

not have a substantial adverse environmental effect. Accordingly, this Petition for a Declaratory Ruling should be approved by the Council.

II. Background

A. Petitioner

CPG is a development company that specializes in community solar projects. CPG is a privately-held, majority women-owned and -operated business that does not need external investments nor financing to develop its projects. CPG's team has more than 20 years of solar development experience and has completed more than 250MW of solar facility projects ranging in system size from 100kW to 10MW and currently has more than 500MWs of solar projects in various stages of development across multiple states. CPG has a dedicated project management team and engineer for this project to meet the goals of the Shared Clean Energy Facility Program.

All correspondence and/or communications regarding this Petition should be addressed to:

Amberli Young, Senior Project Manager
Community Power Group LLC
5636 Connecticut Ave NW #42729
Washington, DC 20015
202.844.6424
amberli@communitypowergroup.com

"Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdictions over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any of any fuel cell, unless the council finds a substantial adverse environmental effect, or of any customer-side distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as: (i) Such project meets air and water quality standards of the Department of Energy and Environmental Protection, (ii) the council does not find a substantial adverse environmental effect..."

A copy of all such correspondence or communications should also be sent to
Community Power Group's attorney:

Bruce L. McDermott
Murtha Cullina LLP
265 Church Street
New Haven, CT06510
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B. Project

Community Power Group is partnering with PHRUMB Properties LLC, the landowner of the subject property, to develop a community solar facility to serve qualified Eversource customers. Community Power Group proposed the 24 Middle Road Solar Project ("24 Middle Solar" or "The Project") in response to the Year 3 Eversource-UI Shared Clean Energy Facility Program ("SCEF") Request for Proposals issued by the Connecticut Department of Energy and Environmental Protection ("CT DEEP"), and was selected as a winning bid in April 2022. CPG has executed a twenty-year SCEF Tariff Agreement with Eversource regarding the purchase of the energy and associated Renewable Energy Credits produced by the proposed facility. Community Power Group will be responsible for development and construction of the facility, to be privately funded. The construction is anticipated to cost between \$4.1 to \$4.5 million including stormwater management features, not including interconnection and permitting fees. Post-construction, a third-party company will be involved in the daily operation, remote monitoring, and routine maintenance of the facility.

Community Power Group filed an application for interconnection to Eversource's distribution grid on February 5, 2021, and the after undergoing distribution and

transmission level studies, the application was approved for interconnection on September 27, 2022. The project will interconnect to the Rockville substation via the 13.8kV Rockville 14W7 circuit that runs along Middle Road.

III. Description of the Project

A. Overview

1. Site

24 Middle Solar is a 4MWac ground-mounted solar photovoltaic facility located on approximately 28.44 acres (“project area”) of a 60.552-acre parcel in Ellington Township, Connecticut.

