



Shepherd's Run Solar Farm

Project Overview

February 2025

Hecate Introduction

- Hecate Energy Columbia County 1 LLC, a wholly owned subsidiary of Hecate Energy LLC, a United States based developer of energy storage and generation projects.
- Designated contact person/project developer:



Matt Levine,
Senior Director of Development
Hecate Energy LLC
621 W Randolph St.
Chicago, Illinois 60661
Toll Free Telephone: (833) 529-6597
Email: mlevine@hecateenergy.com
Website: www.shepherdsrunsolar.com/



New York's Emission Reduction Goals

Power plants in New York generated about 279 million metric tons of greenhouse gas emissions in 2023.

New York has considerable work to do to achieve the targets of the Climate Leadership & Community Protection Act (CLCPA):

- **40%** emission reduction by 2030 **85%** emission reduction by 2050
- Remaining 15% of emissions would be offset to make the state carbon neutral
- **70% renewables by 2030**

Hecate Energy plays an active role addressing these challenges and meeting New York State climate goals.

- The Project will offset nearly 56,546 tons of CO₂ per year, equivalent to taking 12,583 average combustion engine cars off the road.
- The Project will generate approximately 43% of Columbia County's annual electricity demand (approximately 71,000 MWh).



The Time to Act is Now!

"Last year was recently declared the hottest year on record – for the 15th time in the past 16 years. New England is warming faster than any other region in the United States except Alaska, and we're already feeling the effects of climate change, from severe drought taking its toll on the iconic dairy farms of New Hampshire, to stronger storms and hurricanes battering the Coney Island boardwalk."

Environment America



Local Impact of Climate Change

Recent study conducted by Partners for Climate Action Hudson Valley shows how climate change is impacting Columbia County.

- Higher average daily temperatures (+4°F by 2030)
- Higher severe heat days (Days with maximum temperature greater than 90°F to increase from 5.6 to 18.6 by 2030)
- Severe impact on local fruit crops like apples and grapes
- Longer, hotter and dryer summers
- Increased likelihood of wildfires

BOTTOM LINE: A changing climate will change the community drastically.

