

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Petition of Randolph Davis Solar LLC for a	)	
certificate of public good pursuant to 30 V.S.A.	)	
§§ 248 and 8010, authorizing installation and	)	21-____-NMP
operation of a 500 kW (AC) photovoltaic group	)	
net-metering system in Randolph, Vermont	)	

**PREFILED TESTIMONY OF
MARTHA STASKUS ON BEHALF OF
RANDOLPH DAVIS SOLAR LLC**

August 8, 2021

Ms. Staskus' testimony describes the project and schedule, and addresses the following applicable Rule 5.100 requirements and Section 248 criteria: Rule 5.107 advance notice requirements; preferred siting, orderly development & municipal screening (30 V.S.A. § 248(b)(1), § 248(s) & Rule 5.103); system stability and reliability and impacts upon the transmission system (30 V.S.A. §§ 248(b)(3) and 248(b)(10)); aesthetics & historic sites (30 V.S.A. § 248(b)(5)); air and water purity & greenhouse gas emissions (30 V.S.A. § 248(b)(5)); noise (30 V.S.A. § 248(b)(5)); public health & safety (30 V.S.A. § 248(b)(5)); solar setbacks (30 V.S.A. § 248(s)); waste disposal (10 V.S.A. § 6086(a)(1)(B)); water conservation (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(1)(C)); sufficiency of water and burden on existing supply (10 V.S.A. § 6086(a)(2) & (3)); soil erosion (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(4)); (30 V.S.A. § 248(b)(5) transportation systems/traffic (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(5)); educational and municipal impacts (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(6) and (7)); primary agricultural soils (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(9)(B)); development affecting public investments (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(9)(K)); and decommissioning (PUC Rule 5.107(C)(12)).

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RANDOLPH DAVIS SOLAR LLC**

1. Introduction

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

A1. My name is Martha Staskus. I am Chief Development Officer of Norwich Technologies, Inc. (“Norwich Solar”), which has offices at 15 Railroad Row, Suite 101, White River Junction, Vermont 05001.

Norwich Solar is a research, development and EPC (engineering, procurement and construction) company servicing local schools, municipalities, businesses and non-profits, to develop and make available solar generating benefits. Environmental sustainability and economic development are an integral component of our business and we therefore focus on reducing energy costs for schools, municipalities, and non-profits to allow these entities to provide more critical services. For example, one half of our 2020 Vermont projects provided solar net metering credits and savings to affordable housing organizations including Champlain Housing Trust, Springfield Housing Authority, Twin Pines Housing Trust, Randolph Area Community Development Corp., Capstone Community Action and Housing Vermont. We also work closely with local

1 landowners, farms and businesses to help lower their energy costs, and/or to create new
2 revenue streams. We amplify our local impact by prioritizing the hiring of local
3 employees, subcontractors, and suppliers.

4
5 Randolph Davis Solar LLC is a Vermont limited liability company. Before the solar
6 electric generating system is commissioned, the limited liability company's membership
7 interests will be purchased and owned by an individual, organization, or investor seeking
8 long term ownership of the solar generating system. Norwich Solar's 2020-21 projects
9 are primarily financed by local banks and lending institutions at the time the LLC and
10 membership interest transfers. These LLC owners/investors leverage federal tax savings
11 to bring these investments into the Vermont economy.

12
13 Q2. Please describe your educational background and professional experience.

14 A2. I hold a University of Vermont Bachelor of Science degree in Environmental Studies and
15 have more than 25 years of experience evaluating, siting, developing, and permitting a
16 variety of sizes of renewable energy projects in Vermont and across New England. At
17 Norwich Solar, I am responsible for the development through permitting of our clean
18 energy projects. Previously, at Vermont Environmental Research Associates, Inc.
19 (VERA), clients included private landowners, electric utilities, national renewable energy
20 development companies, as well as the State of Vermont where I was responsible for
21 project management services ranging from development through installation and

1 operational monitoring of non-residential wind and solar projects. I serve on the Town of
2 Waterbury Planning Commission as Vice Chair, and previously served over ten years on
3 the Development Review Board. I am a Director and Vice Chair for Renewable Energy
4 Vermont. See Exhibit RDS MS-1 resume, which sets forth my educational background and
5 professional experience in more detail.
6

7 Q3. Have you previously testified before the Public Utility Commission (“PUC” or
8 “Commission”) or in other judicial or administrative proceedings?

