

**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, to install) Case No. 21-2939-NMP
and operate a 500 kW group net-metered)
solar electric generation facility in)
Randolph, Vermont)

**DIRECT PREFILED TESTIMONY OF
ALEX DEPILLIS**

**ON BEHALF OF THE
AGENCY OF AGRICULTURE, FOOD AND MARKETS**

May 6, 2022

Mr. DePillis, on behalf of the Agency of Agriculture, Food and Markets, evaluates the potential impact of Randolph Davis Solar, LLC's proposed project on primary agricultural soils under 30 V.S.A. § 248(b)(5).

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to 30 V.S.A. §§ 248 and 8010, to install	)	Case No. 21-2939-NMP
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group net-metered solar generation	)	
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1 **Introduction**

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

3 A1. My name is Alex DePillis. I am Senior Agricultural Development Coordinator
4 in the Agricultural Development Division of the Vermont Agency of
5 Agriculture, Food and Markets (“AAFM”). My office is located at 116 State
6 Street in Montpelier, Vermont.

7 **Q2. Please describe your background and experience.**

8 A2. I hold a bachelor’s degree in mechanical engineering from the University of
9 Massachusetts, Amherst. I have worked in the renewable energy field, since
10 1992, on a range of renewable energy technologies and policies, including land-
11 use permitting for solar and wind projects; solar thermal sales and installation;
12 installation of small off-grid solar systems; and manufacture and installation of
13 wind power systems. In particular, I worked as a renewable energy engineer in

1 the Wisconsin Department of Administration, Division of Energy, from 1998 to
2 2006; a field technician for Seventh Generation Energy Systems, in 2006; a
3 wind monitoring engineer for EcoEnergy, a company with offices in Wisconsin,
4 from 2007 to 2010; and an engineer with Wind Energy Systems Engineering,
5 Inc., from 2011 to 2012.

6 In my current capacity as Senior Agricultural Development Coordinator, I
7 manage AAFM's review of projects under 30 V.S.A. § 248, focusing on impacts
8 to primary agricultural soils. I review petitioners' prefiled testimony and
9 exhibits, including site plans and decommissioning plans, using mapping tools,
10 such as the Agency of Natural Resources Atlas and the U.S. Department of
11 Agricultural Natural Resources Conservation Service ("NRCS") Web Soil
12 Survey, to locate primary agricultural soils on the project tract and assess the
13 project's direct and indirect impacts on those soils. When appropriate, I also
14 recommend conditions to mitigate impacts, including best practices that allow
15 the land to be farmed in the future. My work is informed by my personal
16 knowledge, training, and experience, as well as by expert guidance, including
17 AAFM guidelines on the reclamation of agricultural soils, which were developed
18 with assistance from NRCS and soil consultant Ben Waterman and are
19 available at: [https://agriculture.vermont.gov/sites/agriculture/files/](https://agriculture.vermont.gov/sites/agriculture/files/documents/land_use/ReclamationGuidelinesforAgriculturalSoils_.pdf)
20 [documents/land_use/ReclamationGuidelinesforAgriculturalSoils_.pdf](https://agriculture.vermont.gov/sites/agriculture/files/documents/land_use/ReclamationGuidelinesforAgriculturalSoils_.pdf).

1 **Q3. Have you previously testified or provided public comment before the**
2 **Public Utility Commission?**

3 A3. Yes, I provided prefiled testimony in Case No. 19-1774-PET, the petition of ER
4 Jericho Landfill Solar, LLC, for a certificate of public good for a 1.65 MW solar
5 electric generation facility in Jericho, Vermont; and Case No. 17-5024-PET, the
6 petition of Chelsea Solar, LLC, for a certificate of public good for a 2.0 MW solar
7 electric generation facility located off Willow Road in Bennington, Vermont.

8 **Q4. What is the purpose of your testimony in this case?**

9 A4. My testimony presents the Commission with evidence and recommendations
10 concerning primary agricultural soils under 30 V.S.A. § 248(b)(5).