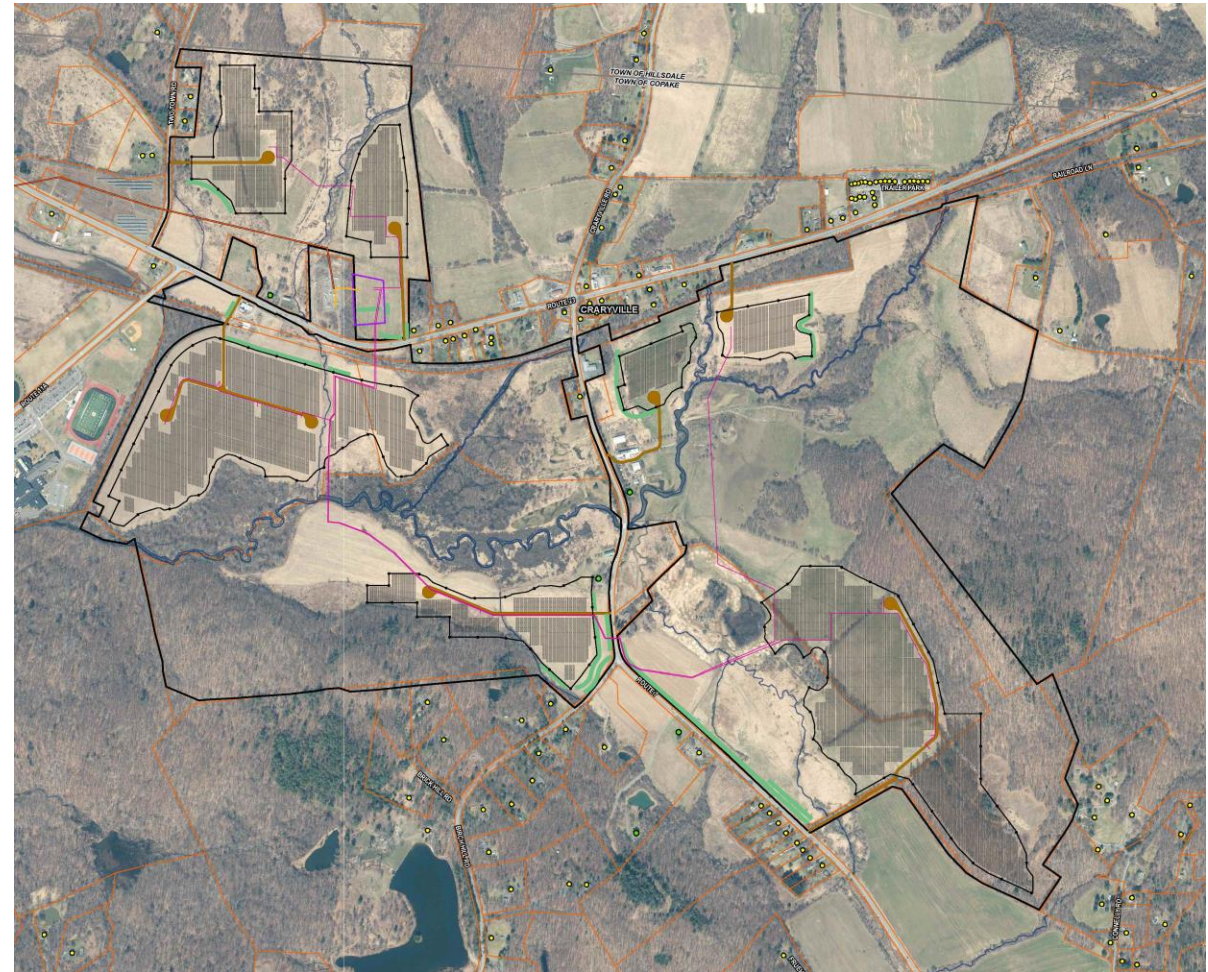
**PARTNERS FOR
CLIMATE ACTION**
HUDSON VALLEY

HUDSON VALLEY
CLIMATE CHANGE PRIMER



Updated Project Application

- New Permit Application filed in December 2024
- 42MW photovoltaic (PV) solar facility capable of supplying approximately 71,000 MWhs annually.
- The Facility will be built upon 12 parcels of private land located east of Taconic Hills School District and near the intersection of NY-23 and CR-7.
- The total project footprint (limit of disturbance) covers approximately 215 acres. This includes all temporary and permanent structures required to construct the project, including access roads, buried collection lines, substation, fencing, etc.
- The fenced in area around panels includes approximately 175 acres.
- Low profile, ground-mounted PV panels on galvanized steel tracker racking structures.
- Increased visual screening throughout Project Area.



