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. 20-1261-NMP

SECOND SUPPLEMENTAL PREFILED TESTIMONY OF LUCY THAYER

April 2, 2021

Summary: Ms. Thayer's testimony addresses the significant issues expressed in the Public Utility Commission's ("Commission" or "PUC") February 23, 2021 Order including introducing the visual simulations provided in Exhibits MHG-LT-3 and MHG-LT-4 and responds to the Commission's March 18, 2021 Information Requests.

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

A1. My name is Lucy Thayer. I am a licensed landscape architect for Trudell Consulting Engineers ("TCE"), an engineering, environmental, and consulting firm located at 478 Blair Park Road, in Williston, Vermont.

Q2. Have you previously submitted testimony in this proceeding?

A2. Yes, I submitted an Aesthetics Report, Proposed Landscaping Plan, and Affidavit on behalf of applicant MHG Solar LLC ("MHG") that was included with the application for the Richville Road Solar Project ("Project") on May 19, 2020, and supplemental testimony on August 11, 2020.

Q3. What is the purpose of your second supplemental testimony?

A3. The purpose of my second supplemental testimony is to address the significant issues expressed in the Public Utility Commission's ("Commission" or "PUC") February 23, 2021 Order including introducing the visual simulations provided in ***Exhibit MHG-LT-3*** and ***MHG-LT-4*** and to respond to the Commission's March 18, 2021 Information Request (the "Information Request").

Q4. Please describe your process for creating the visual simulations provided as Exhibit MHG-LT-3.

A4. In the PUC's February 23, 2021 Order, the Commission requested a visual simulation of the proposed aesthetic mitigation plan. The visual simulations provided in ***Exhibit MHG-LT-3*** show the proposed aesthetic mitigation plan at three different times—at installation, 4-6

years after installation, and 10-15 years after installation to represent the planting at maturity. The simulated plantings are intended to demonstrate the plant species, form, and size at the different time periods after plant installation of the proposed mitigation plan.

The visual simulations were developed by selecting a representative photo from a public location near the Project, in this case, from the sidewalk along Richville Road. This is the same viewpoint utilized by MHG for the visual simulations presented at the public Selectboard and Planning Commission meetings for the Town of Manchester as described in exhibit MHG-TH-5. Additionally, since the request for simulations was to show the plantings at installation and at maturity, leaf-on plantings were used for consistency to show the comparisons of both installation and mature plantings during the same season.

The simulations were created by first using Autodesk AutoCAD Map 3D to export the Project site plan information including topography, existing features and proposed site elements. The Project site information was brought into a 3D modeling program, Trimble SketchUp Pro, to model and simulate site plan elements to create a simulated perspective (camera view) to match the location, bearing, and focal length of the existing conditions photograph. The model is geolocated to the Project's specific coordinates. Site features including the panels and fence were rendered and exported though a rendering program, Enscape. A tree background was also rendered in and exported from Enscape to represent the leaf-on conditions of the tree line. The proposed plant layout and site features within the camera view were exported from the 3D model, and along with the exported site features, were brought into Adobe Photoshop where they were superimposed on the photograph. In Photoshop, the Taconic mountains in the back of the photo were adjusted to simulate leaf-on conditions and photorealistic plants were added. Photoshop was also

used to take out existing vegetation that is anticipated to be removed for Project construction.

Q5. In your Aesthetic Assessment Report (Exhibit MHG-LT-1), you found that the Project would not have an undue adverse effect on aesthetics. In creating the visual simulations has your opinion changed?