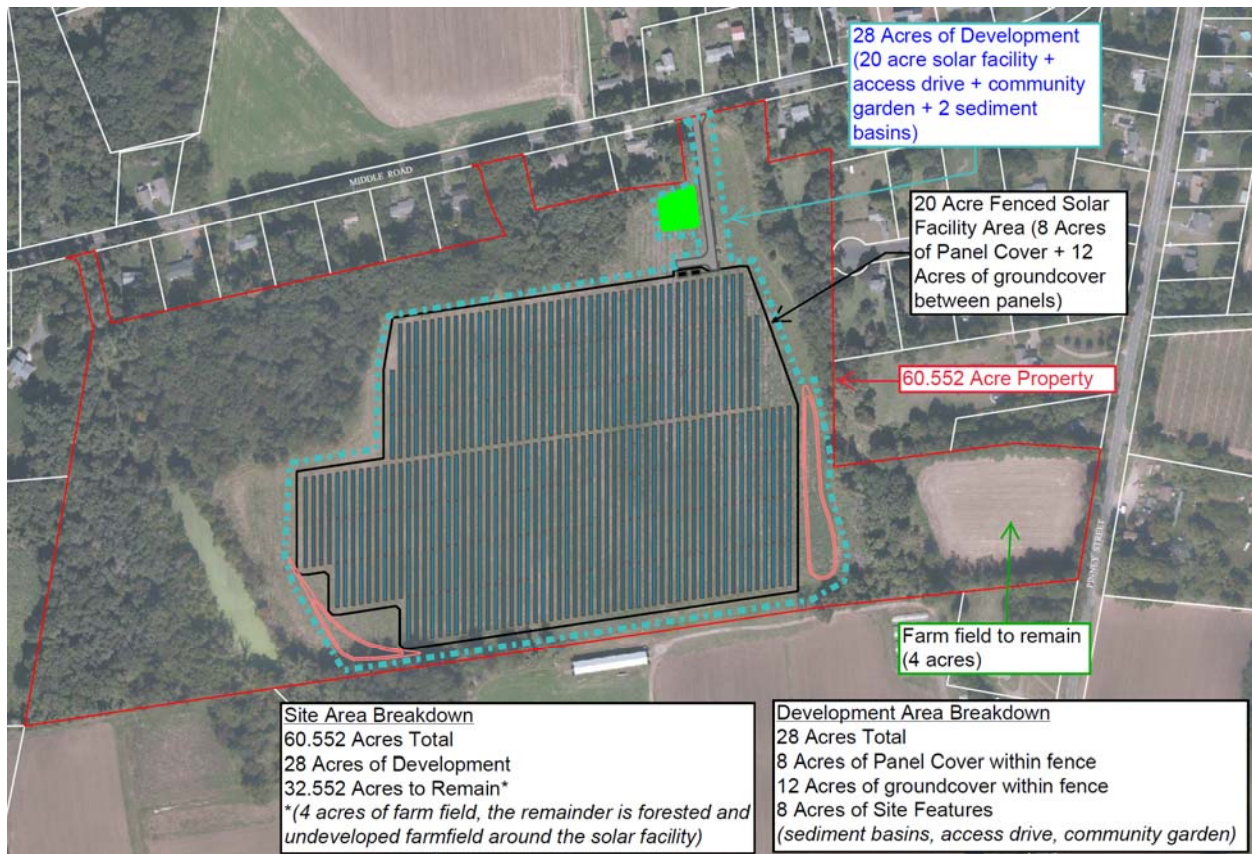


Figure 1 Area breakdown map

The project area was specifically designed to be in the already-cleared portion of the site, allowing the existing natural features such as the wooded-vegetation surrounding the site and the pond in the southwest corner to remain and be preserved during construction and operation of the solar facility. Overall, the site has a cleared field, designated as the project area, and the land outside the project area (32± acres) which is comprised of natural vegetation and a smaller agricultural field (approximately 4 acres) to the southeast of the solar facility that will continue to be farmed by a tenant farmer². The project area includes the solar facility enclosed by game-fencing (approximately 20 acres), the access drive, the sediment/stormwater management basins, and a community garden, all of which are outside the fenced area as shown on the site plan. Within the fenced area, the panels are aligned in rows and set on single-axis trackers which allow the panels to tilt in the direction of the sun (east to west) throughout the day. It should be noted that when the panels are flat (0-degree tilt), the cumulative panel surface area is approximately 8-acres. The remaining 12± acres of the fenced project area is allocated to the rows between the panels, the buffer from the fence, and the other electrical components of the system (transformers and inverters).

The parcel is zoned rural agricultural residential -- a zone that allows for the use of solar -- and is currently being farmed for commodity crop. The site provides adequate natural screening through existing forested areas and is separated from neighbors, does not contain any core forest, has no state listed species, and will be leased from the current landowner. The north side of the site fronts Middle Road and some residential properties, which are screened from the project site with dense, existing vegetation. The west and

² The tenant farmer agreement is between the land owner and farmer and is unrelated to the solar facility.

south property lines abut existing agricultural uses. The below image provides an aerial image of the approximate project site and surrounding properties.



Figure 2 Aerial image, encircling cleared field of proposed project location

The site is generally flat, with low slopes going from the central north side of the site sloping down to the southeast and southwest corners of the site. Access to the facility and interconnection will occur from the north of the facility from Middle Road at the existing curb cut. Please see attached Exhibit A for the civil site plan developed for this project.



