

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Application of Orchard Road Solar I, LLC for a)
certificate of public good, pursuant to 30 V.S.A.)
§§ 219a and 248, to install and operate a 500 kW) CPG #16-0042-NMP
group net metered solar electric generation facility)
located on Orchard Road in Middletown Springs,)
Vermont, to be known as the “Orchard Road)
Solar Project”)

SUPPLEMENTAL DIRECT TESTIMONY OF ROD VIENS

November 6, 2018

Summary: Mr. Viens’ supplemental testimony confirms that the Project can be moved to Alternative Site 2, describes the revised design for the Project on this site, and provides support for the Project’s compliance with applicable Section 248 criteria at this location.

1 **Q1. Please state your name, occupation and business address.**

2 A1. My name is Rod Viens. I am Executive Vice President with EDF Renewables Distributed
3 Solutions (formerly groSolar), which has offices at 5 Commerce Ave., West Lebanon, NH
4 03784.

5
6 **Q2. Have you previously submitted testimony in this proceeding?**

7 A2. Yes, I previously submitted prefiled direct testimony with the Application submitted by
8 Orchard Road Solar I, LLC (“ORS” or “Applicant”) on July 15, 2016, as well as rebuttal
9 testimony on June 28, 2017. I also provided live testimony at the evidentiary hearing held
10 for the proceeding on August 28 and 29, 2018.

11
12 **Q3. What is the purpose of your testimony today?**

13 A3. The purpose of my testimony is to provide an update on ORS’s review of the alternative
14 sites identified for the Orchard Road Solar Project (“Project”), including ORS’s proposal to
15 move the project to Alternative Site 2 on the east side of Orchard Road. I describe the
16 revised project location and design, and provide support for the project’s compliance with
17 certain Section 248 criteria in this location.

18
19 **Q4. Can you please provide an overview of the alternative sites considered by ORS?**

20 A4. Yes. Over the course of this proceeding, Neighbors identified two alternative site locations
21 for the Project, one directly to the east of the original project site but on the west side of
22 Orchard Road (Alternative Site 1), and one further east and on the other (eastern) side of
23 Orchard Road (Alternative Site 2). ORS provided supplemental testimony dated June 28,

1 2017 regarding the feasibility of the project on both of these sites, concluding that
2 Alternative Site 1 was not a feasible location for the project due to topography and the
3 presence of ledge, and that Alternative Site 2 was not feasible because of the presence of a
4 large wetland that the Agency of Natural Resources had identified as a Class II wetland that
5 would prohibit construction of the project.

6 Following the Commission's reopening of the evidentiary record with respect to
7 these alternative sites, ORS's natural resources expert, Dori Barton, revisited the Alternative
8 2 site to conduct updated testing and delineation of the wetland area present on the site.
9 Based on the results of the delineation, Ms. Barton concluded that there was sufficient
10 evidence to challenge ANR's previous classification of the wetland as Class II. Ms. Barton
11 submitted her updated delineation to the ANR Wetlands Program staff, who subsequently
12 issued a wetlands classification report which revised ANR's position and accepted ORS's
13 evidence that the wetland on Alternative Site 2 is a Class III wetland, which would not
14 prohibit construction of the project in this area. Ms. Barton's updated delineation is
15 discussed in more detail in her supplemental testimony and supplemental Natural Resources
16 Memo, *Exhibit ORS-DB-3*.

17 In light of the updated delineation of the wetland on Alternative Site 2 as a Class II
18 wetland, ORS conducted additional analysis of this site and has determined that it can move
19 the project to this location. As both Neighbors and ORS have stated a strong preference for
20 Alternative Site 2, ORS is amending its initial application to propose moving the project to
21 this location, which the Commission indicated it would treat as a continuation of the current
22 application in its July 20th, 2018 order for purposes of ORS's vested rights at the time of the

1 initial filing. (See Order 7/20/18 at FN 8). ORS understands that none of the Neighbors
2 oppose the Project if located on Alternative Site 2.