A5. No, as discussed in Exhibit MHG-LT-1, the Project, with the proposed aesthetic mitigation plan, does not create an undue adverse aesthetic impact. Indeed, the visual simulation supports that finding by providing a reliable resource to establish the aesthetic mitigation plan's efficacy in adequately screening the Project. Moreover, to provide context regarding the reasonableness of the proposed aesthetic mitigation plan, I created another set of visual simulations representing the minimum quantity of plants that would be required per the Town regulations in effect at the time the Petition was filed with the PUC, ***Exhibit MHG-LT-4.*** Specifically, the visual simulation plan is based on the requirements set forth in the Town of Manchester Land Use & Development Ordinance (2018) section 7.2 Energy Generation Facilities (7.3.4) except that only shrubs with an average height in the 12-13-foot height range (that can be managed as needed to be not greater than 10 feet in height) were used, in accordance with the Town's request to protect the view to the Taconic ridgeline. The visual simulations illustrating a potential planting per the Town's screening requirements are conceptual only and do not represent a specific planting plan.

As seen when comparing the two visualizations, the proposed aesthetic mitigation plan better screens the Project at every phase (at installation, 4-6 years, and 10-15 years after installation) in a way that is compatible with the surrounding environment, uses native

plants, and is in line with the Town Plan's intention to balance development and preservation of views as discussed in further detail below. Accordingly, the Project as proposed does not have an undue adverse impact.

Q6. In your Aesthetic Assessment Report (Exhibit MHG-LT-1), you state, "The Project parcel is not currently an open space or generally open to or used by the public." Please provide the basis for this statement including your use of the term "open space".

A6. With regard to a visual impact analysis as reviewed under the Quechee Test, the question is what is the project's impact on open space in the area? Since specific definitions of open space can vary depending on the context in which it is used, the parcel must be evaluated through an analysis of the surrounding area and town and regional planning goals as outlined in official documents.

In this instance, the Project parcel is informed by the context of the surrounding area of Manchester and the content of the Town Plan, zoning regulations, and maps that provide information on where open spaces and preserved lands are and where they could/should be located. These factors are relevant to understand a town's open space goals and priorities.

The Project parcel is privately owned and, while it is presently undeveloped, it is not a designated open space, either publicly or privately. The Town Plan does not identify the Project parcel as a future open space, area of public interest, or preservation. There are no existing activities, amenities, or easements present on the parcel that promote or endorse public or open space use, nor is this parcel part of a broader network of open spaces.

With regard to visual open space, the Project parcel does contain a portion of open field. However, this field is separated from the greater landscape and surrounding undeveloped spaces because of its particular location and configuration. The Project parcel is separated from adjacent and nearby lands by vegetation, topography, and intervening structures. The parcel boundary is lined with existing mature vegetation, and it is backdropped by trees that line the railroad tracks, river corridor, and the steep slope west of the Project parcel. In this regard, the parcel is isolated and visually inaccessible from the surrounding landscape that is not directly adjacent to the parcel.

Criteria for open space is also informed by the Town zoning designation that determine what the potential development options and uses are allowed. While zoning regulations are not generally applicable to the Project, they do provide framework for understanding the Town's planning goals and vision by outlining what development is permitted, as well as the density and scale of development allowed. The Town Zoning map shows the parcel is located in the MU2 (Mixed Use 2) district which permits a variety of uses and development types. The stated purpose of the MU2 district is "…to provide an opportunity for growth in areas within or adjacent to the town core…". Manchester Land Use & Development Ordinance at 10. Other nearby developments in the MU2 district are consistent with the district zoning standards, with uses that include a self-storage facility, professional and medical offices, industrial scale facilities, a bank, etc. The MU2 land use designation reflects the Town's development and preservation goals for the area and the parcel, and reinforces the determination that the Project parcel has not been planned to be preserved or remain undeveloped or open by the Town. To the contrary, the land use designation allows this parcel to be developed in a variety of ways that could include

industrial and manufacturing type facilities, offices, and multi-unit residential communities, among other development options.

Understanding the surrounding lands and context (that the parcel is separated from adjacent lands and borrowed views), as well as the Town's planning goals (the parcel is located in a zoning district that promotes development), shows that the Project does not meet the definition of having an adverse impact on open space.[1]

Q7. In your opinion is "open space" required to be "open to or used by the public"? If so, why?

A7. Yes, with regard to the Project's impact on aesthetics, the open space being evaluated does need to be open, accessible, or somehow related to the parcel in question—visually and/or physically—from the perspective of the "average" observer. There may be some cases where the "average" observer is not viewing the Project from public locations, however in this particular case, my determination is that the "average" observer is most accurately represented from public vantage points.