Figure 3 Site photo of cleared, flat area of proposed project location

2. Project Specifications

24 Middle Solar will consist of one 4MWac ground-mounted solar array comprised of approximately 9,963 600W bifacial photovoltaic modules situated on single-axis tracker racking. The racking is mounted on earth screws and/or pilings made of steel which are secured without the use of concrete. The facility will be connected to an existing three-phase distribution line owned by Eversource that is located adjacent to the property in the Middle Road public right-of-way. Interconnection studies with Eversource's interconnection team have commenced and due to the existing electrical demand in the surrounding area, current utility infrastructure, and utility interconnection queue, this will be an ideal place to interconnect the facility. Minimal distribution and substation upgrades

will be required to complete the interconnection. Please see attached Exhibit B for a copy of the distribution impact study results.

B. Project Benefits

The purpose of 24 Middle Solar is to contribute to the transition away from fossil fuels and to renewable energy sources; regional, statewide, national, and global renewable energy carveouts serve as means to this end. In addition to the minimization of greenhouse gas emissions, resiliency, reliability, and grid stabilization are driving forces behind the growing need for solar deployment and corresponding capacity in the New England context, as evidenced by the expected retirements of oil and coal plants in the ISO-New England regional transmission organization. The 24 Middle project will contribute to grid stabilization given the predictable nature of solar energy generation, and will reduce emissions on the local electric grid by offsetting generation needed from carbon-intensive fuel sources. Additionally, the Project will provide environmental benefit and resiliency via CPG's proposed mixed use agricultural plan. Please find details related to the collection of co-uses that will operate on the project site for the lifetime of the project in Section IV.A.6 below.

The Project will also provide extensive benefit to the local community. CPG will employ local entities during the operations and maintenance of the solar facility as available for electrical and landscape maintenance. The energy output of the solar facility will be used to power low to moderate income homes and housing developments, low-income services organizations, small businesses, and customers who reside in environmental justice communities across Eversource's utility territory. At least 20% of

the power will be for Low Income Customers; 40% will be for Low to Moderate Income customers, customers who serve as landlords or entities responsible for an affordable housing facility, and/or Customers who qualify as Low-income Service Organizations; 20% of annual output will be subscribed by Small Business customers; and the remainder will most likely be allocated to additional Low to Moderate Income customers.

C. Municipal/Local Input or Community Outreach (as Applicable)

CPG has initiated contact with the Town's First Selectman, Lori Spielman, as well as several members of the Town of Ellington staff. In addition to written correspondence, CPG conducted a meeting with the First Selectman, the zoning official, and the building codes official on February 3, 2021. At this meeting CPG shared general information about the project as well as our plans to apply to the SCEF program and for agricultural impact mitigation. CPG intends to continue the conversation with Ellington officials in order to maintain transparency and garner input on the project plans. No specific complaints or comments from the public have been provided to Community Power Group regarding this project.

D. Public Notice

CPG has compiled a list of all abutting property owners and other landowners within a one-mile radius of 24 Middle Road, and has sent letters to these neighbors relaying information about the project and contact information for questions and comments about the project in compliance with the notification requirements of this filing. CPG has amassed an archive of commonly-asked questions and stated concerns related

to solar energy, and will share these educational materials with interested parties. CPG intends to be as engaging and transparent with community members as possible throughout the development process. Please see Exhibit C for a copy of the notice list and template notice letter that was sent to site neighbors as well as relevant government officials.

IV. No Substantial Adverse Environmental Effect

The Project will have no substantial adverse environmental effect to the surrounding community. The project will not emit fumes, toxins, pollutants, lights, or excessive noises into the surrounding properties during its operation, and the construction team will employ appropriate measures to control any sediment or stormwater runoff during construction and operation. The below sections provide more details on how the project will mitigate environmental impacts to air quality, water quality, wildlife and more.

A. Environmental Effects

1. Air Quality Impact

There will be no air quality pollution from the solar facility, and the proposed facility will result in a net reduction in greenhouse gas emissions in Connecticut. CPG uses PVSyst production modeling (the "Production Model") to project the estimated energy production throughout the life of the project in order to estimate greenhouse gas impacts. See Exhibit D for the PVSyst report. CPG has put together the Production Model, which is certified by a licensed CT engineer. The Production Model depicts the Project's annual produced energy of 9 GWh/year, or specific production of 1,491 kWh/kWp/year. Using an

emission factor specific to the Project's eGrid region: NPCC New England, the estimated annual carbon offset of the Project is 4,319,522 lbs CO₂. Greenhouse gas equivalencies for this estimated offset could include:

- 422 passenger vehicles driven for one year;
- 220,468 gallons of gasoline consumed; and
- 247 homes' energy use for one year.

