STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7618

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| Petition of EOS Ventures, LLC for a Certificate of Public Good, pursuant to 30 V.S.A. § 248, authorizing the installation and operation of a 2.2-MW solar electric generation facility located at the Southern Vermont Energy Park on Route 7 in Pownal, Vermont | ) ) ) ) ) ) | Hearing at Montpelier, Vermont July 23, 2010 |

Order entered: 9/8/2010

HEARING OFFICER: Bridgette Remington, Esq.

APPEARANCES: Geoffrey Hand, Esq.
Karen Tyler, Esq.
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for EOS Ventures, LLC

Geoffrey Commons, Esq.
for Vermont Department of Public Service

Judith L. Dillon, Esq.
for Agency of Natural Resources

## I. INTRODUCTION

This case involves a petition filed by EOS Ventures, LLC ("EOS") requesting a Certificate of Public Good ("CPG") under 30 V.S.A. § 248 to install and operate a 2.2-MW solar electric generation facility located at the Southern Vermont Energy Park ("SVEP") on Route 7 in Pownal, Vermont ("Project"). In this proposal for decision, I recommend that the Vermont Public Service Board ("Board") approve the petition.

## II. Procedural History

On May 3, 2010, EOS filed a petition with the Board requesting a CPG under 30 V.S.A. § 248 to install and operate a 2.2-MW solar electric generating facility located at the SVEP on Route 7 in Pownal, Vermont.

On June 1, 2010, I held a Prehearing Conference. Appearances were entered for the Department of Public Service ("Department") by Geoffrey Commons, Esq., for the Agency of Natural Resources ("ANR") by Cielo Mendoza, Esq., and for EOS by Geoffrey Hand, Esq., and Karen Tyler, Esq.

Notice of a Public Hearing for the project was published in the *Bennington Banner* on June 9 and June 16, 2010. A site visit and a public hearing were held on June 29, 2010. Approximately thirty members of the public attended the public hearing, of whom eight spoke. The Board also received one letter with additional public comment.

No motions to intervene were filed in this docket.

On July 13, 2010, EOS filed a motion requesting an extension of the July 13 deadline to file a stipulation. On July 14, 2010, I granted an extension until July 16, 2010.

On July 16, 2010, EOS, the Department, and ANR filed a Stipulation and Proposed Findings of Fact and Order ("Stipulation") in which all the parties agreed that the Board should issue a CPG with conditions. The specific provisions of the stipulation are described in the findings below.

On July 21, 2010, the Department filed a determination that the proposed project is consistent with the *Vermont Electric Plan*, in accordance with 30 V.S.A. § 202(f).

A Technical Hearing was held on July 23, 2010, at which the prefiled testimony, exhibits and the Stipulation were entered into the record.

On July 28, EOS filed comments on the conditions proposed by the Hearing Officer at the Technical Hearing. On August 2, 2010, Central Vermont Public Service Corporation ("CVPS") filed comments concerning the Project's impact on system stability. I am admitting these two letters into evidence in this proceeding.[1]

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1. Any party wishing to object to the admission of these letters into evidence should do so in its comments on this Proposal for Decision.

No other parties filed comments.

## III. Findings

Based on the Petition, the associated prefiled testimony, the Stipulation, the evidence presented at the Technical Hearing, and the absence of any factual disputes, I have determined that this matter is ready for decision. Based on the substantial evidence of record and the testimony presented at the hearing, I hereby report the following findings to the Board in accordance with 30 V.S.A. § 8.

### Background and Project Description

1. EOS is a Massachusetts limited liability company, with principal offices at 37 Corey Road, Hancock, Massachusetts. Petition at 1; Guerin/Seddon pf. at 1.

2. The Project has a nameplate DC capacity of 2.198 MW and has an expected net energy output (after DC to AC conversion) of approximately 2,560 MWh per year. This is the equivalent of the annual electricity consumption of approximately 360 homes. Guerin/Seddon pf. at 5.

3. EOS will lease an approximately fifteen-acre parcel from the SVEP for the Project. The SVEP's approximately 144-acre property is the former location of the Green Mountain Race Track ("Race Track"), which has been closed for approximately twenty years. Guerin/Seddon pf. at 3-5; Guerin/Seddon supp. pf. at 1-2; exhs. EOS-JG/LS-2, 3c-Revised, and EOS-JS-2 at Attachments A, C, and D.

4. The Project property is bordered on the south by the Hoosic River and on the north by a railroad track, which runs immediately adjacent to Route 7. The Project's solar field will occupy approximately twelve acres of the fifteen-acre parcel and will be set back a minimum of 100 feet from adjacent properties and a minimum of 150 feet from the Hoosic River. Guerin/Seddon pf. at 4-5; exhs. EOS-JG/LS-2, 3c-Revised, and EOS-JS-2 at 2, Attachments A and B.

5. The Project will include: (a) approximately 370 post-mounted arrays of eight 270-watt photovoltaic panels each, for a total of 8,140 panels; (b) two inverter enclosures that will each house a one MW inverter unit, a distribution switchboard, and a low-voltage-service power panel

(each enclosure is approximately ten feet high, eleven feet wide, and thirty-six feet deep);[2] (c) electrical lines connecting the panels to the inverters (approximately four feet above-ground, enclosed in conduit); (d) two to three power poles (thirty-five feet tall above-ground) with overhead electrical lines from the westernmost inverter, approximately 450 feet to the interconnection with the existing CVPS distribution system; and (e) a six-foot high chain link fence around the perimeter of the leased property, which will tie into an existing fence line on the north side of the property. Guerin/Seddon pf. at 3-4; exhs. EOS-JG/LS-3a-3c-Revised, 4a-4d, 5 at 3, and EOS-JS-2 at 3 and Attachment D; tr. 7/23/10 at 15-19 (Seddon); letter of July 28, 2010, from Geoffrey Hand, Esq., to Susan Hudson, Clerk of the Board.

