

# About the Company

SHEPHERD'S RUN SOLAR FARM

# Headquartered in Chicago, Illinois, Hecate Energy is a developer of solar power, wind power generation facilities and energy storage solutions.

- 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's team has developed thousands of megawatts of electricity generation projects across the United States.
- Entered into over 1.3 gigawatts (powering approximately 910,000 homes) of renewable power purchase agreements since 2012 and has approximately 8 gigawatts of additional projects currently under development.
- Hecate is one of the most active solar energy developers in New York State with more than 650 MW under active development.

"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 add to a community's tax base."

Alex Campbell, Project Team





## Shepherd's Run Solar Farm Project Team:

- Alex Campbell
- Jim McGowan
- Gabe Wapner



Hecate Energy

To contact the Project team, please use the email and toll-free number provided below.

OpenHouse@ShepherdsRunSolar.com



# Project Overview

### SHEPHERD'S RUN SOLAR FARM

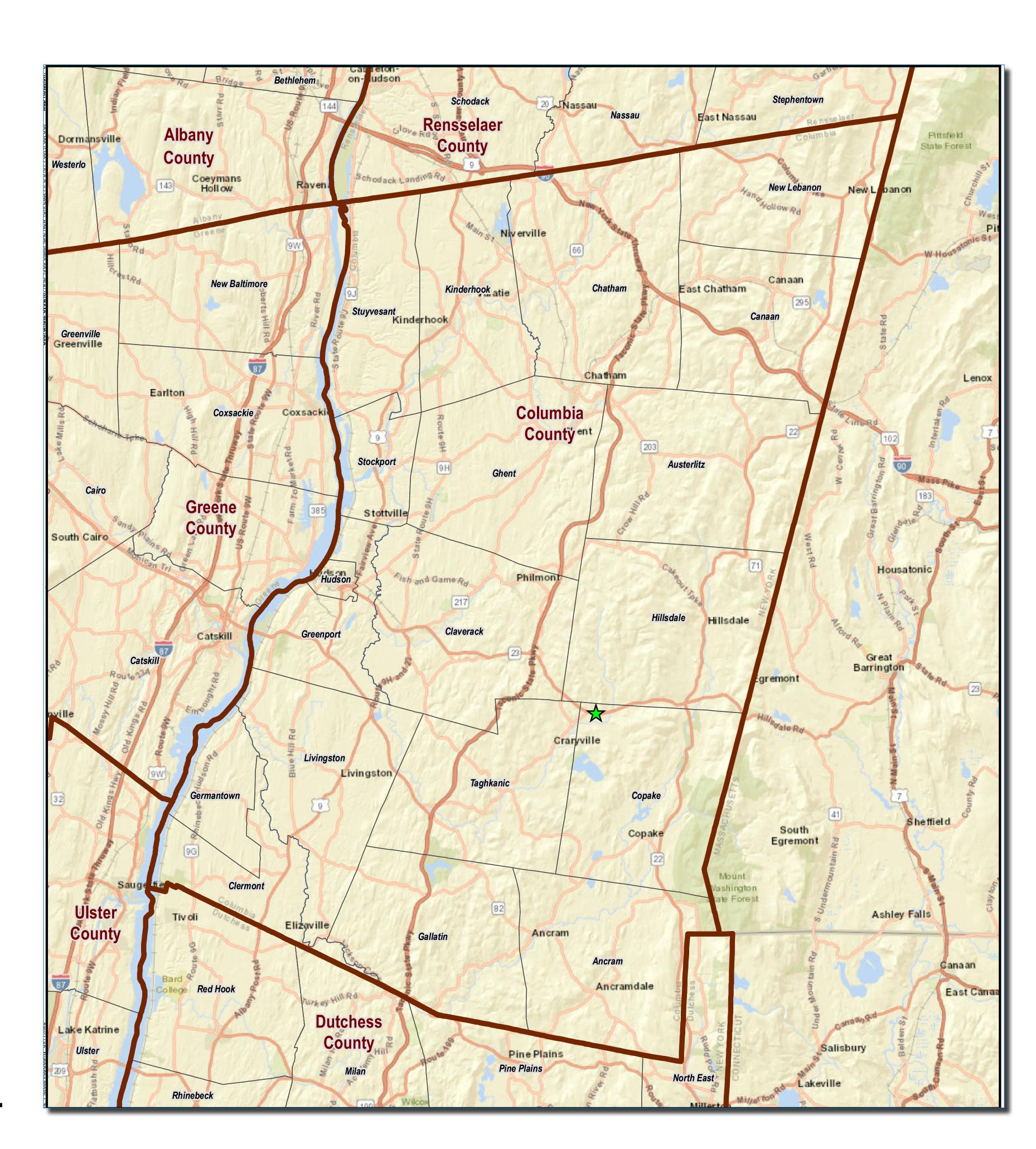
Shepherd's Run Solar Farm will provide renewable energy to Columbia County while protecting and preserving clean air, water quality, and soil resources.

