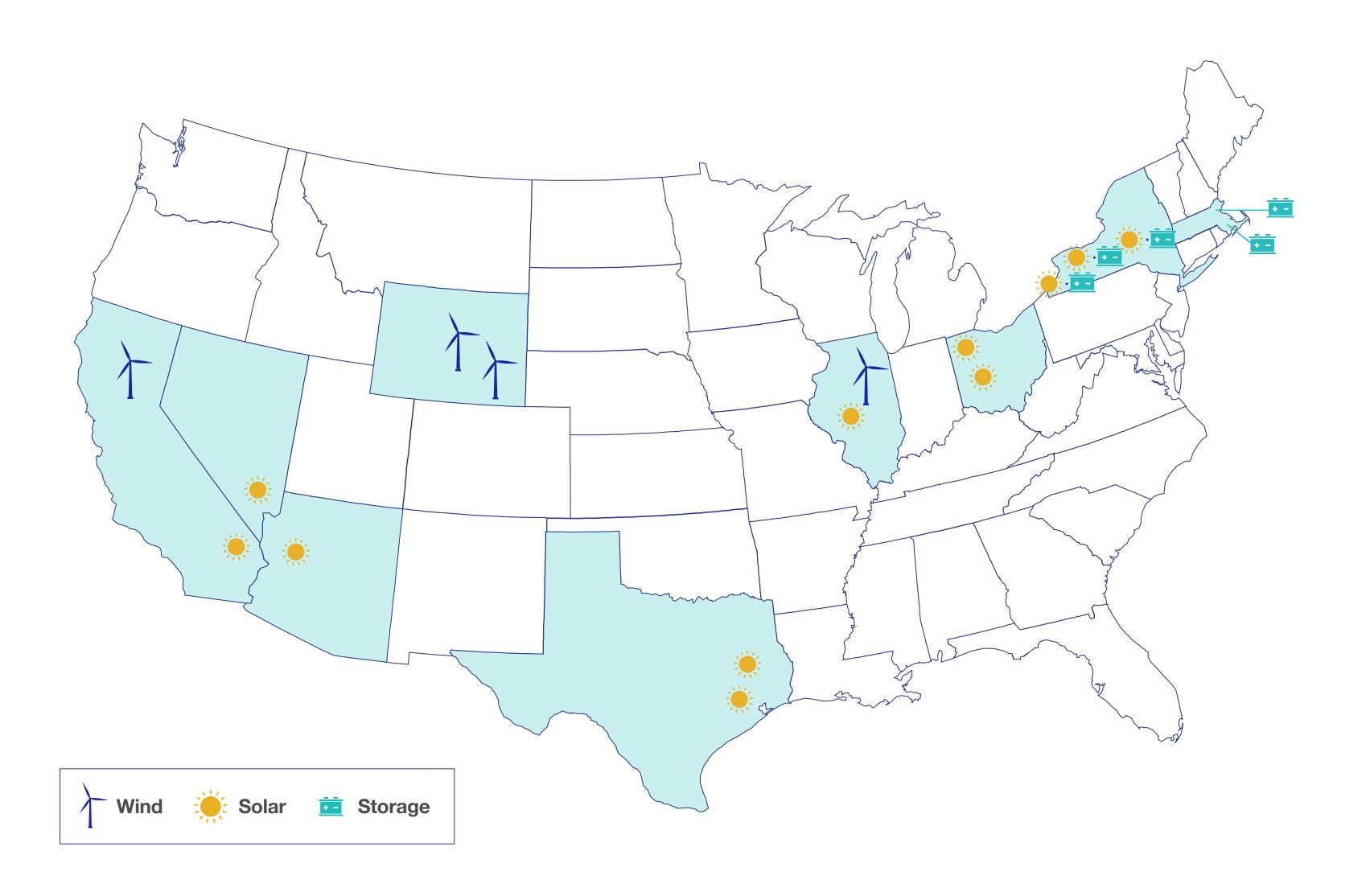




# WELCOME TO THE South Ripley Solar Project **OPEN HOUSE MEETING** PLEASE SIGN IN



## About ConnectGen



ConnectGen is backed by Quantum Energy Partners. Founded in 1998, Quantum Energy Partners is a leading provider of private equity capital to the global energy industry, having managed together with its affiliates more than \$16 billion in equity commitments since inception. You can find more information about Quantum Energy Partners at: <u>www.quantumep.com</u>.



**Based in Houston, Texas, our experienced** team has developed, built and operated thousands of megawatts across North America.



### Founded in 2018, ConnectGen is an independent renewable energy company focused on greenfield development of high quality wind, solar and energy storage projects across North America.



# ConnectGen's New York Experience

### EXPERIENCE

The ConnectGen team has previously managed and led the development of four utility-scale wind farms across New York, three of which are currently in operation.

