

# C.T. MALE ASSOCIATES

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April 14, 2025

Town of Delhi Planning Board  
Attn: David Wakin, Administrative Assistant  
5 Elm Street  
Delhi, NY 13753  
Email: [planning@townofdelhi.org](mailto:planning@townofdelhi.org)

Re: *Public Hearing Comment Response*  
*Delhi Community Solar Project*  
*739 County Road 18, Town of Delhi, Delaware County, NY*  
*C.T. Male Project No: 24.4680*

Dear Mr. Watkin and the Planning Board:

On behalf of **Delhi Community Solar LLC** (Applicant) and Genie Solar Energy, we are providing this submission as a response to verbal comments made at the public hearing on March 24, 2025. In addition to our own notes taken during the public hearing, we were also provided by the Planning Board with a summary of comments and have compiled responses that address all the comments.

In addition, the following supplemental materials are submitted to support this comment response letter and the overall application.

List of Attachments	
NYSERDA Solar Basics and Frequently Asked Questions	Attachment 1
SHPO No Effect Finding Letter	Attachment 2

With this submission, we request to be placed on the agenda for the next Planning Board meeting, scheduled for **April 28, 2025**, to review these responses, complete SEQOR, and gain approval of the project.

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### COMMENT RESPONSE

The comments have been reviewed and organized into common themes for ease of reading. The comments are provided in **bold** text.

#### 1. Agricultural Land/Impact on Land:

- a. **How will the site be preserved?** The solar array has been designed and will be constructed such that most of the agricultural soils beneath the array will be preserved for the life of the project for future use and will not be irreversibly converted to non-agricultural uses. In effect, the agricultural soil mapped on the site will be protected by the presence of the solar array from other types of potential development that are permanent and typically more disruptive to surface soils.

The ground-mounted solar project has a limited life span (typically 25-30 years). The agricultural resources (soil and open space) will be preserved beneath the solar array for the life of the project with little to no disruption. The project will operate under a land lease, which gives more control to the landowner (or subsequent landowners) to decide whether to farm the property in the future. When the project is decommissioned, the components will be removed, and the land will be able to be farmed, almost immediately upon system removal.

The equipment used to construct the array will consist of small, tracked equipment and passenger vehicles/pickup trucks, which minimize the excessive compaction of the soils in the field. Physical decompaction of heavily used areas such as main travel routes and parking, staging, and laydown areas will occur prior to final site stabilization. Excessive compaction of site soils is not expected due mostly to the stable condition of the field, and also the limited use of heavy trucks and equipment.

- b. **What will be the final ground cover type?** The final ground cover type will be a meadow cover consistent with the existing cover, supplemented by a pollinator-friendly wildflower seed mix used for reseeding disturbed areas, which is a low growing northeast wildflower mix from Ernst Conservation Seeds, Inc. Most of the existing site vegetative cover will be preserved.
- c. **Will herbicides or pesticides be used?** Herbicides and pesticides will not be used as part of this project.
- d. **Is the project within an Agricultural District?** The project site is not within a NYS Agricultural District. Nonetheless, some of the New York State Department of Agriculture and Markets (NYSDAM) Guidelines for Solar Energy Projects

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pertaining to minimization of significant soil disturbances and stockpiling topsoil have been voluntarily adopted as best management practices.

### 2. Interconnection:

- a. **How will the project interconnect to the grid?** The project will connect to the existing three-phase circuit that currently terminates on an existing tower pole located on the southwest corner of the parcel and along CR-18. The three-phase circuit will be extended from that pole to the point of interconnection. The circuit extension will consist of standard timber utility poles with overhead electric lines – visually similar to electric lines commonly present in the area. The final design and routing of this three-phase extension is currently under review by NYSEG and the Applicant. Interconnection onto this existing circuit (including the extension) is feasible, based on the Coordinated Electric System Interconnect Review (CESIR) performed by NYSEG, and submitted to the Town Planning Board.