In addition to reducing greenhouse gas emissions through the displacement of fossil fuel electricity generation, this project will be utilizing land that was previously used for agricultural production, which is a net greenhouse gas generator

Furthermore, although temporary, it should be noted that construction activities are not expected to generate substantial dust emissions. Activities such as land clearing, blasting, and drilling are typically associated with substantial dust emissions and are not required for the construction of this project. Inherently, the construction of the solar facility is a low-dust project given that the racking is pile-driven and the existing topography is maintained to the maximum extent practicable. Standard construction vehicle traffic and associated emissions can be expected. All in all, the long-term benefits this project has on air quality far outweigh the temporary construction impacts.

2. Water Quality Impacts

The development of 24 Middle Solar will have minimal to no impact on water resources due to the limited amount of site grading required for construction and the installation of two sediment basins to address CT DEEP water quality requirements. The

post-development site conditions will mimic the pre-developed site conditions by maintaining existing drainage patterns and reseeding any disturbed soils with a low growth seed mix. There are two grass lined swales proposed along the eastern and western edges of the solar array to collect and direct stormwater runoff to the two proposed basins on the southern corners of the project area.

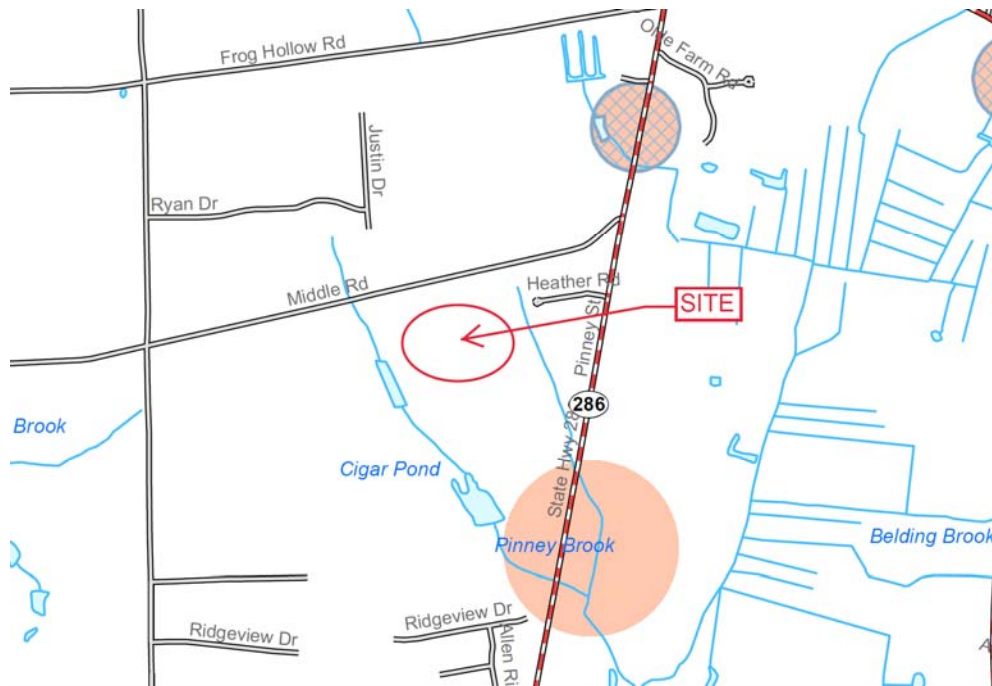


Figure 4 Water Quality Classification Map with project site identified

The above image is a zoomed-in view from the “Water Quality Classifications Ellington, CT” Map prepared by CT DEEP, October 2018. The map designates the site area as “GA”. Per the map’s provided explanation, “Class GA designated uses are existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies. All

ground waters not specifically classified are considered as Class GA.” Exact groundwater levels will be determined with a geotechnical report in advance of construction.

CPG held a pre-application meeting with CT DEEP in order to review potential water resource impacts and no major issues were raised. Standard construction practices and sediment control measures have been outlined in the Drainage Report, prepared by All Points Technology, as included with this petition. The proposed solar array will not have any adverse effect to the surrounding areas and properties. A General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction will be acquired prior to construction. Exhibit E contains the stormwater management plan created for this project.

