

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Petition of Reservoir Road Solar, LLC, for a	)	
Certificate of Public Good, pursuant to 30	)	
V.S.A. § 248, to construct, own, and operate	)	Case No. 24-____-PET
a 2.375 MW ground-mounted solar electric	)	
generation facility in Berkshire, Vermont	)	
	)	

PREFILED DIRECT TESTIMONY OF SAM CARLSON

December 4, 2024

Summary: Mr. Carlson’s testimony provides an overview of Reservoir Road Solar, LLC’s plans to install and operate a 2.375 MW solar electric generation facility located in Berkshire, Vermont (the “Project”). It also describes the proposed Project’s relationship to certain criteria set forth in 30 V.S.A. § 248: need for the project; system stability and reliability; public health and safety, air pollution, water conservation, sufficient water available, and burden on water supply; use of natural resources, greenhouse gas impacts; transportation systems; municipal services; educational services; historic sites; development affect public investments; integrated resource plan; compliance with electrical energy plan; existing or planned transmission facilities; setbacks; and decommissioning plan and fund (Public Utility Commission Rule 5.900).

EXHIBIT LIST

Exhibit RRS-SC-1	Resume
Exhibit RRS-SC-2	Site Plan and USGS Map
Exhibit RRS-SC-3	Representative Equipment Specifications
Exhibit RRS-SC-4	Village of Enosburg Falls Letter of Support
Exhibit RRS-SC-5	Interconnection Studies
Exhibit RRS-SC-6	One Line Diagram
Exhibit RRS-SC-7	Acoustics Analysis
Exhibit RRS-SC-8	Waiver to Parcel Setback
Exhibit RRS-SC-9	Decommissioning Plan and Fund

Introduction

Q1. Please state your name, current employer, business address, and position.

A1. My name is Sam Carlson, and I am currently Senior Project Development Manager at Encore Redevelopment, LLC d/b/a Encore Renewable Energy (“Encore”). My business address is 50 Lakeside Ave, Suite 110, Burlington, Vermont, 05401. Encore is a leading integrated clean energy project development company with a focus on commercial, industrial, and community-scale solar PV systems for Vermont towns, schools, businesses, and landowners. We also assist a variety of clients in navigating complex technical, financial, and regulatory matters through various stages of development. Encore is the sole member of Reservoir Road Solar, LLC (“Petitioner” or “RRS”), and is assisting with the proposed Project.

Q2. Please describe your educational background and work experience.

A2. I have worked at Encore since early 2024. Prior to joining Encore, I worked for Green Lantern Solar (2014-2019) and All-Earth Renewables (2021-2022) doing solar and wind energy development work. Prior to working in renewable energy I worked for the World Bank as an Economist preparing and supervising economic development projects in Latin America, Africa and South Asia for 20 years. I have a Master’s in Environment/Natural Resources from the University of Vermont (2015) and a Master’s in Public Administration from Princeton University (1989). I did my Bachelor’s degree at Dartmouth College (1982) in Government/International Affairs. My resume is attached as ***Exhibit RRS-SC-1.***

Q3. Who is the Petitioner and what is their address?

A3. The Petitioner is Reservoir Road Solar, LLC, a Vermont limited liability company in good standing. RRS's business address is 50 Lakeside Avenue, Suite 110, Burlington, VT 05401.

Q4. Have you testified previously before the Public Utility Commission ("Commission" or "PUC")?

A4. Yes, most recently in the case of Mill River Solar (Case No. 24-0606-PET). I also testified on behalf of at least 15 net-metered solar projects for Green Lantern Solar between 2015-2019.

Q5. What is the purpose of your testimony?

A5. My testimony supports RRS's Petition for a Certificate of Public Good ("CPG") pursuant to 30 V.S.A § 248 with respect to the Petitioner's proposal to install and operate a 2.375 MW ground-mounted solar electric generation facility off of Reservoir Road in Berkshire, Vermont (the "Project"). I provide a Project overview and specifically address the following Section 248 criteria:

- (b)(2) need for the Project;
- (b)(3) system stability and reliability;
- (b)(4) economic benefit to the State and its citizens;

- (b)(5) public health and safety, air pollution (including sound); use of natural resources, greenhouse gas impacts;
- 10 V.S.A. § 6086(a)(1)(C), (a)(2)-(3) water conservation, sufficient water available, and burden on water supply;
- 10 V.S.A. § 6086(a)(5) transportation systems/traffic;
- 10 V.S.A. § 6086(a)(6) educational services;
- 10 V.S.A. § 6086(a)(7) municipal services;
- 10 V.S.A. § 6086(a)(8) historic sites;
- 10 V.S.A. § 6086(a)(9)(K) development affecting public investments;
- (b)(6) integrated resource plan;
- (b)(7) compliance with electrical energy plan;
- (b)(10) impact on transmission system, Vermont utilities, and customers;
- § 248(s) setback requirements; and
- PUC Rule 5.900 decommissioning.