6. The photovoltaic panels will tilt thirty degrees towards solar south and will reach a maximum height of ten feet six inches at the top of their tilted axis (assuming the panels are mounted a minimum of four feet off the ground). The panel racks are typically twelve feet wide by thirty-eight feet long and will be sited in approximately sixteen rows, at thirty-two foot intervals. The mounting system's support poles will be driven into the ground without concrete foundations. Guerin/Seddon pf. at 4; exhs. EOS-JG/LS-4c-4d and EOS-JS-2 at 2-3.

7. The Project will not require any new or upgraded roads, as the site is accessible from Route 7 and from existing access roads on the SVEP parcel. Guerin/Seddon pf. at 12; exh. EOS-JG/LS-3c-Revised.

8. Project construction is expected to take approximately sixteen weeks and include three phases. The first phase will involve approximately four weeks of site preparation, including removal, by the SVEP, of the concrete pads and debris from the former Race Track horse stables. The second phase will involve approximately six weeks for construction of the solar array supports and placement of the inverter enclosures. The final phase will also take approximately six weeks and will involve securing and wiring the solar modules to the inverter enclosures and installing a data acquisition system. Guerin/Seddon pf. at 6; tr. 7/23/10 at 10 (Seddon).

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2. At the Technical Hearing, EOS stated that it may consolidate the two proposed inverter units into one shed and that, if so, EOS will submit a revised site plan to the Board for review and approval. Tr. 7/23/10 at 17 and 28-29 (Seddon).

9. The Project's operation will be automated and remotely monitored, with no permanent on-site personnel and with limited operational access for vegetation management, snow removal for access to the inverters, and an annual maintenance inspection. Guerin/Seddon pf. at 7.

10. During operation, Project-related vehicle trips will be minimal, potentially requiring only a few trips annually. During construction, the Project will generate up to thirty worker-vehicle trips per day and will involve thirty tractor-trailer loads of equipment deliveries over a three-month period. Project-related vehicle trips should have no appreciable effect on Route 7's daily traffic volume. Guerin/Seddon pf. at 12-13.

11. The Project is a qualifying Sustainably Priced Energy Enterprise Development ("SPEED") resource pursuant to 30 V.S.A. § 8001-8005.[3] EOS has executed a Vermont SPEED Standard Offer Power Purchase Agreement with the Vermont SPEED Facilitator, which provides for the sale of the Project's output and other attributes, including Renewable Energy Credits ("RECs"), at a fixed price of $0.30 kWh for a period of twenty-five years. Guerin/Seddon pf. at 9; exh. EOS-JG/LS-2.

**Stipulation**

12. On July 16, 2010, EOS, the Department, and ANR submitted a Stipulation, which states that the Parties agree that the Board should issue a CPG for the proposed Project provided that all of the terms of the Stipulation are met. Exh. Joint-1.

13. In the Stipulation, the Parties agree that the Board should include the following conditions in a CPG for the Project:

> At the time the Project ceases to operate, the Petitioner will perform decommissioning, including removal of the solar panels, support structures, electrical lines, inverters, transformers, concrete pads, and fencing. Prior to operation of the Project, Petitioner shall submit to the Board for review and approval a plan for the creation of a Decommissioning Fund. The

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3. SPEED projects are new electric generating projects that produce renewable energy. A "new" project means a project brought on-line after December 31, 2004. A SPEED project must use a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate. Obvious examples of SPEED projects are utility scale wind farms . . . Vermont SPEED, FAQ Page, http://vermontspeed.com/faq/.

For more information about the SPEED program, visit the VermontSPEED website at http://vermontspeed.com.

> Decommissioning Fund shall be secured by cash, bond, letter of credit or other financial mechanism that is held by a third party and would be unaffected should Petitioner become bankrupt or otherwise cease to exist. Petitioner may build the Fund over time such that it has sufficient funds to perform decommissioning after twelve years of operation.
>
> EOS shall comply with any applicable requirements regarding the disclosure of renewable attributes that are established in other proceedings, including Docket 7533, and Board Rules.
>
> Prior to commencement of construction, EOS shall submit the CVPS System Impact Study to the Board for approval and the Department for review and comment. Parties shall have two weeks, from the date the plan is filed with the Board, to file any comments.

Exh. Joint-1.

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

14. The 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 the affected municipality. This finding is supported by findings 15 through 18, below.

15. The Project is consistent with the Bennington County Regional Plan. The Project will advance the goals of the Regional Plan by redeveloping the former Race Track site, which the Plan specifically targets for residential, commercial or light industrial uses, and by furthering energy goals, which encourage the development of renewable energy resources. Saydek pf. at 6; exh. EOS-JS-2 at 9 and Attachment I.

16. The Project is consistent with the Pownal Town Plan and will advance the goals of the Town Plan to promote new environmentally sound energy and economic development. The Project site is located within the Village Mixed Use District and is consistent with the District's general purposes. Saydek pf. at 6; exh EOS-JS-2 at 8 and Attachment H.

17. The Project site is located within the Town Plan's designated Flood Hazard Overlay District and the Hoosic River's 100-year floodplain (floodway fringe). The Town Plan identifies

special measures that should be taken for development in this district, such as utilizing anchors and building above the potential flood levels. The Regional Plan references the need for development in floodplains to comply with town plans' regulations. The Project has been designed to comply with the Town Plan measures—with the solar panels, inverters, and electrical lines all raised above the effective 100-year flood levels. McCaffrey pf. at 6-7; exhs. EOS-JS-2 at 8 and Attachments H and I. *See also* findings 46-51, below.

