DRAFT

Petition No. 1558
Community Power Group LLC (24 Middle Solar)
24 Middle Road, Ellington, Connecticut

Development & Management (D&M) Plan
Staff Report
April 25, 2025

Notice

On August 4, 2023, the Connecticut Siting Council (Council) issued a Declaratory Ruling to Community Power Group LLC (CPG) for the construction, maintenance, and operation of a 4.0-megawatt (MW) AC solar photovoltaic electric generating facility on an approximately 24.1-acre site of an approximately 68.5-acre host parcel at 24 Middle Road in Ellington, Connecticut, and associated electrical interconnection (Project).

In its Declaratory Ruling, the Council required CPG to submit a Development and Management (D&M) Plan in compliance with Regulations of Connecticut State Agencies (RCSA) §16-50j-60 through §16-50j-62. A D&M Plan is a condition of a Council final decision that must be met prior to commencement of construction and constitutes the "nuts and bolts" of a facility approved by the Council.

On March 18, 2025, in compliance with Condition No. 11 of the Council's Declaratory Ruling, CPG notified the Council of the December 16, 2024 transfer of the Project to 24 Middle Solar 1 LLC (24MS1), an entity wholly owned by CPG.

Also on March 18, 2025, in compliance with RCSA §16-50j-61(d), 24MS1 submitted the D&M Plan for the approved facility to the Council. CPG was the only party to participate in the proceedings held on Petition No. 1558. There are no other parties or intervenors on the Petition No. 1558 service list.

On April 2, 2025, the Council issued interrogatories to 24MS1. On April 9, 2025, 24MS1 submitted responses to the interrogatories.

D&M Plan

Condition No. 1 of the Council's Declaratory Ruling requires a copy of the Department of Energy and Environmental Protection (DEEP)-issued Stormwater Permit to be submitted prior to the commencement of construction. 24MS1 applied for a Stormwater Permit from DEEP on January 9, 2025. As of April 2, 2025, issuance of the DEEP Stormwater Permit was contingent upon receipt of required letters of credit. This item remains outstanding.

Condition No. 2 of the Council's Declaratory Ruling requires the following information to be included in the D&M Plan:

a. **A final site plan including, but not limited to, facility layout, access roads, electrical interconnection, fence design, equipment pads, stormwater management control structures, and final seed mix;**

   The final site plan consists of a single array area layout with a total of 8,320 Canadian Solar photovoltaic panels (1,950 705-Watt panels and 6,370 700-watt panels) installed on a single-axis

tracking system, oriented in a north-south direction. The Council's Declaratory Ruling was based on a single array area layout with a total of 9,963 600-watt Jinko photovoltaic panels.

At maximum tilt, the tops of the panels will be approximately 7.5 feet above grade at the highest point and 2 feet above grade at the lowest point. The panel rows will be separated by 16.5-foot wide vegetated aisles. The Council's Declaratory Ruling was based on 14-foot vegetated aisles. The fenced solar array would occupy a 24.1-acre area. The Council's Declaratory Ruling was based on a fenced solar array occupying a 20-acre area. Both the aisles and fenced area were increased in size to accommodate sheep grazing, the installation of additional panel strings, and overall energy production.

Access to the facility will be from a new 15-foot wide, 515-foot long gravel drive extending south from Middle Road. The access drive would dead end at a facility access gate with a vehicle turnaround area outside of the fenced solar array.

Two concrete pads (15' x 20' and 20' x 25') will be installed near the access gate and within the fenced area to support two electrical transformers and switchgear.

A single steel-frame racking system configuration to support 32 inverters will be installed southeast of the pads and adjacent to the interior fence line rather than a dispersed inverter configuration. The inverters will be a minimum distance of 203 feet from the nearest property line. In the event of an emergency, the centralized location of the inverters will provide emergency responders with more timely access to the electrical equipment than dispersed locations of the inverters.

A total of ten new utility poles will be installed for the Project. Six new poles will be installed to support a new overhead electric feeder extending for approximately 1,200 feet from the equipment pads along the east edge of the solar array to the interconnection equipment area at Pinney Street. Four new poles supporting Eversource equipment will be installed at the interconnection equipment area at the edge of field on the west side of Pinney Street. One existing pole on the east side of Pinney Street will be replaced**.** The Council's Declaratory Ruling was based on the installation of four new utility poles along the access road to facilitate an interconnection to an existing Eversource circuit on Middle Road.

The interconnection equipment area would be accessed by a new 15-foot wide, 200-foot-long access drive separate from the facility access drive. It will have a paved apron where it intersects with Pinney Street. The interconnection access drive does not connect to the fenced solar array area.