### 3. Location:

- a. **Why was this location chosen over others?** This site was chosen over other for multiple reasons, as follows:
  - Land and a willing landowner: A solar project requires land, and the Rama family has agreed to lease their land to host a solar array. The Ramas are excellent stewards of their land, which contributed to the Applicant's decision to work with the Ramas. Not every parcel has a landowner willing to lease their land for solar development or enough land available to host a project.
  - Feasible interconnection: As previously discussed, the project has a feasible interconnection that is economically viable with the required utility-owned infrastructure nearby with the capacity to host the power that will be generated. Not every parcel has economically and physically feasible access to existing infrastructure with hosting capacity.
  - Land characteristics: The project site is relatively flat and cleared with strong vegetative cover, and has good solar exposure for collecting sunlight. The site also does not have environmental constraints such as significant wetlands, flood hazards, critical habitats, or bedrock exposure. Not every parcel provides these physical characteristics.
  - Zoning and planning: The proposed use is allowed by the zoning code in these districts (R1 & R3/5) and this project meets all the area requirements. Not every parcel provides favorable zoning where all the requirements can be met. Further, we note that one of the policies in the Town and Village of Delhi

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Comprehensive Plan (2012) related to the plan goal of “Effective Land Management” is “Encourage and make suitable provisions for the use of alternative energy sources, such as solar and wind energy systems”. In addition, Section 103 of the Town zoning code states that one of the purposes of the zoning ordinance is to “(I) encourage and make suitable provisions for the accommodation of solar energy systems and equipment and access to sunlight necessary therefore”. It is our opinion that this project is consistent with the Town Comprehensive Plan and zoning ordinance.

In summary, a solar project requires multiple pieces of a puzzle to fit together. Very few parcels meet all these criteria, and many of those that do are already leased by other developers or for other uses. This is why this parcel was chosen. Other uses, arguably more impactful, are allowed in this zoning district that could be developed on this site, but the landowner is choosing to develop a portion of his property as a solar farm in accordance with the Town code. Other allowed uses in these zoning districts include a host of residential, commercial, and light and heavy industrial uses.

#### 4. Electric Cost Reduction for Residents: Benefits of Community Solar:

##### a. **Addressing multiple comments and questions about community solar.**

Community solar provides the people of a community access to consume solar energy at a reduced cost without having to host a project on their property, or to those people who don't own property. Through a subscription, residential and business customers can join to receive monthly credits from the electricity generated at the facility without the need to install or maintain equipment. The ratepayer can search for available projects in their utility territory and subscribe. You may have access to a larger discount if you are low-to moderate-income, reside in one of New York's designated disadvantaged communities, or live in affordable housing. Credits are typically 5-10% of the bill total.

According to NYSEG, “Community solar will lower your electric bill and allows you to enjoy the benefits of renewable solar energy. Each billing cycle, NYSEG applies the community solar credit value to your electric utility bill based on your subscription percentage of the solar project's energy generation. Your subscription percentage is determined by the community solar provider and is set forth in your agreement with the provider. You remain obligated to pay the balance remaining on your utility bill after the credit is applied.”

New York State Energy Research & Development Authority (NYSERDA) provides an online tool to search for available projects in different utility territories. Currently there are only two (2) projects available in NYS in NYSEG territory, and none in the Delhi region. This project will provide additional

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opportunities for community solar subscribers, including residents of Delhi and the surrounding area. The Applicant can provide a pre-subscribe period for customers in Delhi to ensure that the opportunity to subscribe to discounted power generated by this project is available for those who want it.

### 5. Environmental/Health and Safety Concerns:

- a. **Is the NYCDEP concerned with the project being located near the West Branch of the Delaware River?** No, they are not concerned with the location of the project near the river. C.T. Male hosted a pre-application site visit with New York City Department of Environmental Protection (NYCDEP) and discussed aspects of the project. C.T. Male also submitted a Stormwater Pollution Prevention Plan (SWPPP) to NYCDEP for their review and approval, which is ongoing. The SWPPP and project are required to meet New York State Department of Environmental Conservation (NYSDEC) requirements for stormwater management for solar farms. This project meets these requirements, and any additional comments or questions made by the NYCDEP will be addressed to their satisfaction prior to construction, as their approval of the SWPPP is required.
  