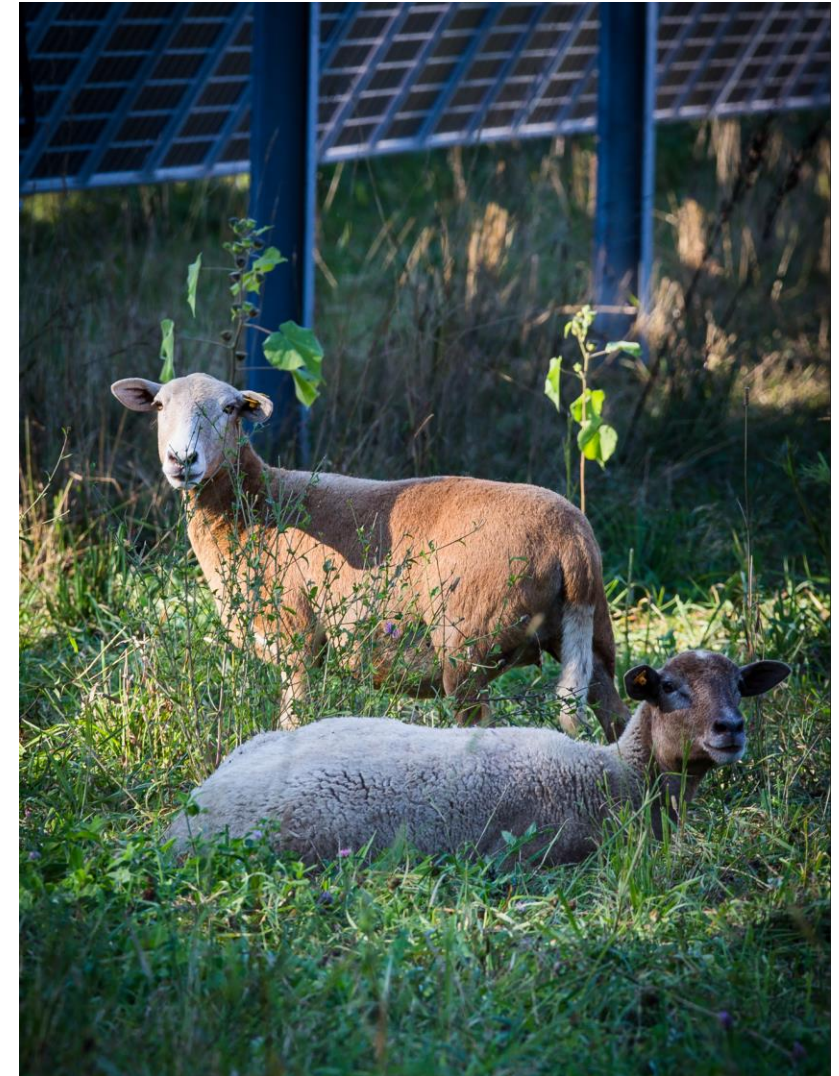
Benefits to the Community

- Preserving Farmland and Rural Character of the Community
 - Project will preserve the integrity of farmland soils, incorporates dual uses such as grazing, and uses rural style fencing.
 - The Shepherd's Run project will help enable landowners to continue to operate as farmland. Historically, farmland that is not economically viable is converted to residential development and lost forever
- Generating Tax Revenue
 - Shepherd's Run Solar Farm will create additional tax revenue the community can use for services including the local fire department, ambulance company, and library.
- Creating Jobs
 - More than 120 construction jobs are expected to be created during the project's development.
 - Local businesses and workers will be contracted for engineering, surveying, site preparation and construction.
 - Long-term local jobs will also be created for the site's operation and maintenance.



Benefits to the Community

- Preserving Property Values & Quality of Life
 - Recent studies, including a peer review report by Loyola University, show rural solar projects have no impact on neighboring property values
- Water Quality Improvements
 - The Project is consistent with the Taghkanic Headwaters Conservation Plan (Appendix 3-5 of the Application).
 - Project lands will be maintained in meadow condition and rotational crop management around Taghkanic Creek will cease during the operational life of the Project.
 - The Project does not use routinely herbicides or pesticides.
- Electric Bill Credits for Residents
 - Participation in Host Community Benefit Program will result in annual credits on utility bills for every residential ratepayer in the town of Copake.
- Harlem Valley Rail Trail
 - Hecate will facilitate the Harlem Valley Trail extension, helping to protect and beautify the local landscape so that future generations can continue to enjoy it.