Private property also contains limitations for assessment as "open space" compared to parcels that are owned by municipalities or public entities. While a privately-owned parcel may be undeveloped, that does not necessarily equate that land to being considered an "open space" resource.[2]

[1] This answer is provided in response to Information Request 3(a-b).
[2] This answer is provided in response to Information Request 3(c).

Q8. Is the Project parcel posted against trespassing? If so, when was the posting first in effect?

A8. To my knowledge, and based upon my visit to the Project site, the Project parcel is not posted against trespassing.[3]

Q9. The Manchester Town Plan 2017 states: "Other roads in Manchester also provide such scenic amenities, including Barnumville Road, East Manchester Road, Overlook Road, Richville Road, River Road, West Road and Wind Hill Road." Please explain the basis for your reasoning that the Town of Manchester does not identify the Project site as a scenic resource in light of the foregoing Town Plan language.

A9. The full quote from the Town Plan is:

> These roads [Shires of Vermont Byway and the Stone Valley Byway] are often lined by stone walls and sugar maples, and provide especially scenic views, as well as historic sites. Other roads in Manchester also provide such scenic amenities, including Barnumville Road, East Manchester Road, Overlook Road, Richville Road, River Road, West Road and Wind Hill Road. Public or private actions which would impact these roads must be carefully evaluated, and development must be planned to minimize adverse impacts.

Town Plan at 30.

First, the Town Plan describes Richville Road, and other roads in Manchester, as roads that "…provide such scenic amenities…". This does not mean the Town designated the entirety of Richville Road (and the other listed roads) and all lands adjacent thereto as a scenic resource that must be protected. Rather, the Town Plan indicates that there are

[3] This answer is provided in response to Information Request 3(d).

"scenic amenities" visible from portions of Richville Road. The fact that the Project site is located along Richville Road does not mean the Project parcel is a scenic resource in and of itself. Moreover, when read in context of the paragraph, the "scenic amenities" are the "stone walls and sugar maples," lining the roads, and that the roads "provide especially scenic views, as well as historic sites." The Project site is not lined by sugar maples, or stone walls, and is not a historic site. The scenic views present from Richville Road at the Project area are to the Taconic Ridgeline, not to the Project site, and as shown by the Line-of-Sight analysis (Exhibit MHG-TH-12) and the visual simulation (Exhibit MHG-LT-3) will not be obstructed by the proposed Project.

Indeed, the aesthetic mitigation plan was designed to incorporate the Town's request to preserve the scenic views to vistas beyond and outside the Project area, specifically to the Taconics. See ***Exhibit MHG-TH-4; Exhibit MHG-LT-2***. Accordingly, such views will not be obstructed by the Project and the existing natural and scenic resources will remain and are not adversely impacted by the Project. Thus, as set forth in the Town Plan, the Project has been "carefully evaluated, and development must be planned to minimize adverse impacts."

This is further informed by the Town's recognition of the value of the Taconic Ridgeline as outlined in the Town Plan's Ridgeline Resources section: "[t]he Town of Manchester recognizes the essential economic, ecologic and spiritual value of the Green Mountain and Taconic Ridgelines." Town Plan at 12. The section goes on to balance the importance of preserving the Ridgeline views with development stating: "[t]hese hills, ridges, and mountains contribute to the natural beauty of Manchester and warrant protection. With regard to lower slopes and hillsides, the intent is not to prohibit all development; rather, that

development and structures be sited sensitively and appropriately, in ways that fit into the landscape." *Id.* Relating this issue specifically to renewable energy resource plans, the Town Plan Action paragraph states: "A component of developing a renewable energy resource plan will be to conduct viewshed analyses to identify and quantify the relative importance of ridgeline resources in Manchester." *Id.* at 13. Both a viewshed analysis and a line of site analysis were completed for the Project to show that the area's protected resources, including the ridgelines, will not be adversely impacted. See ***Exhibit MHG-TH-12.***