18. The Project will facilitate the responsible reclamation of a dilapidated site that has been identified both locally and regionally as an important area for redevelopment without impacting any significant natural features or sensitive natural resources. Saydek pf. at 6; exh. EOS-JS-2 at 8-9.

**Need for Present and Future Demand for Service**
[30 V.S.A. § 248(b)(2)]

19. EOS has executed a SPEED standard-offer contract with the Vermont SPEED Facilitator, which provides for the sale of the Project's output and other attributes, including RECs, at a fixed price for a period of twenty-five years. Guerin/Seddon pf. at 9; exh. EOS-JG/LS-2.

20. No part of the facility is financed directly or indirectly through investments, other than power contracts, backed by Vermont electricity ratepayers. Guerin/Seddon pf. at 9.

Discussion

Pursuant to 30 V.S.A. § 8005(b)(8):

> a demonstration of compliance with subdivision 248(b)(2) of this title, relating to establishing need for the facility, shall not be required if the facility is a SPEED resource and if no part of the facility is financed directly or indirectly through investments, other than power contracts, backed by Vermont electricity ratepayers.

Accordingly, EOS does not need to demonstrate compliance with this criterion.

**System Stability and Reliability**
[30 V.S.A. § 248(b)(3)]

21. The Project will not have an adverse impact on system stability or reliability. This finding is supported by findings 22 through 26, below.

22. Per the interconnection plan, the output of the two one MW inverters will be stepped up with two delta-wye transformers to interconnect with CVPS's primary 46 kV lines, which originate at the Pownal Substation, and the combined output of the transformers will be metered at 12.470 kV. A locakable three-phase disconnect is proposed for safety. Crocket pf. at 2; Crocket supp. pf. at 2; exh. EOS-JG/LS-5a.

23. EOS's expert determined that the Project would not adversely affect the reliability or stability of the CVPS system and that EOS would be able to reasonably implement any standard control strategies that CVPS might identify in the forthcoming System Impact Study ("SIS"). Crocket pf. at 3.

24. On July 1, 2010, CVPS informed EOS that the SIS for the Project would be completed on or before August 11, 2010, and that CVPS had not identified any problems with the proposed interconnection. Guerin/Seddon supp. pf. at 4.

25. EOS will pay for any electrical system modifications required to interconnect the Project. Guerin/Seddon pf. at 15.

26. The Parties stipulated to the following condition:

> Prior to commencement of construction, EOS shall submit the CVPS System Impact Study to the Board for approval, and to the Department for review and comment.

Exh. Joint-1.

Discussion

At the Technical Hearing I proposed adding a review period of the SIS by the parties of one week.[4] The Department requested that the SIS review period be expanded to two weeks.[5] Neither ANR nor EOS objected to a two-week review period. On August 2, 2010, CVPS filed a letter requesting that the Board require EOS to implement requirements of the yet uncompleted SIS currently being reviewed by CVPS.[6] Based on EOS's prefiled testimony, the Stipulation, the

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4. *See* Board-1 ("Parties shall have one week, from the date the plan is filed with the Board, to file any comments").

5. Tr. 7/23/10 at 39 (Commons).

6. Letter of August 2, 2010, from Morris Silver, Esq., to Susan Hudson, Clerk of the Board.

Technical Hearing, the Department's request at the Technical Hearing , and CVPS's letter, I recommend that the Board include the following conditions in the CPG:

> Prior to commencement of construction, EOS shall submit the CVPS SIS to the Board for approval, and to the Department for review and comment. Parties shall have two weeks, from the date the plan is filed with the Board, to file any comments.
>
> EOS shall pay the entire cost of any necessary interconnection and distribution system upgrades.

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

27. The Project will result in an economic benefit to the state and its residents. This finding is supported by findings 28 through 30, below.

28. The Project will pay local and state property taxes and will utilize an in-state supplier and contractor. EOS has hired Alteris Renewables, a Vermont-based renewable energy business, to design and build the Project and will purchase all the Project equipment from Alteris Renewables. Guerin/Seddon pf. at 1 and 9.

29. Project construction will employ thirty full-time workers. Guerin/Seddon pf. at 9.

30. The Project is considered an "anchor tenant" that may spur further redevelopment of the larger dilapidated SVEP property. Guerin/Seddon pf. at 9.

**Aesthetics, Historic Sites, Air and Water Purity, the Natural Environment and Public Health and Safety**
[30 V.S.A. § 248(b)(5)]

31. 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 32 through 85 below, which address the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

## Outstanding Resource Waters

[10 V.S.A. § 1424(a)(d)]

32. There are no outstanding resource waters in the Project area. McCaffery pf. at 3-4; exh. EOS-KM-2.

## Water and Air Pollution

[10 V.S.A. § 6086(a)(1)]

33. The Project will not result in unreasonable water or air pollution. This finding is supported by findings 34 through 63, below.

34. The Project is located, at its closest, approximately 150 feet from the adjacent Hoosic River. McCaffery pf. at 3-4 and 8; exh. EOS-JG/LS-3c-Revised.

35. The Project will not generate air pollutants and will reduce the need for fossil-fuel-based electric generation facilities that emit air pollutants that cause acid rain and global warming. Guerin/Seddon pf. at 10.

36. The Project's inverters, based on manufacturer specifications, will generate noise between approximately 60 and 65 A-weighted decibels ("dbA") during the day and will not generate any noise at night. The Project's noise levels will be attenuated because the noise will occur within the inverter enclosures and will not be audible from the closest residential property, which is located across Route 7, approximately 500 feet from the nearest inverter enclosure. Guerin/Seddon pf. at 10-11.