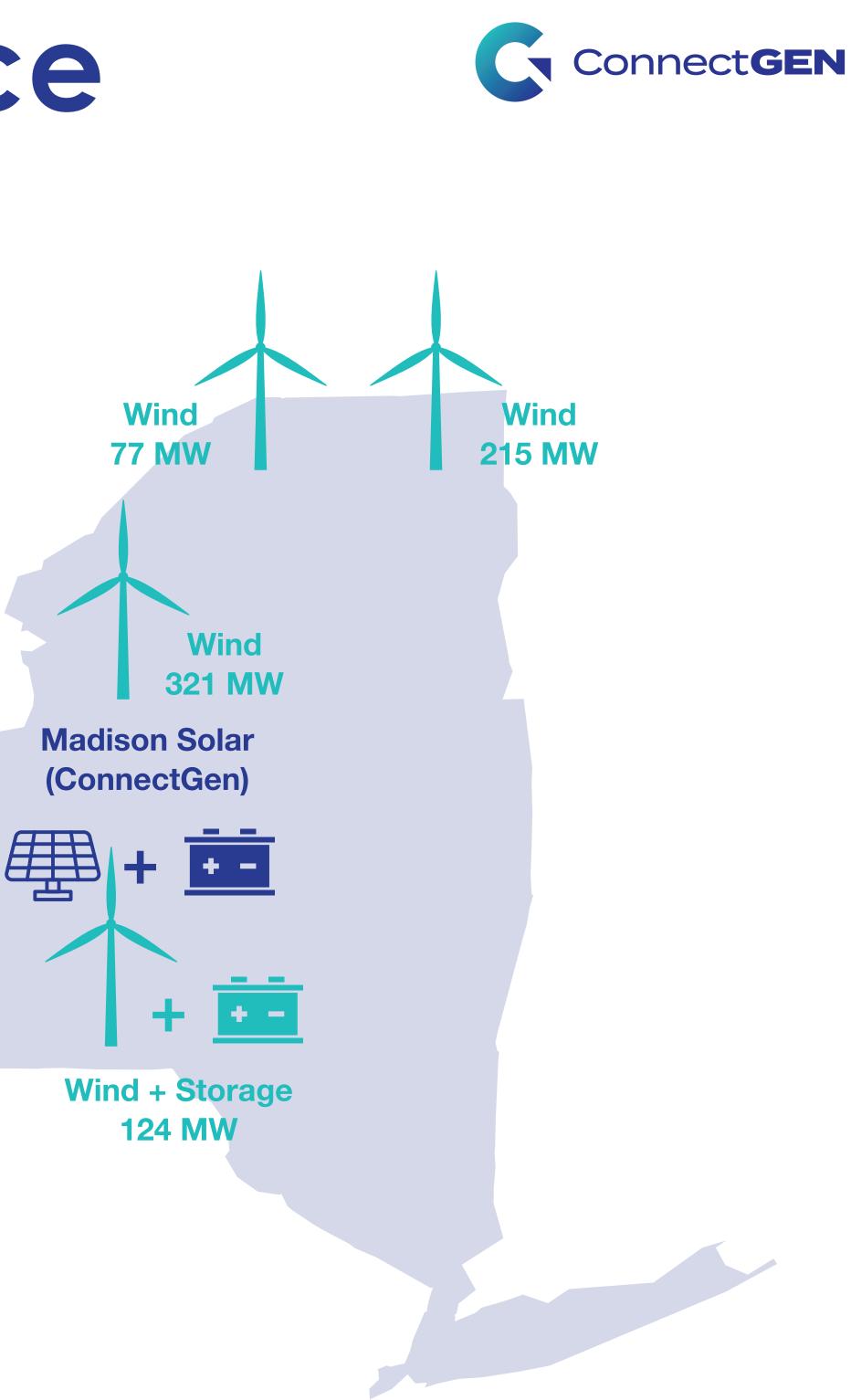
### **CURRENT DEVELOPMENT**

ConnectGen is in the process of development of three utility-scale paired solar / storage in New York while also continuing to additional opportunities across the stores acro

### CONNECTING POWER, PROJECTS, AND PEOPLE

ConnectGen's experienced development team has a track record of successfully identifying, developing and constructing renewable energy projects. Our previous project successes have been built on a foundation of strong relationships with the landowners and communities hosting the projects. We are committed to working with landowners, neighbors, and all project stakeholders to safely and responsibly design and build projects that bring long-term benefits to the communities.

	Big Tree Solar (ConnectGen)	
eloping ge facilities		
assess tate.	South Ripley Solar (ConnectGen)	
	Current Previo	us