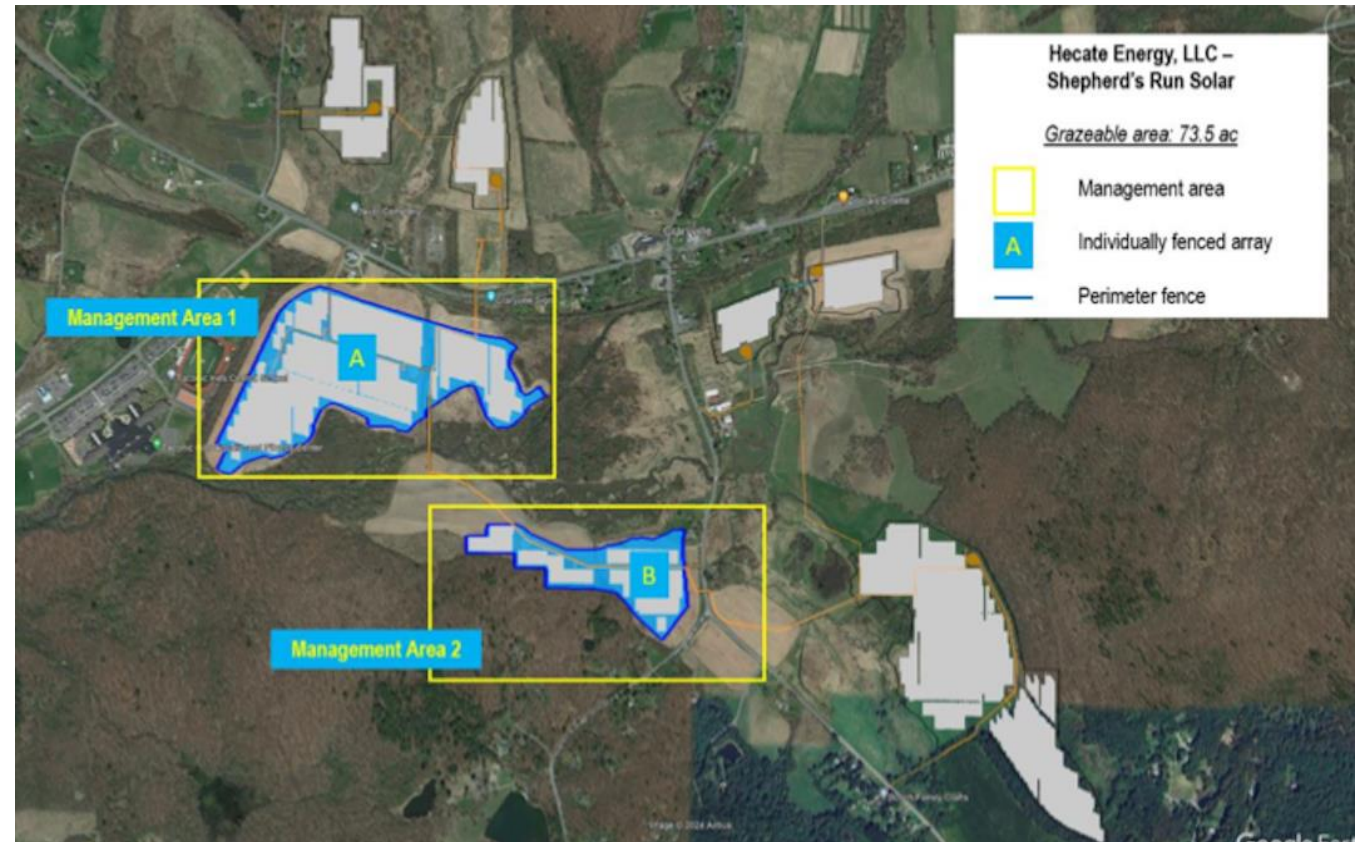
Incorporating Community Feedback

- Exclusion of battery storage from the project scope
- Extensive native tree and shrub planting to minimize sightlines. Expanding the visual screening and diversifying planting selections.
- Support to extend/connect to local hiking trails or other passive recreational/educational opportunities.
- Conducting local fire departments and first responder training.
- Including pollinator species seed mix within the landscaping plan.
- Implementing a Net Conservation Benefit Plan for grassland birds to preserve more than 25 acres of additional habitat.
- Incorporating wildlife-friendly rural style fencing instead of chain-link fencing.
- Incorporating agricultural co-uses.
- Avoiding direct impacts to all state regulated Class I wetlands and developing a project with no net loss of wetlands
- Committing to not source panels from suppliers who utilize forced labor or that contain the environmental contaminant PFAS (per- and polyfluoroalkyl substances)
- Bidding opportunities to local suppliers and using local labor and purchasing when practicable



Agrivoltaics Integration Plan – Sheep Grazing

- Hecate has worked with Agrivoltaics Solutions to prepare an Agrivoltaics Integration Plan that has been included in the permit application.
- The Project will integrate approximately 73.5 acres of the 175 acres of fenced in panel area into planned grazing management.
- For reference, approximately 114 acres of the facility site are MSG 1-4.
- Two management areas are identified for grazable area.
- Application of the Plan would require a waiver from the local law requirement that only native seed mix be maintained in panel areas, as the grazing plan requires regionally adapted pasture grasses, legumes and forbs for optimal health.