9 A3. Yes, I have presented testimony and submitted prefiled testimony to the PUC on behalf of
10 a number of applications for group net-metered solar facilities and Section 248 filings.
11

12 Q4. What is the purpose of your testimony?

13 A4. My testimony describes the Project, the proposed installation schedule, introduces the other
14 witness submitting testimony in support of the Project, and addresses the following
15 applicable Rule 5.107 requirements and Section 248 criteria: Rule 5.107 advance notice
16 requirements; preferred siting, orderly development, aesthetics, historic sites & municipal
17 screening (30 V.S.A. § 248(b)(1), 30 V.S.A. § 248(b), & 30 V.S.A. § 248(s) & Rule 5.103);
18 system stability and reliability and impacts on the transmission system (30 V.S.A. §§
19 248(b)(3) and (b)(10)); noise (30 V.S.A. § 248(b)(5)); air and water purity & greenhouse
20 gas emissions (30 V.S.A. § 248(b)(5)); public health & safety (30 V.S.A. § 248(b)(5));
21 solar setbacks (30 V.S.A. § 248(s)); waste disposal (10 V.S.A. § 6086(a)(1)(B)); water

1 conservation (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(1)(C)); sufficiency of water
2 and burden on existing supply (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(2) & (3));
3 soil erosion (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(4)); transportation
4 systems/traffic (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(5)); educational and
5 municipal impacts (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(6) & (7)); development
6 affecting public investments (30 V.S.A. § 248(b)(5) & 10 V.S.A. § 6086(a)(9)(K)); and
7 decommissioning (PUC Rule 5.107(C)(12)).
8

9 Q5. Please identify the other witnesses offering testimony in support of this filing.

10 A5. Ms. Dori Barton of Arrowwood Environmental provides testimony on natural resources.
11

12 **2. Project Description, Location and Schedule**

13 Q6. Please describe the proposed Project and its location.

14 A6. The Project is a 500 kW AC ground-mounted solar electric generation facility sited on the
15 host landowner's ± 20.7 acre parcel located approximately 1,500± feet north of the
16 intersection of Davis Road and Rt. 14, Randolph, Vermont. Geographic coordinates are:
17 43.904700°N, -72.568771°W. The array is set back approximately 256± feet from the
18 traveled way of Davis Road, the nearest public roadway. Access to the Project will be via
19 a gravel drive off Davis Road.
20

1 The site is a combination of woods and cleared land. The host parcel is not subject to an
2 Act 250 Land Use permit. A portion of the site area disturbed during installation is on soils
3 identified by Natural Resources Conservation Service (NRCS) as prime agricultural soils,
4 and therefore will be managed according to Agency of Agriculture Food and Markets
5 guidance. The Project proposed clearing and limit of disturbance (LOD) will be
6 approximately ± 11.9 acres. See the Project Site Plan - Exhibit RDS MS-2. Elevations are
7 set forth in Exhibit RDS MS-3.

8
9 The solar array is typical of an installation of its type and size, comprised of photovoltaic
10 panels on fixed-tilt ground mounted racks, anchored to the ground using purpose-built
11 posts. The solar panels will be secured on fixed-tilt racking, anchored to the ground using
12 purpose-built posts. The racking structures support the bottom of the solar panels
13 approximately 3 feet above existing grade and the top of the solar panels at approximately
14 10 feet above grade. The panel racking will be arranged in multiple rows generally running
15 east-west with panels facing to the south. The solar array equipment, other than the
16 crystalline panels themselves, will be galvanized metal and will have a light gray finish.
17 The panels will have an anti-glare coating and are expected to be a dark color.

