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April 5, 2024

### VIA ELECTRONIC MAIL AND HAND DELIVERY

Melanie Bachman Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: PETITION NO. 1601 – TRITEC Americas, LLC notice of election to waive exclusion from Connecticut Siting Council jurisdiction, pursuant to Connecticut General Statutes §16-50k(e), and petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 0.999-megawatt AC solar photovoltaic electric generating facility located at 958 Route 163, Montville, Connecticut, and associated electrical interconnection. Petitioner Responses to Interrogatories from Council.

# Dear Attorney Bachman:

On behalf of TRITEC Americas, LLC ("Petitioner"), please accept the enclosed responses to the interrogatories provided by the Connecticut Siting Council ("Council") on March 22, 2024.

Consistent with Council requirements, Petitioner submits an original and fifteen hard copies of all necessary documents.

Please feel free to contact me if you have any questions.

Very truly yours,

Paul R. Michaud

# Petition No. 1601 TRITEC Americas, LLC 958 Route 163, Montville, Connecticut

# Interrogatories – Set 2 March 22, 2024

44. Referencing Interrogatory response 29, can a transformer be installed with a secondary containment system and/or a low-level oil alarm?

Response: The transformer has a built-in safety system. If the transformer runs low on oil, then it trips the fuses and shuts down the entire Project. This shut down immediately informs the monitoring team, who dispatches service to the Project.

- 45. What is the noise profile of the selected transformer?
  - Response: The transformer model to be used on this project will be based on availability at the time of construction. However, per NEMA TR-1, a transformer of this size would produce a noise level of 61 dB at a distance of 1 meter. This data has been used in the sound level calculations submitted in conjunction with these responses to interrogatories. Please see the enclosed, "Exhibit A: Noise Level Calculations."
- 46. Referencing Interrogatory response 31, submit a detailed sound level calculation work sheet or a sound study that accounts for cumulative noise levels from the proposed eight inverters and transformer at the nearest property line.
  - Response: Sound level calculations have been submitted in conjunction with these responses to interrogatories. Please see the enclosed, "Exhibit A: Noise Level Calculations."
- 47. Referencing Interrogatory responses 41 & 42, what comments did the DOT have regarding the location of the access drive?
  - Response: The DOT requested that the driveway be relocated south, as shown on the plans submitted to the Siting Council, in order to provide adequate sight distance along Route 163. The revised encroachment permit package is currently under review by the DOT.

#### **Exhibit A: Noise Level Calculations**

#### **3.12 NOISE**

Noise from the construction of the solar panel facility is exempted under Connecticut regulations for the control of noise. For more information refer to RCSA 22a-69-1.8(h). During construction, the increase in noise will likely lead to a subsequent elevation in ambient sound levels in the immediate vicinity of the Project. Standard construction equipment will be used for the Project, and the highest level of noise generated from this equipment - such as backhoes, bulldozers, cranes and trucks – is expected to be approximately 88 dBA from the origin.

The primary sources of noise generation associated with the Facility will be the 2,000 kVA transformer and (8) inverters. The solar panels themselves do not have any associated noise. A summary of the equipment and manufacturer's listed sound data is provided below in Table 1.

**Table 1: Equipment Sound Summary** 

Equipment	Number of Sources	Listed Sound Pressure (dBA)	Distance of Observed Sound Level (meters)
Sungrow SG125HV 125kW Inverters	8	61.6	1
2,000 kVA Transformer	1	61	1

The logarithmic decibel scale is utilized to combine sound levels and adjust for distance based on the Inverse Square Law. Total sound levels from the proposed equipment was calculated as shown below:

### Calculate Anticipated Sound Level at Nearest Property Boundary

Multiple analysis points were studied along the property boundary to determine at which point the highest level of sound will be produced by the equipment on-site. Once the point was determined, following equation was used to determine the sound level of each piece of noise-producing equipment:

$$L_b = L_a - 20 \times log_{10}(\frac{D_b}{D_a})$$

Where:

 $L_b$  = Noise level at new distance (dBA)

 $L_a$  = Noise level at original distance (dBA)

 $D_b$  = New distance from source of noise (meters)

 $D_a$  = Original distance from source of noise (meters)

Using the data from Table 1, as well as the distances from each inverter (280', 333', 386', 439', 485', 518', 606' & 637') and the transformer (418') to the property line, the total anticipated sound level for each piece equipment was calculated.

### **Combining Sound Levels**

To add multiple sound levels of different strength, the following equation was used:

$$L_t = 10 log_{10} (\sum 10^{\frac{L_b}{10}})$$

After combining all sound levels from each piece of equipment, it was determined that the highest collective operational noise at the property boundary would be 29.1 decibels. This noise level meets applicable CT



# **Exhibit A: Noise Level Calculations**

DEEP Noise Standards, and noise levels will effectively be reduced to zero during nighttime hours when the array is not generating electricity.



