafter, and will coordinate with the Division for Historic Preservation if any further investigations or mitigation measures are necessary.

Rare and Irreplaceable Natural Areas – 10 V.S.A. § 6086(a)(8)

136. As with the As-Approved Project, there are no significant natural communities or other areas that could be deemed rare or irreplaceable natural areas on the Final Project site. Therefore,

the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 3; Exhibit SAD1-6 at 7–8.

Necessary Wildlife Habitat and
Rare, Threatened or Endangered Species – 10 V.S.A. § 6086(a)(8)(A)

137. The Final Project, like the As-Approved Project, will not contain or be located near any sensitive environmental habitats or species. Final Order at 33–34; Exhibit SAD1-6 at 8–9.

138. While 2.1 acres of woody vegetation will be cleared for the Final Project, tree clearing will be less than 1 percent of the available forest cover within a 1-mile radius of the Final Project, none of the trees within the area to be cleared for the Project have been found to provide bat roost habitat, and there are no documented hibernacula for northern long-eared bats within one mile of the Final Project. As a result, no specific conservation measures to avoid impacts to any bat species will be required. Exhibit SAD1-6 at 9.

139. Like the As-Approved Project, there are no necessary wildlife habitats on the Final Project site. The closest ANR-mapped deer wintering area is approximately 1 mile to the west. Moreover, the Final Project site does not provide potential grassland bird habitat. Exhibit SAD1-6 at 10.

140. Therefore, the Proposed Modifications do not alter the Commission's prior conclusion that the Project will not have an undue adverse impact with respect to necessary wildlife habitat and endangered species. Final Order at 34.

Transportation Systems – 10 V.S.A. § 6086(a)(5)

141. The As-Approved Project would have resulted in 20 truck deliveries per day. Exhibits SAD1-1, -2.

142. The Final Project will result in 8 truck deliveries per day. Exhibits SAD1-1, -2.

143. Therefore, the Final Project will result in less traffic than the As-Approved Project and as such, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 29.

Educational Services – 10 V.S.A. § 6086(a)(6)

144. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to educational services. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 30.

Municipal Services – 10 V.S.A. § 6086(a)(7)

145. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to municipal services. As with the As-Approved Project, the Final Project will restore any road surfaces affected by construction, and will employ traffic control measures that will enable the maintenance of one lane of traffic during construction.

146. The Final Project will be incorporated into the Town of Salisbury's Solid Waste Implementation Plan, in accordance with the VT DEC Solid Waste Management Rules for issuance of a Solid Waste Certificate.

147. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 30.

Development Affecting Public Investments – 10 V.S.A. § 6086(a)(9)(K)

148. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to public investments. Like the As-Approved Project, the Final Project will use public roadways. However, the Final Project will result in less daily traffic, reducing this impact. Exhibits SAD1-1, -2. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 34.

Least Cost Integrated Plan – 30 V.S.A. § 248(b)(6)

149. The Final Project will not be materially different from the As-Approved Project with regard to least-cost planning. The distribution line component will remain unchanged, and Salisbury AD 1 will compensate VGS for part of the cost of its installation. Therefore, the Proposed Modifications do not alter the Commission's finding that the Project is consistent with VGS's least-cost integrated resource plan. Final Order at 34–35.

Electrical Energy Plan – 30 V.S.A. § 248(b)(7)

150. The Final Project will be a natural gas facility that is not part of or incidental to an electric generating facility. Therefore, this criterion does not apply.

Outstanding Resource Waters – 30 V.S.A. § 248(b)(8)

151. The Final Project, like the As-Approved Project, will not be located in the vicinity of any outstanding resource waters. Exhibit SAD1-6 at 2.

152. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion. Final Order at 21.

Waste-to-Energy Facilities – 30 V.S.A. § 248(b)(9)

153. The As-Approved Project and Final Project are fundamentally the same for purposes of this criterion – an anaerobic biodigester facility to be located on an existing farm that will produce renewable natural gas.

154. Salisbury AD 1 has worked with the Town of Salisbury to add the Final Project to the Town's Solid Waste Implementation Plan, which is a solid waste management plan ("SWIP") adopted pursuant to 24 V.S.A. § 2202a.

155. The Final Project will not receive 1,000 tons or more per year of waste from a municipality or district that owns an operating facility that already beneficially uses a portion of the waste, and thus does not need to be identified in such other municipality's or district's solid waste plan.

156. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

Transmission Facilities – 30 V.S.A. § 248(b)(10)

157. The Final Project does not create any new impacts as compared with the As-Approved Project with regard to "transmission facilities." There are no electric distribution or transmission lines being built or altered as part of the Final Project, and Vermont Gas's distribution gas line component of the Project will remain unchanged. Therefore, the Proposed Modifications do not have the potential for a significant impact under this criterion.

I, Maria Sol Ucciani, do hereby swear and affirm under the penalty of law that the information provided in my affidavit is accurate to the best of my knowledge and that I have personal knowledge of, and am able to testify as to the validity of the information contained in my testimony and attached exhibits.

Maria Sol Ucciani

STATE OF Massachusetts)
COUNTY OF Norfolk)

The foregoing instrument was signed and acknowledged before me this 1 day of October, 2018 at 16 Laurel Ave Wellesley, MA by Maria Sol Ucciani, who acknowledged the act to be her free act and deed.

Notary Public

Name of Notary: Maura B. Shoulkin

Commission Expires: March 2, 2023

MAURA B. SHOULKIN
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
March 2, 2023