Solar facilities are great neighbors.

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

## **Project Details**

- 60-megawatt photovoltaic (PV) solar facility.
- The solar farm will be built on several non-contiguous areas along Route 23 and Route 7 in the Town of Copake. The footprint of the project is anticipated to be approximately 400-500 acres.
- Capable of safely supplying 110,000 megawatt-hours of electricity per year to power over 15,000 average households.
- Delivers significant revenues to local government and supports community services.
- Boosts the area's economy, creating over 200 construction jobs, and adding commerce for local businesses.
- Reduces reliance on fossil fuels, avoiding greenhouse gas emissions (estimated to offset over 85,745 tons of CO<sub>2</sub> per year- equivalent to taking 18,205 passenger cars off the road).





# The Project

SHEPHERD'S RUN SOLAR FARM



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(877) 772-0822



# Technology

## SHEPHERD'S RUN SOLAR FARM

## Engineering and Technology

- The Project will be configured as a ground-mounted solar farm with photovoltaic (PV) panels on galvanized steel tracker racking 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 farm can produce.
- The tracker structure is low-profile, approximately 10 feet high above grade at the tallest point (about the height of field corn stalks).
- The solar panels planned for this Project 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 Blair Road Solar Facility, Jacksonville, FL

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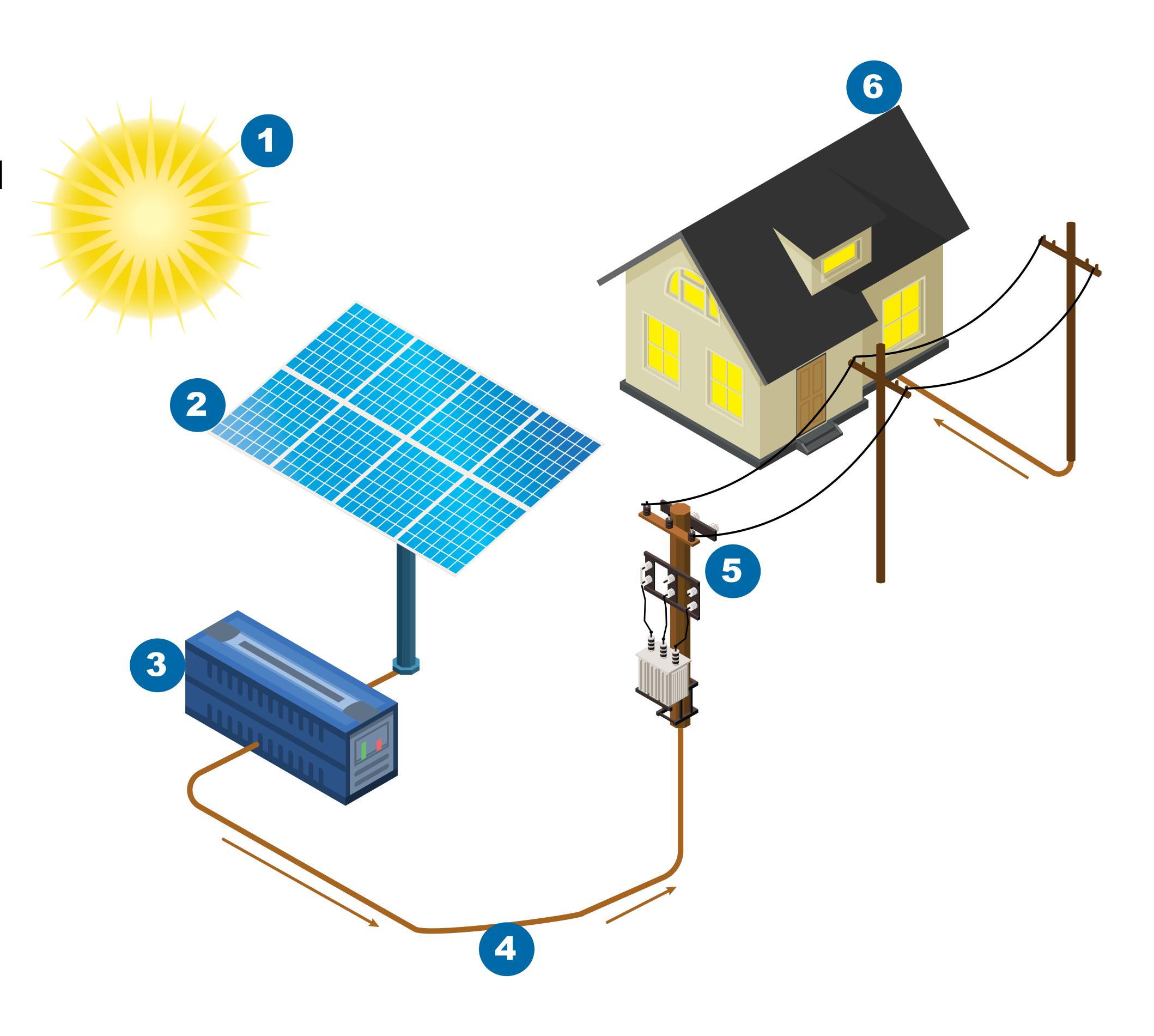
## How Solar Power Works