18
19 String inverters, mounted discretely on the back side of the racking will be compliant with
20 IEEE 1547 Standard for Interconnection and Interoperability of Distributed Resources with

1 Associated Electrical Power Systems Interfaces (2018) and UL 1741 SA. See Exhibit RDS
2 MS-4, Equipment Datasheets.

3
4 The electric power will travel between the rows enclosed in code compliant conduit, below
5 grade, connecting the panel rows, string inverters, an AC combiner panel and AC
6 disconnect to interconnect to three new pole-mounted transformers owned by Green
7 Mountain Power Corporation (“GMP”), typical of transformers used throughout GMP’s
8 distribution system. A GMP line extension will connect the new pole-mounted
9 transformers to GMP’s existing distribution circuit. See Exhibit RDS MS-2.

10
11 In accordance with PUC Rule 5.107(C)(5), the Site Plan includes the following
12 information:

13 (a) Proposed facility location and any project features;

14 (b) Approximate property boundaries and setback distances from those
15 boundaries to the corner of the nearest project-related structure, approximate
16 distances to any nearby residences, and dimensions of all proposed
17 improvements;

18 (c) Proposed utilities, including approximate distance from source of power, sizes
19 of service available and required, and approximate locations of any proposed
20 utility or communication lines;

21 (d) A description of any areas where vegetation is to be cleared or altered and a
22 description of any proposed direct or indirect alterations to or impacts on wetlands
23 or other natural resources protected under 30 V.S.A. § 248(b)(5), including the
24 limits of disturbance and the total acreage of any disturbed area;

1 (e) Detailed plans for any drainage of surface and/or sub-surface water and plans
2 to control erosion and sedimentation both during construction and as a permanent
3 measure;

4 (f) Locations and specific descriptions of proposed screening, landscaping,
5 groundcover, fencing, exterior lighting, and signs;

6 (g) Plans of any proposed access driveway, roadway, or parking area at the
7 project site, including grading, drainage, and traveled width, as well as a cross-
8 section of the access drive indicating the width, depth of gravel, paving, or surface
9 materials;

10 (h) The latitude and longitude coordinates for the proposed project; and

11 (i) The presence and total acreage of primary agricultural soils as defined in 10
12 V.S.A. § 6001 on each tract to be physically disturbed in connection with the
13 construction and operation of the net-metering system, the amount of those soils
14 to be disturbed, and any other proposed impacts to those soils.

15 The array equipment will be surrounded by a wildlife fence 8-foot high, with mesh size no
16 smaller than 6 inches by 6 inches extending from the ground level up to three feet or higher
17 and secured by a locked gate. In the event a fence is not installed, all energized equipment
18 will be rated for outdoor use, securely shielded by locked enclosure covers, and otherwise
19 compliant with NEC code “Guarding of Live Parts.” See Exhibit RDS MS-4 - Equipment
20 Data Sheets including Scrim.

21
22 In summary, the principal Project components include:

- 23
- multiple rows of solar panels¹ mounted on a racking system anchored to the ground;

¹ The exact number and wattage will be determined at time of procurement.

- 1 • ten (10) string inverters each having a capacity of 50 kW (AC), for an aggregate
- 2 nameplate capacity of 500 kW (AC);
- 3 • electrical lines enclosed in code compliant conduit, connecting the panel rows,
- 4 string inverters, AC combiner panel and AC disconnect pedestal;
- 5 • three (3) 167 kVA pole-mounted transformers on a new GMP distribution pole;
- 6 • a GMP line extension to connect to the existing GMP distribution system;
- 7 • access via a gravel drive off Davis Road; and
- 8 • a wildlife fence 8-foot high, with mesh size no smaller than 6 inches by 6 inches
- 9 extending from the ground level up to three feet or higher and secured by a locked
- 10 gate. In the event a fence is not required, energized equipment will be rated for
- 11 outdoor use, securely shielded by locked enclosure covers and otherwise compliant
- 12 with NEC code “Guarding of Live Parts” or otherwise