3. Wildlife and Habitat

CPG utilized DEEP’s Natural Diversity Data Base (NDDB) Map at the Town of Ellington scale to determine if the project footprint is located at or near critical habitat or state or federal listed species (a “NDDB area”), and determined that it is not. Please see Exhibit F for this depiction. In addition, CPG has attached a letter (Exhibit G) from the US Fish and Wildlife Service’s Information, Planning, and Conservation System, indicating that there are no critical habits of threatened or endangered species within the project area.

4. Wetlands and Watercourses

There is an existing, shallow man-made pond located on the southwest side of the property which is more than 100-feet outside the limits of construction and will be protected with silt fence during construction activities. Additionally, there are two wetlands

within the vegetated areas on-site which were delineated and shown on the site plans. The western wetland is connected to the north of the shallow pond and exhibits poorly-drained soils. The eastern wetland is a small intermittent wetland that dissipates within the dense vegetation. Both of these wetlands are located within the vegetated area of the site which is outside the solar project boundary and will not to be disturbed. A minimum of a 100-foot buffer is maintained from these water resources. No other water resources exist on-site.



Figure 5 Project boundary in relation to on-site water features

As such there will be no impact to wetlands or watercourses, and a vernal pool analysis is not applicable. The wetlands report is contained in Exhibit H of this petition.

5. Flood Zones and Aquifer Protection Area

The Project footprint is not located within a 500-year floodplain or 100-year floodplain. These three land features do not exist throughout any area of the 24 Middle Road parcel, as shown in Exhibit J.

As shown in Exhibit I, the project is not located at or in close proximity to an Aquifer Protection Zone as regulated by DEEP.

6. Prime Farmland and Core Forest Resources

After a consultation regarding the project, the Connecticut Department of Agriculture has determined that the 24 Middle Solar project will not result in material impacts to prime farmland soils in Connecticut, contingent on the implementation of CPG's mitigation plan submission (Exhibit K). CPG's agricultural impact mitigation plan incorporates several co-uses that will offset farmland being taken out of production in addition to retaining on-site production farming outside of the project footprint. First, during project construction, minimally intrusive construction methods will be used when possible, to avoid construction-related impacts to the prime farmland soils. Following construction, per standard practice for the developer, CPG will work with a local horticulturist to develop an appropriate pollinator-friendly wildflower seed mix to distribute throughout the project area, while farmland outside of the fenced project footprint will continue to be farmed for soybeans or corn. It is anticipated that an approximately 10,000 square foot area will be designated for vegetable gardening. This space is outside the solar facility fencing and will operate separate from the solar operation. CPG has received support of a local gardener who intends to manage this operation.

CPG plans to partner with a local sheep grazer that will transport their animals to and from the site for rotational grazing activities; please find a grazing plan endorsed by the Connecticut Department of Agriculture included in Exhibit K. Rotational sheep grazing in conjunction with solar – a form of agrivoltaics – provides a slew of benefits to the land and to parties involved, one of which being effective and economical maintenance activities. Lastly, CPG has formed a relationship with the Connecticut State Beekeeper who plans to host honeybees on-site and whose activities are anticipated to be driven by key research questions relating to native pollinators (co-located with solar). This collection of practices is intended to bolster the regenerative quality of this renewable generating facility. Please find CPG's Agricultural Impact Mitigation Submission to the Department of Agriculture including letter and Grazing Plan, and the Department of Agriculture's response letter attached as Exhibit K. Although the project is located in prime farmland, the project's construction methods and post-development mitigation efforts are intended to protect the prime farmland to the maximum extent practicable.

The proposed community garden and beekeeping are outside the solar facility fence and will be maintained separately from the solar project area. Although the sheep-grazing is inside the solar facility fence, it is CPG's understanding that all agricultural efforts are per the Department of Agriculture guidance and are not necessarily considered in the Council's review and decision-making related to the request of this petition.

7. Visual Impact/Scenic Values

The development area is surrounded by other farmland and trees, and will not be visible from the road except near the entranceway. The solar facility is more than 250 feet

away from the closest residence so the visual impact, if any, is expected to be minimal. Some of the neighboring homes may be able to see the solar facility, likely only during the winter when vegetation is thinner. Ultimately, CPG does not anticipate any substantial impact to scenic viewsheds because of the Project's development based on the visual impact analysis and project rendering included in Exhibit L. The project is not located within one mile of any scenic roads, scenic viewpoints, or recreational areas.

