Hecate Energy

GREENE COUNTY SOLAR FACILITY

September 2020

ABOUT THE COMPANY

GREENE COUNTY SOLAR FACILITY

Hecate Energy develops solar, wind and battery storage projects for our clean energy future.

- Hecate Energy develops clean energy power plants from planning and inception through construction and operation.
- Founded in 2012 by a team of energy industry veterans who have worked together for more than 25 years, Hecate Energy's team has developed thousands of megawatts of electricity generation projects across the United States.
- Hecate Energy has entered into over 1.6 gigawatts (powering approximately 910,000 homes) of renewable power purchase agreements since 2012 and has approximately 12 gigawatts of additional projects currently under development.

Blair Road Solar
Jacksonville, FL

"Solar energy can help meet the growing demands of today's increasingly electrified society in a local, sustainable way. Communities welcome solar projects because they are quiet neighbors, that use essentially no municipal resources yet significantly adding to a community's revenue base."

Gabe Wapner, Project Team

Stratford Storage
Stratford, ON, Canada

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ABOUT THE TEAM

GREENE COUNTY SOLAR FACILITY

Hecate Energy Project Development Team

- Gabe Wapner, Director, Development
- Phil Mooney, VP, Engineering & Development

Gabe Wapner
Director, Development

Phil Mooney
VP, Engineering & Development

Legal and Environmental Team

- Tyler Wolcott – Read & Laniado, Associate
- Sean Meegan – Tetra Tech, Project Manager
- Linda Rivard – Tetra Tech, Environmental Scientist and Planner

Website and Contact Information

www.GreeneCountySolar.info

Phone – 1-833-529-6597

Email – Contact@GreeneCountySolar.info

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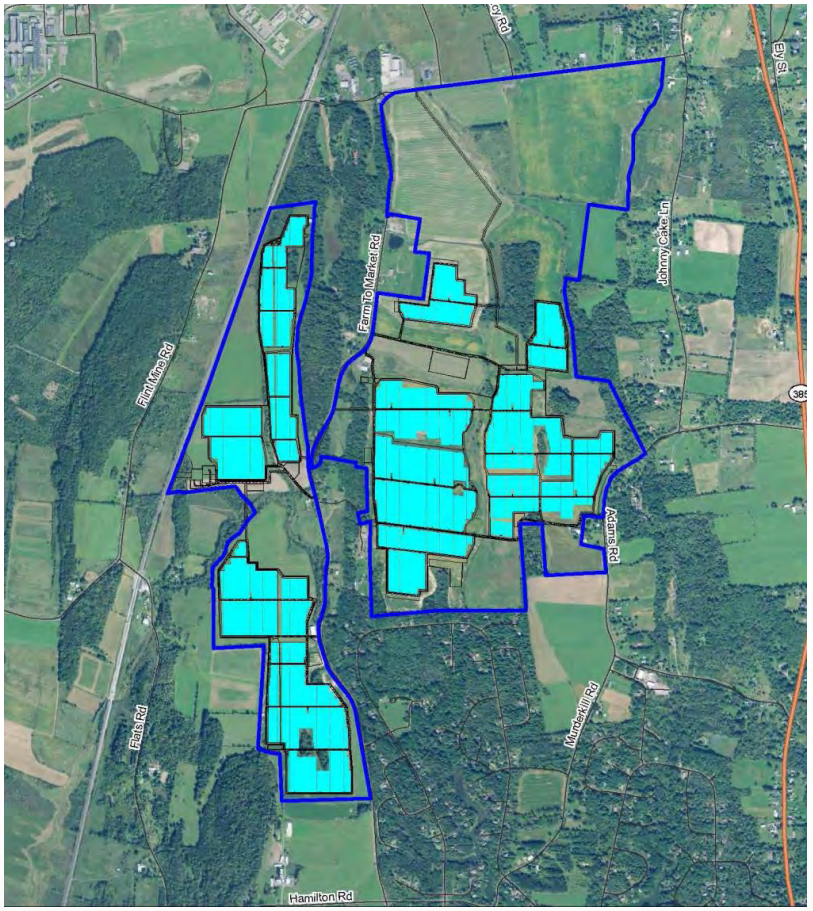
PROJECT OVERVIEW

GREENE COUNTY SOLAR FACILITY

Greene County Solar Facility will provide renewable energy to Greene County while protecting and preserving our clean air, water quality, and soil resources.