Witness Adam Crary will address certain environmental criteria including: 30 V.S.A. § 248(b)(5) natural environment criteria, including: water pollution, outstanding resource waters, headwaters, floodways, streams, shorelines, wetlands, rare and irreplaceable natural areas, and necessary wildlife habitat and endangered species.

Witness Stephanie Wyman's testimony will address the Project's compliance with Section 248(b)(5) with respect to waste disposal, soil erosion, and primary agricultural soils.

1 Witness Michael J. Buscher will address 30 V.S.A. § 248(b)(1) orderly
2 development and municipal screening and § 248(b)(5) above-ground historic resources
3 and aesthetics, including landscape mitigation pursuant to Commission Rule 5.800.

4
5 **Project Description and Overview**

6 **Q6. Please generally describe the proposed Project.**

7 A6. RRS proposes to install and operate the Project on approximately 10.5 acres on portions
8 of two adjoining parcels off of Reservoir Road in Berkshire, VT (the “Property”): one
9 parcel is 113.4 acres of privately-owned land, and one parcel is 87.67 acres owned by the
10 Village of Enosburg Falls Water & Light Department. The Property is currently
11 undeveloped and contains grassland and some forested land. The Petitioner has rights to
12 lease the proposed portions of the Project area located on each property from the
13 respective landowners. The location was selected as part of an effort to identify sites with
14 high potential for solar development related to physical location, suitability for solar
15 development, lack of visibility from surrounding public and private viewpoints, and
16 certain circuit interconnection requirements.

17 Vermont Public Power Supply Authority (“VPPSA”) selected Encore to develop
18 and build the Project as part of a competitive bid request process. Once constructed, RRS
19 will sell the electrical output from this facility to VPPSA under a Power Purchase
20 Agreement (“PPA”) so that VPPSA may, in turn, sell that same electrical output to its
21 member, the Village of Enosburg Falls Water & Light Department (“EFWLD”), under a
22 Power Sales Agreement (“PSA”). Under this arrangement, RRS is responsible for

1 securing necessary permits for the Project, and to own, construct, and operate the Project.

2 The electricity generated by this Project will ultimately flow to the EFWLD's electric
3 grid for the benefit of its customers.

4
5 **Q7. Please generally describe the site plan and specific Project equipment.**

6 A7. The Project consists of approximately 5,472 non-reflective photovoltaic modules
7 installed on fixed-tilt racking units within a fenced area of panels spread across the
8 approximate 10.5-acre area. Please see ***Exhibit RRS-SC-2*** for a site plan. The rows of
9 panels comprising the solar array will range in length and run generally east-west,
10 oriented predominantly to the south. Panels will be fixed at around 30 degrees and
11 mounted on racking systems that will be approximately 3 feet tall on the low side and 9
12 feet tall on the high side and installed on driven post foundations, generally without the
13 use of concrete. Please refer to ***Exhibit RRS-SC-3*** for typical equipment specifications
14 for the Project. The final site design and equipment selection will occur post-permit
15 issuance, however such design will be substantially the same as shown in ***Exhibits RRS-***
16 ***SC-2*** and ***RRS-SC-3***.

17 Electricity will run from the panels in direct current (DC) to a network of string
18 inverters which are UL 1741-SA compliant before being converted to alternating current
19 (AC). Electricity will then run underground in protective conduit to switch-gear, which
20 will include the data acquisition system and other auxiliary equipment and the production
21 meter. From the array, electricity will run to a 2,500 kVA pad-mounted transformer with
22 secondary oil containment located near the Project entrance. From the transformer, the

1 electricity will transition to a series of four (4) new approximately 30-foot-tall wooden
2 utility poles. The electricity will travel overhead along the poles to an existing pole where
3 the Project will interconnect to the EFWLD system. See *Exhibit RRS-SC-2*. The
4 Petitioner will own the transformer, whereas EFWLD will own the new overhead line on
5 the project host property.

6 A small length of the buried electric line will run beyond the fence line of the
7 Project before transitioning overhead to the new utility poles south of the Project
8 entrance. RRS will register any underground electric lines owned or controlled by the
9 Project with Dig Safe and comply with Commission Rule 3.800 for the lifetime of the
10 Project. Further, RRS does not object to including a condition in the CPG requiring these
11 steps.

12
13 **Q8. Is the Petitioner aware of any other solar electric generation facilities that are**
14 **existing, approved, proposed, or planned on the same parcel of land as the Project**
15 **or on any adjoining parcels to the Project site? If so, please describe.**

16 A8. No, there are no other solar facilities on either of the parcels that the Project will be
17 located on and RRS is not aware of any other solar projects that are existing, approved,
18 proposed or planned on any adjoining parcels.