37. The Project will comply with the industrial source noise criteria set by the Vermont Natural Resources Board ("NRB") and residential noise guidance provided by the U.S. Environmental Protection Agency ("EPA").[7] Guerin/Seddon pf. at 11.

38. Dust will be controlled through the application of water as needed during construction. Tr. 7/23/10 at 13 (Seddon).

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7. See *Joint Petition of Vermont Public Power Supply Authority and Swanton Village, Inc. Electric Dept.*, Docket 7376, Order of 1/21/09 at 14. The NRB limits industrial source noise to 70 dBA at a project's property boundary and 55 dBA at any residence or any outdoor area of frequent human use. *Id.* The EPA's residential noise guidelines, which are designed to protect public health and welfare, suggest a noise limit of 55 dBA Ldn (equivalent to a continuous noise limit of 48.6 dBA). *Id.*

**Headwaters**
[10 V.S.A. § 6086(a)(1)(A)]

39. The Project is not located in a headwaters area. McCaffery pf. at 4; exh. EOS-KM-2.

**Waste Disposal**
[10 V.S.A. § 6086(a)(1)(B)]

40. The Project will meet applicable health and Department of Environmental Conservation regulations regarding the disposal of wastes. This finding is supported by findings 41 through 44, below.

41. Project operations will not generate any waste. Project construction will generate minimal waste that will be recycled or disposed of in accordance with all applicable solid waste management laws and regulations. Guerin/Seddon pf. at 12; McCaffrey pf. at 4.

42. SVEP will remove and dispose of the remnants of the Race Track's horse stables in accordance with all applicable laws and regulations. McCaffrey pf. at 5.

43. EOS, the Department, and ANR agree that the following condition is appropriate to ensure the Project complies with the waste disposal criteria:

> EOS will request written certification from SVEP that the initial site clean-up operation was conducted in accordance with SVEP's waste management strategy approved by the Solid Waste Management Division of ANR. EOS will file a copy of the certification with the Board and will provide a copy to the parties in this docket.

Letter of July 28, 2010, from Geoff Hand, Esq., to Susan M. Hudson, Clerk of the Board.

44. The Project will not require an operational or construction phase stormwater permit. The Project will not expand the impervious coverage of the site because solar panels are not considered an impervious surface, the Project will not require any new roadways, and the solar arrays' support poles will be driven into the ground without concrete foundations. Guerin/Seddon pf. at 4 and 12; McCaffrey pf. at 5.

**Floodways**

[10 V.S.A. §§ 6086(a)(1)(D)]

45. The Project will not restrict or divert the flow of flood waters, or endanger the health, safety and welfare of the public or of riparian owners during flooding; and will not significantly increase the peak discharge of the river or stream within or downstream from the area of development or endanger the health, safety, or welfare of the public or riparian owners during flooding. This finding is supported by findings 46 through 51, below.

46. The Project is located within the 100-year floodplain (floodway fringe) of the Hoosic River. McCaffery pf. at 6; exhs. EOS-JG/LS-3a-3c-Revised.

47. The Project will not significantly increase the peak discharge of the river and will not endanger the health, safety, or welfare of the public or riparian property owners during flooding. McCaffery pf. at 6-8.

48. Effective 100-year flood elevations for the Hoosic River range from an elevation of 554' at the east end of the Project area to an elevation of 551' at the west end of the Project area. Ground elevations for the area of the proposed solar array are generally at an elevation of 551' at the east end to an elevation of 550' at the west end, which would indicate a predicted inundation during a 100-year flood event varying from approximately one to three feet from west to east. Based on these elevations, the solar arrays' support structures (pilings/bracing and inverter footings) are predicted to be inundated during a 100-year flood event. However, the solar panels and the inverters will be four feet above-ground and the wiring encased in conduit will be three to four feet above-ground and thus, above the predicted inundation levels. McCaffrey pf. at 7; tr. 7/23/10 at 18 (Seddon).

49. EOS conducted hydraulic calculations to assess the potential effect of the Project on floodway flows. After Project construction, the modeling predicted a rise in water surface elevation of approximately two inches immediately upstream of the Project. The area immediately upstream is not heavily developed and a two-inch rise will not have a practical effect on the area when compared with existing conditions. McCaffery pf. at 6-8; exhs. EOS-JG/LS-3a-3c-Revised.

50. The Project is located outside the limits of the Hoosic River's established Fluvial Erosion Hazard Boundary (where the river is predicted to meander over time). McCaffery pf. at 8; exhs. EOS-JG/LS-3a-3c-Revised.

51. The Project is located within Pownal's Flood Hazard Overlay District. The requirements for development in this district, defined by the floodplain and floodway regulations for the National Flood Insurance Program, are similar to state standards. The Project will comply with these requirements by elevating potentially vulnerable improvements above base flood elevations and providing for anchoring and erosion protection of the pilings. McCaffery pf. at 8; exh. EOS-KM-4. *See also* findings 17 and 48, above.

**Streams and Shorelines**

[10 V.S.A. §§ 6086(a)(1)(E) &(F)]

52. The Project is not located on a shoreline. There are no streams at the project site. McCaffery pf. at 6; exh. EOS-KM-2 at 2.

53. The Project's solar arrays will be set back a minimum of 150 feet from the Hoosic River and the Project will not impact the vegetation near the river. Guerin/Seddon pf. at 5; exh. EOS-JG/LS-3b.

**Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

54. The Project will have no undue or adverse impacts on significant wetlands. This finding is supported by findings 55 and 56, below.