3
4 **Q5. Please provide a brief description of Alternative Site 2.**

5 A5. Alternative Site 2 (or “current site”) is located to the east and across Orchard Road from the
6 original site. *See Context plan (Fig. 1) of Exh. ORS-MK-5*, which shows the location of
7 the current site relative to the original site location. The current site is part of the same
8 parcel of land as the original site and is owned by the same landowner. The site is primarily
9 open meadow, with a Class III wetland area in the middle, and has a significantly lower
10 elevation than the original site, which reduces the visibility of the Project. *See Exh. ORS-*
11 *MK-5* for additional details on the Project’s viewshed. The Project will be located on
12 approximately 3.5 acres on the southern portion of the parcel towards the end of Orchard
13 Road. No tree clearing will be required. The site will be accessed from a 12’ wide drive and
14 turnaround area off of Orchard Road. *See Revised Site Plan, Exhibit ORS-RV-2 (Rev.)*.

15
16 **Q6. Can you please describe the Project as proposed on Alternative Site 2?**

17 A6. The Project has not changed in size (approximately 500 kilowatt (kW AC) net-metered), but
18 there are some changes to the design of the Project in order to best fit the current site. The
19 individual solar panels that comprise the array will still be mounted on a fixed-tilt racking
20 system, which will hold the solar panels at approximately three feet above the ground. At
21 their highest point, the solar panels will sit approximately nine feet above the ground. Racks
22 for the fixed-tilt system will be oriented east-west and hold the panels at a fixed angle of
23 approximately 25 degrees. *See Revised Site Plan, Exhibit ORS-RV-2 (Rev.)*.

1 The Project is expected to generate approximately 850,000 kWh per year, and will
2 consist of approximately 2,160 350-watt panels arranged in approximately 15 rows, facing
3 south. The final panel selection will be made at the time of construction and final numbers
4 may vary slightly. The Project will utilize approximately 15 string inverters and will
5 interconnect at an existing utility pole at the entrance to the access drive at the intersection
6 of Orchard Road and Wescott Road, which will be upgraded to accommodate new 3-phase
7 power lines. A 500 kVa transformer with a vault and secondary containment system and
8 equipment pad will be located at the end of the access drive, within the approximately seven
9 to eight-foot fixed-knot fence that will surround the Project. *See Exhibit ORS-RV-2*
10 *(Rev.)*. No grading is planned aside from the installation of the access road and equipment
11 plan.

12 Portions of the Project will be built within the Class III wetland on the site, as
13 indicated on the site plan. *Exhibit ORS-RV-2 (Rev.)*. Under guidance from the Army
14 Corps of Engineers, no additional permits are needed for these activities (see Testimony of
15 Dori Barton). The closest residence to the Project is located approximately 852' feet away,
16 and is the landowner's residence. The Project complies with all applicable setback
17 requirements. As measured from the closest panel, the Project is set back 100' from
18 Orchard Road and maintains a minimum 50' buffer from all bordering property boundaries.
19 *See Exhibit ORS-RV-2 (Rev.)* for specific distances to the property lines in each direction.

20
21 **Q7. Have you reached out to any adjoining landowners to the current site?**

22 A7. Yes. The current site is on the same parcel of land as the original site, thus adjoining
23 landowners to both sites were notified of the application at the time it was submitted. In

1 addition, ORS reached out to the owners of the closest residences to the current site who are
2 not participating in the proceeding to inform them of the change in project location. ORS
3 spoke with one of the residents, Mr. Bartlett, and explained the change in location and the
4 reasons for this change. Mr. Bartlett informed ORS that as of this time he did not intend to
5 participate in the proceeding. ORS also understood from this discussion that Mr. Bartlett
6 intended to speak with the owner of the second residence, Mr. Lattuca, (who primarily
7 resides in Florida) and would get back to ORS with any additional concerns. ORS did not
8 hear anything further from Mr. Bartlett or Mr. Lattuca.

9 ORS is also taking the step of sending a letter and Site Plan of the revised project
10 location (Figures 3 of Mr. Kane's supplemental report, *Exhibit ORS-MK-5*) to all adjoining
11 landowners that are not currently participating in this proceeding to inform them of the
12 change in site location. A copy of this letter and the list of recipients is attached as *Exhibit*
13 *ORS-RV-10*.

14
15 **Q8. Has the Project been configured to minimize impacts to the current site and**
16 **surrounding areas?**

17 A8. Yes. The overall Project configuration on the current site was designed to minimize impacts
18 to environmental resources and to minimize any visual intrusiveness on the surrounding land
19 uses. The siting of the Project on the parcel took a number of factors into account:

20 1. Minimizing Environmental Impacts: The Project is designed to reduce and limit impacts
21 on natural resources, including:

- 22 ■ Impervious new surfaces will be limited to equipment pads and construction of
23 gravel access roads into the site.