19
20 **Q9. How will the Petitioner and other authorized personnel access the Project?**

21 A9. The Petitioner will access the Property using an existing drive off Reservoir Road that
22 runs through the property to the Project site. The existing road will be temporarily

1 widened and reinforced with gravel in places to allow for construction vehicles, and a
2 temporary access area will be created near the Project entrance. A permanent gravel
3 turnaround area will be added leading into the Project. The Petitioner will also construct
4 a short-term staging area located at the point at which the existing road reaches the
5 southwest corner of the array as well as an additional staging area southeast of the array,
6 for deliveries and temporary storage of equipment. See *Exhibit RRS-SC-2*.

7
8 **Q10. Will the Project involve any tree clearing?**

9 A10. Yes. Petitioner is proposing to clear and/or top certain areas of trees on the site for
10 Project installation, access road work, a portion of the overhead line to the point of
11 interconnection, and to avoid shading of the array. As indicated on the site plan, areas for
12 tree clearing include a roughly 50'-wide section on the western border of the Project area
13 (to prevent afternoon shading) and a line of trees that currently separates the two parcels
14 that the Project will span. In addition, some tree clearing is necessary to accommodate
15 construction vehicles in areas where the existing access road will be temporarily
16 widened. See Site Plan, *Exhibit RRS-SC-2*. Petitioner anticipates that in total, the
17 Project will require approximately 5.4 acres of tree clearing.

18
19 **Q11. Please describe the upgrades to the existing access road that are proposed.**

20 A11. The existing access drive runs from Reservoir Road up into the southern portion of the
21 open field where the Project is proposed. See Existing Conditions Plan (*Exhibit RRS-*
22 *SC-2 (C1.00)*). In a few locations, which are indicated on the Site Plan (*Exhibit RRS-*

1 **SC-2**, Sheet C2.01), the access road will need to be temporarily widened, and the exit to
2 Reservoir Road will need to be stabilized. While the majority of the road will just need
3 to be top-dressed with additional gravel as needed, one portion of the access road
4 (indicated in orange on Sheet C2.01) will need to be fully reconstructed. Within this
5 section, the access road crosses Trout Brook and an existing culvert will need to be
6 replaced with a 15' x 6.5' aluminum box culvert. Details for this culvert are provided on
7 Sheet C3.01, and site details for the access road and stabilized construction exit are
8 provided on Sheets C5.02-C5.03.

9
10 **Q12. Does the Petitioner propose to install a fence? If so, please describe.**

11 A12. Yes. The Petitioner proposes to install an approximately 7-8' high agricultural style wire-
12 knot perimeter fence with approximately 6"x 6" vertical and horizontal spacing affixed to
13 driven fence posts around the array. The perimeter fencing would secure the Project and
14 prevent the public from entering the array. This fence satisfies the requirements of
15 electrical codes pertaining to project enclosure. The Petitioner will install a gate near the
16 southwestern edge of the array, which will be locked. The Petitioner, EFWLD, and first
17 responders will be provided with access through the gate. **Exhibit RRS-SC-3** includes a
18 fence specification sheet, which is representative of the fence to be specified in the final
19 design phase.

1 **Q13. Is the Petitioner proposing a lighting plan for the Project?**

2 A13. No, the Petitioner does not require lighting and thus does not propose a lighting plan for
3 the Project.

4
5 **Q14. Will the Project require grading?**

6 A14. No substantial grading is required for the Project. Only a modest amount of earthwork
7 will be involved for the installation of the Project's access road, as well as some work
8 related to stormwater improvements, as shown in *Exhibit RRS-SC-2*. The access road
9 may require grading of imported access road materials associated with reinforcing and
10 reconstructing portions of the access road, including the Trout Brook stream crossing
11 area.

12
13 **Q15. Will the Project require installing any components with oil?**

14 A15. Yes. The Project includes one 2,500 kVA pad-mounted transformer that will use a
15 biodegradable dielectric fluid. The Site Plan (*Exhibit RRS-SC-2*) shows the location of
16 the proposed transformer and Sheet C5.03 includes specifications for a secondary
17 containment system that will surround the transformer. The containment system will be
18 sufficient to hold a minimum of 110% of the transformer coolant volume plus five inches
19 of freeboard. Ms. Wyman's testimony and memo provide further details regarding waste
20 disposal.

Q16. Please explain the proposed construction process and schedule.

A16. Petitioner hopes to have the Project in service no later than December of 2026. Construction activities, which will span over a 5–6-month duration, primarily include: (1) preparation of the site and installation of the staging area, (2) installation of racking and panels, (3) installation of inverters and electrical connections, and (4) installation of transformers and network upgrades. Many of these tasks can be performed concurrently over the 5-6-month construction schedule.

