

CONNECTICUT SITING COUNCIL

TRITEC AMERICAS, LLC, NOTICE OF ELECTION)
TO WAIVE EXCLUSION FROM 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 250 CARTER STREET,)
MANCHESTER, CONNECTICUT, AND)
ELECTRICAL INTERCONNECTION)

DOCKET NO. 1609

APRIL 25, 2024

PRE-FILED TESTIMONY OF MEGAN PILLA

Q1. Please state your name and business address.

A1. Megan H. Pilla, Town of Manchester Planning & Economic Development Department,
494 Main Street, P.O. Box 191, Manchester, CT 06045-0191

Q2. Are you submitting this Pre-Filed Testimony on behalf of the Town of Manchester?

A2. Yes.

Q3. Please describe your educational background and any licenses or special credentials that you hold.

A3. I have a bachelor's degree in Zoology from the State University of New York at Oswego (2008) and a Master of Landscape Architecture from Rutgers University (2016), where my studies were primarily focused on landscape ecology in the urban environment. I am a licensed landscape architect in the State of Connecticut (License # LAR.0001538).

Q4. Are you currently employed with the Town of Manchester?

A4. Yes, I am the Principal Development Planner for the Town of Manchester.

Q5. Prior to your current employment with the Town of Manchester, what is your prior work history after graduating from college?

A5. Prior to my current position I was employed as a landscape architect at The S/L/A/M Collaborative, a multidisciplinary architecture firm in Glastonbury, CT, for 4 years. Prior to that I was a full time graduate student at Rutgers University.

Q6. What if any job positions have you held with the Town of Manchester before your current position?

A6. I was the Senior Planner before being promoted to Principal Development Planner in 2022.

Q7. Please describe your current job position.

A7. As the Principal Development Planner, I oversee the regulatory application process for planning, zoning, and inland wetland permit applications for the Town, including assisting citizens and developers with the application process and coordinating review of applications by other Town staff. I staff the Planning & Zoning Commission, Zoning Board of Appeals, and the Cheney Brothers National Historic Landmark District Commission. I also contribute to other planning efforts, including the recently adopted update to the Plan of Conservation and Development.

Q8. Have you fully reviewed this Petition 1609 which has been filed by TRITEC Americas, LLC (hereinafter 'TRITEC')?

A8. Yes.

Q9. Are you familiar with 250 Carter Street, Manchester, the site that is the subject of the proposed petition?

A9. Yes.

Q10. Please describe the site based on your familiarity with it?

A10. The undeveloped parcel is mostly forested, with the exception of a clear area that is maintained along a utility easement in favor of the Algonquin Gas Company and a portion of the Shenipsit Trail. The site grades downhill to the west. I have not been on the property, but I have viewed it from the public right-of-way several times. I have also studied the Town's GIS data relevant to the parcel and all of the materials submitted by the petitioner.

Q11. What is the current zoning classification of 250 Carter Street and the surrounding area under Manchester's Zoning Regulations.

A11. The parcel and surrounding neighborhood are zoned Rural Residence (RR) and Rural Residence – cluster (rr).

Q12. Have any applications or petitions pertaining to 250 Carter Street been filed before the Planning & Zoning Commission in the past?

A12. Yes.

Q13. What are the nature of those applications and what actions did the P&Z take in response to those applications?

A13. In 1997, before the southern portion of what is now Amanda Drive was constructed, a zone change was proposed at this property from RR to RAA (Residence AA), which would have permitted higher density residential development. Had the zone change been approved, the property owner was prepared to apply for approval of a subdivision which would have included two new streets and 37 additional building lots within the area that is now 250 Carter Street, as well as the extension of Amanda Drive. Several residents provided comments in opposition to the zone change. The proposed zone change was denied by the Planning & Zoning Commission. The stated reason for the denial was that

“the proposed change was not consistent with the surrounding rural residential zoned areas and the Plan of Development.” (See Exhibit A for select materials from that application.)

Later, in 2000, a subdivision was proposed and approved for the extension of Amanda Drive only, with no development on the portion of the lot that is now 250 Carter Street. The subdivision approval also included approval of an inland wetland permit, flood plain permit, and erosion and sedimentation control plan.

Q14. Have any applications for permits for activities been filed for 250 Carter Street?

A14. No.