The interconnection access drive and utility poles are approximately 15-20 feet from the abutting property line to the north. This abutting parcel is owned by the host parcel owner.

The interconnection point was relocated from Middle Road to Pinney Street based on Eversource's interconnection review. CPG designed an overhead route along the edge of the array to the interconnection area to avoid installing an underground line near a stream buffer and through the Project stormwater management system.

The facility will be enclosed by an 8-foot tall agricultural style perimeter fence, installed flush with the ground to support agricultural activities at the site. High voltage signage will be installed along the fence line every 40 feet. Contact signs for the Project owner and livestock manager will be posted adjacent to the Project access gate.

Post-construction stormwater would be controlled by grass lined swales and two grass lined stormwater management basins; one in the southwest portion of the site, and one in the southeastern portion of the site. The basins include controlled outlet structures that discharge overland. A stormwater infiltration trench will be installed on the west side of the solar array access drive.

The solar array area will be seeded initially with ryegrass to stabilize the site. After establishment, CPG will seed the site with ERNMIX – 146 Fuzz & Buzz seed mix which includes mostly grasses to support livestock and a small component of wildflower species to support pollinators.

The selected Canadian Solar photovoltaic panels for the Project meet Toxicity Characteristic Leaching Procedure (TCLP) nonhazardous waste regulatory criteria.

b. Erosion and sedimentation control plan consistent with the 2002 Connecticut Guidelines for Erosion and Sedimentation Control and the DEEP-issued Stormwater Permit including, but not limited to, construction detail/phasing plan; installation of straw bales or other generally accepted similar control measures to reinforce silt fencing adjacent to wetland areas, temporary sediment basin detail, site stabilization measures during construction, inspection and reporting protocols, procedures for periodic cleaning of temporary sediment traps and swales during construction, and final cleaning of sediment traps/stormwater basins upon site stabilization;

The D&M Plan contains Erosion and Sedimentation (E&S) Control Plans consistent with the *Connecticut Guidelines for Soil Erosion and Sediment Control* (E&S Guidelines).

The total area of disturbance is approximately 29.1 acres. The Council's Declaratory Ruling was based on a total area of disturbance of 28.4 acres.

Approximately 0.12 acre of tree clearing and some tree trimming is required to construct the facility interconnection line. Trees and stumps will be removed within the demarcated clearing limits. Woody debris will either be chipped for use during construction or removed from the site.

E&S control measures will be established in accordance with the DEEP Stormwater Permit and include, but are not limited to, a stone construction work area entrance, siltation barriers around the perimeter of the work area, erosion control blankets, mulch, and temporary seeding. Two rows of E&S controls (silt fence and filter sox) will be installed at the edge of the construction area adjacent to wetlands.

Disturbed areas will be stabilized after no more than 14 days if no work occurs in the specific area. The Site Plans specify the use of 100 percent biodegradable erosion control blankets.

Temporary soil stockpiles will be established at the site, enclosed by E&S controls. Material within the stockpile will be spread on-site before site stabilization.

Construction will occur in two phases. Phase 1 work includes the installation of perimeter erosion controls, access drive, and temporary sediment traps, followed by stabilization of disturbed areas (approximately 8.1 acres). Phase 2 work includes remaining tree clearing and grubbing and the installation of solar array infrastructure, fencing, utility line and landscaping.

CPG will implement a Wetland Protection Plan that includes, but is not limited to, contractor education and an independent environmental compliance monitor to inspect the site to ensure E&S measures are properly installed and maintained.

Inspections and reporting will be conducted in accordance with the DEEP Stormwater Permit. All E&S controls will be inspected by the contractor on a daily basis and by an engineer on a weekly basis and within 24 hours of a rain event of greater than 0.5 inches. Repairs to E&S controls by the contractor will occur within 24 hours, when necessary. Sediment traps will be cleaned once sediment reaches half capacity of the basin area.

Once construction is complete, all disturbed areas will be final seeded. E&S controls will remain in place until site stabilization, as verified by the engineer of record. The sediment basins and swales will be cleaned and converted to post-construction use.

c. Post-Construction Operations and Maintenance Plan that includes an inspection/maintenance schedule of facility components, vegetation/landscaping, including the replacement of dead or dying landscape plantings, and stormwater basin/controls, including site inspections and any necessary mitigation measures to be performed after extreme rainfall events;

The Operations and Maintenance Plan includes provisions for remote monitoring, equipment maintenance, facility maintenance, site safety and security and emergency response. Facility operation characteristics will be reviewed daily through a remote monitoring system. On-site visual inspections will be performed every six months. Annual reports will be prepared summarizing operations and system performance.