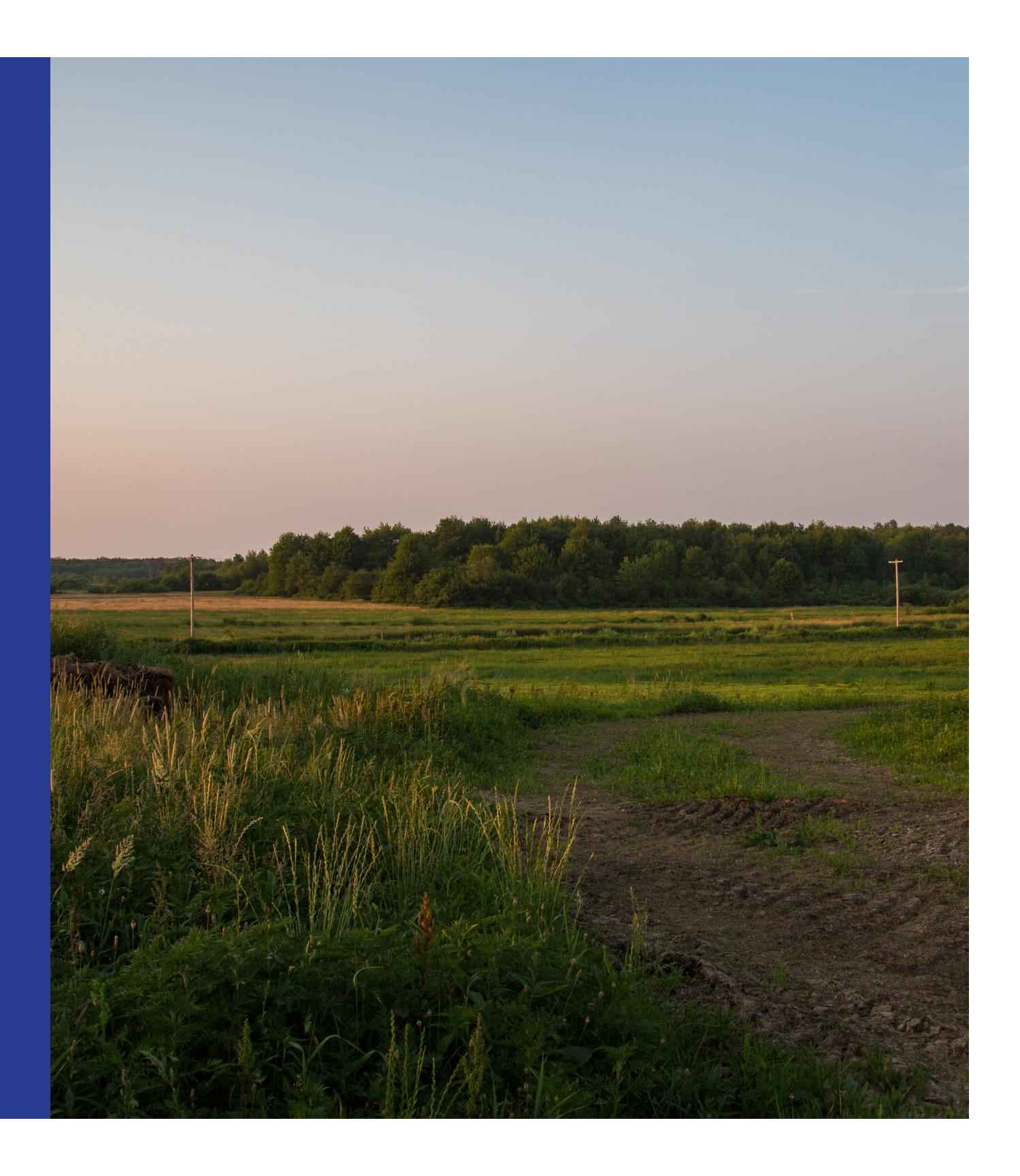


# Project Overview

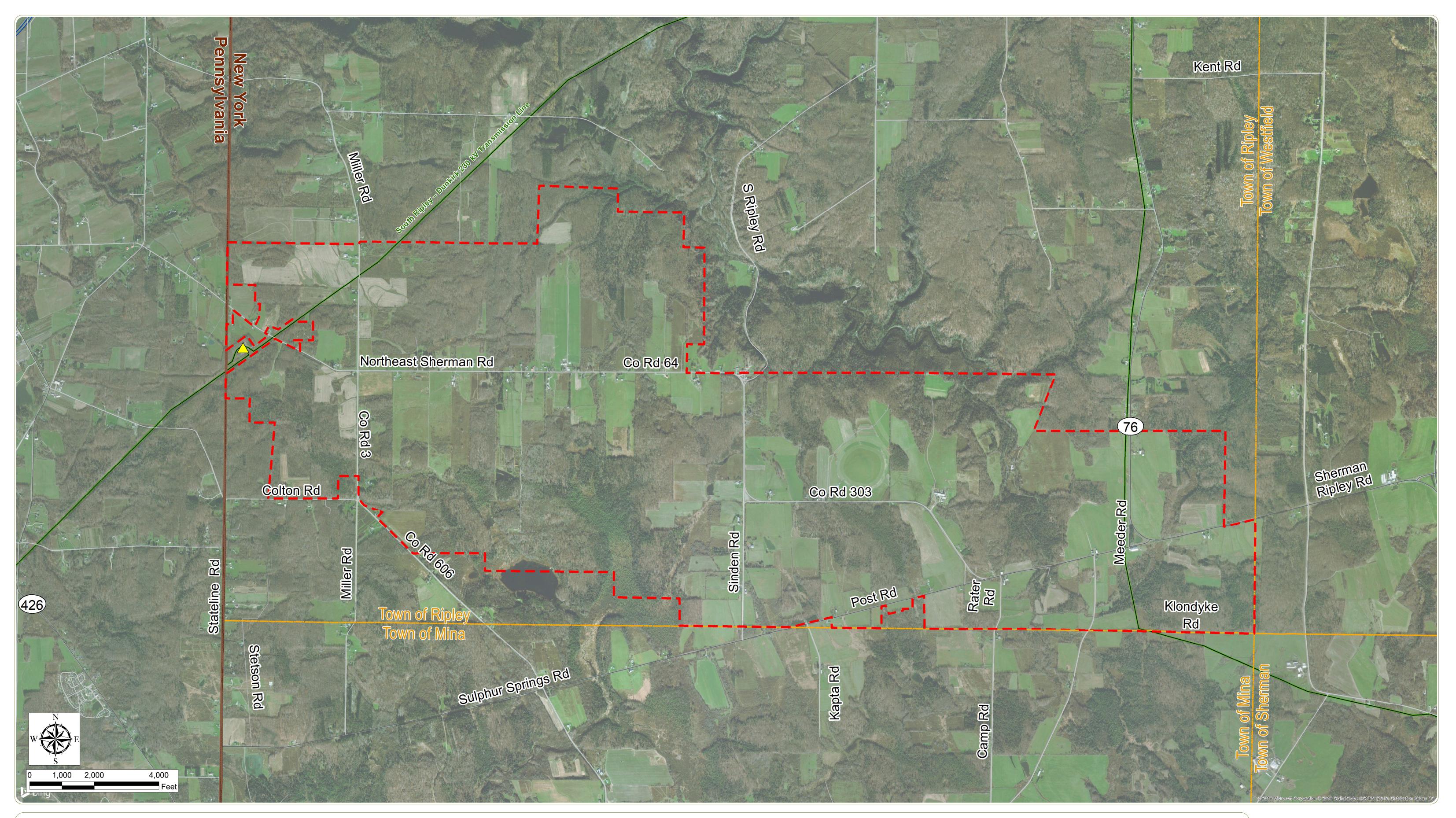
# G Solar project

**Project Owner:** ConnectGen Chautauqua County LLC Host Community: South Ripley, within the Ripley town boundaries **Renewable Resource:** Solar energy Projected Capacity: Up to 270 MWac New York Homes Powered: Up to 67,000 Projected Land Use: ~2,000 acres Projected Completion Date: End of 2022 or 2023 **Point of Interconnection:** South Ripley 230 kV Substation **Energy Storage:** Potential battery energy storage component