13

14 Q7. Please briefly describe Project installation and maintenance.

15 A7. Installation includes the driveway access and site clearing of the remaining vegetation and

16 trees within the Proposed Clearing and Limit of Disturbance. Equipment installation will

17 follow with setting cable in conduit in the ground, setting rack posts, followed by rack, and

18 panel and inverter attachments and wiring to connect the array components. Equipment

19 deliveries and parking will occur within the Limit of Disturbance. The Project will obtain

20 coverage under the Agency of Natural Resources, Department of Environmental

1 Conservation Stormwater Construction General Permit prior to commencement of
2 installation. Disturbed areas will be seeded and mulched following equipment installation.

3
4 Throughout operation, the facility will be monitored remotely with periodic onsite
5 inspections and maintenance. The Project grounds, including space between the solar panel
6 rows, will remain vegetated and maintained.

7
8 Q8. Does the Project require secondary containment for the release of coolant from
9 transformers?

10 A8. No. The Project will use three GMP pole-mounted transformers that utilize mineral oil.
11 This type of transformer is deployed throughout GMP's service territory and is in
12 compliance with GMP's specifications (Distribution Standard #T-01, 3.1, 12/13) that meet
13 or exceed ANSI C57.12.00-2010, C57.12.20-2005, C57.12.90-2006 and all other
14 applicable ANSI, IEEE, EEI, NEMA, and OSHA Standards.

15
16 Q9. Please describe how equipment will be transported to the site.

17 A9. Project materials and equipment will be transported to the site by common transportation
18 vehicles over Vermont state and town roads. No oversized or overweight trucks or permits
19 are necessary.

20
21 Q10. What is the schedule for construction and commencement of operation?

1 A10. The Project is planned to be installed and commissioned within one year of issuance of the
2 Certificate of Public Good.
3

4 Q11. What are the proposed hours for installation activities and related deliveries?

5 A11. Installation activities and related deliveries will occur between 7:00 AM and 7:00 PM
6 Monday through Friday, and on Saturdays between 8:00 AM and 5:00 PM if required to
7 meet the Project schedule. No installation activities or deliveries will occur on Sunday, or
8 on state or federal holidays.
9

10 **3. Preferred Site Designation, Orderly Development, and Municipal Screening**
11 **[30 V.S.A. § 248(b)(1), § 248(s) & PUC Rule 5.103]**

12 Q12. Does the site meet the definition of a Preferred Site pursuant to PUC Rule 5.103?

13 A12. Yes. The Randolph Selectboard and Planning Commission and the Two Rivers-
14 Ottauquechee Regional Commission (“TRORC”) have each designated the Project
15 location as a Preferred Site under PUC Rule 5.103. Please refer to Exhibit RDS MS-5.
16

17 Q13. Has the Town of Randolph adopted a screening ordinance or temporary bylaw requirement
18 for ground-mounted solar electric generation facilities pursuant to either 24 V.S.A. §§
19 2291(28) or 4414(15)?

20 A13. No.
21

1 **4. Rule 5.105 Advance Notice & Comments**

2 Q14. Commission Rule 5.107(B) & (C)(11) requires an Applicant proposing a net-metering
3 project to certify that parties entitled to receive a 45-day advance notice were provided 45-
4 day notice and to summarize any comments received in response to the 45-day notice filing
5 for a project. Please summarize any comments received for this Project in response to the
6 45-day letters served.

7 A14. The Applicant mailed and e-filed the 45-day notice letter on June 21, 2021. The Division
8 of Historic Preservation (“VDHP”), and the Vermont Agency of Natural Resources
9 (“VANR”) provided comment on the 45-day advance notice. No other comments were
10 received.

11
12 The VDHP provided an email on July 22, 2021 stating “we have no concerns with this
13 project as presently proposed”. See Exh RDS MS-10.