- 1 ▪ Native soils will remain in place. The areas beneath and around the arrays will
2 remain vegetated, although the land inside and around the perimeter of the fence will
3 be periodically mowed.
- 4 ▪ The Project avoids Class II wetland impacts.
- 5 ▪ There is no tree clearing required for the Project on this site.
- 6 2. Optimal Solar Feasibility: The Project is optimally designed to capture solar energy
7 efficiently without undue shading.
- 8 3. Setbacks from Residences: All setbacks conform to state minimum standards from
9 highways and bordering property boundaries.

10

11 **Q9. Does the Project still meet the requirements for a net-metering system under 30**
12 **V.S.A. § 219a?**

13 A9. Yes, The Project is still a group net-metered 500 kW (AC) solar electric generation project
14 that will operate in parallel with facilities of the electric distribution system. The Project
15 employs a renewable energy resource – solar energy – and its electrical output is intended
16 primarily to offset the electricity requirements of its group members.

17 ORS will finalize the group members and identify specific allocations as required
18 under Commission rules prior to Project operations. The Project will allocate net-metering
19 credits based on a percentage allocation of output.

20 If any group members are added, ORS will provide the Commission and GMP
21 with the allocation amounts, meters, and account numbers per Commission Rules. The
22 procedure for adding and subtracting meters from the group is at the sole discretion of
23 Orchard Road Solar I, LLC. The binding dispute resolution process for any disputes is

1 as follows: all disputes between the group members will be settled by the group
2 administrator, Orchard Road Solar I, LLC, in its sole discretion. In no event will ORS
3 require the Public Utility Commission, the Public Service Department, or GMP to
4 resolve a dispute within the group net-metering system. The designated contact person
5 for all communications is Rod Viens, EDF Renewables Distributed Solutions, 5
6 Commerce Ave., West Lebanon, NH 03784.

7
8 **Q10. Please identify changes to the equipment to be used for the Project from what was**
9 **initially proposed for the original site location.**

10 A10. Small changes have been made to the equipment specifications from the original plans
11 including: 1) use of a pad-mounted transformer as opposed to transformers mounted to an
12 overhead pole; 2) a reduced number of panels, based on wattage rating of approximately 350
13 watts; and 3) indicative inverter specifications were adjusted (15 33kW inverters) to account
14 for updated product sourcing. While final equipment is subject to change, the equipment
15 currently specified will be substantially similar to that proposed here. The updated
16 equipment selection has been provided to GMP and specifications are reflected in the
17 supplemental sound study submitted as *Exhibit ORS-SDG-3*.

18
19 **Q11. What are the plans for interconnection on the current site?**

20 A11. Interconnection will occur at the existing pole location at the corner of Wescott and
21 Orchard Road as shown on *Exhibit ORS-RV-2(Rev.)*. Power will run underground from
22 the pad-mounted transformer to a riser pole. GMP will add 2 phases to the existing power

1 line along Orchard Road running to the Project from Route 140 as identified in the Fast
2 Track.

3

4 **Q12. Are there any changes proposed to the way equipment will be delivered or the**
5 **construction schedule?**

6 A12. No. As with the original site location, equipment will be transported to the site via Route
7 140 to Orchard Road, but will not continue down Wescott Road as initially proposed. The
8 solar panels and tracker rack components will be shipped on pallets, typically delivered by
9 standard tractor-trailer trucks. Approximately 8 (+/-) truck trips will be required to deliver
10 the solar panels, racking, and inverters over an approximately 4-week period. Other Project
11 equipment, e.g., wire, cable, conduit, and construction materials, will also be transported on
12 standard-width trucks. The site will be accessed via a 12' access drive from Orchard Road
13 into the Project area. A route for the access, approximate widths, and a cross-section are
14 shown on the site plan. *Exhibit ORS-RV-2 (Rev.)*.

15 On-site heavy construction equipment will be limited to pile-driving equipment for
16 installing the racking, backhoes, and the like for conduit excavation and equipment pad
17 construction, and a cement truck for delivery of concrete for the foundations under the
18 equipment pad.