It is also important to note that the Project parcel is located in the MU2 (Mixed Use 2) district. As discussed above, the MU2 district has a stated purpose to "…provide an opportunity for growth in areas within or adjacent to the town core…" with allowed uses including multifamily dwellings, retirement housing, hotels, motels, resorts, professional business offices, catering, or commercial kitchen, light industry and manufacturing, event facilities, among others. See Manchester Land Use & Development Ordinance at 10, 17-25. This zoning designation shows that the Town does not identify the Project parcel as a scenic resource to the extent it remains indefinitely vacant but instead the parcel is intended to be developed with consideration and sensitivity to natural and scenic resources of the area, which the Project does. This aligns with the Town's conditional support for the Project parcel as a preferred site so long as it met the screening requirements as set forth in ***Exhibit MHG-TH-4***.[4]

[4] This answer is provided in response to Information Request 4.

Q10. The Bennington County Regional Plan states, "Commercial-scale solar energy facilities occupy large open areas and should not be sited at important gateway locations or in the foreground of viewsheds that have been identified by communities as being of particular value." (Regional Plan at 115). The Town Plan, as noted above, identifies Richville Road as providing "scenic amenities". In your opinion, does the Project as sited render the Project in conflict with the Regional Plan provision?

A10. No. First, the language of the excerpt "should" is permissive, not mandatory, allowing for a suggested course of action, not a required one. Second, the Town Plan's language establishes that although there are scenic views from Richville Road, development is permitted so long as it is "carefully evaluated, and . . . planned to minimize adverse impacts." This, coupled with the zoning designation, supports that the Town did not intend to prevent development along Richville Road. Indeed, the actions of the Town and Regional Planning Commission further support that the Project is in accordance with the Town and Regional Plan since they carefully considered the Project, its location, and proposed aesthetic mitigation before designating it a "preferred site." See ***Exhibit MHG-TH-4*** and ***MHG-TH-14*** (Email from Janet Hurley dated March 1, 2021). Finally, the proposed aesthetic mitigation plan adequately screens the Project and ameliorates the issue of the Project being a focal point in the foreground of the ridgeline. Thus, the Project is consistent with the Regional Plan.

Q11. In preparing the proposed aesthetic mitigation plan, did you assess the Project site soil for compatibility with the proposed plantings species?

A11. Yes. In creating the landscape mitigation plan multiple factors were considered to assess the suitability of the proposed plantings. This includes soils as well as other relevant aspects of a plant's cultural requirement like exposure (sun/shade), moisture, salt, hardiness, native status, etc.

With specific regard to the soils, a review of Vermont soil maps was done through the Vermont ANR Natural Resource Atlas. These maps identify the primary soil component as Copake Series in the location where the landscape mitigation planting is proposed. The Copake series is described as gravelly fine sandy loam, 0-3% slopes, well drained, with a farmland class of prime farmland. The Project parcel is also located within the 100 Year Special Flood Hazard Area and contains Class II and III wetlands. This indicates the soils are generally well drained, but variable moisture conditions are possible throughout the year that could include both high and low moisture content, which is not unusual.

During the field reconnaissance, a visual inspection and observations were also made to understand the types of plants on and near the parcel that are growing naturally and horticultural plantings. While the site reconnaissance was conducted after the growing season, there is valuable information that can be ascertained though visual observation. This includes the presence of a well-vegetated field, forbs growing along the roadway and near the existing tree line, and existing tree species identifiable during leaf-off conditions, like gray birch, poplars, and eastern white pines. The visual inspection of the site yielded that there

are not likely to be factors, other than those mentioned here, that would prevent or inhibit the growth of the plants proposed.

All of the above factors and observations informed the plant species selection. This was then further revised by selecting species that have a height range that will both visually mitigate the Project while not obscuring the scenic ridgeline of the Taconics beyond.[5]

Q12. Does that conclude your testimony at this time?

A12. Yes, it does.

[5] This answer is provided in response to Information Request 5.