#### South Ripley Solar Project Town of Ripley, Chautauqua County, New York

#### **Preliminary Facility Area**

Notes: 1. Basemap: Bing Maps "Aerial" map service.
2. This map was generated in ArcMap on November 22, 2019.
3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

- South Ripley 230 kV Substation
   Transmission Line
   Facility Area
- Town Boundary
  State Boundary



# Why did ConnectGen Choose South Ripley, New York?







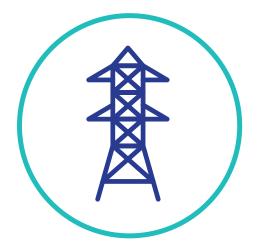
#### **Article 10 Permitting**



#### **Existing Transmission**

#### **Available Suitable Land**







• New York State has set a goal for the state's utilities to source 70% of their electricity from renewable energy by 2030 and for them to reach 100% zero carbon electricity by 2040.

Article 10 provides for the siting review of new electric generating facilities in New York State by the Board on Electric Generation Siting and the Environment (Siting Board) in a unified proceeding instead of requiring a developer to apply for numerous state and local permits.

Chautauqua County has a historic interest in renewable energy development. Ripley and South Ripley have supported the development of renewable energy.

The South Ripley Solar Project will be located in close proximity to the existing 230 kV South Ripley substation and transmission line, which has the available capacity to accommodate all electricity generated by the project.

Preliminary environmental review suggests high site suitability and limited development constraints. Minimal impacts to designated Prime Farmland are expected.

Forest vegetation and topography in the area creates the potential for natural visual screening.



## Local Benefits

### **Direct Benefits:**



Up to **\$15 million** in increased revenue to the Town of Ripley, Chautauqua County, and the Sherman school district

### Indirect Benefits:

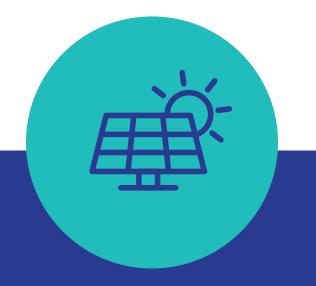
- and operation



• Revenue to local shops, hotels, restaurants, service and construction material suppliers during construction

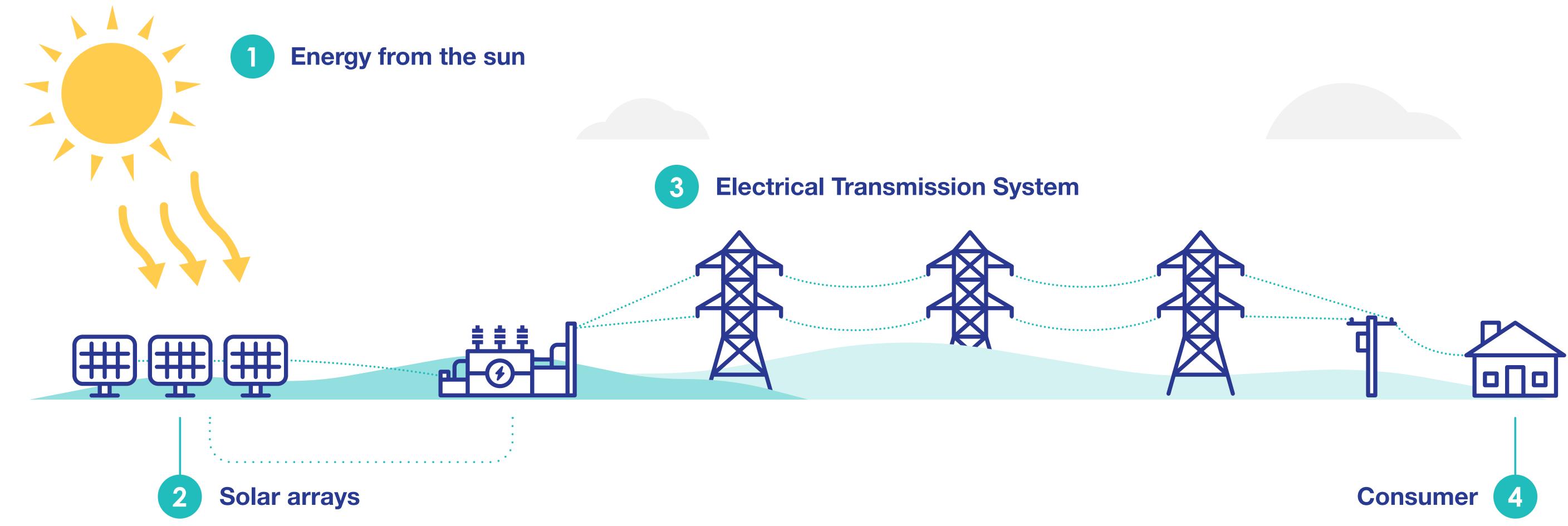
• Partnerships with local community groups, local sponsorships, and donations





Up to **\$40 million dollars in** payments to local landowners in the form of solar leases, easement agreements, and good neighbor agreements through the life of the project







Energy from the sun falls onto the earth's surface each day in the form of sunlight. The sunlight is absorbed by the solar panels, converting it into electricity.