Q15. If the Answer to the previous question is in the affirmative, please describe these permits and the response thereto.

A15.

Q16. After reviewing this Petition 1609, do you have any concerns about TRITEC's proposal?

A16. Yes, I have several serious concerns about this Petition 1609.

Q17. Can you describe each concern that you have about the Petition 1609?

A17. My concerns include the following:

1. The extent of proposed forest clearing:

This proposal includes the clearing of approximately 7.8 acres of forest. This represents 30% of the identified 23-acre Small Core Forest on the site, and a significant loss of urban forest for a town like Manchester, which is heavily developed.

According to Connecticut's 2020 Forest Action Plan (Exhibit B), Section 3.1, core forests are important because “large, unfragmented blocks of forest offer habitat for edge-intolerant species, provide connectivity and corridors for species migration in

response to climate change, including warmer temperatures and changes in precipitation, and increased opportunity to maintain overall biodiversity.” It is noted that while small core forests may not be as useful for edge-intolerant species as medium and large core forests, they still have “great value in terms of resiliency, carbon storage and sequestration, habitat, and forest management.”

CT DEEP has specifically stated that a “*solar energy generating facility should not be located in a core forest,*” and further recommends that a 300-foot wetland buffer be utilized “*to protect core forest connectivity and function,*” which is not included in this proposal (See Exhibit C: CT DEEP Solar Permitting Fact Sheet, 2020). The clearing of this site to accommodate a solar facility would, therefore, be in direct opposition to the recommendations of CT DEEP.

In response to an interrogatory from the Siting Council, the petitioner has stated that after completion of the project, approximately 18.3 acres of the existing 24.03 acres of small core forest will remain. This is incorrect, because it is not accounting for the definition of a core forest. As per Section 3.1 of the CT 2020 Forest Action Plan, core forest is defined as being at least 300 feet away from non-forested areas. The proposed clearing would not only remove a portion of core forest, it would also redefine the boundary of the remaining core forest, which would now begin 300 feet from the edge of the cleared area. I respectfully request that the petitioner recalculate the area of core forest that would remain based on this definition.

In addition to being a core forest, it is noted that although it has been identified as a Red Oak-Sugar Maple transition forest, this area is likely well on its way to being an old growth forest. The environmental assessment provided by the petitioner notes that “the canopy understory is mature,” and that “some very large specimen trees are located throughout the forest.” The described species composition is also indicative of late-stage succession, as it includes several oak, beech, and hickory species, among others. Available aerial imagery shows that most of this site has been continuously forested since at least 1934 (See Exhibit D: 1934 Aerial Image). This forest is approaching the level of a climax community, and as such its ecological value cannot be understated. The 7.8 acres of forest proposed to be cleared are actively storing massive amounts of carbon, absorbing a significant amount of water from the ground, and stabilizing the soil.

Section 8.2 of the 2020 Forest Action Plan explains that the oak-hickory forest type (which the subject site categorized as for the purpose of this Plan) “stores an estimated 69 metric tons of carbon per acre total.” The clearing of 7.8 acres of forest would therefore result in a net release of over **538 metric tons** of actively stored carbon.

The submitted decommissioning plan for the proposed facility indicates that upon decommissioning, the site will be returned to its current condition. It must be understood that this is impossible – it would take many decades, possibly a century or more, for a forest of this type to re-establish and reach its current successional stage and ecological value.

Lastly, it must be noted that the proposed clearing would create a significant increase in edge condition within the existing forest. The forest edge is a prime opportunity zone for invasive plant species to establish. As proposed, this project would create nearly 3,000 linear feet of new edge condition within the forest, resulting in greatly increased likelihood of the introduction and successful establishment of

invasive species to the site, especially following the disturbance of the soils caused by the tree clearing and construction activities.

In summary, it would be ecologically irresponsible to clear cut this area to accommodate a solar array with a 20-year lifespan. The detrimental effects of the clear cutting of 7.8 acres of core forest vastly outweigh the benefits of the proposed facility, especially considering that such a facility could easily be located on another site that is not forested.

2. The comparative ecological value of proposed new vegetation:

The applicant describes the proposed facility as an “agrivoltaic” project, which is defined as “agricultural production, such as crop or livestock production or pollinator habitats, underneath solar panels or adjacent to solar panels.” They indicate that the existing maple taps on the property will be relocated and continue to be used; however, there is no explanation of who will be using them. As a California-based company, it is difficult to believe that TRITEC will be actively using the maple taps.