Construction activities and related deliveries will be limited to 7:00 A.M. - 7:00 P.M. on weekdays, 8:00 A.M. - 5:00 P.M. on Saturdays, and no construction on Sundays or state or federal holidays.

Q17. What are the Project’s operation and maintenance activities?

A17. Once the Project is fully commissioned, operations and maintenance activities will be minimal. RRS will perform routine system performance one to two times per year, which will consist of vegetation management and mechanical and electrical inspections. RRS will remotely monitor operations, and in the event of a system malfunction, personnel will visit the site for troubleshooting or repairs.

Q18. How will the energy generated by the Project be used?

A18. VPPSA will purchase the solar array’s output under a long-term Power Purchase Agreement with the Petitioner at a competitive rate secured through an RFP process

1 administered by VPPSA. VPPSA will, in turn, sell the electricity to EFWLD under a
2 PSA.

3
4 **Q19. Who will retain ownership of the environmental attributes?**

5 A19. Environmental attributes generated from the Project will be allocated to EFWLD under
6 its Power Sales Agreement with VPPSA.

7
8 **Q20. Please describe any community outreach efforts undertaken by the Petitioner with**
9 **respect to the Project.**

10 A20. Petitioner has met with both the Town of Berkshire and the Village of Enosburg Falls as
11 well as the Northwest Regional Planning Commission (“NWRPC”) about the Project and
12 answered questions. Petitioner has worked directly with the Village of Enosburg Falls
13 (the “Village” or “VOEF”) as both the landowner and the interconnecting municipal
14 utility on the Project design, and the Village has provided a letter of support for the
15 Project. See *Exhibit RRS-SC-4*.

16
17 **Q21. Please describe any substantive written comments received by Petitioner in response**
18 **to the 45-day notice letter and any other public outreach related to the Project, and**
19 **how RRS has responded to these comments.**

20 A21. A 45-day notice was initially sent to statutory parties with a courtesy copy to adjoining
21 landowners on June 1, 2023. The 45-day letter was reissued on September 16, 2024, and
22 was sent to all required notice parties under the revised Rule 5.400, including adjoining

1 landowners. RRS received the following comments in response to the most recent 45-
2 day letter:

- 3 • RRS received written general comments on the letter from Vermont Agency of
4 Agriculture, Food & Markets (“AAFM”), stating AAFM’s standard requests for
5 information in a Section 248 Petition. As discussed in the testimony and exhibits
6 of Ms. Wyman and reflected on the Site Plan, the presence of mapped primary
7 agricultural soils is indicated and Ms. Wyman addresses potential impacts to those
8 soils as well as the proposed remediation measures consistent with the
9 requirements of AAFM’s Act 250 Reclamation Guidelines.
- 10 • RRS also received written comments from the Vermont Agency of Natural
11 Resources (“ANR”) regarding depiction of the public wellheads within Source
12 Protection Areas on the site plan, which RRS has indicated in *Exhibit RRS-SC-2*.
13 ANR also advised that the Petitioner should assess for impacts to Great Blue
14 Heron Rookeries, which has been addressed by Mr. Crary in the natural resources
15 memorandum provided in *Exhibit RRS-AC-2*. Finally, ANR requested that the
16 riparian buffer zone boundary for the Enosburg Falls Reservoir be clearly
17 depicted and that any work within the riparian buffer zone be addressed. The Site
18 Plan and the Natural Resources Assessment address these items (*Exhibits RRS-*
19 *SC-2* and *RRS-AC-2*).
- 20 • The NWRPC reached out to RRS via email with some specific questions
21 following the 45-day notice, largely related to the potential for impacts to water
22 quality on the Enosburg Falls water source. Questions included whether there

1 would be potential impacts to the watershed, whether transformers or other
2 equipment with hazardous materials are proposed, what protections would be in
3 place to limit contamination from construction, how vegetation around the site
4 will be managed during operation, and whether there would be a
5 decommissioning plan. RRS responded to each question via email, and has also
6 addressed these topics in the Petition materials.