PROJECT DETAILS

- 50-megawatt photovoltaic (PV) solar facility.
- The solar facility will be built east of the CSX Railroad and west of Johnny Cake Lane. The Facility will encompass approximately 400 acres.
- Capable of safely supplying 93,206 megawatt-hours of renewable electricity per year to power over 13,000 average New York households.
- Delivers at least $4-6 million to local governments, fire department, ambulance company, and library.
- Boosts the area's economy, creating approximately 122 full-time equivalent construction jobs, and creating an economic stimulus for local businesses.
- Reducing statewide carbon dioxide emissions by 63,574 tons, which is equivalent to eliminating emissions from 13,500 cars.



Solar facilities are great neighbors.

They operate quietly without emissions or water discharges and help recharge farm soil for future generations.

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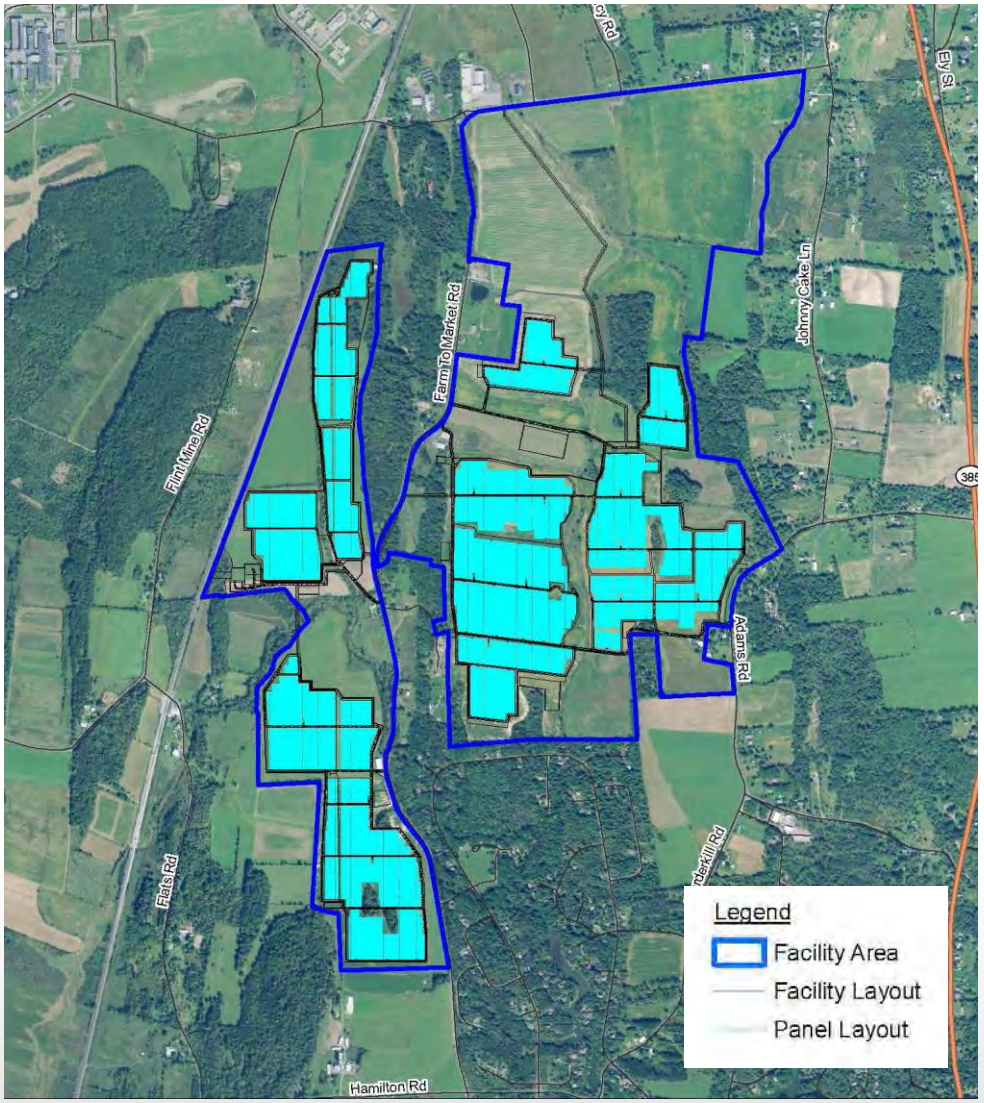
THE PROJECT

GREENE COUNTY SOLAR FACILITY



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CONSERVATION

GREENE COUNTY SOLAR FACILITY

Proposed Conservation Easement, Grassland Management Areas and Trails

LEGEND

Habitat Management Areas

- Grassland Management Area
- Conservation Easement Area
- Facility Area
- Fence
- Substation Area

These maps illustrate a proposed conservation easement, grassland management areas and trails for the facility.