55. No jurisdictional wetlands were identified within the Project area. McCaffery pf. at 9; exh. EOS-KM-2.

56. A large open water wetland is present to the west of the Project area. In addition, a narrow swale is present along the northern boundary of the Project area. The swale appears to be man-made and includes several concrete manure containment structures. The swale may occasionally convey water, however, it is not considered a jurisdictional wetland because of its disturbed nature and the absence of hydric soils. Exh. EOS-KM-2.

**Water Conservation, Sufficiency of Water, and Burden on Existing Water Supply**
[10 V.S.A. §§ 6086(a)(1)(C), and (a)(2)&(3)]

57. The Project's operations will not require the use of water, except for possible cleaning of the solar panels. The Project's construction will not require the use of water, unless required for dust control. If water is required, it will be trucked to the site. McCaffery pf. at 6 and 9; tr. 7/23/10 at 13 (Seddon).

**Soil Erosion**
[10 V.S.A. § 6086(a)(4)]

58. The Project will not cause 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 59 through 63, below.

59. After the debris removal is completed by SVEP, EOS will re-seed any areas of exposed soil. SVEP's clean-up agreement allows the existing concrete pads to be ground up and reused on-site. The ground-up material may be re-used as fill around the pilings and/or as fill around the new concrete inverter pads. McCaffery pf. at 10; tr. 7/23/10 at 11 and 13-14 (Seddon).

60. The solar-array wiring, between the solar arrays and from the arrays to the inverters, will run in conduit above-ground on small, steel support systems. From the inverters, there will be overhead lines that connect with CVPS's distribution system. No wiring will require undergrounding. Tr. 7/23/10 at 16-17 (Seddon).

61. The majority of the Project site is covered with existing asphalt. The solar array and the solar-array wiring support structures will be installed on pilings (driven five to six feet into the ground) through: the existing asphalt; the existing vegetated ground surface; and the re-seeded surfaces. The Project's construction will require minimal earth disturbances, for the installation of the inverters' concrete-pad structures, power poles, and support structures, and such disturbances will not exceed one acre. McCaffery pf. at 5 and 10; tr. 7/23/10 at 11-12, 16, and 19-22 (Seddon).

62. The Project will not result in any direct discharge of pollutants to water bodies and the Project's location, 150 feet from the Hoosic River, and the intervening vegetated buffer will

minimize the potential for any water quality impacts during construction. McCaffery pf. at 10; Guerin/Seddon pf. at 5; exh. EOS-JG/LS-3c-Revised.

63. EOS will develop a site-specific erosion control plan for construction. Tr. 7/23/10 at 13 (Seddon).

**Transportation Systems**
[10 V.S.A. § 6086(a)(5)]

64. The Project will not cause unreasonable congestion or unsafe conditions with respect to transportation. This finding is supported by findings 65 through 68, below.

65. During the Project's sixteen weeks of construction, the Project will generate up to thirty worker-vehicle trips per day and will involve thirty tractor-trailer loads of equipment deliveries over a three-month period. Guerin/Seddon pf. at 12.

66. During operation, Project-related vehicle trips will be very minimal, potentially requiring only a few trips annually. Guerin/Seddon pf. at 13.

67. Project-related vehicle trips should have no appreciable effect on Route 7's daily traffic volume. Guerin/Seddon pf. at 12-13.

68. The Project will not require any new or upgraded roads, the site is accessible from Route 7 and from existing access roads on the SVEP parcel. The Route 7 entrance was designed to handle a large volume of traffic. Guerin/Seddon pf. at 12.

**Educational and Municipal Services**
[10 V.S.A. § 6086(a)(6) and (7)]

69. The Project will not create an unreasonable burden on the Town of Pownal to provide municipal or educational services. Guerin/Seddon pf. at 13-14.

70. The Project will not require police, fire, solid waste disposal, water, sewage or ambulance services beyond what the Town of Pownal is able to provide, and will not significantly increase use of the public roads. Guerin/Seddon pf. at 13-14; exh. EOS-JG/LS-7.

71. The Project will not create any full-time permanent jobs and, therefore, will not result in increased enrollment in the local schools, nor will it have any direct or indirect impact on any school property. Guerin/Seddon pf. at 14.

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

72. The Project will not have an undue adverse effect on the scenic or natural beauty, aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 15 through 18, above, and findings 73 through 82, below.

73. The Project will not have an adverse aesthetic impact relative to the visual resources of the area. The Project will have a limited visual impact and will enhance and improve the appearance of this previously developed, and now dilapidated, site. Saydek pf. at 2-3 and 5-7.

74. The SVEP parcel contains the dilapidated remnants of the former Race Track, including an eighty-foot tall grandstand building, the old race track, and other abandoned structures. The Project area also contains existing overhead utility lines, a railroad track, and concrete pads and debris associated with the Race Track's former horse stables. Saydek pf. at 2.

75. The area surrounding the Project site is generally rural residential with a few retail/commercial establishments along Route 7. To the north of the Project, directly across Route 7, is a sand and gravel extraction operation. Saydek pf. at 2.

76. The primary public viewpoint of the Project will be by motorists traveling along Route 7 between approximately one-half mile north and one-quarter mile south of the Project with the most apparent view immediately adjacent to the site from Route 7. There are trees and shrubs currently present along the side of Route 7 and there are no plans to disturb this vegetation. The solar arrays will be tilted away from Route 7. Saydek pf. at 3-4 and 5-6.

77. Route 7 motorists will view only the back of the solar arrays and support structures for a short duration and will view the Project along with the existing overhead utility lines, the railroad tracks, and the remaining Race Track structures. Saydek pf. at 3-4.