CPG also performed a glare analysis on this project using ForgeSolar, which is a nationally-recognized tool developed by the Department of Energy and the Federal Aviation Administration to assess the potential for glare impacts from solar facilities. The solar facility is modeled in the tool based on existing topography and the anticipated position of the sun at every minute throughout the year. Below shows the proposed solar facility's model and the nearby roadways that were assessed for potential impacts to vehicles including Middle Road, Pinney Street, and Abbott Road.



The ForgeSolar tool was run for the 24 Middle Solar project and no glare was predicted for vehicles travelling on any of the subject roads.

Summary of Results No glare predicted!

PV Name	Tilt deg	Orientation deg	"Green" Glare min	"Yellow" Glare min	Energy Produced kWh
PV array 1	SA tracking	SA tracking	0	0	12,210,000.0

8. Public Health and Safety (including Traffic)

This project will have minimal impacts to public health and safety of the surrounding community during construction and operation. The construction timeline for a solar facility is shorter than that of other types of power plants, and shorter than typical

residential construction. The construction process will comply with all local and state regulations regarding construction including noise restrictions, sediment control, lighting, and allowed hours of construction activities.

CPG will also be responsible for ensuring that the facility is operated and maintained in a safe and secure manner, including the installation of a security fence around the facility. The security fence will be 8 feet tall to prevent wild animals from entering the facility footprint and will be equipped with locks at all gates to prevent unauthorized access. The gates will be outfitted with Knox boxes for emergency access. The proposed fence is made of wire mesh, commonly referred to as an agricultural fence, as this presents a more aesthetically pleasing environment compared to industrial chain link fence. Once operational, all monitoring will be completed remotely 24/7/365. Operations are able to be controlled remotely and, in the event that emergency services were called to the site, can be turned off on-site by following the operations manual. A copy of the manual will be provided to the local emergency services and/or made available in the Knox box at the site gates for reference.

Impacts such as lighting, noise, and traffic are negligible for this project. Any construction lighting will follow local protocols and there is no permanent lighting associated with the project. The closest private residence is more than 250 feet away from the solar facility. The inverters generate noise and will be located as internal to the site as possible. Per the below study completed by the Massachusetts Clean Energy Center, once a distance of more than 64 feet from an inverter is reached, it sounds the same as a quiet rural area at night.

Inverter Noise over Distance - 65dB Estimate		
Distance from Inverter	dB	Equivalent Sound
1 ft	65	Normal Speech at 3ft
2 ft	59	
4 ft	53	Dishwasher next room over
8 ft	47	
16 ft	41	Empty theater or library
32 ft	35	
64 ft	29	Same as quiet rural area at night
Point at which ambient background noise would be louder than the solar farm		
Note: These values assume an open, unobstructed field. Decibels would be lower due to obstructions like vegetation, fences, solar panels and topography.		
Source: Massachusetts Clean Energy Center "Study of Acoustic and EMF Levels from Solar Photovoltaic Projects"		

Figure 6 Massachusetts Clean Energy Center "Study of Acoustic and EMF Levels from Photovoltaic Projects"

Therefore, there are no expected noise impacts to the surrounding properties given the distance to the solar facility. Construction traffic will attempt to be scheduled during non-rush hours to have the least impact on residents and commuters through the area. Operational traffic is limited to 1-2 trips for visual inspection of equipment every 6 months and mowing to occur during the summer months never to exceed more than 4 trips in one month. There is no hourly, daily, or even weekly traffic to be expected throughout the year.

9. Cultural Resources / Historical Values

CPG has submitted the details of this proposed facility and a completed Phase 1A Cultural Resources survey completed by Heritage Consultants in October 2022, which concluded in Exhibit M that the site has a moderate/high archaeological sensitivity

because of the soils located in the area, though no cultural resources are expected to be impacted by project. Two historical resources were identified as being within 1 mile of the site, as described in the Phase 1A Report, through neither are expected to be impacted by the project. Connecticut’s SHPO office has reviewed the materials and concurred with these findings, also included in Exhibit M and recommended a Phase 1B survey to be performed. CPG is committed to performing a Phase 1B cultural resources survey in Fall 2023 after the conclusion of the harvest season to confirm that there will be no impact to archaeological resources through the project.