Panels will be cleaned when necessary, using low pressure water when the panels are cool, typically early June and late October during early to mid-morning hours. The tracker system is engineered to be in a maximum tilt position at night to prevent snow buildup.

Vegetation management will include the fenced array area, access roads, landscaping, and utility line area. To maintain vegetation within the solar facility perimeter fence, CPG proposes to implement a rotational sheep grazing plan. When sheep are not maintaining vegetation, mowing will occur if vegetation exceeds one foot in height.

Seed establishment in the first 2-3 years may involve spot-spraying or mowing of invasive weeds to allow for sufficient forage to support livestock.

An assessment of landscape plantings will occur during the spring and fall seasons twice a year to determine the health of the plantings and whether any replacement needs to occur. Landscaping will be replaced if there is die-off, typically in the spring or fall seasons.

Stormwater basins and swales will be inspected after heavy rainfall events in the first few months of operation to ensure the features are sufficiently stabilized. After that period, inspections will occur twice per year. Maintenance includes grass mowing within basins to a height of 3 – 6 inches and removal of leaves, debris and sediment, as necessary.

d. Spill Prevention Control Plan for site construction and operation with contact information for the spill response contractor;

A Fuel Storage and Prevention Plan includes, but is not limited to, measures for prevention, containment, cleanup and reporting and includes spill response, cleanup, and reporting procedures. Contact information for a spill response contractor is included.

Fuels will be stored in an area with an impervious surface utilizing secondary containment and a minimum 100 feet from wetland/watercourse areas.

Refueling of vehicles and machinery will be a minimum 100 feet from wetland/watercourse areas using an impervious pad with secondary containment designed to contain petroleum fuels.

e. Installation of solid fencing adjacent to the transformers to reduce noise;

Solid fencing consisting of seven-foot tall chain link fence with green privacy slats will be installed on the north, east and west sides of the transformer pads and on the north, south and east sides of the inverter banks.

f. Post-construction noise analysis;

The D&M Plan includes a noise analysis to account for the new inverter bank location. Noise modeling indicates facility operational noise will be in compliance with state standards.

A post-construction noise analysis that documents compliance with state standards and if necessary, the identification of any mitigation measures that are employed to adhere to the standards, once the facility becomes operational will be submitted in compliance with this condition.

g. Landscape Plan that includes additional landscape plantings perpendicular to the access road to screen the interconnection area;

The interconnection area was relocated to Pinney Street. A wooded buffer exists between Pinney Street and the host parcel, blocking views of the interconnection from the road. CPG will install two landscape trees at the interconnection access drive entrance to mitigate visibility of the interconnection poles at the access drive entrance.

Landscaping consisting of a single row of white spruce 6 to 8 feet tall will be installed along the northeast and northwest portions of the site to mitigate views of the facility from abutting properties. A total of 98 evergreens will be planted.

h. Final structural design for the racking system stamped by a Professional Engineer duly licensed in the State of Connecticut;

The D&M Plan includes a final structural design for the racking system (DuraTrack HZ Solrar Tracker) stamped by a Professional Engineer duly licensed in the state of Connecticut.

i. A sheep grazing co-use plan for the site, including, but not limited to, provisions for rotational grazing, water access and emergency evacuation with a document that shall indemnify and hold harmless the Council, its agents, representatives and employees from any and all losses, claims, actions, costs and expenses, judgments, subrogations, or other damages resulting from any injury to a person or to property arising out of the presence of third-parties within the fenced solar facility site; and

The D&M Plan includes a sheep grazing co-use plan for the site. Specifically, sheep grazing will be conducted within Five temporary paddocks that will be established within the solar array area, ranging from 4.4 to 5.0 acres, isolated by temporary electric fencing. Approximately 11 sheep will be on-site, rotated among the five temporary paddocks for about 3 days per paddock, as established by the sheep farmer.

Water and mineral feed to support sheep grazing activities will be delivered to the site by the sheep farmer. Sheep will be on-site from spring to early fall, depending on forage conditions.

Signage will be displayed at the main gate with emergency contact information for the sheep manager. In the event of an emergency, animals would remain inside the site until the sheep manager can safely remove them. Three gates along the array perimeter fence provide emergency access.

CPG provided a fully executed Hold Harmless Agreement in the D&M Plan.

j. Construction hours/days of the week;

Project construction is expected to occur over a 6-month period. Work hours will be Monday through Saturday from 7:00 a.m. to 6:00 p.m.

Conclusion

The D&M Plan complies with requirements of RCSA § 16-50j-60 to 16-50j-62 and is consistent with the Council's Declaratory Ruling for Petition No. 1558, dated August 4, 2023.

Revised Site Layout