I also disagree with the assumption that a viable pollinator habitat will exist underneath the solar panels. The proposed seed mix (ERNMX-147) (See Exhibit E – ERNMX-147 Seed Mix) is specifically designed for solar arrays, but it is not a native mix, nor does it include an exceptional variety of pollinator-friendly species. It consists primarily (approximately 70%) of non-native grass species that are generally used for lawn, agricultural pasture, or hay forage, with little wildlife value. Based on the percent composition of the seed mix, the resulting vegetation would be only approximately 10.5% native species, and about 27% of the vegetation would have wildlife value.

Additionally, the site maintenance plan indicates that the site will be mowed as needed to prevent vegetation from blocking the sun, and that herbicides will be used as needed. Mowing and the use of herbicides are detrimental to pollinators. This will not be a pollinator-friendly habitat.

3. Negative impact on existing wetlands:

Approximately 1,100 square feet of direct, permanent wetland impacts are proposed in this project. A segment of a semi-permanent watercourse will be piped to allow the 12-foot gravel access road to cross the existing wetland. Indirect wetland impacts are not discussed in the reports, but are clearly present. The overflow outlet from proposed stormwater basin drains directly toward a wetland, and the amount of water that may be expelled from the outlet during storm events could be quite high (keeping in mind that the trees will no longer be there to take up the water they currently take from the ground). To outlet high volumes of stormwater directly into a wetland will inevitably have an impact that has not been discussed.

I have asked the petitioner in an interrogatory whether the site has been assessed for the presence of vernal pools. If the answer is no, I would request that this be done in order to fully understand the impact of the project. Vernal pools are a particularly delicate and rare ecosystem in our area, and should be prioritized for protection.

A project of this type, with direct impact to wetlands, would normally be required to obtain an inland wetlands permit from the Town of Manchester Inland Wetlands Agency. The process to obtain such permit would involve discussion of any feasible and

prudent alternatives that could be considered to reduce the impact to the wetlands, as well as greater discussion of the functions and values of the wetlands. The petitioner has focused on stormwater conveyance as the primary function of these wetlands, but has not sufficiently discussed the other functions and values, which might be more critical to the local ecosystem. I would be greatly concerned to see such direct impacts to the wetlands approved without a more thorough discussion. See the Town of Manchester Inland Wetlands Regulations (Exhibit F) for detail on what would normally be required for this project if it fell within local jurisdiction.

4. Negative impact on wildlife:

The 7.8-acre facility is proposed to be surrounded by a 7-foot chain link fence with a 6-inch gap at the bottom. Although this may allow small animals to pass through, it will inevitably create a significant obstacle for a lot of wildlife, which likely includes some larger mammalian species based on the size of the existing forest. As a small core forest, this area likely functions as a migration corridor for a variety of wildlife, and this disruption to their migratory patterns may have detrimental impacts. Inevitably, the clearing will also eliminate a significant portion of the existing wildlife habitat.

The petitioner asserts that the loss of forest habitat will be offset by the creation of early successional meadow habitat, but I do not believe this to be accurate. First, as described previously, the proposed seed mix composition is dominated by non-native grass species with little to no value to wildlife. Second, in order to function as early successional meadow, the clearing would have to be completely open with no obstruction of sunlight, and the vegetation would have to be allowed to grow in a natural state to a height of several feet. By nature of the proposed facility, the majority of the site will be covered by the solar array, intercepting the sunlight before it reaches the ground. The vegetation will also be mowed regularly so that it does not grow tall enough to block sunlight from reaching the solar panels. As such, the vegetation that replaces that forest will effectively function as lawn, providing little habitat value to wildlife. To call it an early successional meadow habitat would be a stretch.

This site is located within a CT DEEP Natural Diversity Database (NDDB) area for the Box Turtle, which is listed as a species of State Special Concern. As indicated by the submitted NDDB review, these turtles live and hibernate in well-drained forest bottomlands, and habitat loss, fragmentation, and degradation are the greatest threats to the species. It is clear that the proposed project would eliminate, or at least degrade, 7.8 acres of viable habitat for this species. And, because the proposed facility is located at the top of the hill, the turtles may not be able to move to other parts of the surrounding forest due to the presence of wetlands. They require the well-drained portion of the forest in order to hibernate a few inches below the surface of the ground – they cannot do that in the wet areas downslope of the proposed project site.