10. FAA Determinations

FAA Notification Requirements pursuant to 14 CFR §77.9 do not apply to this project as the closest airport to the project is Ellington Airport which is located approximately 2.5 miles away from the project. Because the project will be less than 15 feet in height at its maximum height, it will not have any impact on Ellington Airport or their incoming flights. There are no heliports closer than eight miles to the project.

V. Project Construction, Maintenance and Decommissioning Plan

Construction of the Project is anticipated to commence in the Winter of 2023 with commercial operation projected for Fall of 2024. The following table contains an estimated construction timeline for the 24 Middle Solar project.

Milestone	Timeline
Phase 1B Survey and SHPO final concurrence	Fall 2023
Final Interconnection Payment to Eversource	Fall 2023
Building Permit Issuance by Town of Ellington	Winter 2023
Construction Mobilization	Winter 2023

Estimated Commercial Operation Date	Fall 2024
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The construction will occur in two phases. Phase 1 will include site preparation activities such as removal of any brush and remnants of the previous harvest. Cleared material to be chipped and stockpiled to be used for temporary stabilization. A stabilized construction entrance, silt fence, and all other erosion and sediment control measures will be installed in Phase 1. Phase 2 will include the construction of the solar panel racking followed by installation of the panels and the game fencing. The access drive will be constructed and finalized once with the stabilized construction entrance is no longer needed. The utility poles will be installed in time for the site to be energized. All disturbed areas are to be seeded with a pollinator-friendly seed mix. It is expected that construction will take 3-5 months depending on weather delays and supply chain scheduling.

Once operational, the system will be monitored remotely. The Operations and Maintenance Plan (included as Exhibit N) includes safety precautions, instructions to the power on/off of all equipment on-site (entire array, individual inverters, and the transformer), instructions for system testing and commissioning, an overview of daily remote monitoring tasks and an approximate schedule on in-person inspections for maintenance. A visual inspection of the facility equipment and inverter interval maintenance is to occur every 6 months. The inverters are expected to be replaced after 15 years. The panels are expected to be replaced after 25-30 years.

At the end of the project life, the decommissioning is the responsibility of the project owner and will include returning the site to its pre-development condition. These activities are outlined in the Decommissioning Plan (Exhibit O). The first step is to remove the

equipment to an approved salvage or recycling facility. Any materials that cannot be salvaged or recycled will then be transported to an approved disposal facility. The concrete foundations of the transformers and the gravel access drive will then be removed and the ground will be aerated and/or decompacted before being reseeded.

VI. Conclusion

The 24 Middle Solar project is a 4MWac solar facility project proposed to be in the Town of Ellington, County of Tolland and is planned to provide energy credits and renewable energy certificates through the SCEF program and Eversource. The panels for this facility will be mounted on single axis tracking racking, and the facility will be interconnected to the existing Eversource distribution circuit along Middle Road. Once operational, this project will provide lease income to the property owner as well as tax revenue and benefits to the Town of Ellington. In addition, a portion of the energy output of the facility will be available for purchase by low- to moderate-income customers providing energy savings benefits to the community as well as environmental benefits. CPG does not anticipate any issues through the development of the project as CPG has already received a draft interconnection agreement from Eversource as well as a tariff agreement award from Eversource. Through this petition filed with the Connecticut Siting

Counsel, Community Power Group is seeking a Declaratory Ruling that a Certificate is not needed for the construction, operation, and maintenance of the project.

Respectfully submitted,

Community Power Group LLC



By: _____

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Table of Exhibits

Exhibit A	Civil Site Plan for 24 Middle Solar Project
Exhibit B	Distribution Impact Study
Exhibit C	Public Notice Documentation
Exhibit D	PVSyst Report
Exhibit E	Stormwater Pollution Prevention Plan
Exhibit F	National Diversity Data Base Areas Map
Exhibit G	Fish and Wildlife Service Species List
Exhibit H	Wetlands Report
Exhibit I	Aquifer Protection Map
Exhibit J	FEMA Floodplain Firmette
Exhibit K	Department of Agriculture Submissions and Letter
Exhibit L	Visual Impact Study
Exhibit M	Phase IA Cultural Resources Survey and SHPO Letter
Exhibit N	Operations and Maintenance Plan
Exhibit O	Decommissioning Plan