11 **Discussion**

12 **Q5. Are you familiar with the proposed Randolph Davis Solar, LLC, net-**
13 **metered solar electric generation facility?**

14 A5. Yes, to the extent that I have analyzed the project's potential impacts to
15 primary agricultural soils. I have reviewed the Direct Prefiled Testimony of
16 Martha Staskus (Aug. 11, 2021); Decommissioning Plan, Exhibit RDS MS-9
17 (Aug. 11, 2021); Supplemental Prefiled Testimony of Martha Staskus (Feb. 25,
18 2022); and Revised Site Plan, Exhibit RDS MS-2B (rev. Apr. 18, 2022). I also
19 participated in the March 25, 2020 site visit.

20 **Q6. What does the term “primary agricultural soils” mean?**

1 A6. The term “primary agricultural soils” means an important farmland soils map
2 unit that NRCS has identified and determined to have a rating of prime,
3 statewide, or local importance. 10 V.S.A. § 6001(15)(A). NRCS important
4 farmland ratings help identify soil map units that represent the best land for
5 producing food, feed, fiber, forage, and oilseed crops. The term “primary
6 agricultural soils” also means soils on a project tract that are found to be of
7 agricultural importance due to their present or recent use for agricultural
8 activities and that have not been identified by NRCS as important farmland
9 soil map units. 10 V.S.A. § 6001(15)(B).

10 **Q7. Is the proposed project located on a tract that contains primary**
11 **agricultural soils?**

12 A7. Yes. The proposed project tract contains primary agricultural soils mapped by
13 NRCS as Buckland loam, Statewide. The proposed project has the potential to
14 impact approximately 2.05 acres of primary agricultural soils within the
15 project’s limit of disturbance. Impacts to primary agricultural soils may occur
16 from construction of the perimeter fence, temporary staging area, and access
17 road; trenching for underground power, the AC combiner pad, and the AC
18 disconnect pedestal; and tree clearing. Ex. RDS MS-2 (rev. Apr. 18, 2022).

19 **Q8. Has the petitioner proposed any mitigation for the potential impacts**
20 **to primary agricultural soils?**

1 A.8 Yes. The petitioner proposes to follow AAFM guidelines for managing and
2 reclaiming soils. Direct Prefiled Testimony of Martha Staskus, at 5. For
3 primary agricultural soils disturbed by the installation of the access road,
4 petitioner proposes to stockpile those soils onsite, and for primary agricultural
5 soils disturbed by trenching for the underground electrical conduit, petitioner
6 proposes to excavate and backfill those soils in the same soil layers. Ex. RDS
7 MS-2B, at C-100. The petitioner also proposes that, at decommissioning, it will
8 remove the facilities and restore the site to its preconstruction condition to the
9 greatest extent practicable. Ex. RDS MS-9.

10 **Q9. Are there any conditions that the Commission should include in any**
11 **certificate of public that it may issue for the project?**

12 A9. Yes, I respectfully request the Commission include the following conditions:

- 13 1. As provided in 30 V.S.A. § 248(t), notwithstanding any contrary provision of
14 law, primary agricultural soils (“PAS”), as defined in 10 V.S.A. § 6001,
15 located on the site of a solar electric generation facility approved under this
16 section, shall remain classified as such soils, and the review of any change in
17 use of the site after construction of the facility shall treat the soils as if the
18 facility had never been constructed.
- 19 2. In areas where PAS will be excavated, the CPG Holder shall stockpile the
20 PAS separately by soil horizon, making sure the piles are located and
21 planted with ground cover as appropriate to prevent erosion and preserve

1 integrity, and shall comply with AAFM's *Act 250 Procedure: Reclamation*
2 *of Vermont Agricultural Soils*, [https://agriculture.vermont.gov/sites/agriculture/files/documents/land_use/ReclamationGuidelinesforAgriculturalSoils_](https://agriculture.vermont.gov/sites/agriculture/files/documents/land_use/ReclamationGuidelinesforAgriculturalSoils_.pdf)
3 [.pdf](https://agriculture.vermont.gov/sites/agriculture/files/documents/land_use/ReclamationGuidelinesforAgriculturalSoils_.pdf) (rev. Oct. 30, 2014) ("AAFM Guidelines"). The CPG Holder shall also
4 comply with AAFM Guidelines when sequencing returned soils at the
5 conclusion of construction or project decommissioning. The requirements of
6 this paragraph shall not apply to driven piles or posts to support the solar
7 array, fence posts, and any other driven posts necessary to support
8 infrastructure without the use of concrete or masonry.