5. Negative impact on the fair market value of neighboring properties:

The proposed solar array is located approximately 78 feet from the nearest property line, and 219 feet from the nearest house. This is not a significant distance, and although a buffer of existing vegetation is proposed to remain, the vegetation is primarily deciduous and will not provide an adequate visual buffer for half of the year. The single

row of proposed evergreen trees will not screen much either, keeping in mind that the adjacent houses sit about 30 feet higher than the proposed array and look down onto the site. With a maximum panel height of 6 feet at full tilt, those evergreen trees will not provide any visual screening for the neighboring houses until they reach 40 feet in height.

In addition to visual screening, sound is a concern. We have heard about similar facilities in other CT municipalities which have become a nuisance for residential neighbors due to the constant humming sound produced by the facility. The submitted documents indicate that the anticipated level of sound, when it reaches the neighboring properties, will be about 29 decibels, which is similar to the sound of a person whispering. While this may seem quiet, it must be considered that a constant hum, even at that level, can become a nuisance and significantly impact quality of life, particularly for people with auditory sensitivities.

Ultimately, these impacts to quality of life in a residential neighborhood will likely decrease property values, resulting in impacts to the assessed value of homes in this neighborhood and decreased tax revenue for the Town.

6. Inconsistency with local planning and zoning:

As stated previously, the proposed solar energy generating facility is inconsistent with local planning and zoning efforts. The Town of Manchester Zoning Regulations (Exhibit G) would not permit a facility of this size in a residential neighborhood. The Town of Manchester Plan of Conservation & Development (Exhibit H) specifically identifies this area as a "Limited Growth" sector, which is intended to remain "as is" for the most part and retain its rural and natural character. (See pp. 176-8.) To allow the equivalent of an industrial-scale facility in this area would be in direct opposition to the Town's identified planning goals.

To be clear, the Town of Manchester is not against solar energy generating efforts in general; in fact, we enthusiastically support them in the appropriate context. This is evidenced by recent municipal efforts to set that example at our own facilities. 5,200 solar panels have been installed on municipal buildings in recent years (see Exhibit I). The recent (and ongoing) renovations of several public elementary schools in Manchester have incorporated solar and geothermal energy systems, and Buckley Elementary School was even officially verified as the first net-zero public elementary school in New England, with Bowers and Keeney Elementary Schools soon to follow (See Exhibit J).

The key is context; as stated previously, it would be ecologically irresponsible to clear cut several acres of mature forest in order to install solar energy generating equipment, when more appropriate sites that would not require such environmental damage exist elsewhere. There are many vast, paved parking lots located in commercial and industrial areas of Manchester which could easily accommodate large solar canopy systems without requiring any impacts to environmental resources, and would in fact be allowable according to the local zoning regulations. There are certainly also other sites in the area which are, at the very least, not forested and not in the middle of residential neighborhoods, which would be much less objectionable than 250 Carter Street.

7. Potential for surface and ground water runoff impacting municipal infrastructure:

I have asked the petitioner via interrogatory whether the depth to groundwater has been studied at the subject site. Having not yet seen the response, I base this testimony on the information I currently have.

There are several known seeps (identified in the petitioner's Environmental Assessment as Forest Seeps) on the western side of the property where groundwater seeps from the hillside, proceeding to flow downhill across private residential properties toward Amanda Drive. It is already documented that these seeps contribute to flooding of the Town-owned sidewalk and road – see Exhibit K for a video I recorded on February 22, 2024 showing the constant flow of water over the sidewalk and into the street. You can see from the amount of siltation on the sidewalk that this is a constant, long-term flow. Nearby residents have dug small channels into the lawn between the sidewalk and the curb to direct the water into the street near the catch basin. Because the source of this water is seeps in the slope on private property, the Town is limited in our ability to address the issue at its source.