14
15 The VANR provided email comments on July 16, 2021 regarding source water protection,
16 stormwater and erosion, and deer wintering area. VANR asked that the Project Site Plan
17 include certain information regarding a Source Water Protection Zone 3. As requested, the
18 Source Water Protection Zone 3 for the Royalton Fire District 1 (water system
19 identification number VT0005330) is identified on the Site Plan along with the water
20 system identification number, and contact information for Royalton Fire District 1. See
21 Exh. RDS MS-2. As to stormwater, the VANR asked that the Site Plan identify the area

1 of construction and construction related earth disturbance resulting from the Project
2 (Proposed Clearing and Limit of Disturbance) and the proposed new impervious surfaces.
3 This information is included on Exhibit RDS MS-2. Finally, VANR requested that the
4 Project apply for a Construction Stormwater Discharge Permit prior to the commencement
5 of installation, which the Applicant will do.

6
7 Regarding the Deer Wintering Area identified on Exhibit RDS MS-2, in addition to
8 conducting a site visit with the VANR, the Agency request the following conditions, which
9 the Applicant agrees to:

10 *No Project site preparation, construction, or decommissioning activity shall occur within*
11 *the deer wintering area or its 300-foot buffer during the deer wintering period from*
12 *December 15 to April 15, except with the prior written approval of the Vermont Fish and*
13 *Wildlife Department (“VFWD”).*

14
15 *During the deer wintering period from December 15 to April 15, access shall be limited*
16 *to once per month for maintenance or upgrades. When emergency circumstances or*
17 *essential non-routine repairs require additional access during this time, the CPG Holder*
18 *shall notify VFWD within 24 hours of the visit.*

19
20 *Where perimeter fencing is installed for the Project, the CPG Holder shall install a*
21 *minimum 8-foot-high fence, with mesh size no smaller than 6 inches by 6 inches*
22 *extending from the ground level up to three feet or higher.*
23

24 The Applicant has agreed to these conditions. No other comments were received.

25
26 **5. System Stability and Reliability and Impacts on the Transmission System [30**
27 **V.S.A. §§ 248(b)(3) and 248(b)(10)]**

28 Q15. Will the Project have an undue adverse impact on system stability or reliability or adversely
29 impact the transmission system?

1 A15. No. On April 28, 2021 GMP issued a Fast Track Report. See Exhibit RDS MS-7. On
2 May 6, 2021, GMP and the Project executed a Feasibility Study Agreement, however the
3 results of that study have not yet been issued. The Applicant has budgeted for and will be
4 responsible for paying for all necessary interconnection costs designated as Applicant's
5 responsibility in the Feasibility Study, as required by Rule 5.500.

6
7 **6. Aesthetics & Historic Sites [30 V.S.A. § 248(b)(5)]**

8 Q16. Will the Project have an undue adverse effect on aesthetics or historic sites?

9 A16. No. The Applicant's Aesthetics and Orderly Development Assessment, Exhibit RDS MS-
10 6, confirms that the Project will not result in an undue adversely aesthetic effect. As well,
11 Exhibits RDS MS-6 and RDS MS-10 confirm that there are no undue adverse impacts to
12 above-ground or below-ground historic resources.

13
14 **7. Noise, Greenhouse Gas Emissions/Air & Water Purity [30 V.S.A. § 248(b)(5)]**

15 Q17. Please describe any sources of noise associated with the proposed Project.

16 A17. The solar panels produce no noise, and the inverters and transformers produce only
17 minimal noise. The nearest non-host residence is approximately $\pm$ 452 feet from the array.
18 A sound analysis was conducted to estimate potential impacts from the Project and is
19 provided as Exhibit RDS MS-8. The combined impact of all noise-emitting equipment is
20 22.9 dBA from the nearest off-site residence. During the limited installation period, sounds
21 typical of construction equipment will be generated by the light installation activities.

1
2 Q18. Will the Project have an undue adverse impact to air quality or with respect to greenhouse
3 gas emissions?

4 A18. No. In fact, as a renewable energy source powered by the sun, this Project will contribute
5 to reducing greenhouse gas emissions. Based upon 2021 US EPA equivalency numbers,
6 the approximately 900,000 kWh/year of electricity that is expected to be generated
7 annually by the Project equates to 638 metric tons/year of avoided CO2 emissions. Over
8 a 25-year period, the Project is estimated to avoid approximately 15,950 metric tons of
9 greenhouse gases (<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>).