SHEPHERD'S RUN SOLAR FARM

Photovoltaic (PV) panels use the sun's energy to produce direct current (DC) electricity that flows to on-site electrical inverters that turn DC electricity to alternating current (AC) electricity, which then flows to the electrical grid for consumers to use.

## The Solar Generation Process

- When exposed to sunlight material in a solar panel absorbs the sun's photons
- Photons dislodge the electrons from atoms in the photovoltaic (PV) cell
- Direct current (DC) flows from the panel to an inverter that turns it to alternating current (AC)
- Copper wire carries the current out onto the grid
- The electricity travels across the grid into homes and businesses
- Electricity is consumed by lights, heating and cooling and automation





# Why Solar Energy Works for New York State

SHEPHERD'S RUN SOLAR FARM

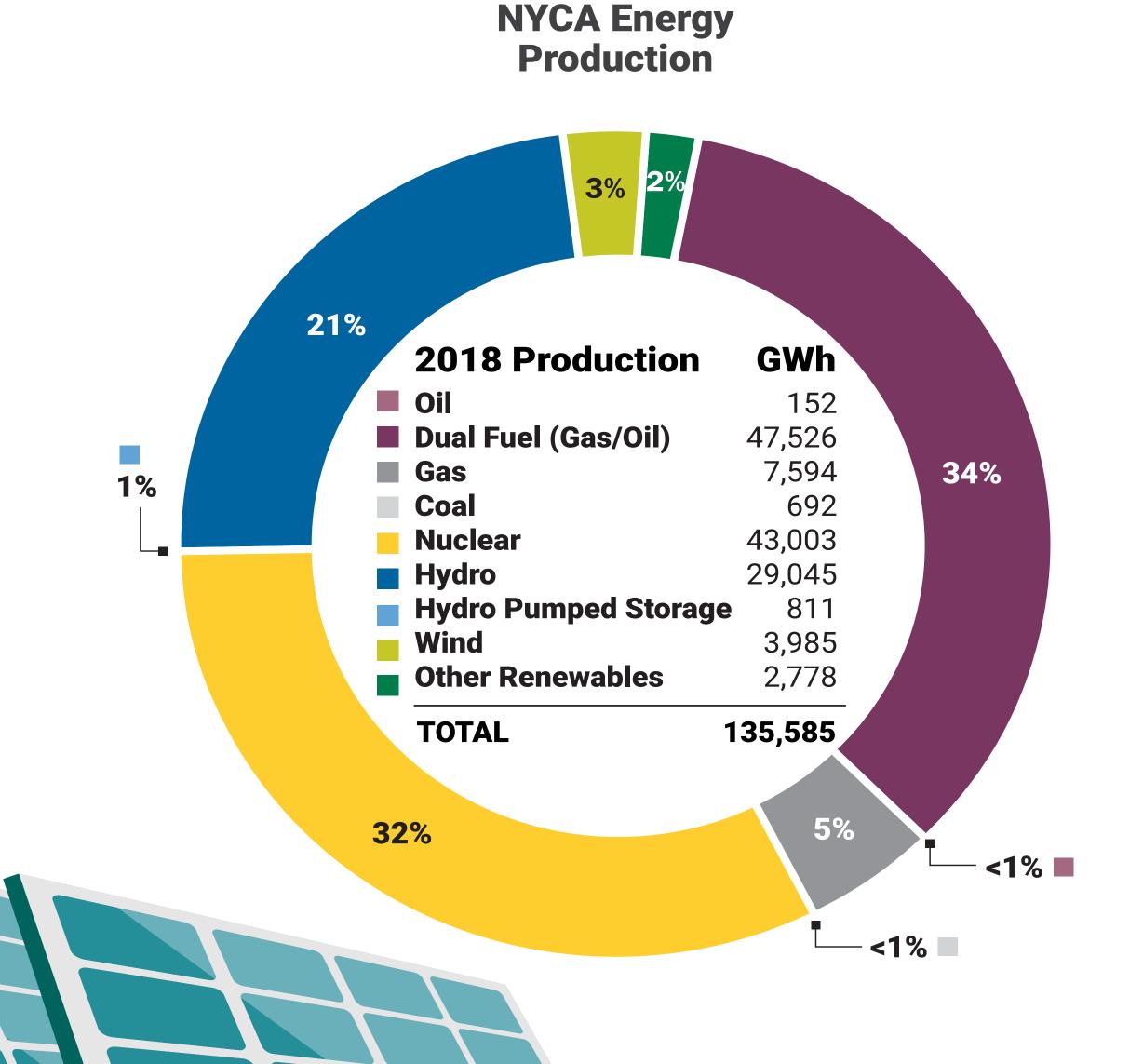
# Solar is Good for the Earth

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

#### Air

- Solar energy generates emission-free electricity.
- Solar energy reduces reliance on fossil fuels and avoids greenhouse gas emissions (energy from Shepherd's Run Solar Farm is projected to offset nearly 85,745 tons of CO<sub>2</sub> per year -- equivalent to taking over 18,205 average cars off the road).