7
8 **SECTION 248 CRITERIA**
9 **Need for the Project**
10 **(30 V.S.A. § 248(b)(2))**

11 **Q22. Is the Project required to meet the need for present and future demand for service**
12 **which could not otherwise be provided in a more cost-effective manner through**
13 **energy conservation programs and energy efficiency measures and load**
14 **management?**

15 A22. Yes. The Project is moving forward because VPPSA specifically sought out proposals for
16 generation facilities in the EFWLD service territory in order to meet VPPSA's
17 obligations under the Renewable Energy Standards. The Project output will be allocated
18 entirely to EFWLD, the municipal utility serving the Town of Berkshire. The Renewable
19 Energy Credits ("RECs") generated by the Project will also be transferred to VPPSA. As
20 such, the Project will help meet demand for new renewable energy generation in Vermont
21 and assist in meeting the renewable energy goals in the Vermont Comprehensive Energy
22 Plan ("CEP"), which sets a goal of obtaining 90 percent of the state's total energy needs
23 from renewable sources by 2050. Among the electric sector, the CEP sets a goal of

1 meeting 100% of energy needs from carbon-free resources by 2032, with at least 75%
2 from renewable energy. The Project will contribute towards meeting these state goals.

3
4 **System Stability and Reliability**
5 (30 V.S.A. § 248(b)(3))

6 **Q23. Will the Project adversely affect system stability and reliability?**

7 A23. No. The Petitioner filed a complete interconnection application pursuant to PUC Rule
8 5.500 on December 16, 2021. PLM Power Engineering prepared a System Impact Study,
9 which was issued in May 2023. The Project's one-line diagram is part of the System
10 Impact Study ("SIS") shown in ***Exhibit RRS-SC-5*** and is also separately included as
11 ***Exhibit RRS-SC-6***. The SIS identified the following upgrades that are necessary to
12 interconnect the Project to the EFWLD system:

- 13 ● Reconductor the 1/0 AL, #2CU, and #6CU from the end of the existing 4/0 AAC
14 spacer cable on Main St to the Reservoir Rd tap off Water Tower Rd.
- 15 ● Reconductor on Reservoir Rd to the Project site with VOEF's standard 1/0 AL
16 side tap wire size.
- 17 ● A recloser should be installed at the tap to Water Tower Rd from Elm St to
18 maintain existing levels of sectionalization and limit exposure to remote line
19 faults on Reservoir Rd for customers in the village center.
- 20 ● The 25A K-links at the tap to Reservoir Rd from Water Tower Rd should be
21 replaced with 300A solid blades.
- 22 ● The 2.4kV, 300 kVAR capacitor bank on Water Tower Rd should be relocated to
23 Orchard St to maintain existing levels of reactive power compensation.
- 24 ● Review 46 kV equipment ratings and insulation coordination to determine if
25 mitigation is required. If mitigation is required one of the following is
26 recommended: Install voltage sensing on the 46 kV incoming transmission line
27 and a 59N relay. Wire the relay to trip the 12.47 kV circuit reclosers inside the
28 VOEF substation. If fiber communications exists between the VOEF substation
29 and remote transmission substations, implementing a transfer trip scheme to open
30 the 12.47 kV circuit reclosers for a loss of the transmission supply may be less

1 expensive to implement than adding local voltage sensing and the associated
2 relaying equipment.

3
4 The Project will require distribution line upgrades between the Project site and the
5 Village of Enosburg Falls. These upgrades are along the existing, mostly roadside,
6 distribution line but will require some pole replacements. RRS has worked closely with
7 EFWLD to determine the location of the proposed distribution line upgrades that are
8 reflected in the maps provided in *Exhibit RRS-AC-3*. Petitioner has conducted a review
9 of the upgrade corridor for potential natural resource impacts, which is further addressed
10 in the Distribution Line Upgrade Report of Adam Crary in *Exhibit RRS-AC-3*. A
11 Facilities Study has been completed to estimate the cost of required Project upgrades.

12 The Petitioner will enter into an interconnection agreement with VPPSA or
13 EFWLD prior to construction and will pay for all required upgrades to interconnect the
14 Project, which will be implemented prior to operation. As the upgrades will be completed
15 prior to interconnection of the Project, the Project will not have an undue adverse impact
16 on system stability or reliability.

17
18 **Public Health and Safety**
19 (30 V.S.A. § 248(b)(5))

20 **Q24. Will the Project have any adverse effects on the health, safety, or welfare of the**
21 **public or adjoining landowners?**

22 A24. No. The Project will not adversely impact the public health and safety for the following
23 reasons: (1) all work will be performed in accordance with the National Electrical Safety
24 Code and National Electric Code; (2) a perimeter fence around the site will ensure that

1 the site is secured and identified with appropriate electrical warning signs; and (3) the

2 Project will use anti-reflective coating on panels to reduce the potential for glare.

3
4 **Air Pollution**

5 (30 V.S.A. § 248(b)(5))

6 **Q25. Will this Project result in undue adverse effect on air quality?**

7 A25. No, the Project will not involve any industrial/manufacturing emissions, excessive dust or
8 smoke during construction, dust or noise from blasting, odors, or excessive noise from
9 construction activity. Moreover, the proposed Project will help reduce the need for
10 carbon-based sources of electric energy, contributing to improved air quality.