It's important to note that discussions about these proposed areas are preliminary and will require continued negotiations before becoming final.

LEGEND

- Conservation Easement Area
- Facility Area
- Monitoring Station
- Trail

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TECHNOLOGY

GREENE COUNTY SOLAR FACILITY

Engineering and Technology

- The Facility will be configured as a ground-mounted solar farm with photovoltaic (PV) panels on galvanized steel tracker structures.
- It will include rows of single-axis trackers, oriented in a north-south direction, that rotate the PV panels from east to west following the sun's daily path, optimizing the amount of power the solar facility can produce.
- The PV array is low-profile, approximately 10 feet high above grade at the tallest point in the mornings and evenings (about the height of field corn stalks).
- The solar panels planned for this Facility are the crystalline type commonly used for residential rooftop systems. They contain the same materials (glass, aluminum, plastic) used in many household products such as windows.

Hecate Energy Morgan Solar Farm, Aragon, GA

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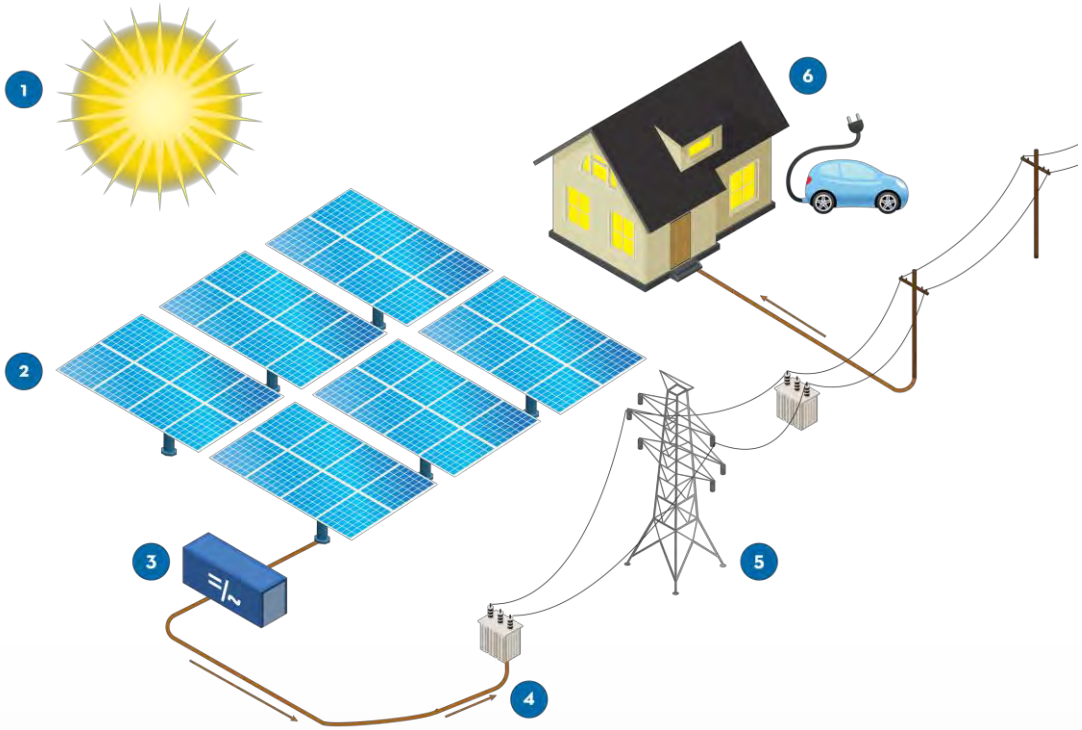
HOW SOLAR WORKS

GREENE COUNTY SOLAR FACILITY

The Solar Generation Process

1. Sunlight (photons) hits the solar panels
2. Photons dislodge the electrons from atoms in the photovoltaic (PV) cell and start a flow of electrons
3. Direct current (DC) flows from the panel to an inverter that turns it to alternating current (AC)
4. The AC electricity flows through wires to transformers which increase the voltage of the electricity and deliver it to the high voltage transmission system
5. The electricity travels across the transmission and distribution systems to get to your home and area businesses
6. Electricity is consumed by lights, heating, cooling, automation and transportation