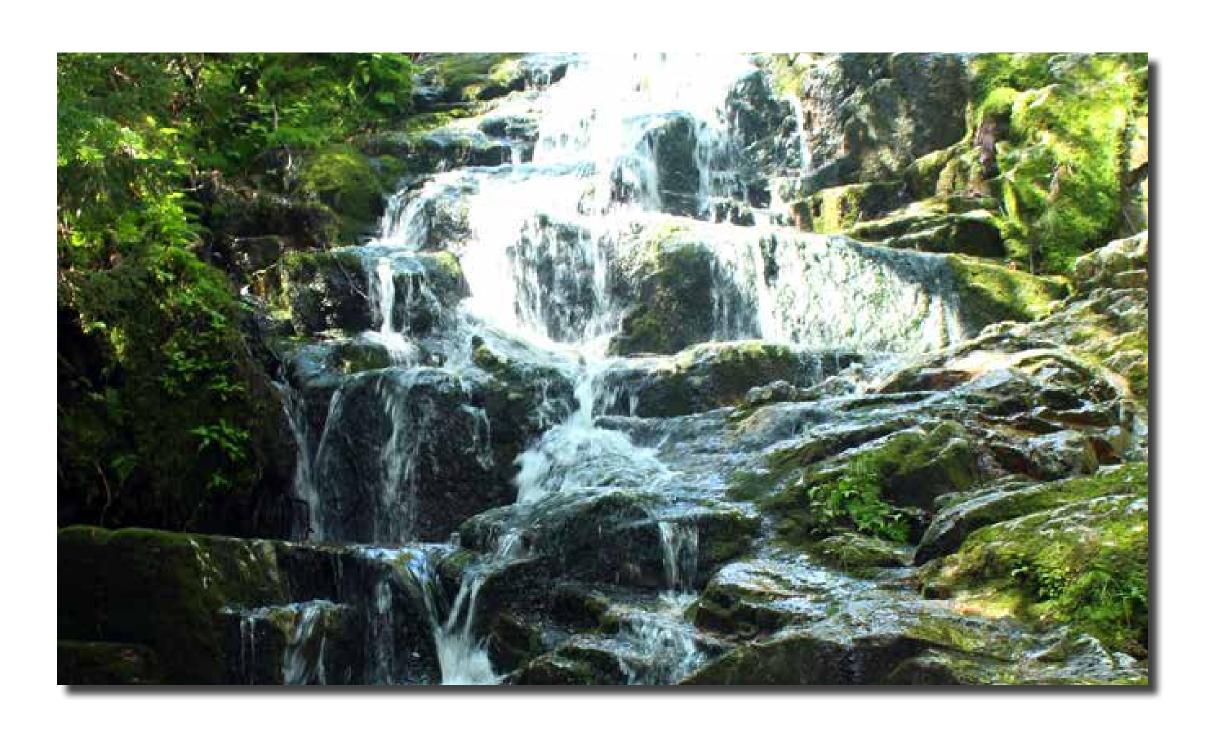
#### Soil

- Solar facilities do not damage or degrade soil resources, like conventional power projects do.
- Solar farms are increasingly co-located 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.



#### Why Do We Need More Solar?

New York's Climate Leadership and Community Protection Act (CLCPA) mandates that 70% of the State's electricity come from renewable energy sources by 2030. Currently, we only obtain about 28% of our power from renewables. Meeting this mandate will require significant additions of new, renewable power facilities.

#### Where Will the Electricity Go?

The solar farm will connect to the existing on site Craryville 115-kV substation, owned and operated by the local utility, New York State Electric & Gas (NYSEG). No new transmission lines will be required.

#### **How Will This Affect Reliability and Price?**

- This Project will boost electric system reliability due to its proximity to a vital section of the electric grid in the 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 technologies grow, solar energy's stable cost will help to mitigate overall electricity price increases.

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## Overview of Article 10

#### SHEPHERD'S RUN SOLAR FARM

# 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 currently governs the process for siting and permitting the Shepherd's Run Solar Farm.
- Article 10 is a comprehensive process that engages community involvement by providing local voting rights and funding for local parties to participate in the process. The Siting board consists five state officials and two local ad hoc members.

## Intervenor Funding

Article 10 projects are required to provide funds to be used to defray certain expenses incurred by municipal and local parties as they participate in the pre-application scoping process and in the Siting Board proceeding.



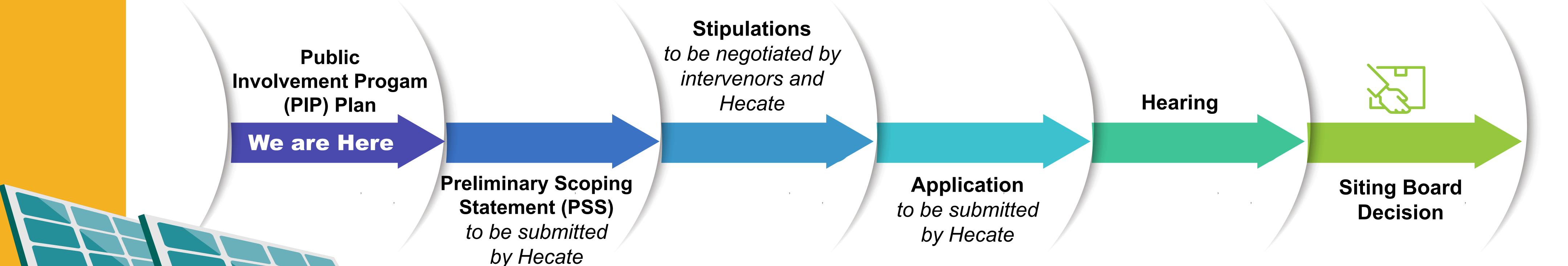
## Public Information Coordinator: James Denn

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.
- Requires appointment of ad hoc public members of the Siting Board from the municipality and county 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.



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# Planned Project Schedule

SHEPHERD'S RUN SOLAR FARM

April 1, 2020

File
Final Public
Involvement Plan

June 12-26, 2020

Virtual
Open House
Meeting

**July 2020** 

File Preliminary
Scoping
Statement

Third Quarter 2020

File Article 10
Application

Fourth
Quarter 2020

Full Application
Deemed
Compliant by
Siting Board

Informational Open House First Quarter 2021

Adjudicatory
Process Public
Hearings

Fourth
Quarter 2021

Siting Board
Decision on
Issuance of
Article 10
Certificate/Notice
to Proceed with
Construction

Third Quarter 2022

Commercial
Operations
Date

Hecate believes it is our responsibility to provide you with information to gain a full understanding of the Project and allow convenient opportunities for dialogue and feedback.

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

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





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