Solar cells are small, square-shaped silicon semiconductors. Each solar cell is connected into a network of many other solar cells to create a PV (Photovoltaic) module or panel. A solar facility is comprised of thousands of panels.



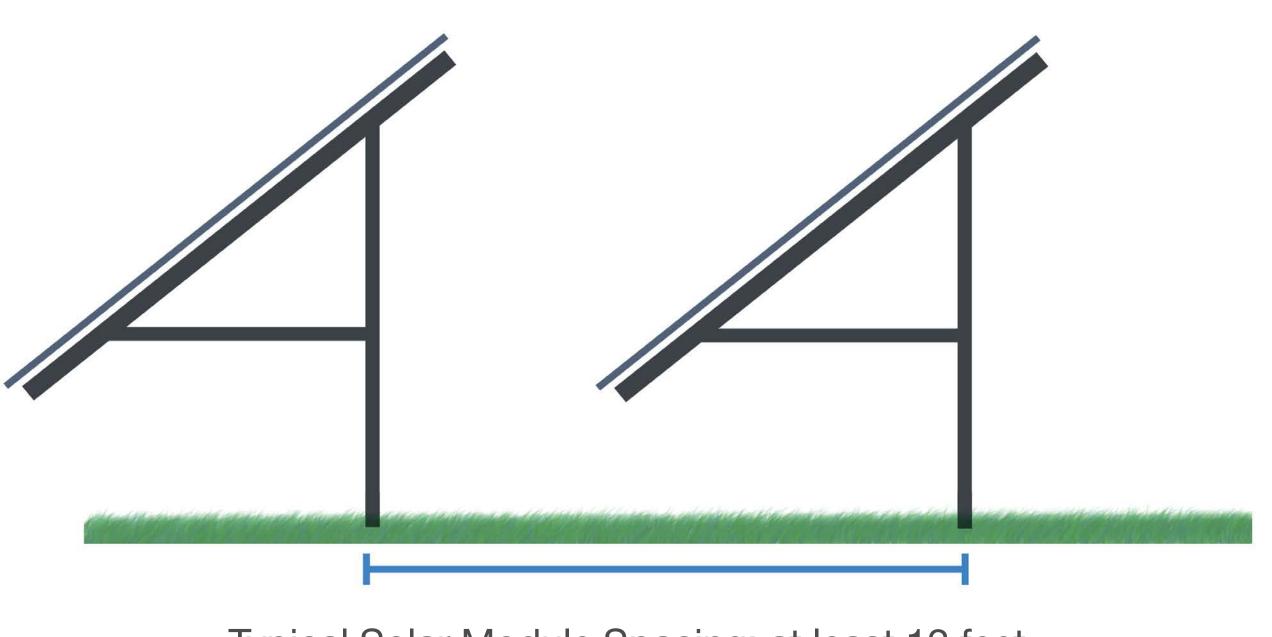
The absorbed sunlight is transformed into usable energy by way of an inverter that turns direct current (DC) energy into alternating current (AC) electricity. AC is the form of power used in homes and businesses.



Electricity generated travels through transmission/ distribution lines to homes and businesses.



## The Basics of Solar



Typical Solar Module Spacing: at least 12 feet

### Solar panels are safe

- PV panels meet strict electrical safety standards
- PV panels are designed to ensure no release or leakage of panel material into the surrounding environment
- PV panel arrays are typically fenced to ensure safety and security

### Solar panels produce minimal glare

PV panels are designed to absorb light, not reflect light, and therefore produce minimal glare



Typical Solar Module Height: 12 feet

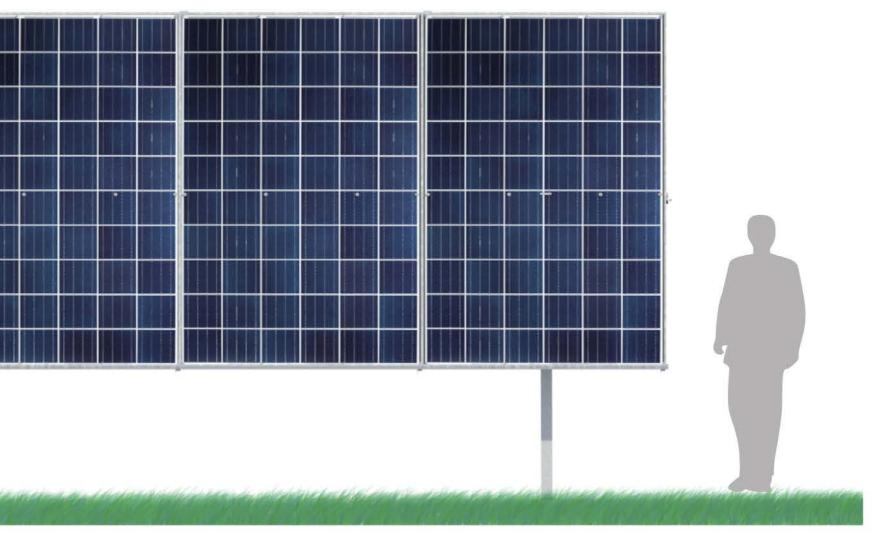
### Solar panels are quiet

- Solar photovoltaic (PV) panels make little or no sound
- Associated electrical equipment creates minimal sound
- Limited required equipment maintenance such as mowing or access road upkeep would be conducted during the day

### Solar panels do not pollute

- No combustion, emissions, or odors •
- No water discharges or use of neighboring water bodies for heating or cooling





# Energy Storage

## The Project may include up to 20 megawatts of 4 hour duration energy storage in the form of batteries co-located with the point of interconnection

### WHAT BENEFITS DOES ENERGY STORAGE BRING?

Energy storage allows the project to save energy during low load times and discharge onto the grid when people need power.