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WHY SOCIETY WANTS SOLAR

GREENE COUNTY SOLAR FACILITY

AIR

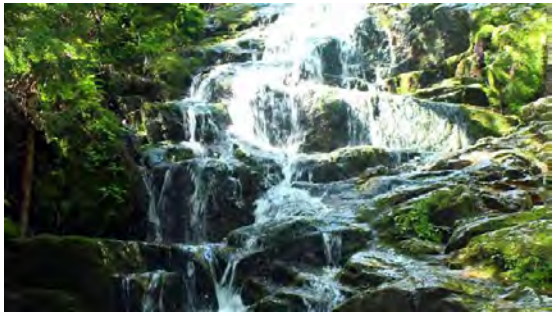
- Solar energy generates emission-free electricity.
- Energy from the Greene County Solar Facility is projected to offset nearly 63,574 tons of CO_2 per year - that is equivalent to taking over 13,500 average cars off the road.

SOIL

- Solar facilities do not damage or degrade soil resources, like conventional power projects do.
- Solar facilities are increasingly collocated with beneficial agricultural uses such as pollinator-friendly vegetation and livestock grazing.

WATER

- Solar facilities are excellent protectors of watershed resources.
- Unlike conventional power plants, operating solar facilities use little to no water. The low impact design also maintains porous surface area for local groundwater recharge.



Solar is Good for the Earth

Compared to other forms of electric generation, solar has the least impact on the environment.

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WHY SOCIETY WANTS SOLAR

GREENE COUNTY SOLAR FACILITY

Solar is Good for the Earth

Compared to other forms of electric generation, solar has the least impact on the environment.

Why Do We Need More Solar?	▪ New York's Climate Leadership and Community Protection Act (CLCPA) mandates that 70% of the State's electricity comes from renewable energy sources by 2030. Currently, we only obtain about 28%.
Where Will the Electricity Go?	▪ The electric energy produced by the solar facility will be injected into Central Hudson's Coxsackie-Athens 69 kilovolt (kV) transmission line and the Coxsackie substation.
How Will This Affect Reliability and Price?	▪ This Project will boost electric system reliability due to proximity to a vital section of the electric grid in Hudson Valley. ▪ Solar is one of the least expensive forms of electricity generation and its fuel, the sun, is free. As the price of other power generation grows, solar energy will help to mitigate overall electricity price increases.

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OVERVIEW OF ARTICLE 10

GREENE COUNTY SOLAR FACILITY

New York's Electric Power Plant Siting Law for Facilities Above 25 MW

Overview of Siting & Permitting Law

- Article 10 of the New York State Public Service Law governs the process for siting and permitting the Greene County Solar Facility.
- Article 10 is a comprehensive process that engages community involvement by providing funding for local parties to participate in the process and allocating votes in the decision-making process to the community. The Siting board consists of five state officials and two members of the local community.

Public Information Coordinator:
James Denn
NYS Department of Public Service
3 Empire State Plaza
Albany, NY 12223
518-474-7080
Email: james.denn@dps.ny.gov

Key Provisions of Article 10

- Defines a major electric generating facility as those that would generate 25 megawatts or more.
- Requires environmental and public health impact analyses, studies regarding electric system benefits and public safety, and consideration of local laws.
- Provides for appointment of ad hoc public members to the Siting Board from the municipality where the facility is proposed to be sited.
- Requires a public information coordinator within the New York State Department of Public Service to assist and advise interested parties and members of the public in participating in the siting process.

Public Involvement Program ("PIP") Plan → Preliminary Scoping Statement ("PSS") → Stipulations → Application → Hearing → Siting Board Decision

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APPROACH & SCHEDULE

GREENE COUNTY SOLAR FACILITY

Approach & Schedule of Permitting

December 2017	October 2018	December 2019	September 2020	Late 2020/ Early 2021	3rd Quarter 2021	4th Quarter 2021	2022
File Final Public Involvement Program Plan	Public Informational Open House	Full Application Submitted to NYS DPS	Full Application Deemed Compliant by NYS DPS	Adjudicatory Process - Public Hearings	Siting Board Decision	Commence Construction	Commence Facility Operation

It is not only our responsibility, but incumbent upon us, to provide you with information to gain a full understanding of the Project and allow opportunities for dialogue and feedback.

We are actively engaging the public through Project briefings, informational open houses, media stories, public notices, mailings, email, and other means.