Visual Buffers and Screening

- The Project will utilize vegetative screening to soften and obscure views of the solar facility -- Providing ecological benefit and diversity.
- A planting plan utilizing native shrub and tree species consistent with the character of the surrounding landscape has been prepared.
- The planting plan includes 8,600 linear feet of vegetative plantings along the fenceline, roadway or nearby residences.
- Evergreen trees are used to provide screening, and native deciduous shrub species are selected for wildlife value and visual interest.
- When selecting the planting palette, characteristics considered include: native locale, hardiness zone, seasonal interest, and wildlife value.



VP38 - County Route 7

Representative Simulation - Proposed Facility with Landscaping Five Years: Leaf-On



Conducted Exhaustive Reviews

Wildlife: The Project has undertaken several environmental studies:

- wildlife characterization study
 - breeding bird survey
 - winter raptor survey
 - bog turtle habitat survey to identify habitat and species in the Project area.
- Based on results, adverse impacts to NYS threatened or endangered species or their habitats can be avoided by applying best management practices. Hecate has designed the Project to minimize impacts to wildlife and will mitigate any adverse impacts of the Project.

Wetlands and Streams: Wetland and stream delineations, including vernal pool surveys, functions and value assessments for the Project Area are complete.

<https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=24-03041>

Cultural: The Project has completed cultural resource studies, including a Phase 1A Cultural Resources Investigation, a Phase 1B Archaeological field investigation, and Historic Resources Survey.

- No impacts to archaeological or historic resources are anticipated as a result of Project construction or operation.
- Consulted with the State Historic Preservation Office (SHPO) regarding avoidance and minimization of impacts to cultural resources and will continue to consult as part of applicable federal or state permitting processes to comply with the State and National Historic Preservation Act.

Other Reviews

- Visual impact analysis, glare assessment, EMF studies, land use, agriculture, soils, noise, transportation and socioeconomics have been conducted by professional consultants.
- These studies are included in the Article VIII Siting application and are publicly available.



2025 Potential Permitting Timeline

February 2025: ORES Issues Notice of Complete or Incomplete Application

- If incomplete, Hecate has 3 months to respond. Once Hecate responds, ORES has 60 days to review the response and make a completeness determination
 - If incomplete, the dates below will shift a minimum of 60 days later
- If complete, ORES issues a draft permit for public comment

April 2025: Draft permit issued

April - July 2025: Public comment period on draft permit. Public hearing held in July

July – September 2025: Review of comments. Adjudicatory hearing held in August.

November 2025: ALJ recommends a recommended decision and hearing report

November 2025 – January 2026: ORES and other parties review recommended decision vs public comments.

February 2026: ORES issues a final decision on the permit





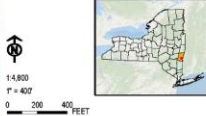
Hecate Energy





- LEGEND**
- NYSEG TRANSMISSION LINE
 - UNDERGROUND COLLECTION LINE
 - PROPOSED INTERCONNECTION LINE
 - FENCE
 - SUBSTATION AREA
 - ACCESS ROADS
 - LANDSCAPING AREA
 - PANEL ARRAYS
 - DELINEATED STREAM LINE
 - TOWN BOUNDARY
 - PROJECT AREA
 - PARCEL BOUNDARY
- PARTICIPATION**
- NON-PARTICIPATING RESIDENCE
 - PARTICIPATING RESIDENCE

BASE MAP: 2016 WORLD INGENUITY MAP SERVICE, 202001
 DATA SOURCES: BIRN, NYSEG, HECATE, NY, NY



PROJECT: HECATE ENERGY
 SHEPHERD'S RUN SOLAR
 TOWN OF COPAKE, COLUMBIA COUNTY, NY

TITLE: PRELIMINARY PROJECT
 PLAN

DESIGNED BY: A. KALLAS	PROJECT NO.:	DRAWN:
CHECKED BY: A. EGGERS		
APPROVED BY: C. PEGIBEL		FIGURE 1
DATE: FEBRUARY 2024		