#### WHAT TECHNOLOGY IS USED?

- Most utility scale energy storage options utilize Lithium-ion batteries – the same technology used in electric vehicles.
- ConnectGen will continue to evaluate the best technologies on the market prior to construction.

#### WHAT DO THESE BATTERIES LOOK LIKE?

Batteries are typically installed in 40 ft x 8 ft enclosures, similar to shipping containers, with builtin fire suppression systems.





https://www.solarpowerportal.co.uk/news/gore\_street\_clinches\_160mw\_ireland\_battery\_storage\_portfolio

## Construction

### SITE PREPARATION

- Clear and grade land as required
- Construct site entrances and access roads
- Create temporary laydown yards

#### **PILE/FOUNDATION INSTALLATION**

- Install piles to hold panel racking system
- Final pile length dependent on slope and soil type
- Pour concrete pads for inverters and high voltage equipment

### **RACK ASSEMBLY AND PV INSTALLATION**

- Install panel racks on piles, then install solar modules on panel racks
- Panel racks and modules typically up to 12 feet tall
- voltage substation

### **CONCLUSION OF CONSTRUCTION**

- Remove all construction equipment
- Clear laydown yards
- Restore disturbed land

Common steel pile types: Driven piles, ground screws, helical anchors (no concrete expected)

Install inverters on pads located near or in between racks of panel modules, and connect to high





# **Operation & Removal**

### SITE MANAGEMENT

- Limited upkeep is required during the life of the facility.
- Most common maintenance activities are associated with vegetation management such as mowing.
- It is also common to seed the field with low growing native grasses or plants to minimize the need to mow frequently.

#### **EQUIPMENT MAINTENANCE**

The project facilities will be designed for a minimum 30-year lifespan. Should a panel or other piece of project infrastructure be damaged or malfunction, the system's modular design allows for simple repair or replacement.

#### DECOMMISSIONING

- ConnectGen is responsible for the decommissioning and removal of project infrastructure at the end of the project's useful life.
- NY State will require a decommissioning fund as part of the state permitting process.
- Ensures funds will be available to dismantle and remove facility components at the end of their useful lives.
- After decommissioning, ConnectGen will strive to return the property to as close to the condition it was in prior to the project.







# Next Steps for ConnectGen

#### DEVELOPMENT 24 – 36 MONTHS

### **COMMUNITY ENGAGEMENT AND LAND ACQUISITION**

- Coordinate with landowners to introduce the project
- Execute lease agreements

#### 2019/2020 NYSERDA RENEWABLE ENERGY STANDARD RFP

#### ENVIRONMENTAL STUDIES AND PRELIMINARY DESIGN

#### **ELECTRIC GRID INTERCONNECTION STUDIES**

#### **REGULATORY REVIEW & PERMITTING**

- Negotiate tax agreements with local and state taxing authorities

#### FINAL ENGINEERING & DESIGN

Complete final engineering and design in preparation for construction

#### CONSTRUCTION 9 – 18 MONTHS

Engage elected town officials and other community leaders in an effort to inform the broader community

Secure long term contract for the sale of renewable energy credits with the State of New York

Complete desktop and field studies to identify environmental sensitivities in the project area

Undergo technical studies completed by the local utility and NY grid operator to secure the right to connect to the electrical grid

Stakeholder engagement and environmental impact assessment through the New York State Article 10 process Secure all federal, state, and local permits necessary for construction and operation of the project