The New York State Siting Board also will hold hearings in accordance with the Article 10 process.

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COMMUNITY OUTREACH

GREENE COUNTY SOLAR FACILITY

Communication

- Easy to access information and a place to provide feedback about the project with our dedicated project website: www.GreeneCountySolar.info
- Regular project updates by the project team for local governments (town, county, civic groups).
- Notices shared at key project milestones.
- Media briefings to keep the community current on project progress.

"This Informational Open House is an opportunity to inform the public, seek your feedback and engage your participation as we work to develop this project into a solar farm about which the entire community can be justifiably proud."

Gabe Wapner, Project Team

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Collaboration

- Close coordination and specialized training for first responders who may encounter solar panels either on our project, or on residential and commercial structures.

Long-Term Partnerships

- Revenue agreements that bring significant new funds to the community.
- When the project stops functioning as a solar power generation facility, all the components will be cleared and properly recycled or disposed of without impact to local taxpayers.

Our Name & Logo:

Reflects the circular trust shared by communities, utilities and developers when a power project respects its people and their resources.

COMMUNITY & ECONOMIC BENEFITS

GREENE COUNTY SOLAR FACILITY

Greene County Solar Facility will be a good neighbor supplying clean, affordable, renewable energy and an array of benefits for the community.

Community Benefits

- Greene County Solar Facility will create a new revenue stream the community can use for services including the local fire department, ambulance company, and library.
- The Facility will make minimal use of community services.
- Hundreds of acres of conservation easements and trails.

Funds for Local Government & Schools

- The Facility will generate long-term dedicated revenue for the town, county, and schools.
- $4-$6 million in payments and contributions.
- New revenues will be significantly higher than the current tax revenue generated by the land on which the Facility will be sited.

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Economic Benefits

Employment Opportunities

- Approximately 122 jobs will be created during peak construction.
- Local businesses and workers will be contracted for engineering, surveying, site preparation, construction and ongoing operation and maintenance support.

Local Economic Impact

- Hecate Energy's investment will result in approximately $50 million in positive economic stimulus including jobs created during construction and operations that will benefit local building trades, restaurants, lodging, gas stations, and stores.

ENVIRONMENTAL STEWARDSHIP

GREENE COUNTY SOLAR FACILITY

Hecate Energy's environmental philosophy is based on protecting our air, earth and water with clean energy. We have a stewardship to the planet to limit environmental impacts.

Maintenance and Cleaning

- If solar panels are broken or damaged through acts nature or otherwise, there are no materials that will leak out or pollute the air or ground. Hecate Energy will be responsible for any repairs or maintenance.
- Panels do not require washing with chemicals. To the extent washing is needed, which is expected to be infrequently due to regular rainfall, distilled water will be used.

Decommissioning

- When the Facility stops producing power, the site will be cleared of foreign material and the panels will be properly disposed.
- The majority of the materials used to build the Facility will be steel, aluminum and glass, which allow for recycling by Hecate Energy. The land will be restored to its pre-existing condition.

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ENVIRONMENTAL STUDIES

GREENE COUNTY SOLAR FACILITY

Potential impacts are rigorously studied in the siting process administered by New York State in conjunction with local stakeholders. Issues pertaining to community, wildlife or wetland impacts are addressed as part of this comprehensive process.

Visual

- A common misconception about solar photovoltaic (PV) panels is that they inherently cause or create glare. Light absorption rather than reflection is central PV panels' function solar PV panels to absorb solar radiation and convert it to electricity.
- Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Modern PV panels reflect as little as 2% of incoming sunlight, about the same as water and less than soil or even wood shingles.
- Hecate Energy is committed to working with the adjacent landowners and the community to ensure minimal visual impact occurs. A vegetative landscape plan will be designed to screen the Project from adjacent areas.

Wildlife

- Hecate Energy is focused on preserving wildlife habitat.
- The Facility has undertaken environmental surveys to minimize adverse impacts to wildlife and will mitigate any impacts that may arise.

Additional Studies Conducted

- Land use, geology, soils, agriculture & water resources, wetlands, culture resources, noise, vibration, transportation and socioeconomics are all studies that have been conducted by professionals hired by Hecate Energy.
- These studies are included in the Article 10 application and are available to the public.




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WATER & SOIL

GREENE COUNTY SOLAR FACILITY

Hecate Energy will work with the landowners prior to beginning construction activities to obtain all required permits. It is vital to ongoing operations of the Facility that drainage be maintained and perhaps improved.