11
12 **Q26. Please explain any potential noise impacts from the Project.**

13 A26. RRS has hired Krebs & Lansing (K&L) to estimate sound emissions from the electrical
14 equipment that will generate noise, and to model sound propagation to assess levels at the
15 closest residences and property lines. Please see K&L's sound assessment at ***Exhibit***
16 ***RRS-SC-7***, which concludes that the Project's highest modeled sound pressure level at a
17 residence is 30 dBA(exterior) (daytime). Sound levels will be much lower at nighttime,
18 with a maximum modeled sound level of 23 dBA at the nearest residence.

19
20 **Q27. Will the noise produced by the proposed Project create an undue adverse effect?**

21 A27. No, the noise levels calculated at the nearest residence and property line are low and I
22 understand that these levels are at or below other solar projects that have been approved

1 by the Commission. As a result, the Project will not have an undue adverse impact for
2 neighbors to the Project.

3
4 **Use of Natural Resources**
5 (30 V.S.A. § 248(b)(5))

6 **Q28. Will the Project have an undue adverse effect with respect to the use of natural**
7 **resources?**

8 A28. No. The Project will use passive solar energy to produce electricity that local consumers
9 may utilize to power their homes and businesses. Although the Project will require some
10 vegetative clearing of portions of the Project area and around the access road, the bulk of
11 existing vegetation surrounding the site will remain intact. The Project will not have an
12 undue adverse effect on these resources. See Mr. Crary's testimony for additional
13 analysis of impacts to environmental resources.

14
15 **Greenhouse Gas Impacts**
16 (30 V.S.A. § 248(b)(5))

17 **Q29. Will Project construction or Project operation produce any undue air pollution or**
18 **greenhouse gas impacts?**

19 A29. No. Other than minor temporary emissions during construction, the Project will not emit
20 greenhouse gases. More specifically, RRS estimates that the Project's solar panels will
21 annually produce up to 3,704 (+/-) megawatt hours of electricity without creating any
22 greenhouse gas emissions during its operation. In fact, this Project will enable Vermont
23 to decrease its reliance on greenhouse gas-emitting electricity generation.

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

Q30. Will the Project place an unreasonable burden on water supplies, raise any issues with respect to sufficiency of water, or require any water conservation measures?

A30. No. The Project will not require the use of water during the construction phase (unless required for dust control). Any water that would be required for these limited activities will be brought to the site. Therefore, the Project will not cause an unreasonable burden on water supplies, will not raise any issues with respect to sufficiency of water, or require any water conservation measures.

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

Q31. Will the Project cause unreasonable congestion or unsafe conditions with respect to use of the highways, waterways, railways, airports or airways, and other means of transportation existing or proposed?

A31. No. The Petitioner proposes to deliver materials to the Project site via Reservoir Road and other state and local roads, which are accustomed to the type of traffic representative of the proposed daily material delivery. The Project is not expected to require oversize or overweight deliveries. The Project will not require road closures or lane shutdowns for extended periods of time. No other long-term interruptions or impacts to highways or local roads are anticipated.

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

Q32. Will the Project place an unreasonable burden on the Town of Berkshire to provide educational services?

A32. No. The Project will not result in the addition of any students in the Berkshire school system or have any impact on the provision of education services.

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

Q33. Will the Project need municipal services, including any special police, fire, or rescue services, place an unreasonable burden on the ability of the local government to provide municipal or governmental services, or would training be required?

A33. No. The Project will not require any municipal water or sewer services, new roadway acceptance or maintenance by the Town of Berkshire, nor require any fire or police services beyond those typically required of other businesses.

Q34. Will the first responders have access to the Project site in the event of an emergency?

A34. Yes, the Petitioner will provide first responders access to the Project site in the event of an emergency. A lockable disconnect switch will allow shutdown of the Project in case of fire or another emergency.

Historical and Archeological Sites
(30 V.S.A. § 248(b)(5) 10 V.S.A. § 6086(a)(8))

Q35. Will this Project have an undue adverse effect on below-ground or above-ground historic sites?

A35. No. There are no above-ground historic resources on site that will be impacted by the Project. Mr. Buscher’s testimony and exhibits further address the potential impacts on above-ground historic resources in the vicinity of the Project and confirms there will be no undue adverse impacts as a result of the Project.

With respect to below-ground historic resources, Petitioner has discussed the site with the Vermont Division for Historic Preservation (“VDHP”) and has completed a Phase I Site Identification Survey on the majority of the Project site. Four artifacts were recovered in the northern portion of the site. As a result, the Phase I survey recommended that a Phase II survey be conducted on the site area where the artifacts were located. The Phase II is now in process, along with a Phase I of a small portion of the Project area that was not included in the initial Phase I. Fieldwork will be completed by UVM’s Consulting Archeology Program (“UVM CAP”) before the end of 2024 with their report issued shortly thereafter.