10
11 Importantly, the State of Vermont is part of the U.S. Climate Alliance, a coalition of states
12 committed to upholding the commitments of the Paris Agreement, to keep temperature
13 increases below 1.5 degrees Celsius by committing to reduce collective net GHG emissions
14 at least 50-52 percent below 2005 levels by 2030, and to collectively achieve overall net-
15 zero GHG emissions as soon as practicable and no later than 2050. See
16 <http://www.usclimatealliance.org/alliance-principles>. In May 2017, Governor Phil Scott
17 and Massachusetts Governor Charles Baker jointly wrote to the US Secretary of Energy
18 stating:

19 The impacts of climate change have already been felt in our
20 states. We have seen the impacts of rising sea levels,
21 increasingly severe flooding, heat waves, droughts, and
22 decline in snow cover. These impacts threaten the people of
23 our states and put an intense burden on our economies.
24

1 See <https://governor.vermont.gov/content/paris-climate-agreement-letter>.

2
3 In 2020, the Vermont Legislature passed the Global Warming Solutions Act, adopting
4 legislative findings that emphasize the need for more action:

5 *A climate emergency threatens our communities, State, and region and*
6 *poses a significant threat to human health and safety, infrastructure,*
7 *biodiversity, our common environment, and our economy.*

8 ***

9 According to the IPCC and the World Bank, *a failure to substantially*
10 *reduce emissions over the next ten years will require even more substantial*
11 *reductions later and will increase the costs of decarbonization. Delaying*
12 *necessary policy action to address the climate crisis risks significant*
13 *economic damage to Vermont.*

14 ***

15 By implementing climate mitigation, adaptation, and resilience strategies,
16 Vermont will also position its economy to benefit and thrive from the global
17 transition to carbon neutrality and national and international efforts to
18 address the crisis.

19 ***

20 According to the Vermont Agency of Natural Resources, the adverse
21 impacts of climate change in Vermont include an increase in the severity
22 and frequency of extreme weather events, a rise in vector-borne diseases
23 including Lyme disease, more frequent cyanobacteria blooms, adverse
24 impacts to forest and agricultural soils, forest and crop damage, shorter and
25 irregular sugaring seasons, a reduction in seasonal snow cover, and variable
26 and rising average temperatures that result in uncertain and less snowfall.

27 See Act No. 153 (2020), § 2 (Legislative Findings) (emphasis added).

28

1 The 2016 Vermont Comprehensive Energy Plan (“CEP”) recognized these concerns and
2 expressly endorsed the build-out of community scale solar distributed generation as a
3 mitigation strategy to combat climate change:

4 Renewable generation technologies deployed on a small scale are currently
5 more expensive than other sources of electricity. Even so, these *smaller---*
6 *-scale renewable projects offer great potential, given the need for zero----*
7 *and low----emission energy supply; for long----term affordability and price*
8 *stability, as helped by the low----cost or no----cost fuels required to*
9 *generate most forms of renewable electricity; for energy security and*
10 *stability; and for a diverse resource mix, along with the expressed*
11 *preferences of Vermonters for greater use of renewable resources,*
12 *especially distributed and community----scale resources. Fostering small-*
13 *---scale and distributed renewable energy is an objective of the CEP.*
14

15 CEP at 243 (emphasis added), available at

16 https://outside.vermont.gov/sov/webservices/Shared%20Documents/2016CEP_Final.pdf
17

18 Any limited air emissions or greenhouse gas emissions associated with installation will be
19 primarily from fossil-fueled vehicles and equipment used for deliveries, worker
20 transportation, and installation activities. The emissions will be typical of construction
21 projects, will be short-term, subject to state regulations, and will not be adverse.
22 Throughout its operation, the Project will generate no air pollution, with the exception of
23 minimal vehicle emissions associated with periodic site and equipment maintenance visits.