78. The surrounding area will have limited visibility of the Project. Where the Project is visible from rural roadways and residential areas, the views will be distant and partially obstructed by topography and vegetation and will be framed by the presence of other larger and dilapidated structures on the SVEP parcel. Saydek pf. at 4-6.

79. The Project will not impact any archeological sites. The Vermont Division for Historic Preservation ("Division") visited the site on April 8, 2010, and reviewed a copy of the April 13,

2010, Archeological Resource Assessment prepared by the University of Vermont Consulting Archeology Program. The Division found that, although the Hoosic River drainage is highly sensitive for precontact Native American sites, the Project area's prior soil disturbances and extensive grading (during the construction of the Race Track and the subsequent demolition of the former horse stables) eliminated any archeological concerns. McCaffery pf. at 12; exhs. EOS-KM-5 at 4 and EOS-KM-6.

80. The Project will not impact any historic resources. The remaining Race Track structures are not historic. There are no buildings listed in the National Historic Register in Pownal and all the State-listed buildings in Pownal are outside of the Project viewshed. McCaffery pf. at 12; Saydek pf. at 8; exhs. EOS-KM-5 at 3-4, EOS-KM-6, and EOS-JS-2 at Attachments E, F, and G.

81. The Project-related ground disturbances will be seventy-five feet from the historic Lovett Yard Cemetery's boundary. The cemetery is located on SVEP property and adjacent to the leased Project area. The Project will not encroach on the public's ability to access the cemetery or on the current public access route along the western side of the Project area, under the proposed overhead lines. Exhs. EOS-JG/LS-3c-Revised, EOS-JS-2 at Attachment B, and EOS-KM-6; tr. 7/23/10 at 15 and 19 (Seddon).

82. There are no known rare or irreplaceable areas at the Project site. McCaffery pf. at 11.

**Necessary Wildlife Habitat and Endangered Species**
[10 V.S.A. § 6086(a)(8)(A)]

83. There are no known threatened or endangered species or areas of necessary wildlife habitat within the Project area. McCaffery pf. at 11; exh. EOS-KM-2.

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

84. The 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 85, below.

85. The closest public investments to the Project are the Hoosic River, Route 7, and Lovett Yard Cemetery. However, none of these public investments will be unnecessarily or unreasonably impacted by the Project. McCaffery pf. at 11-12; s*ee also* findings 17, 45-51, 64-68, and 81, above.

**Least Cost Integrated Resource Plan**
[30 V.S.A. § 248(b)(6)]

86. The Project will be a merchant plant as opposed to a regulated utility, therefore EOS is not required to prepare a least-cost integrated resource plan. Guerin/Seddon pf. at 14.

**Compliance with Electric Energy Plan**
[30 V.S.A. § 248(b)(7)]

87. The Project complies with the *Vermont Twenty-Year Electric Plan*. Guerin/Seddon pf. at 14.

88. The *Vermont Twenty-Year Electric Plan* supports renewable energy development to diversify Vermont's power portfolio and to allow the state to move away from large fossil-fuel-based power sources that are subject to dramatic price changes and possible supply disruptions. The Plan also speaks to the importance of a sustainable resource portfolio in Vermont and the necessity of looking at the long-term benefits derived from renewable energy. Guerin/Seddon pf. at 14.

89. On July 21, 2010, the Department filed a letter stating that the Project is consistent with the *Vermont Twenty-Year Electric Plan*, pursuant to 30 V.S.A. § 202(f). Letter of July 21, 2010, from David Lamont to Geoffrey Hand, Esq. and Karen Tyler, Esq.

**Outstanding Resource Waters**
[30 V.S.A. § 248(b)(8)]

90. There are no outstanding resource waters in the Project area. McCaffery pf. at 3-4; exh. EOS-KM-2.

**Waste-to-Energy Facility**

[30 V.S.A. § 248(b)(9)

91. The Project does not involve a waste-to-energy facility.

**Existing or Planned Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

92. The Project can be served economically by existing transmission facilities without undue adverse impacts on Vermont utilities and customers. This finding is supported by findings 22 through 26, above, and 93 through 94, below.

93. The Project will connect directly to the CVPS distribution system at Line 45 (7.2/12.47 kV) on Route 7. Crocket pf. at 3; Guerin/Seddon pf. at 15.

94. EOS will pay for any electrical system modifications required to interconnect the Project. Guerin/Seddon pf. at 15.

**Decommissioning Fund**

95. EOS stated that when the Project's twenty-five year standard-offer contract expires, the owner of the solar array will either make arrangements to continue operations or decommission the Project site. Guerin/Seddon pf. at 8.

12. At the time the Project ceases to operate, EOS will decommission the site, which will include removal of the solar panels, support structures, electrical lines, inverters, transformers, concrete pads, and fencing and will also include filling and seeding any areas of exposed soil. Guerin/Seddon supp. pf. at 2; exh. Joint-1; tr. 7/23/10 at 22 (Seddon).

Discussion

The Stipulation submitted by the parties includes the following proposed condition:

> At the time the Project ceases to operate, the Petitioner will perform decommissioning, including removal of the solar panels, support structures, electrical lines, inverters, transformers, concrete pads, and fencing. Prior to operation of the Project, Petitioner shall submit to the Board for review and approval a plan for the creation of a Decommissioning Fund. The Decommissioning Fund shall be secured by cash, bond, letter of credit or other financial mechanism that is held by a third party and would be unaffected should Petitioner become bankrupt or otherwise cease to exist. Petitioner may build the

Fund over time such that it has sufficient funds to perform decommissioning after twelve years of operation.[8]

Pursuant to PSB Rule 5.402(C)(2), the purpose of the Decommissioning Fund ("Fund") is to ensure that there are sufficient funds available to return the Project site to an appropriate condition at the end of the Project's useful life or earlier should the Project cease operations for any reason. The parties are not disputing the need for a Fund. At issue is whether the Board should require that EOS submit to the Board a Decommissioning Plan ("Plan"), for the Fund's creation, prior to the Project's construction or prior to the Project's commencement of operation. Also at issue is whether the Board should approve a Fund that may not fully cover the Project's decommissioning costs until twelve years after the Project begins operation.