- b. **Is there potential for public harm caused by Electromagnetic Fields (EMF) produced by the solar panels?** In 2023, NYSERDA published a document titled *Solar Basics and Frequently Asked Questions* as a compendium to their *Solar Guidebook for Local Governments* that addresses EMF concerns as follows:  
  
“There are two kinds of EMF; “ionizing fields,” which are high level and harmful, and “non-ionizing,” which are low-level and generally harmless. Non-ionizing radiation comes from computers, appliances, cell phones, and wireless routers, whereas ionizing radiation comes from harmful sources such as UV lights or X rays. EMF from solar systems are non-ionizing, similar to that of your household appliances. Studies show that the exposure level within the array or at the fenced boundary of a system falls well below recommended exposure limits. This exposure level decreases even more as you move away from the system, and is nonexistent at night when the system is not producing energy. Ultimately, EMF from solar systems is extremely insignificant and cannot be associated with a health effect.” This NYSERDA document is included as Attachment 1, and references *Study of Acoustic and EMF Levels from Solar Photovoltaic Projects* by the Massachusetts Clean Energy Center.

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- c. **General concerns were raised about potential hazardous chemical components within the solar panel modules with an emphasis of leakage into the West Branch of the Delaware River and groundwater.** The NYSERDA guidebook also addresses this, and other related questions as follows:

“Solar panels largely consist of widely-used and non-toxic components, including an aluminum frame, tempered glass, and various common plastics. The most common type of solar panel consists of crystalline silicon PV cells which generate electricity when exposed to light. These non-toxic crystalline silicon cells consist almost entirely of silicon, one of the most common elements in the Earth’s crust.” This statement references a study titled *Health and Safety Impacts of Solar Photovoltaics*, by the North Carolina Clean Energy Technology Center.

“Some minor system components, including solder, may contain toxic chemicals at extremely low concentrations. Analysis performed by the North Carolina Clean Energy Technology Center did not find a potential toxicity threat from leaching, even in worst case scenarios (hurricane, fire, tornado, etc.), indicating an insignificant threat to human health and the environment. Release of toxic chemicals from other solar system equipment including inverters, racking, and cabling is also unlikely as solar installations must conform to state fire safety and electric codes, and they pose little or no risk of contaminating the soil or ground water.”

“The most common solar panel failure modes include glass breakage and various failures of internal electrical connections, neither of which would typically result in the release of any materials to the environment. Solar panels are constructed primarily of silicon or cadmium telluride, tempered glass, and metals. Similar to a car windshield, when solar panels experience a catastrophic event, the panels typically stay fully intact, thus not releasing any materials into the environment. Additionally, reputable solar panel manufacturers will ensure that their equipment is certified to applicable performance and safety standards including those established by the International Electrotechnical Commission (IEC) and Underwriters Laboratory (UL).”

The use or release of hazardous substances is not a concern with this project. Solar modules are classified as Articles as defined by the Occupational Safety and Health Administration (OSHA) hazard communication standard (HCS), 29 C.F.R. § 1910.1200 and are exempt from the labeling and manufacturers safety data sheets (MSDS) requirements of the standard. Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under

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normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

This project will use silicon panels and not cadmium telluride panels. The panels that are currently specified are a monocrystalline photovoltaic cell with an anodized aluminum frame. The glass is thermally pre-stressed glass with anti-reflection technology. The panels are IEC and UL certified. The racking will be galvanized steel with a 24V DC motor to power the single-axis tracker. The proposed equipment sheets were previously submitted to the Planning Board.