24 Q19. Will the Project have an undue adverse impact on water purity>

25 A19. No. As discussed on the Arrowwood Environmental Report, Exhibit RDS DB-2, the
26 Project will avoid undue adverse impacts to water resources. Additionally, as explained n

1 my testimony, the Project will appropriately address waste disposal and soil erosion
2 prevention.

3
4 **8. Public Health & Safety [30 V.S.A. § 248(b)(5)]**

5 Q20. Describe the impact on public health and safety.

6 A20. Unlike fossil fuels, this solar generation project will not create any waste or other emissions
7 that would be harmful to public health and safety. The Project equipment and design
8 satisfies all applicable safety codes, including NEC and NESC. The Project transformers
9 will be compliant with GMP's specifications (Distribution Standard #T-01, 3.1, 12/13) that
10 meet or exceed ANSI C57.12.00-2010, C57.12.20-2005, C57.12.90-2006, and all other
11 applicable ANSI, IEEE, EEI, NEMA, and OSHA Standards. The Project inverters will be
12 compliant with IEEE 1547 Standard for Interconnection and Interoperability of Distributed
13 Resources with Associated Electrical Power Systems Interfaces (2018) and UL 1741 SA.
14 Further, all energized equipment will be rated for outdoor use, securely shielded, include
15 locked enclosure covers, and otherwise compliant with NEC code "Guarding of Live
16 Parts." See Exhibit RDS MS-4, Equipment Datasheets.

17
18 **9. Solar Setbacks [30 V.S.A. § 248(s)]**

19 Q21. Does the Project design comply with the minimum setback requirements that apply to a
20 500 kW ground-mounted solar electric generation?

1 A21. Yes. As illustrated on the Site Plan, Exhibit RDS MS-2, the Project meets the 50 foot
2 property boundary setback. The Project also meets the 100 foot setback from the nearby
3 state or municipal road as measured from the edge of the traveled way.

4
5 **10. Waste Disposal [10 V.S.A. § 6086(a)(1)(B)]**

6 Q22. Will the Project involve any discharges or injections of groundwater or otherwise adversely
7 impact water purity?

8 A22. No. The Project will meet all applicable Vermont Department of Health and Vermont
9 Department of Environmental Conservation (“DEC”) regulations regarding the disposal of
10 wastes and will not involve the injection of waste materials or any harmful or toxic
11 substances into groundwater or wells.

12
13 The Project has no onsite sanitary wastewater systems, and therefore no associated
14 injection of sanitary wastewater into the ground. The soil erosion measures discussed
15 below will avoid adverse stormwater impacts. Stumps from tree clearing will be ground
16 onsite and utilized onsite. Any waste generated during construction and operation of the
17 Project will be disposed of in accordance with applicable Vermont DEC regulations.

18
19 **11. Water Conservation [10 V.S.A. § 6086(a)(1)(C)]**

20 Q23. Please describe any water conservation measures.

1 A23. The Project itself will not utilize water. Use of water will be limited to what is necessary
2 to control dust during installation and to promote germination of seed.
3

4 **12. Sufficiency of Water and Burden on Existing Supply [10 V.S.A. § 6086(a)(2)**
5 **& (3)]**

6 Q24. Please describe the sufficiency of water and the burden on existing water supply.

7 A24. As previously stated, the Project will require limited water supply. The Project will not
8 unreasonably burden existing water supply.
9

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

11 Q25. Will the Project cause unreasonable soil erosion or a reduction in the capacity of the land
12 to hold water, so that a dangerous or unhealthy condition may result?

