

August 15, 2024

PINE PLAINS ZRC MEETING MINUTES
Tuesday, July 16, 2024
5:00 PM
In-Person

IN PERSON ATTENDANCE: Scott Chase via Zoom
Wesley Chase
Sarah Jones
Michael Stabile

ABSENT: Rich Brenner
Rory Chase

OTHERS IN ATTENDANCE: Ed Casazza
Jennifer Manierre of NYSERDA
Jeanine Sisco

The meeting commenced at 5:00pm.

Jennifer Manierre of NYSERDA gave a power point presentation to the board regarding solar in New York State (see attached).

The presentation may also be viewed on YouTube:

<https://www.youtube.com/watch?v=b-occt6jpHk&t=11s>

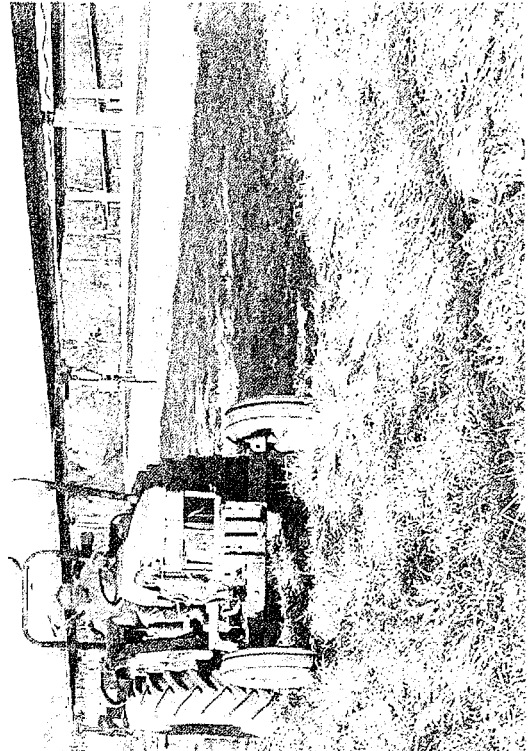
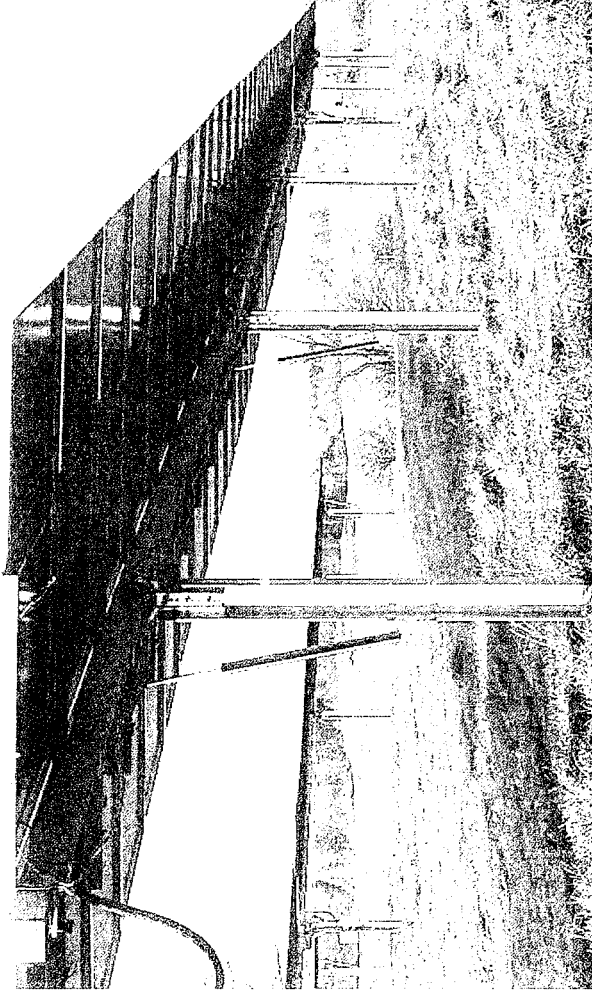
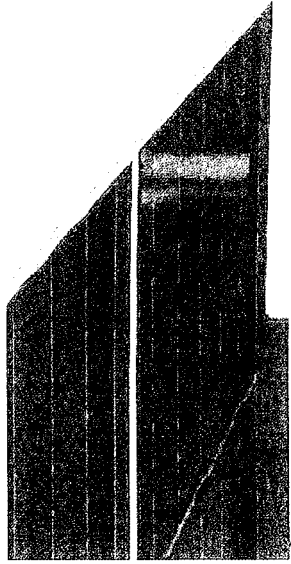
The meeting commenced at 6:39PM.