The parties stipulated to a condition that required EOS to submit its proposed Plan, for Board approval and review by the Parties, prior to the Project's commencement of operation.[9] The parties also stipulated to a condition that permitted EOS to grow the Fund over the first twelve years of operation.[10] At the July 23 Technical Hearing, I proposed a revised condition that would have required the Plan's submission, review, and approval prior to Project construction, but would still have allowed the Fund to grow over the Project's first twelve years of operation.[11] On July 28, EOS filed a letter reiterating its request that the Plan's submission and approval be required prior to the commencement of Project operation, not prior to construction.[12] EOS represented that the Department concurred with this request.[13] EOS argued for the stipulated version of the decommissioning condition "to ensure that project financing and the start of construction are not delayed."[14] EOS also argued that requiring Board approval prior

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8. Exh. Joint-1.

9. *Id.*

10. *Id.*

11. Exh. Board-1.

12. Letter of July 28, 2010, from Geoff Hand, Esq., to Susan M. Hudson, Clerk of the Board.

13. *Id.*

14. *Id.*

to commencement of operations will "not pose any undue risk . . . as the impacts of Project construction are extremely small" and that there is an "equally negligible" risk "that the Project would be built but not operated . . . given the existence of the 25-year Standard Offer contract."[15]

On August 3, 2010, the Board issued an Order approving a solar project, *Petition of Addison Solar Farm, LLC*, Docket 7594, Order of 8/3/10. In that Order, the Board stated that:

> In previous Board approvals, we required the fund to be in place at the start of construction, since the majority impacts to the site occur during the construction phase rather than the operation phase. This clearly is the best practice and as a general rule we will continue to require the decommissioning fund be in place prior to commencement of site preparation or construction.[16]

After careful consideration, I recommend that the Board issue a CPG for the Project with the following condition, which is consistent with decommissioning plans previously approved by the Board as well as the general principle set forth in the August 3 Order in Docket 7594:[17]

> Prior to proceeding with construction, EOS shall submit to the Board for review and approval a plan for decommissioning that includes a detailed estimate of the projected decommissioning costs and a plan for the creation of a Fund. EOS shall ensure that the Fund (1) is backed by an "irrevocable standby" Letter of Credit or another appropriate financial security; (2) increases over time to account for inflation; and (3) is bankruptcy-remote, to protect it from creditor claims in the event the proposed project encounters financial difficulties. Parties shall have one week, from the date the plan is filed with the Board, to file any comments.

Also consistent with past Board approvals, I recommend that the Board allow the Fund to grow as the construction process proceeds such that the funding level is commensurate with the costs of removing infrastructure in place—rather than allowing the Fund to grow over the first twelve years of operation.[18] EOS specifically stated in its July 28 letter that "the impacts of Project construction are extremely small." If the Project's construction impacts are minimal, it is logical

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15. *Id.*

16. Docket 7594, Order of 8/3/10 at 29.

17. *Petition of Georgia Mountain Community Wind*, Docket 7508, Order of 6/11/10 at 84-85; *Joint Petition of PPL Renewable Energy, LLC, and Green Mountain Power Corp.*, Docket 7416, Order of 8/29/08 at 20; *Amended Petition of Deerfield Wind, LLC*, Docket 7250, Order of 4/16/09 at 95; Docket 7594, Order of 8/3/10 at 29-30.

18. *See e.g.*, Docket 7508, Order of 6/11/10 at 84-85; Docket 7416, Order of 8/29/08 at 20; Docket 7250, Order of 4/16/09 at 95.

to assume that the costs of decommissioning and, therefore, the burden of securing an "irrevocable standby" Letter of Credit prior to construction and building the Fund during construction, are also minimal.

## IV. Discussion

EOS has provided sufficient evidence to demonstrate that the Project complies with Section 248 criteria. I recommend that the Board approve the proposed project and issue a CPG for construction of the proposed project with the conditions set forth in the proposed Order and CPG, below.

On July 16, 2010, EOS, the Department, and ANR filed a Stipulation and Proposed Findings of Fact and Order in which all the parties agreed that the Board should issue a CPG with conditions. All parties to this proceeding have waived their rights under 3 V.S.A. § 811 to file written comments or present oral argument with respect to this proposal for decision, provided that this proposal for decision is substantially in the form as that agreed to by the Parties. Given that I am recommending a decommissioning condition different from the one agreed to by the parties in the Stipulation, the parties may view this change as significant. Therefore, pursuant to 3 V.S.A. § 811, I am circulating the Proposal for Decision to the Parties for their review and comment.

## V. Conclusion

Based upon the evidence in the record, I conclude that the proposed project, with the conditions identified below:

(a) 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, and the recommendations of the municipal legislative bodies;

(b) is a SPEED resource and thus, is not required to comply with 30 V.S.A. § 248(b)(2);

(c) will not adversely affect system stability and reliability;

(d) will result in an economic benefit to the state and its residents;

(e) will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) and §§ 6086(a)(1) through (8) and (9)(K);

(f) is consistent with the principles of least-cost integrated resource planning;

(g) is in compliance with the electric energy plan under 30 V.S.A. § 202;

(h) does not involve a facility affecting or located on any segment of the waters of the State that has been designated as outstanding resource waters by the Water Resources Board;

(i) does not involve a waste-to-energy facility; and

(j) can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers.