My concern is that this flow will be increased as a direct result of the proposed project. While the petitioner has included a stormwater basin in the site design to collect runoff, I am not confident that the hydrological impacts of the loss of 7.8 acres of forest have been considered. Those hundreds of existing mature trees are actively mitigating runoff by intercepting rainwater and taking in groundwater on a daily basis. The proposed vegetation in the area of the solar array will continue to take in water, but with their comparatively smaller fibrous root systems, which will likely reach a depth of no more than 18-24 inches, the amount of stormwater intercepted will be significantly less, and they may not reach the depth of groundwater at all. Any efforts to minimize the runoff of stormwater will instead see that water infiltrate and recharge the groundwater volume, which will then seep from the hillside. Therefore, whether from surface runoff or groundwater seepage, any water no longer being absorbed by trees will eventually find its way to the bottom of the hill, potentially increasing the impact on the municipal infrastructure of Amanda Drive.

8. Potential fire risk:

As the petitioner has stated in their response to interrogatories from the Council, in the event of a fire at a solar energy generating facility, the Manchester Fire Department would not fight the fire, rather they would monitor closely and allow the fire to burn out. This has been confirmed by the Fire Marshal.

Based on this, I have public safety concerns about such a facility being located within a clearing in a mature forest. If a fire were to occur, the fire department would do their best to keep it contained until it burned out, but this facility would be surrounded on all sides by woody vegetation that, depending on the weather and moisture conditions, could potentially cause the fire to spread. While it is certainly my hope that such a circumstance would never arise, the possibility must be considered. To place such a facility within a forest seems like an unnecessary risk.

Q18. What information or evidence have you discovered which supports any of the concerns that you have about this Petition 1609?

A18. All of the exhibits I have previously referenced support my concerns, as does my understanding of the physical characteristics of the site. Pending responses from the petitioner to my interrogatory questions, my testimony is based on the information available to me.

Q19. Have any other residents expressed any concern to the Manchester P&Z and/or its legislative body about this Petition 1609?

A19. Yes.

Q20. Please delineate their concerns:

A20. See Exhibit L for a detailed description of the concerns I have heard from residents.

Q21. Based upon the information, evidence and testimony that you have observed so far, do you think that the Connecticut Siting Council should approve or deny this application?

A21. Based on what I have seen so far, I think that the CSC should deny this application.

Q22. If the Connecticut Siting Council were to approve this Petition 1609, do you think that the approval should require any changes to what TRITEC has proposed so far?

A22. Yes.

Q23. What changes do you suggest?


A23. To be clear, I do not believe this proposal should be approved at all, because it is not an appropriate use for this site for the reasons I have enumerated previously. However, if this proposal is approved, I think the Council should require the following conditions of approval:

1. That the petitioner shall be responsible for the cost of any future repairs to municipal infrastructure that may become necessary as a result of the hydrological impacts of the project.
2. That the petitioner be required to provide financial compensation to the Town for the loss of 7.8 acres of small core forest, such funds to be used by the Town for urban forestry conservation, rehabilitation, and enhancement efforts.
3. That the petitioner be required to agree to quickly and responsibly address any quality of life impacts to neighbors that result from the project, including but not limited to addressing any noise issues and hydrological impacts to private properties.

I, MEGAN PILLA, duly sworn, hereby verify that this statement was prepared by me or under my direct supervision and is believed to be true and accurate to the best of my knowledge.


Megan Pilla

The above signed, MEGAN PILLA, personally appeared before me and verified that the above pre-filed testimony to be submitted to the Connecticut Siting Council is true and accurate and is her free act and deed on this 25th day of April, 2024.


John F. Sullivan
Commissioner of the Superior Court

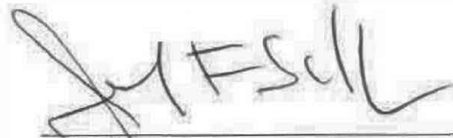
RESPECTFULLY SUBMITTED
PROPOSED INTERVENING PARTY
THE TOWN OF MANCHESTER

BY /s/ John F. Sullivan (309787)

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CERTIFICATE OF SERVICE

This is to certify that on April 30, 2024, a true copy of the foregoing has been sent electronically to the Service List dated April 25, 2024 and an additional fifteen paper copies have been submitted to the Connecticut Siting Council in accordance with its standing order.

A handwritten signature in black ink, appearing to read "J F Sullivan", written over a horizontal line.

John F. Sullivan
Commissioner of the Superior Court