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- 10 3. If installing electric conduit or other project features using fill or other
11 imported material of any kind in areas of PAS, the CPG Holder shall
12 remove any PAS in a manner that separates soil horizons, stockpile the
13 displaced layer(s) for the life of the project, and replace the remaining soil
14 horizons in their original sequence to fill the trench after installation of the
15 conduit or other project feature. When decommissioning and removing
16 electric conduit or other project features, the CPG Holder shall excavate and
17 replace soil horizons in the same way, this time removing the conduit or
18 other item and imported material and replacing it with the stockpiled
19 layer(s) that the imported material previously displaced, restoring the
20 original sequence of soil layers. If no imported material is used for
21 underground electric conduit or other project features, no soil stockpiling

1 shall be required for the associated excavation, so long as the CPG Holder
2 ensures that any PAS removed, during construction and again during
3 decommissioning, is replaced in a manner that retains the integrity of the
4 PAS and the proper sequencing of soil horizons consistent with AAFM
5 Guidelines.

- 6 4. Soil shall not be stockpiled on slopes greater than 15%.
- 7 5. Except for grading to create the access road, the project shall not include
8 any grading of PAS. Any fill or gravel used for roads or staging areas shall
9 be separated from native soils by a suitable barrier, such as a geotextile
10 fabric.
- 11 6. In areas of tree cutting, if stumps are to be removed, stump removal shall
12 occur simultaneously with tree cutting and other construction activities
13 using light equipment, such as a skid steer or small excavator. Grubbing in
14 the proposed tree cutting/grubbing area shall involve only what is necessary
15 to remove trees stumps and woody debris to construct the project. Tree
16 stumps shall be shaken clean over the area from which they were removed
17 and either chipped or ground up. Chips and ground wood shall be used to
18 fill any minor depressions in areas where trees were removed, widely
19 dispersed so as not to form significant piles, and/or transported offsite for
20 proper disposal. Wood in any form shall not be piled onsite after
21 construction is complete.

- 1 7. To reduce impacts from soil compaction, the CPG holder shall not use any
2 vehicle or equipment with an axle load (the fraction of gross weight
3 distributed over each axle) of more than 12,000 pounds on wet soils at the
4 site. Wet soils exist when the site has seen higher than average rainfall for
5 a training 30-day period based on National Weather Service or similar state
6 or federal rainfall data. This prohibition shall not apply to the use of any
7 onsite gravel roads or staging areas that are constructed with geotextile
8 fabric, a minimum of 10" of gravel, and a 1" or thicker cap of crushed
9 aggregate.
- 10 8. At the end of the project, to return the site to its preconstruction condition to
11 the greatest extent practicable consistent with Commission rules, and to
12 enable use of the site for agricultural purposes, the CPG holder shall:
- 13 a. Remove all infrastructure and roads, including any below-ground
14 drilled posts that are part of the racking, consistent with Commission
15 rules, and ensure proper offsite disposal of project components; and
16 b. Thoroughly plow the site with a subsoiler to mitigate any compaction
17 of soils from installation, operation, or decommissioning.

18 **Q10. Will the proposed project have an undue adverse impact on primary**
19 **agricultural soils?**

20 A10. If the Commission includes the conditions listed above in any certificate of
21 public good it issues in this case, then the proposed project will not have an

1 undue adverse effect on primary agricultural soils under 30 V.S.A. § 248(b)(5).

2 **Conclusion**

3 **Q11. Does this conclude your testimony?**

4 A11. Yes.