

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

TESTIMONY OF
MICHAEL R. GAGNON
IN CONNECTION WITH
PETITION 1410

SEPTEMBER 24, 2020

1 **Q. Please state your name, occupation and business address.**

2 A. My name is Michael R. Gagnon, P.E.. I am a Senior Project Specialist, Civil
3 Engineering, for Milone & MacBroom, Inc. (MMI). My office is located at 1350 Main
4 Street, Suite 1012, Springfield, Massachusetts.

5 **Q. What are your responsibilities at MMI and with respect to this Petition?**

6 Greenskies retained MMI for professional services including civil engineering design and
7 permitting for this project, Petition #1410. I am the project manager for MMI on this
8 project. My overall responsibilities at MMI include the preparation of feasibility studies,
9 engineering reports, construction drawings, regulatory permits, technical specifications,
10 and cost estimates. I am responsible for providing engineering services on a variety of
11 ground mounted solar, land development and water resource projects with emphasis on
12 stormwater management, hydraulic modeling, and wetlands permitting. My regulatory
13 experience includes the preparation of several local land use permits with various
14 municipalities throughout the New England states, stormwater management permits for
15 federal, state, and local agencies, and wetland permits for several local conservation
16 commissions. I have over 35 years of experience in civil engineering design and
17 regulatory permitting, 9 years with MMI and 26 years with other engineering design
18 firms.

19 **Q. In addition to the project that is the subject of this Petition, have you been**
20 **involved in other commercial-scale solar PV developments?**

21 A. Yes. I lead the civil engineering design effort for the development of a 5±MWAC
22 commercial PV solar facility at 35 Taugwonk Spur Road in Stonington, CT. Additionally, I
23 have managed the civil engineering design for a 4±MWAC PV solar facility in Agawam,
24 MA; and a 5±MWAC PV solar facility in Northampton, MA. I have also managed civil

1 engineering design and permitting associated with four Eversource commercial PV solar
2 facilities in western Massachusetts.

3 **Q. Did you prepare additional visual simulations for this Petition?**

4 A. Yes.

5 **Q. Summarize the results of the additional simulations that were prepared.**

6 A. Greenskies retained MMI for the preparation of three visual simulations as
7 follows: A view from North Anguilla Road looking towards the West Project Area, a view
8 from behind 5 Fairway Court looking towards the East Project area, and a view from the
9 rear yard of 143 N. Anguilla Rd. looking toward the West Project area. Visual
10 simulations are based on site photographs taken during the spring and summer of 2020.
11 Computer simulation software was used to prepare each post developed visual
12 simulation using site photographs and overlaying proposed facility elements such as
13 fencing, PV racking, solar panels, electrical equipment pads and new shrub/tree
14 plantings. These visual simulations are included as Exhibit A to this testimony.

15 The view from behind 5 Fairway Court looks northwest towards the East Project Area
16 and is approximately 620-feet from southeast corner of the solar facility area. The view
17 shows the facility distant from the vantage point and is screened by the existing trees
18 and shrubs throughout the golf course, east of the proposed Project. In addition, new
19 plantings along the southerly fence line of the facility screen the south end of the
20 Project in this view. The chain link perimeter fence is provided with green privacy slats
21 that helps to further screen the facility from view.

22 The view from North Anguilla Road looks west towards the West Project Area. The
23 centerline of North Anguilla Road is 115± feet from the entrance gate on the east side
24 of the solar facility. This view shows the proposed access road, new interconnection

1 utility poles, and facility perimeter fencing. The tops of the PV solar panels electrical
2 equipment pads are visible given the higher elevation of North Anguilla Road with
3 respect to the facility which is 5± feet higher than the West Site. Additional Arborvitae
4 shrubs extend the existing Arborvitae shrub row up to the facility access road along the
5 west side of North Anguilla Road, and this helps to screen the proposed facility. Similar
6 to the East Project Area, privacy slats are installed with the chain link perimeter fence to
7 further screen the facility. This vantage point solely represents the public view from the
8 North Anguilla Road Right-of-Way recognizing the property on the opposite side of
9 North Anguilla Road is also the property of Elmridge Golf Course.

10 The view from the rear yard of 143 N. Anguilla Rd. looking toward the West Project area
11 toward the West Project area is approximately 260-feet from the northeast side of the
12 solar facility. The view shows that the proposed facility is significantly screened by the
13 natural vegetation and existing trees along the rear yard of 143 North Anguilla Road.
14 Additionally, the green privacy slats help to further screen the facility from view.

15 **Q. Did you direct a noise study be prepared for this Petition?**

16 A. Yes.

17 **Q. Describe the noise study that was conducted and the findings of the study.**

18 A. SLR International Corporation (SLR) was retained by MMI to conduct a noise
19 study that was led by David M. Jones, P.E., Principal Engineer. A detailed description of
20 the study including noise model development, data, assumptions, and results are
21 provided in the Environmental Noise Study Technical Memorandum, prepared by SLR,
22 dated September 22, 2020. This document is referenced as the "Noise Study" for
23 purposes of this testimony and is included as Exhibit B to this testimony.

1 The Noise Study was initiated by taking baseline sound measurements on September
2 11, 2020 at three locations identified to be close to the nearest noise sensitive areas as
3 shown on Map 1 of the referenced Noise Study. Handheld sound level instrumentation
4 was used to perform short-term sound level measurements at the residential
5 neighborhoods adjacent to the project sites. The purpose of the Noise Study was to
6 assess the noise levels generated from the electrical equipment within each facility site
7 with respect to ambient noise in the vicinity of the project area. Noise data from the
8 inverters was calculated based on equipment specifications by the manufacturer
9 whereas sound levels from the transformers were calculated based on the National
10 Electrical Manufacturer's Association (NEMA) maximum allowable levels.

11 Ambient noise included traffic on nearby interstate 95, local traffic and golf course
12 activities that were audible at all measurement locations. Table 2 in the Noise Study
13 provides a summary of environment measurement results of ambient noise from the
14 three locations. The table shows that the total period average decibel level (dBA)
15 ranged from 46 dBA at the southern boundary to 53 dBA at the northern property
16 boundary.

17 A three-dimensional computer noise model was prepared to estimate the noise
18 contribution of the solar facility at nearby residences. Table 4 in the Noise Study
19 provides a summary of facility noise impact on residences. The estimated contribution
20 of facility noise ranges from 30 dBA at the southern boundary to 34 dBA at the northern
21 property boundary. The predicted sound levels from the facility are very low sound
22 levels, similar to a quiet library or very quiet rural area distant from any highways or
23 local traffic. Consequently, the solar facilities will generate an estimated 0.1 dBA
24 increase above ambient noise. The predicted increase of 0.1 dB will not be noticeable
25 considering most people can barely perceive a three decibel change in sound level.

26 [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