Respectfully submitted by:

Tricia Devine

Michael Stabile

Town of Pine Plains: Zoning Review Committee 7/16/2024

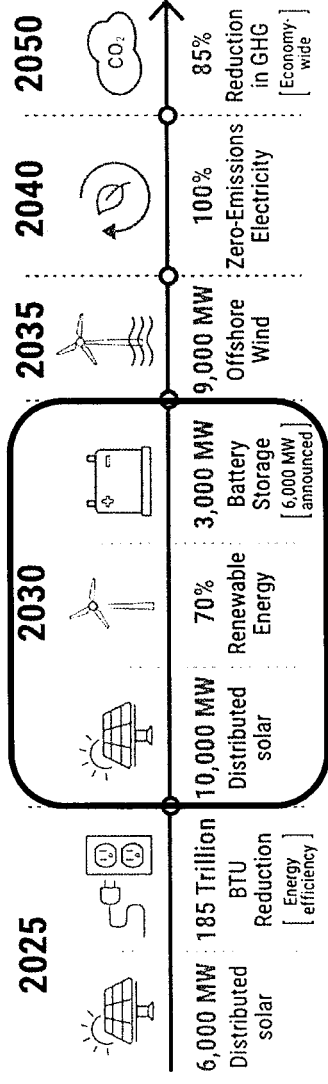


Introduction to Solar

- Technology Overview
- Regulatory Overview
- Agrivoltaics
- Grid Infrastructure

Notable Legislation & Milestones:

- **2019:** Climate Leadership & Community Protection Act



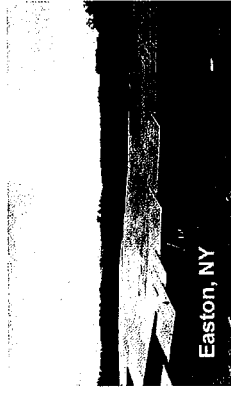
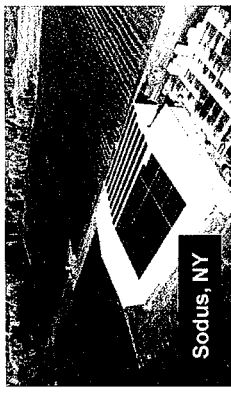
- **2020:** Accelerated Renewable Energy Growth and Community Benefit Act
- **2022:** Climate Action Council releases Scoping Plan

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Solar Photovoltaics (PV):

- Typically sized in kilowatts (kW) or megawatts (MW)
- Categories of Solar PV installations:
 - Residential
 - "Distributed" / "Behind the Meter"
Rooftop or Ground-Mounted
 ≤ 5 MW
 - Commercial
 - Community Solar
 - Large-Scale
 - "Front of the Meter"
Primarily Ground-Mounted
 > 5 MW
- Ground-Mounted Solar:
 - 5-8 acres per MW
 - 100-200 homes per MW



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Permitting authority varies based on technology, project size, and (co)location:

Renewable Generators (e.g. solar, wind):

- **Projects < 25 MW:** Permitted at **local level** (SEQR, municipal requirements)
- **Projects ≥ 25 MW:** Permitted at **state level** (ORES)

Energy Storage (e.g. BESS):

- **Projects co-located with ORES-eligible generation:** Permitted at **state level** (ORES)
- **Standalone systems/co-located with non-ORES-eligible generation:** Permitted at **local level** (SEQR, municipal requirements)

	Local	State
Renewable Generators	<25 MW*	≥ 25 MW*
Energy Storage	All sizes (if standalone or if co-located with non-ORES-eligible generator)	All sizes (if co-located with ORES-eligible generator)
<i>*Projects between 20-25 MW may opt-in to the ORES permitting process</i>		

ORES: Office of Renewable Energy Siting
 SEQR: State Environmental Quality Review

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Notable Initiatives/Efforts:

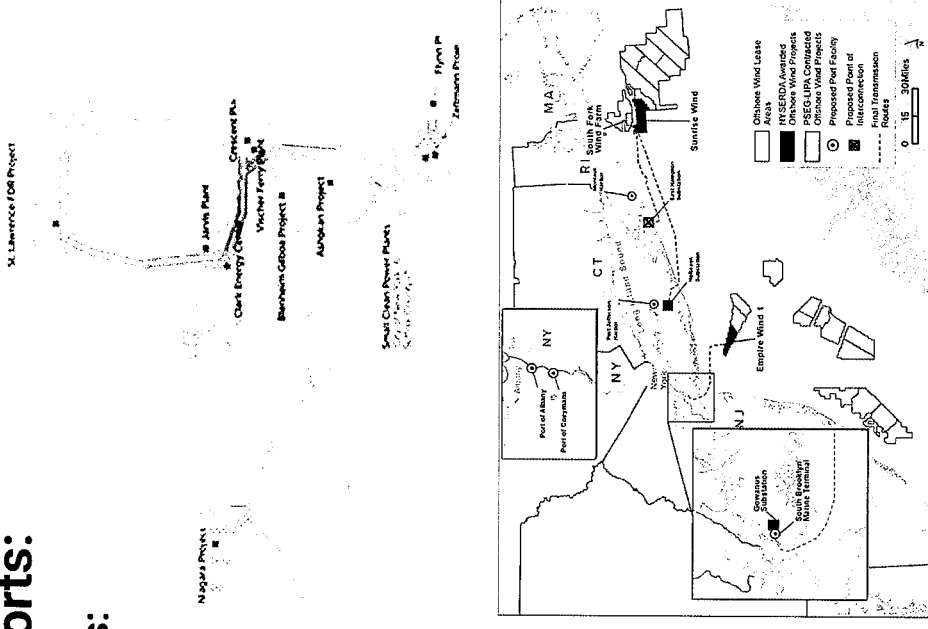
• Infrastructure investments:

- Tier 4 program
- NYPA investments
- Utility upgrades & investments

• Renewable energy generation:

- NY-Sun
- Large-Scale Renewables
- Offshore Wind
- Energy storage
- Energy efficiency, electrification, and weatherization programs

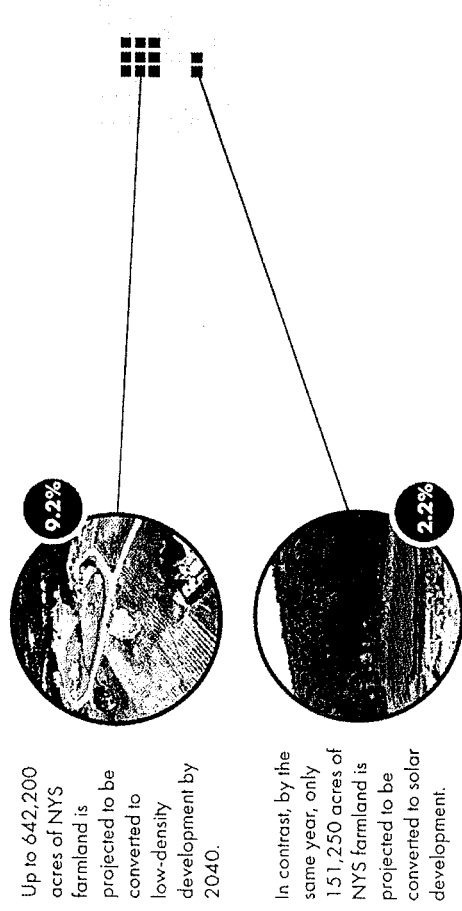
And many others!