- d. **Will the project cause a rise in water temperatures?** The project is not expected to cause a rise in surface water temperatures primarily due to the project being designed using the “disconnected rooftop method”, which is a solar design requirement from NYSDEC. This requires that the green space between the rows of panels be at least as wide as the row of panels, thereby creating a space for rainwater to infiltrate as it sheets off the panels. This green space disconnects the continuous rows of panels and alleviates runoff and related concerns such as raising ambient temperatures of receiving or nearby surface waters. In addition, the project is required by the NYSDEC to be designed to not increase runoff rates. Since the project adheres to these NYSDEC design requirements, the solar panels do not function in the environment like traditional impervious surfaces such as a parking lot or large rooftop, where rainwater has adequate contact time with hot pavement to heat up. The “disconnection” of the rows of panels with rows of well-vegetated green space and green space beneath all the panels will prevent this from happening. The ambient heat island effect like what is observed around large parking lots is mitigated due to the presence of cooling air flow and vegetation beneath the panels.
  - e. **Will the project propose battery storage in the future? Concern based on potential fire hazard.** No battery storage is proposed now, and none is being contemplated for the future. In any event, such an addition to the project would likely require a separate Planning Board review as a site plan amendment.
6. Operations & Maintenance/Decommissioning:
- a. **Who is responsible for long term maintenance of the site (landscaping and mowing).** The project owner is responsible for maintenance of the solar project (PV components, fencing, electrical equipment, access roads) as well as the planted landscaping and the grass beneath the array. The mowing is done regularly to keep the grasses below the leading edge of the module; however, the intent is to encourage robust natural meadow growth beneath the panels to

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provide a host of benefits such as stormwater attenuation as previously discussed, topsoil nutrient cycling and preservation, habitat creation, and aesthetic augmentation. An O&M plan was previously submitted to the Planning Board.

- b. **Who is financially responsible for decommissioning at the end of the project's life cycle?** At the end of its useful life or the end of the lease term, the project is decommissioned. The project owner is responsible (financially and otherwise) for decommissioning the project in accordance with the decommissioning plan. If the project is abandoned during its operational life (unlikely as it's producing power and therefore revenue) or at the end of its operational life and there is no viable entity to decommission the project, the Town can use the decommissioning bond to have the project decommissioned. The bond will be provided by the owner to the Town prior to the building permit being issued in the amount specified in the decommissioning cost estimate that was prepared by C.T. Male. The Town of Delhi will be the bond holder, and the bond value will increase annually at a rate of 2%. In addition, the owner is required to provide an updated decommissioning cost estimate every five (5) years after commercial operation to ensure the bond value still reflects market conditions at that time. A decommissioning plan and cost estimate was previously submitted to the Planning Board. This provides a funded "insurance" policy to the Town in the unlikely event that the project is abandoned.

### 7. Visibility:

- a. **Addressing multiple comments about visual impact to the surrounding area.** We recognize that the project will be visible from certain vantage points, based mostly on the area topography, and was considered during the design of the site plan. The visibility of the project from the surrounding area has been mitigated to the greatest extent practicable by the following design considerations:
- **Siting:** The solar array has been sited as much as possible in the central portion of the parcel thereby maximizing property line setbacks and setbacks from public receptors. Additionally, the project is reusing the existing access road off CR-18 and minimizing the length of this road to reduce the visual and environmental impact of the project.
  - **Preservation of Grades and Vegetation:** The solar array will follow the natural contours of the land, which will minimize site disturbance. Land clearing will not be required. The mature stand of Norway spruce just west of the project and all other on-site vegetation around the parcel will be preserved to the greatest extent practical to maximize the screening capability of the existing vegetation.

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- Equipment Selection: The panel rows will be one module high on a single-axis tracker, which minimizes the maximum height of the array. The modules will have an anti-reflective coating. The customer-owned interconnection equipment will be pad-mounted, reducing the need for 3-4 additional utility poles at the site entrance.
- Proposed Vegetative Screening: The exposed portions of the array that face the public roadways will be screened with planted vegetation. A shrub willow hedgerow is proposed that is fast-growing, hardy, and provides wildlife habitat. This will provide more natural screening suitable for a project set in the center of a field in a riverine area.

The project will not impair officially designated scenic viewsheds that are publicly accessible. A visual impact study was submitted to the Planning Board that included line-of-sight profiles, photographs, and rendered images of proposed conditions. This study was done in late fall and used leaf-off conditions to represent maximum potential visibility. In the leaf-on months, the existing vegetation will provide substantial screening of the project from the adjoining roadways.