RRS will take the following steps to ensure that the fieldwork is done in coordination with VDHP and that any impacts to resources are avoided or sufficiently mitigated to avoid any undue adverse impacts:

1. Petitioner will conduct archaeological investigation(s) and prepare related reports to identify, evaluate, and mitigate, if necessary, impacts to archaeological sites

1 within the Project area. Petitioner's archaeological consultant shall submit any
2 scope of work to the VDHP for review and approval before commencing the work.

- 3 2. Prior to the completion of all relevant archaeological investigations, the Petitioner,
4 in consultation with the VDHP, will identify the Project area as a not-to-be-
5 disturbed archaeological buffer zone. Topsoil removal, grading, scraping, cutting,
6 filling, stockpiling, logging or any other type of ground disturbance shall be
7 prohibited within the archaeological buffer zones until all necessary archaeological
8 work is completed. Agricultural cultivation consistent with past practices to
9 facilitate the archaeological review shall not constitute ground disturbance.

- 10 3. All relevant archaeological studies to identify, evaluate, or mitigate impacts to
11 archaeological sites shall be carried out by a qualified consulting archaeologist. All
12 such studies and associated reports will follow the VDHP *Guidelines for*
13 *Conducting Archaeological Studies in Vermont* (2017). A digital copy of the final
14 report will be submitted to the VDHP. Any archaeological reports submitted to the
15 Public Utility Commission will have specific archaeological site locational
16 information redacted in accordance with 22 V.S.A. § 761(b) and 1 V.S.A. § 317(c)
17 (20).

- 18 4. The archaeological investigations will be scheduled so that mitigation measures, if
19 any are determined to be necessary, can be satisfactorily planned and accomplished
20 prior to site preparation and construction of the Project. Any archaeological sites
21 within the Project area will not be impacted until mitigation measures have been
22 completed. Proposed mitigation measures must be approved by the VDHP prior to

1 implementation. Mitigation may include but is not limited to further site
2 evaluation, data recovery, or modification of the buffer zone boundaries or the
3 specific conditions that refer to the same.

- 4 5. Any changes to the Project that arise via compliance these conditions and/or
5 resulting from mitigation measures approved by VDHP will be subject to
6 requirements regarding substantial changes or material deviations pursuant to
7 Commission rule 5.408, including that any substantial changes must be approved
8 by the Commission.

9
10 These steps will ensure that reasonable mitigation measures that are necessary to
11 address any resources that may be found in an investigation, if any, are implemented
12 prior to construction of the Project. If any such mitigation measures involve substantial
13 changes to the Project, Petitioner will comply with applicable Commission Rule 5.400
14 requirements for such changes. With these steps, the Project will not result in undue
15 adverse impact to archaeological historic sites. RRS further expects to enter into a
16 memorandum of understanding with VDHP following the petition filing that will contain
17 the same commitments set forth above.

18
19 **Compliance with Vermont Electric Energy Plan**

20 (30 V.S.A. § 248(b)(7))

21 **Q36. Is the Project consistent with the 2022 Comprehensive Energy Plan (CEP)?**

22 A36. Yes. The Project will contribute to meeting the state's long-term renewable energy goals
23 because it is a renewable solar energy project that is located near load. The Project

1 furthers the key objectives of the CEP, which calls for meeting Vermont’s long- term
2 energy needs largely with renewable resources. As noted above, among the electric
3 sector, the CEP sets a goal of meeting 100% of energy needs from carbon-free resources
4 by 2032, with at least 75% from renewable energy. The Project is consistent with the
5 CEP’s thematic goals including affordability, in-state generation, diversity of supply, grid
6 resiliency, and low emissions. The Project will support the CEP’s “goal of a secure and
7 affordable electric grid that can efficiently integrate, use, and optimize high penetrations
8 of distributed energy resources to enhance the state’s resilience and reduce greenhouse
9 gas emissions.” CEP 2022, page 13. The Project will also seek confirmation from the
10 Department of Public Service that the Project is compliant with the state energy plan,
11 pursuant to 30 V.S.A. § 202(f).

12
13 **Development Affecting Public Investments**

14 (10 V.S.A. § 6086(a)(9)(K))

15 **Q37. Will the Project unnecessarily or unreasonably endanger any public or quasi-public**
16 **investment in the facility, service, or lands, or materially jeopardize or interfere**
17 **with the function, efficiency, or safety of, or the public’s use or enjoyment of or**
18 **access to, the facility, service or lands?**

19 A37. No. The Project will not interfere with the public’s use of the closest municipal road,
20 Reservoir Road, other than through potential minor traffic impacts which will be
21 temporary during construction. In addition, the Project will not unnecessarily or
22 unreasonably endanger the two public water source wells on the Project parcel or the
23 Enosburg Falls Reservoir adjoining the property. As further discussed in the testimony of

Stephanie Wyman, the Project will not have any undue adverse impacts on the drinking water well or its continued operation.