13 A25. No. Project installation will be performed in accordance with the *Vermont Standards and*
14 *Specifications for Erosion Prevention and Sediment Control* (2020). The Project will apply
15 for coverage under the Agency of Natural Resources DEC Construction General Permit.
16 Please refer to Exhibit RDS MS-2.
17

18 Earth disturbance will occur from preparing the site, including shade management, and
19 installing the access, the electrical infrastructure and racking posts. For the state
20 construction stormwater discharge permit, the Project Proposed Clearing and Limit of
21 Disturbance (LOD) will be 11.9± acres.
22

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

2 Q26. Please describe the potential impact with respect to the use of public roads during
3 installation.

4 A26. There will be no long-term transportation impacts, and only short-term, periodic traffic
5 impacts due to deliveries of equipment during installation. Project materials and equipment
6 will be transported to the site by common transportation vehicles over Vermont state and
7 town roads. No oversized or overweight trucks or permits are necessary. All deliveries
8 will be in accordance with applicable permits and requirements.

9
10 **15. Impacts on Educational Services and Municipal Services [10 V.S.A. §**
11 **6086(a)(6) and (7)]**

12 Q27. Please describe the potential impact with respect to the provision of educational and
13 municipal services.

14 A27. No educational or municipal services will be burdened by the Project. The Project will not
15 require or affect educational services. Use of municipal roads to transport equipment and
16 materials will be limited in duration and similar to many other small-scale projects.

17
18 **16. Primary Agricultural Soils [10 V.S.A. § 6086(a)(9)(B)]**

19 Q28. Please address potential impacts to prime agricultural soils (“PAS”).

20 A28. Approximately 2.05± acres of PAS are within the area of the proposed clearing and
21 construction limit of disturbance delineation, of which 0.10±acre will be disturbed by
22 excavation of underground power or access. See the Project Site Plan, Exhibit RDS MS-

2. As noted on the Site Plan notes, PAS disturbed will be stockpiled on site. Upon decommissioning, Project infrastructure will be removed and the PAS returned.

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

Q29. Act 250 Criterion 6086(a)(9)(K) provides:

A permit will be granted for the development or subdivision of lands adjacent to governmental and public utility facilities, services, and lands, including highways, airports, waste disposal facilities, office and maintenance buildings, fire and police stations, universities, schools, hospitals, prisons, jails, electric generating and transmission facilities, oil and gas pipe lines, parks, hiking trails and forest and game lands, when it is demonstrated that, in addition to all other applicable criteria, the development or subdivision will not unnecessarily or unreasonably endanger the public or quasipublic investment in the facility, service, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to the facility, service, or lands.

Please address whether any such public investments are in the vicinity of the Project, and whether the Project will unnecessarily or unreasonably endanger the public or quasi-public investment in any facility, service, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of, or access to any such facility or service.

A29. The Project will not unnecessarily or unreasonably endanger public or quasi-public investments in facility, service, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of the public's use or enjoyment of, or access to any such facility or service.

1 Due to the limited amount of time required for installation, the Project will not adversely
2 impact the public's use of proximate roadways. In addition, the following facts further
3 support that there will be no undue adverse impacts on public investments as a result of
4 this Project:

- 5 • As explained in the Project Aesthetic Assessment, the Project will not result in an
6 undue adverse impact to aesthetics. Exhibit RDS MS-6.
- 7 • The Town of Randolph has designated the site as a preferred site for this solar
8 facility. Exhibit RDS MS-5.

9 The Project also creates a number of benefits with local, statewide, and regional
10 significance, including supporting renewable energy development and construction related
11 jobs, contributing to Vermont's GHG electricity sector emissions, reducing Vermont's
12 dependence on out-of-state electricity sources, and the Renewable Energy Credits
13 ("RECs") will be transferred to GMP to be retired. The Project will also benefit public
14 investments, in that it will generate new tax revenues to the Town of Randolph and to the
15 State of Vermont Education Fund. Lastly, the Project will provide net metered- offtake
16 customers a means to reduce their electric expenses through participation in the Vermont
17 net-metering program.

18
19 **18. Decommissioning [PUC Rules 5.107(C)(12) & 5.904(A)]**

20 Q30. Please describe the plan for decommissioning.

21 A30. The plan for decommissioning is set forth in Exhibit RDS MS-9.

1

2

19. Conclusion

3

Q31. Does this conclude your testimony?

4

A31. Yes.

5

6

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