Stormwater, Soil, and Crop Pollination

- The Facility will eliminate the use of farming fertilizers within the operations area of the site.
- By using the right seed mix, solar sites can provide significant benefits related to soil regeneration, and crop pollination.
- Compared to agricultural production of row crops, stormwater runoff is reduced with the siting of solar facilities due to establishment of meadow habitat within the array areas.
- Establishment of native plants improves the soil's organic matter over the 35- to 40-year life of the Facility, allowing microorganisms and soil fauna to recover after years of intensive farming.

Sleepy Hollow Lake

- An analysis of the potential for the Greene County Solar Facility to affect water quality conditions in Sleepy Hollow Lake has been completed.
- Comparing soil loss from existing agricultural activities to the establishment of meadow habitat throughout the life of the Facility determined a reduction of 2,921 tons of sediment (91% less).
- Additionally, the establishment of very dense warm-season grasses will increase infiltration and reduce runoff in comparison to existing conditions.

Did you know?

Solar energy does not pollute local water resources because solar photovoltaic cells do not rely on water to generate power.

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CLIMATE CHANGE

GREENE COUNTY SOLAR FACILITY

Hecate Energy actively supports clean, renewable energy to combat climate change

- The Greene County Solar Facility will provide clean, renewable electricity that helps consumers save money on their utility bills as it combats climate change.
- The Project team is paying particular attention to the solar facilities design, balancing our society's clean energy needs with interest to the local community.
- The Facility will offset over 63,574 tons of CO_2 per year, equivalent to taking 13,500 average cars off the road.

"We acknowledge these goals are extremely ambitious. They need to be in order to meet the level of greenhouse gas reduction scientists tell us is necessary to avert the worst impacts of climate change. And we acknowledge there is not a playbook we can pull off the shelf for how to decarbonize the world's 13th-largest economy. New York is committed to writing that playbook, to not only having a vision but backing it up with concrete plans."

Alicia Barton
New York State Energy Research & Development Authority (NYSERDA)

New York State has set some of the nation's most ambitious goals on fighting climate change

- The new law requires electric utilities to procure at least 6,000 megawatts of solar power by 2025.

New York's Emission Reduction Goals

New York generated about 206 million metric tons of greenhouse gas emissions in 2016

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

CLPCA goals:

40% emission reduction by 2030

85% emission reduction by 2050

Remaining 15% of emissions would be offset to make the state carbon neutral

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VISUALIZATIONS

GREENE COUNTY SOLAR FACILITY

GREENE COUNTY SOLAR FACILITY
Greene County, NY

PHOTO SIMULATION

Representative Viewpoint 1:
Residence/
Farm To Market Road

VICINITY MAP

Photograph Information

Time of photograph: 10:30 a.m.
Date of photograph: 10/14/2019
Weather condition: Partly Cloudy
Viewing direction: East
Latitude: 42.333960° N
Longitude: -73.817749° W
Photo Location: The photo was taken from along Farm To Market Road approximately 300 feet east of the Project.

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Visualizations

GREENE COUNTY SOLAR FACILITY

GREENE COUNTY SOLAR FACILITY
Greene County, NY

PHOTO SIMULATION

Representative Viewpoint 6:
Residence/
Adams Road

VICINITY MAP

Photograph Information

Time of photograph: 7:55 a.m.
Date of photograph: 10/14/2019
Weather condition: Partly Cloudy
Viewing direction: East
Latitude: 42.326821° N
Longitude: -73.804851° W
Photo Location: The photo was taken from along Adams Road approximately 55 feet south of the Project.

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INFORMATIONAL MEETING

GREENE COUNTY SOLAR FACILITY

Virtual Informational Open House

Project documents will be available at:
www.GreeneCountySolar.info/OpenHouse

Submit comments or questions, or request a hardcopy of the materials, by October 7, 2020 at Contact@GreeneCountySolar.info or by calling 833-529-6597.
All comments & questions will receive responses provided by the Hecate Energy team.

Virtual Meeting

Please join the Hecate Energy team
Wednesday, October 14th at 6:00 p.m.
for a public Zoom call.

We will be online to answer your questions, provide updates and generally discuss the Facility.

For the invitation, please visit:
www.GreeneCountySolar.info/ZoomMeeting

Learn about:

- Project Overview
- Economic Benefits
- Environmental Studies
- Community Benefits
- Job Creation
- Construction
- Permitting
- Hecate Energy

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Thank You!

Website and Contact Information

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