#### **OPERATION 30 – 43 YEARS**

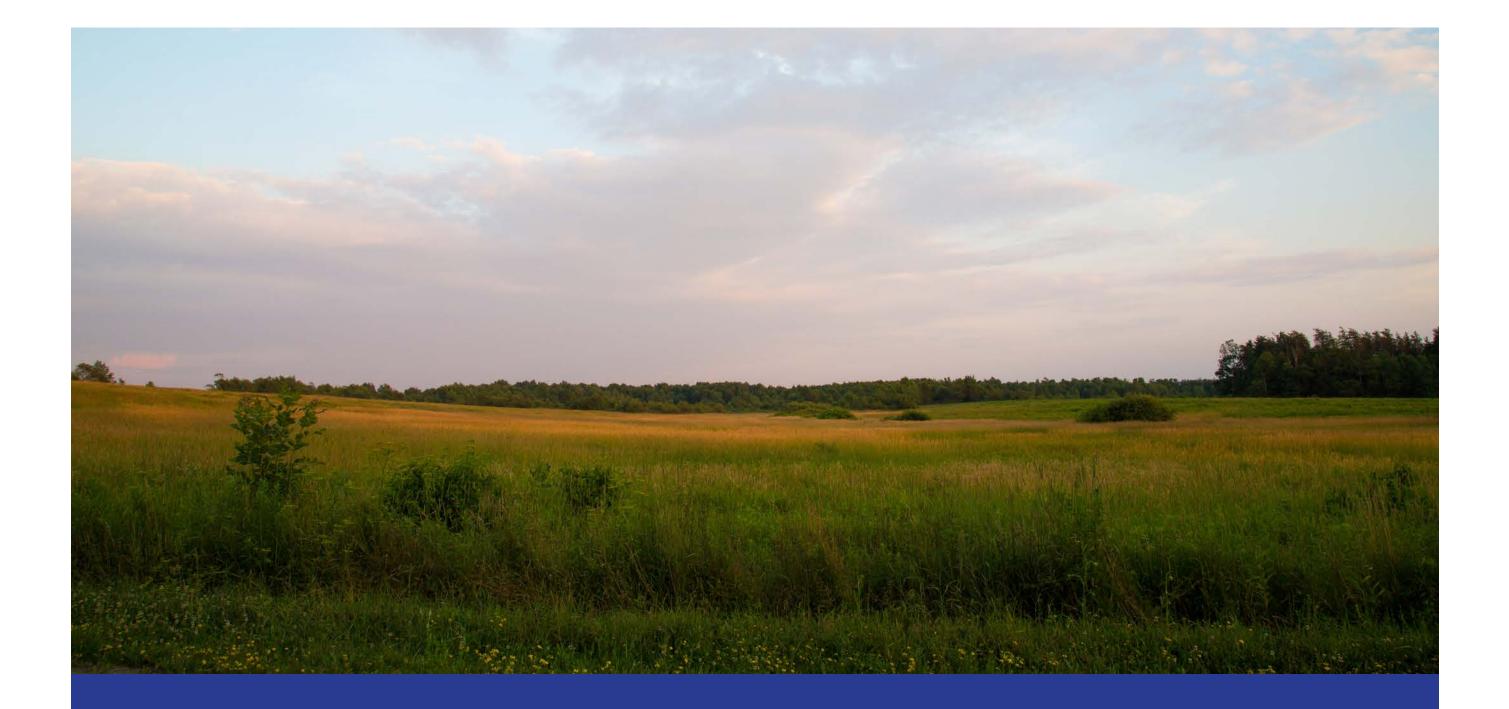
# Article 10

**New York State requires that major electric** generation facilities (25 megawatts or more), including solar projects, undergo a rigorous state permitting process, under Public Service Law Article 10, prior to construction and operation.

Article 10 requires the New York State Board on Electric Generation Siting and the Environment (Siting Board) to issue a Certificate of Environmental Compatibility and Public Need (Certificate) authorizing the construction and operation of major electric generating facilities.

The Siting Board consists of five permanent members and two project-specific local ad hoc members who are appointed specifically to provide a local voice in each proceeding. The New York State Senate Majority Leader and the Speaker of the New York State Assembly each appoint one ad hoc member from a list of candidates submitted by the host Town and County.

For more information on the Article 10 process, visit the New York State Department of Public Service's Siting Board home page.



Under the Article 10 permitting process, utility scale solar developers are required to:

- **Incorporate extensive public input**
- Engage a wide range of local stakeholders
- Evaluate environmental, public health, and public safety impacts of development
- **Establish comprehensive strategies for** safe operation, project maintenance, and end of life decommissioning



# Pre-Application

The Public Involvement Program (PIP) is the first document filed as part of the project's progress through the Article 10 Application process. The PIP Plan identifies the project's stakeholders, the methods by which stakeholders will be notified and consulted throughout the Article 10 process, and activities ConnectGen will engage in to encourage stakeholder participation.

The Preliminary Scoping Statement (PSS) provides a description of the proposed project, details the studies that will be performed to evaluate potential impacts, and outlines the steps that will be taken to avoid and minimize impacts. The PSS can be filed 150 days following the filing of the PIP and at least 90 days before filing an Application. The PSS must be provided to state and municipal agencies, state and local officials, and local libraries. A notice summarizing the PSS must also be placed in newspapers. There is a 21-day period for the public to comment on the PSS, and ConnectGen will have 21 days to respond to all comments received. Agreements on the scope and methodology of studies (i.e., proposed Stipulations) occur after the PSS. The major components of the PSS include:

- Proposed facility and environmental setting
- Potential significant, adverse environmental Proposed studies to evaluate potential impacts and health impacts



Visual simulations showing potential visual impacts

- Measures to avoid o mitigate adverse imp
- Reasonable alternati
- Information and plan for decommissioning



)r	<ul> <li>Socioeconomic</li> </ul>
oacts	impact studies
ives	State and Federal
7S	requirements
g	

## Intervenor Funding

### **Under Article 10, ConnectGen** is required to provide funds for intervenor participation.

## \$350/MWac

### AT THE TIME THE PUBLIC **SCOPING STATEMENT** (PSS) IS FILED

## \$1,000/MWac

**IN ADDITION AT THE TIME THE PROJECT ARTICLE 10 APPLICATION IS FILED** 

- Following the PSS and Application submissions, funds are distributed to parties making a request to cover expenses toward participating in the review and providing feedback on project materials
- At least 50% of the funding is reserved for municipalities
- For more information on intervenor funding, please consult the project website.