19

20 **Q13. Will the revised location result in any material changes to the construction plans or**
21 **traffic impacts as a result of Project construction?**

1 A13. No. The anticipated sequencing and timeframe for construction (approximately 12 weeks)
2 will not change from what I described in my initial testimony; nor will the shift eastward in
3 Project location result in any material increase in traffic impacts during construction.
4

5 **Q14. Have you reviewed the Project as proposed on the current site with respect to**
6 **compliance with the Section 248 criteria for which you previously provided testimony?**

7 A14. Yes, I have reviewed the revised project plans for compliance with the following Section 248
8 criteria: orderly development of the region (b)(1); system stability and reliability (b)(3);
9 historic sites (b)(5); traffic (10 V.S.A. § 6086(a)(5)); and public investments (10 V.S.A. §
10 6086(a)(9)(k)).
11

12 **Q15. Has your opinion that the Project complies with these criteria changed?**

13 A15. No, the Project as revised for the current site complies with each of these criteria. I will
14 address each individually below.
15

16 **SECTION 248 CRITERIA**

17 **Q16. Will the Project unduly interfere with the orderly development of the region?**

18 A16. No. The Project will not unduly interfere with orderly development of the region or cause
19 any direct impacts on the capacity of the region to develop. The Project will not cause an
20 undue burden on public roadways or other types of municipal or state services or
21 infrastructure. It will not utilize land or resources that are specifically contemplated for
22 conservation or other forms of development under the town or regional plans; details are
23 further discussed in Mr. Kane's supplemental report, *Exhibit ORS-MK-5*.

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Q17. Will the Project have an adverse impact on GMP’s system stability or reliability?

A17. No. The Project previously passed a Fast Track analysis from GMP (*Exh. ORS-RV-6*), which confirmed that the Project will not have an adverse impact on GMP’s system stability or reliability and that no further studies were required. ORS has executed an interconnection application with GMP, and the only change to the interconnection plans for the project at the current site is to connect at the corner of Wescott Road and Orchard as opposed to connecting two poles farther up Wescott Road. As a result of this change, the upgrades to the poles on Wescott Road previously described will not be necessary. GMP has confirmed that these changes are acceptable.

Q18. Will the Project have an undue adverse effect on any historic resources?

A18. No. ORS provided VDHP with an updated site plan showing the Project on the current site, which is on the same parcel of land, adjacent to the original site, and is less visible. VDHP had previously visited the original site and concluded that the Project would not have an undue adverse effect on any historic resources, and has expressed no concerns about the Project as located on the current site. VDHP is completing a review of the updated site plan, and ORS understands that VDHP will file a letter confirming its final conclusions shortly following this testimony.

1

2 **Q19. Will the Project unnecessarily or unreasonably endanger the public or quasi-public**
3 **investment in adjacent lands, services, or facilities, or materially jeopardize or interfere**
4 **with the public's use and enjoyment of those lands, services, or facilities?**

5 A19. No. The closest public investment to the Project site is Orchard Road, located to the west
6 of the Project. The Project will not impact or create any adverse burdens on this public
7 investment given the limited and temporary use of the road during construction and
8 operation. Therefore, there will be no adverse burden or endangerment of this public
9 investment.

10

11 **Q20. Have there been any changes to the decommissioning plans for the Project?**

12 A20. No, the Project will still be decommissioned at the end of its useful life. More specifically,
13 the Project equipment will be removed from the site and sold, recycled, or disposed of in
14 accordance with applicable waste regulations. Stockpiled soils will be returned to the land,
15 and it will remain viable for whatever uses the landowner chooses.

16

17 **Q21. Does that conclude your testimony?**

18 A21. Yes.

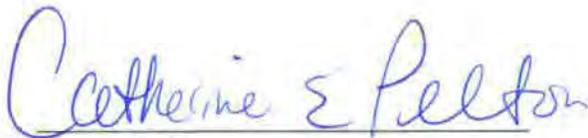
I, Rod Viens, do hereby swear and affirm under the penalty of law that the information provided in my testimony is accurate to the best of my knowledge, and that I have personal knowledge of and am able to testify as to the validity of the information contained in my testimony and attached exhibits.



Rod Viens

State of New Hampshire
County of Grafton

The foregoing instrument was signed and acknowledged before me this 5th day of November, 2018 at West Lebanon NH by Rod Viens who acknowledged the act to be his free act and deed.



Notary Public

Name of Notary:

Commission Expires:

