STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Application of MHG Solar LLC for a certificate of public good, pursuant to 30 V.S.A. §§ 8010 and 248, to install and operate a 500 kW group net-metered solar electric generation facility located off Richville Road in Manchester, Vermont, to be known as the "Richville Road Solar Project"	)	Case No. 20-____-NMP

PREFILED TESTIMONY OF CHRISTOPHER PONESSI

May 19, 2020

Summary: Mr. Ponessi's testimony describes his work developing the proposed Richville Road Solar Project's site plans, and addresses the Project's compliance with Section 248(b)(5) with respect to Water Pollution (including Waste Disposal, Water Conservation, Sufficiency of Water, and Burden on Existing Water Supply), Floodways, Soil Erosion, and Primary Agricultural Soils.

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

A1. My name is Christopher M. Ponessi, P.E., and I am a professional civil engineer in the State of Vermont. I am currently a partner and president of Mance Engineering Partners, P.C., with offices in Bennington and Manchester, VT. I head the Manchester office, which is located at 114 Cemetery Avenue, Suite A-2, P.O. Box 1446, Manchester Center, VT 05255.

Q2. What is the purpose of your testimony?

A2. My testimony supports the application of MHG Solar LLC ("MHG") for Sections 8010 and 248 approval of a group net-metering solar electric generation facility ("Project") on property to be leased by MHG in Manchester, Vermont.

Specifically, my testimony provides an overview of the Project, describes my work developing the site plan, and addresses the Project's compliance with Section 248(b)(5) with respect to Water Pollution (Waste Disposal, Water Conservation, Sufficiency of Water, Burden on Existing Water Supply), Floodways, Soil Erosion, and Primary Agricultural Soils.

Q3. Please describe your professional background, qualifications, and experience.

A3. I am a professional engineer, licensed in the State of Vermont for approximately 16 years, and have worked on all types of residential, commercial, and industrial projects throughout New England in my 24-year career, 16 of those here in Vermont. My resume is attached as *Exhibit MHG-CP-1*.

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

A4. Yes. I provided testimony in Pig Pen Road LLC's net-metering application (CPG No. 17-0255-NMP) and MHG Solar LLC's net-metering applications including the: Route 149 Solar Project (CPG No. 18-1914-NMP), Shields Drive Solar Project (CPG No. 18-1975-NMP), Greenstone QSI Solar Project (CPG No. 18-2014-NMP), High Road Solar Project (CPG No. 18-2050-NMP), Greenstone Briar Hill Solar Project (CPG No. 18-2181-NMP), Eagle Quarry Solar Project (CPG No. 18-2535-NMP) and the Warren Switch Solar Project (CPG No. 19-1458-NMP). I have also testified in front of many town boards and commissions, Act 250 Commissions, and the Environmental Court.

Q5. Please describe the work you conducted with respect to the Project.

A5. My review of this Project involved the civil/site engineering design. I prepared the site plans for the Project and reviewed the plans with respect to potential impacts under certain Section 248 criteria. The site plans are presented by the Project overview witness, Thomas Hand, as ***Exhibit MHG-TH-2.*** In preparing the site plans I have performed the following tasks and evaluations:

1. Survey of Project site features.
2. Design of the site plans, including: shading analysis, array layout, grading, erosion prevention and sediment control measures, and fencing.
3. Review of operation and construction stormwater permitting needs.

SECTION 248 CRITERIA

Waste Disposal – 10 V.S.A. § 6086(a)(1)(B)

Q6. What are the Project's plans for waste disposal?

A6. As there will be no buildings associated with the Project, no on-site wastewater disposal system is required for the Project and thus a Wastewater System and Potable Water Supply Permit is not required.

The Project requires approximately 0.80 acres of vegetative clearing, mostly consisting of scrub brush and trees. Where tree clearing will occur outside of the Project's proposed perimeter fence, all trees will be cut flush with the existing grade and stumps will remain in place. If stumps are removed within the Project's perimeter, stumps will either be ground on site and used for erosion prevention and sediment control, or removed from the Project site and properly discarded. There is no stump dump proposed for this Project.

Any metal or cardboard generated from the Project construction will be recycled. All construction waste that cannot be recycled will be disposed of in an approved sanitary landfill. During operation of the Project, there are no anticipated activities that will generate waste materials requiring disposal.

Project operations will not generate solid wastes, and will not involve the injection of waste materials into ground water or wells, and will not generate sanitary waste or stormwater runoff from new impervious surfaces that would require treatment pursuant to a Vermont Department of Environmental Conservation permit. With respect to stormwater runoff from Project construction or operation, see my testimony below under Soil Erosion.

Water Conservation, Sufficiency of Water Supply, and Burden on Existing Water Supply – 10 V.S.A. §§ 6068 (a)(1)(C), (a)(2), (a)(3)

Q7. Please describe any use of water during construction and operation of the Project?

A7. The Project may use a small amount of water during the construction phase if required for dust control and for occasional cleaning of panels during the operational phase. In both instances, any small amount of water needed will be brought to the site. Otherwise, the Project will not utilize any water supplies (on-site or off-site) during construction or operations and will not require connection to a well or municipal water supply.

Floodways – 10 V.S.A. § 6086(a)(1)(D)

Q8. Is the Project is located in a 100-year flood hazard area, a floodway or a floodway fringe?

A8. Yes. I reviewed the FEMA Digital Flood Insurance Rate Maps (DFIRM and DFIRM Floodways and Flood Hazard Areas) on the ANR Atlas for the Town of Manchester and determined that the Project site is located within the 100 Year Special Flood Hazard Area but outside of any ANR River Corridor.

Q9. Will the Project restrict or divert the flow of floodwater or significantly increase the peak discharge of a river or stream within or downstream from the Project?

A9. No. MHG will comply with the Vermont Flood Hazard Area and River Corridor Rule when constructing and operating the Project. MHG reached out to ANR's Regional Floodplain Manager and reviewed the elevations of the flood water to determine that the base flood elevation ranges are between 2-3 feet. Accordingly, to ensure that the electrical components

of the Project are at least one foot above the flood level, the base of the panels will be at least 4 feet above ground.

Soil Erosion – 10 V.S.A. § 6086(a)(4)

Q10. Please discuss whether a construction stormwater permit is needed for the Project.

A10. It is anticipated that a maximum of 206,910 square feet (approximately 4.75 acres) of land area will be altered during construction of the solar array. Most of this land is hay field and will only be disturbed during the construction phase for trenching, installation of piles, construction vehicles, and vegetative clearing. Accordingly, MHG will obtain authorization under the stormwater construction general permit prior to commencing any construction activities for the Project.

MHG is fully committed to construct the Project in accordance with the Vermont Standards & Specifications for Erosion Prevention and Sediment Control (February 2020) and the Vermont Low Risk Site Handbook for Erosion Prevention and Sediment Control (February 2020) to the extent there is actual soil disturbance at the site. Stormwater runoff and erosion control methods that will be used during construction include: temporary soil stabilization with mulch within 14 days of initial site disturbance; temporary stabilized construction entrance; silt fence; permanent stabilization with topsoil; and seed and mulch after disturbances. These are established and proven measures accepted by ANR to prevent soil erosion from occurring and address any potential construction-related stormwater runoff effectively before it reaches receiving waters. Implementation of these measures will prevent undue soil erosion and protect water quality.

Q11. Will the Project require an operational stormwater permit?

A11. No. The Project will not create any new impervious area and thus will not require an operational stormwater permit.

Q12. Will the Project cause unreasonable soil erosion or the reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result?

A12. No. This is a low impact project with minimal soil disturbance, such as trenching for the underground electrical lines. As stated in the prefiled testimony of Thomas Hand, there will be limited vehicular access during the construction phase and even less traffic during operation. Likewise, there will be minimal disturbance since the remaining construction will be done above-ground, and will not impact the soil's ability to absorb or hold water. These factors support the land's capacity to hold water during construction and operation of the Project.

Q13. Will the Project have any adverse impact on municipal stormwater infrastructure downstream from the Project site including increase in stormwater flows to any residence in the Project vicinity?

A13. No. No impervious surfaces will be created for the proposed Project and therefore no additional stormwater is expected to be generated by the Project. Thus, the Project will not have any adverse impact on municipal stormwater infrastructure downstream from the Project site including residences in the Project vicinity.

Primary Agricultural Soils – 10 V.S.A. § 6086(a)(9)(B)

Q14. Will the Project impact any Primary Agricultural Soils, as defined by 10 V.S.A. § 6001(15)?

A14. Yes. The Project site contains the following Primary Agriculture Soils ("PAS"): Copake Gravelly Fine Sandy Loam, Limerick Silt Loam, and Pootatuck Fine Sandy Loam. ***Exhibit MHG-TH-2***. The PAS will be temporarily impacted by trenching for the underground conduits and during tree clearing (including grubbing if necessary). Any soil disturbed from Project construction will be replaced and restored as necessary and will be included on erosion prevention and sediment control plans required for a construction stormwater permit. The construction of this Project will not permanently compact, alter, or remove the ability of these soils to be utilized in the future. See ***Exhibit MHG-TH-2*** for the site plan including soils mapping in and around the Project site.

Q15. Does that conclude your testimony at this time?

A15. Yes, it does.