# **Environmental Considerations**

**ConnectGen will consult with many agencies and stakeholders, including: the NYS Department of Public** Service, NYS Department of Environmental Conservation, NYS Department of Agriculture and Markets, State Historic Preservation Office, and other stakeholders to ensure that potential environmental impacts are fully considered. Studies to help avoid and minimize potential impacts include the following:





Review of U.S. Army Corps of Engineers and New York State Department of Environmental Conservation Wetland mapping

Field investigations to identify and delineate wetlands and streams

Coordination with NYSDEC, USFWS, and natural resource management entities

Field investigations to identify potential habitat or species presence

#### HISTORIC PROPERTIES



Coordination with the New York State Historic Preservation Office, Native American Tribes, and regional advocacy groups

Research and field investigations to identify previously known or unidentified archeological sites

Research, consultation with State Historic Preservation Office and regional historical groups

Historic properties are evaluated to determine their eligibility for listing on the State and National Registers of Historic Places

Evaluate potential visual effect on historic properties





VISUAL IMPACTS



Identification of Visually Sensitive Resources

Viewshed mapping of areas with potential Project visibility

Coordination with stakeholders and preparation of visual simulations to illustrate what the facility will look like when completed

# Application

**Application:** Once ConnectGen has completed the Pre-Application phase of the Article 10 Process and all environmental studies identified in the PSS, we will be ready to file an official Article 10 Application for Certification of Environmental Compatibility and Public Need (Application). The Application must include major project information including but not limited to:

Following the Application submittal, the state Siting Board will set a schedule for public hearings and review of the Application materials.

**Siting Board Decision:** The Siting Board must make explicit findings about the nature of the environmental impacts related to construction and operation of the facility and related facilities. Specifically, the Board will consider impacts to:

The Board will determine that the facility is a "beneficial addition or substitute for" generation capacity, that construction and operation are in the public interest, that adverse environmental effects will be minimized or avoided, and that the project is in compliance with state laws and regulations.

- A project description

- and habitat
- Public health and safety



• A summary of all public involvement activity Evaluation of expected environmental and health impacts, environmental justice issues, and reasonable alternatives • Facility and community safety plans

Statewide electrical capacity Ecology, air, ground and surface water, wildlife,

Cultural, historical, and recreational resources Transportation, communication, utilities, etc. Cumulative emissions on the local community according to environmental justice regulations

## **Article 10 Process Timeline**

#### <u>2019</u> 2020 2022

#### **PRE-APPLICATION**

#### HOW CONNECTGEN IS INVOLVED

### **File Public Involveme Plan** to start the Article 10 process

**File Public Scoping Statement** and post initial intervenor fundir

**Engage in stipulations** with Stakeholders

#### HOW YOU CAN **GET INVOLVED**

\$350/MW of intervent funding is available to local groups and municipalities

Stakeholders may participate in stipulation

J	APPLICATION	HEARINGS & DEC
ent le ng	File Article 10 Application and post second intervenor funding DPS to determine if Application is complete	Public Hearingsset for public inpSiting BoardSiting Board hasyear from compleApplication to issCertificate
or	<text></text>	Persons who have granted Party state <b>Submit Informat</b> <b>Requests</b> to Corr Prepare testimor identify issues to during hearings



#### CISION

#### **COMPLIANCE &** CONSTRUCTION

s Date out to

s one leted sue

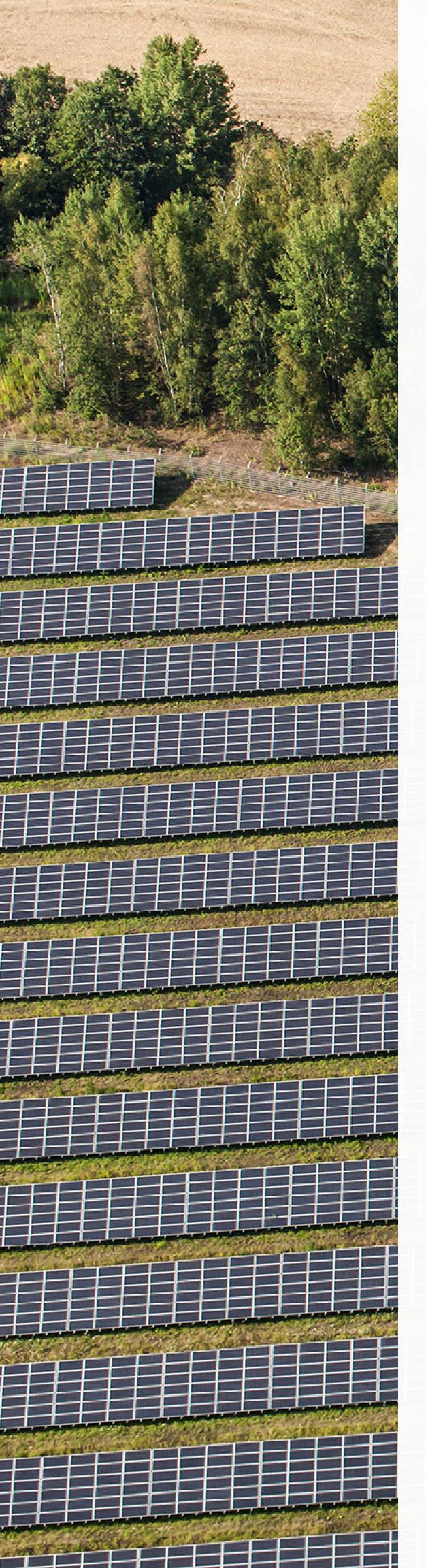
Siting board issues a Certificate which often includes conditions concerning decommissioning, compliance filings

ive been ats can:

ation nnectGen

ny and o litigate Provide comments to compliance filings

Stay up to date on project milestones and ask questions by visiting our project website



# How can you get involved?

## **Ripley Town Clerk's Office**

14 North State Street Ripley, NY 14775

### South Ripley Solar Project Contact:

**Isaac Phillips Development Associate** ConnectGen LLC

(800) 338-8905 www.SouthRipleySolar.com info@southripleysolar.com

### State DMM:

https://tinyurl.com/south-ripley-article-10 Case Number: 19-F-0560

### Local Document Repositories:

#### **Ripley Library**

64 Main Street Ripley, New York 14775

# **Minerva Free Library**

116 Miller Street Sherman, NY 14781