- b. **Glare.** Harmful glare from the project is not expected since the glass modules will have an anti-reflective coating, as well as the intervening vegetation (planted and existing) between the project and receptors such as roadways. Glare from the adjoining river may be more apparent during certain times of the day. The NYSERDA guidebook states the following about glare:

“Solar panels are designed to be dark colors, usually black or blue, that absorb the sunlight to create electricity. If panels were reflecting the sun, or creating glare, they would not be effective. PV panels are designed with anti-reflective coating to increase panel efficiency and keep the level of reflected light around 2% - less than the reflectivity of water. Airports around the world have been installing PV arrays to provide onsite generation, and studies show that glare from the solar arrays is a negligible issue.”

- c. **Property value reduction.** Property and home values can be impacted by many things including the condition of the property itself, the school district, mortgage rates, inventory in the area, and other economic factors, as well as neighboring properties. However, the fact that a compact community-scale solar array of this size (not akin to utility-scale projects consuming hundreds of acres) produces no external nuisances such as noise, light, odors, emissions, traffic, or runoff outside of the relatively short construction period (less than one year), makes projects like this compatible, in our opinion, to rural residential and agricultural properties. The project is a dark, quiet, passive use that consumes the

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development capacity of the site. A decrease in property value that is attributed only to being able to view a community-scale solar farm from an adjoining property or from a distance is subjective and difficult to parse its individual or community-wide economic impact. Development in general can impact area property values, and it's not exclusive to solar.

### 8. Traffic:

a. **What will be the increase in traffic during construction?** Construction traffic will consist of the following:

- Mobilize and demobilize construction equipment to and from the site. The intent is to complete the installation of racking on one mobilization, where the equipment stays on the site. The same concept applies for the access road improvements, fencing installation, landscaping, and electrical equipment and utility poles. Since there is no land clearing involved with this project, the use of heavy equipment will be limited.
- Tractor trailers will deliver racking and modules early in construction, which will be staged on the site. Several deliveries will occur.
- A concrete truck will arrive on site once to pour the equipment pads. Other concrete used in fence corner installation will likely be mixed onsite.
- The remaining vehicles will consist of personal vehicles of the construction workers and electricians (15-20 vehicles on average during construction).

While activity will increase at the site and there will be additional vehicles on the roads, we do not expect a significant increase in traffic at levels above any other construction project. After construction, traffic will be limited to infrequent site visits by O&M personnel for mowing or other maintenance – likely to be less than traffic from a new single-family residence or other uses allowed in these zoning districts. This level of traffic does not pose an unreasonable, ongoing, or significant risk to nearby residents or other users of CR-18.

### 9. Noise:

a. **Will the project create noise pollution at nuisance levels post-construction?** There will be increased noise during construction, which is temporary and with a relatively short duration (less than one year). But solar farms are not loud installations and will not create nuisance levels of noise post-construction. In addition to property line setbacks, the planted and existing vegetative screening will attenuate potential noise trespass. The inverters produce low levels of noise and will only operate during the day when they are running and converting DC solar power to AC power. The transformers also can produce a low-level hum

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but will produce more during the day when the array is producing power than at night when the system is in standby. The NYSERDA guidebook states the following about noise:

“Solar panels are noise-free, and residential solar inverters are quieter than a refrigerator. Large-scale, ground-mounted systems may have minor noise associated with the transformers and inverters within the array as well as the electrical equipment used as required for utility interconnection. Any system noise is typically at background levels at a distance of 50 to 150 feet from the site boundary.”

The proposed project meets these guidelines and operational noise trespass beyond the property line or to nearby residential receptors not expected.

### 10. Taxation:

- a. **How will this project be assessed for taxation?** After construction is completed and the system is commissioned, the parcel will be reassessed by the Town of Delhi Assessor to reflect the proposed improvements. The Applicant will be responsible for paying this increase in property taxes.