I recommend that the Board approve the proposed project and issue a CPG for construction of the proposed project with the conditions set forth in the proposed Order and CPG, below.

DATED at Montpelier, Vermont this 26th day of August, 2010.

s/ Bridgette Remington
Bridgette Remington, Esq.
Hearing Officer

## VI. BOARD DISCUSSION

After reviewing the Proposal for Decision ("PFD") and EOS's comments, we adopt the Hearing Officer's PFD.

The only party to file comments on the PFD was EOS, which filed a letter on August 11, 2010, stating that it supported the PFD with one exception. EOS requested that the Board adopt the proposed Decommissioning Fund ("Fund") condition contained in the Stipulation rather than Condition 10 recommended in the PFD by the Hearing Officer. Condition 10 would require that EOS submit a plan for the creation of a Fund to the Board *prior to proceeding with construction* and would require the Fund grow as construction proceeds, such that the funding level remains commensurate with the costs of removing infrastructure in place. The proposed condition contained in the Stipulation would require that EOS submit a plan for the creation of a Fund to the Board *prior to operation* and would permit the Fund to grow over the first twelve years of the Project's operation. EOS stated that the impacts of the proposed Project are less significant than those involved in wind projects and that the estimated salvage value of the equipment and materials is several times greater than the estimated costs of decommissioning the Project. In addition, EOS noted that the risk of the Project being built but not operated is negligible given the existence of the Project's twenty-five-year standard-offer contract. EOS also stated that Condition 10 recommended in the PFD would be burdensome to the Project by materially increasing the cost of the Project, thus reducing the return to investors and the likelihood that the Project will be financed and constructed.

As noted by the Hearing Officer in the PFD, the Board has required other merchant generation facilities to comply with a Fund condition similar to Condition 10. This clearly is the best practice, since the majority of site impacts occur during a project's construction rather than operation. We also acknowledge that the proposed project will involve less environmental and aesthetic impacts, higher salvage values, and easier access than many other merchant generation facilities, particularly high-elevation wind generation facilities. In addition, we note that the proposed project will actually improve the aesthetic condition of the dilapidated site. However, EOS has failed to provide sufficient evidence to persuade this Board to alter our long-standing precedent. The purpose of the Fund is to ensure that sufficient funding will be available to

restore the site after a project ceases operation, whether that occurs at the end of its expected operational life or earlier, if the Project is abandoned due to financial, operational, or other difficulties. To allow construction to occur without the Fund in place would fail to provide this financial assurance for site restoration should the Project be prematurely abandoned, thus defeating the very purpose of the Fund.[19] In light of these considerations, we adopt the decommissioning condition proposed in the PFD, which requires EOS to have a Fund in place prior to proceeding with construction.

## VII. ORDER

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

1. The findings, conclusions, and recommendations of the Hearing Officer are adopted.

2. The proposed installation and operation of a 2.2 MW solar electric generation facility by EOS Ventures, LLC in Pownal, 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 to that effect shall be issued.

3. 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.

4. The proposed project is hereby certified as a Sustainably Priced Energy Enterprise Development project.

5. EOS shall comply with any applicable requirements regarding the disclosure of renewable attributes that are established in other proceedings, including Docket 7533, and Board Rules.

6. Prior to commencement of construction, EOS shall submit the Central Vermont Public Service Corporation's ("CVPS") System Impact Study to the Board for approval, and the

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19. We also note that having a Fund in place before proceeding with construction is potentially less burdensome for the proposed project than for other types of merchant generation facilities because the costs of decommissioning are not likely to encompass a significant percentage of EOS's total project costs given the lesser site impacts noted above.

Department of Public Service for review and comment. Parties shall have two weeks, from the date the plan is filed with the Board, to file any comments.

7. EOS shall pay the entire cost of any distribution system upgrades necessary to interconnect the proposed project with CVPS's distribution system.

8. EOS will request written certification from the Southern Vermont Energy Park ("SVEP") that the initial site clean-up operation was conducted in accordance with SVEP's waste management strategy approved by the Solid Waste Management Division of the Agency of Natural Resources. EOS will file a copy of the certification with the Board and will provide a copy to the parties in this docket.

9. All construction activities shall comply with the site-specific Erosion Prevention and Sediment Control Plan developed for the proposed project.

10. Prior to proceeding with construction, EOS shall submit to the Board for review and approval a plan for decommissioning that includes a detailed estimate of the projected decommissioning costs and a plan for the creation of a Fund. EOS shall ensure that the Fund (1) is backed by an "irrevocable standby" Letter of Credit or another appropriate financial security, (2) increases over time to account for inflation, and (3) is bankruptcy-remote, to protect it from creditor claims in the event the proposed project encounters financial difficulties. Parties shall have one week, from the date the plan is filed with the Board, to file any comments.

11. Prior to proceeding with construction, EOS shall obtain all necessary permits and approvals. Construction, operation, and maintenance of the proposed project shall be in accordance with such permits and approvals, and with all other applicable regulations, including those of the Agency of Natural Resources.

Dated at Montpelier, Vermont, this 8th day of September, 2010.

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| s/ James Volz | ) | |
| | ) | PUBLIC SERVICE |
| s/ David C. Coen | ) | BOARD |
| | ) | OF VERMONT |
| s/ John D. Burke | ) | |

OFFICE OF THE CLERK

FILED: September 8, 2010

ATTEST: s/ Susan M. Hudson
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*