Can Be Served Economically by Existing or Planned Transmission Facilities
(30 V.S.A. § 248(b)(10))

Q38. Can the Project be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers?

A38. Yes. As indicated in the SIS (*Exhibit RRS-SC-5*), the Project can interconnect safely to the EFWLD distribution system, provided that certain upgrades are completed prior to interconnection. As previously stated, the Project will not be interconnected until these upgrades are completed and RRS will be responsible for all upgrade costs. The proposed Project will not require any upgrades to the transmission system.

The Project is located within the Sheffield Highgate Export Interface (“SHEI”), and has been in discussions with Green Mountain Power, Vermont Electric Cooperative, and Washington Electric Cooperative (together the “SHEI Utilities”) regarding appropriate mitigation measures. RRS and the SHEI Utilities have discussed the Project and have reached agreement in principal that the Project should pay an appropriate grid adjustor mitigation fee of \$12/kWh of Project capacity, to be allocated amongst themselves as they determine appropriate. RRS commits to payment of this mitigation fee and understands that another proposed solar project in the SHEI has entered into an agreement with the SHEI Utilities for the same proposed mitigation fee in Case No. 24-0039-PET. Once the Commission has issued a decision in that case, RRS will enter into a formal agreement with the SHEI Utilities and submit the agreement in this proceeding.

1 As RRS is committing to pay the mitigation fee that the SHEI utilities have determined is
2 the appropriate amount to offset any potential negative cost impacts as a result of SHEI
3 constraints from the Project, the Project will not have an undue adverse economic impact
4 on any existing or planned transmission facilities.

5
6 **Setbacks**

7 (30 V.S.A. § 248(s))

8 **Q39. Does the Project comply with minimum setbacks established under 30 V.S.A. §**
9 **248(s)?**

10 A39. Yes. The Project panels will be set back over 700 feet from the edge of Reservoir Road,
11 and at least 50 feet from all boundary lines to properties not under lease option by RRS.
12 Because the Project spans across two parcels, RRS has obtained a waiver from both
13 parcel owners and the Town of Berkshire agreeing to the Project's location across
14 portions of both parcels. Please refer to *Exhibit RRS-SC-2* for the detailed site plan and
15 *Exhibit RRS-SC-8* for the parcel setback waiver.

16
17 **PUC Rule 5.900 Decommissioning Plan and Fund**

18 **Q40. Will the Project be decommissioned at the end of its useful life, with various system**
19 **components disposed of?**

20 A40. Yes. Once the Project has reached the end of its life and is no longer operating, Petitioner
21 will remove the Project and restore the site to its current condition to the greatest extent
22 practicable as required under PUC Rule 5.904(B). The Petitioner has developed a

Decommissioning Plan that would apply when the Petitioner decommissions the Project,
which is provided as *Exhibit RRS-SC-9*.

Q41. Has the Petitioner proposed a decommissioning fund?

A41. Yes, the Petitioner has proposed a funding mechanism based upon an estimate of the Project's decommissioning costs that does not account for equipment salvage. As required by PUC Rule 5.904(B), the decommissioning cost estimate is in present-day dollars and addresses the elements in that rule. This estimate was developed by Encore, based on its decades of collective experience in solar construction and maintenance costs, including the development of many decommissioning plan estimates for other similar solar projects that have been accepted by the Commission in Section 248 permitting proceedings. Please see *Exhibit RRS-SC-9* for the proposed decommissioning fund supporting documents. The decommissioning fund for this Project will be in place at the time construction begins and will be funded by an irrevocable standby letter of credit that includes an automatic renewal provision ("evergreen clause") or other alternative form of financial security that equals or exceeds the assurance of financial resources for decommissioning as a letter of credit. A draft letter of credit is included in *Exhibit RRS-SC-9*. Prior to commencing Project construction, the Petitioner shall file and receive Commission approval of an executed letter of credit or alternative form of security.

Integrated Resource Plan
(30 V.S.A. § 248(b)(6))

Q42. Is the Project consistent with the principles for resource selection expressed in the company's approved lease-cost integrated plan?

A42. RRS is not a retail distribution utility, and as such is not required to have an approved least-cost integrated plan. This criterion is therefore inapplicable, consistent with the Commission's approach to similar projects.¹

Q43. Does this conclude your testimony?

A43. Yes.

¹ See, e.g., *In re ER Danyow Road Solar, LLC*, Case no. 22-3427-PET, Final Order at 37 (4/24/23).