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Solar Installations on Agricultural Land

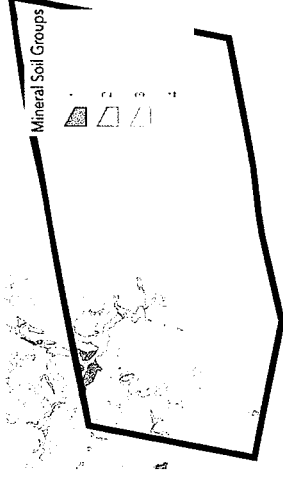


Source: "Agrivoltaics in New York State: Framing the Opportunity"

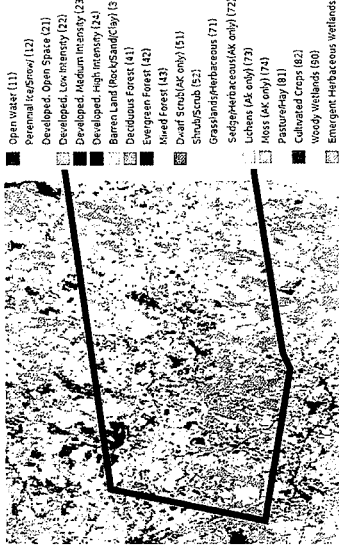
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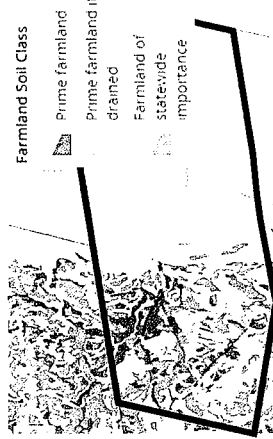
Mineral Soil Groups were established to create a uniform statewide land classification system based on the differences in soil productivity and capability. **MSG 1-4** are recognized highly productive soils based on their combination of physical and chemical properties.



Active Agricultural Land: used for a Farm Operation in accordance with Agriculture and Markets Law § 301 – uses of which include production of crops, livestock, and livestock products – within the past 5 years.



Prime Farmland soils have the combination of physical & chemical characteristics for producing food, fiber, and/or other crops. **Farmland of Statewide Importance:** do not meet the criteria for Prime Farmland or Prime Farmland if Drained, but are classified as mineral soils in priority land capability classes.



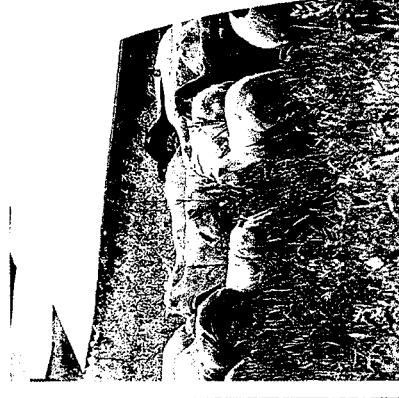
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Promoting Co-Location of Agrivoltaics

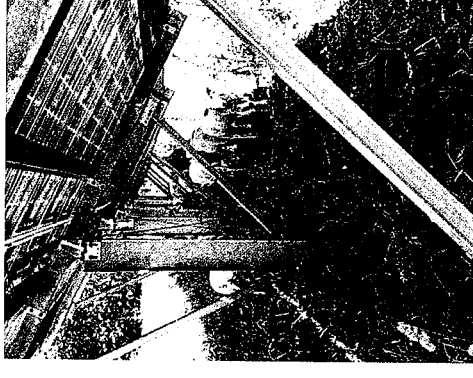
Key benefits of dual-use solar approaches may include:

- Collaboration between solar developers, local farms, and agricultural organizations that benefits all parties
- Improvements in soil health and water retention
- Farmland preservation, viability, and intergenerational transfer
- Investments in farm infrastructure and equipment
- Land use optimization
- Opportunities for research on land management and agronomic practices



Introduction to Solar

- Ag Mitigation Payments (30+ acres MSG 1-4)
- [Smart Solar Siting Scorecard](#)
- Beneficial Siting Adders in NY-Sun
 - Existing: Landfills and Brownfields (\$0.15/W)
 - Floating Photovoltaic "FPV" (\$0.15/W)
 - Soon? Agrivoltaics (\$/W??)
- Funding and Research:
 - [2024 Final RGGI Operating Plan Amendment](#): \$27 Million
 - [Regional Agronomic Impact from Solar Energy \(RAISE\)](#)
 - [Build-Ready](#)
 - [Agrivoltaics Demonstration RFP](#) (due 9/12/24)
 - [NYSERDA Agrivoltaics website](#)
- Technology Overview
- Regulatory Overview
- Agrivoltaics
- Grid Infrastructure



Growing Agrivoltaics in New York State:
Advancing Understanding of Opportunities to
Integrate Renewables into Working Landscapes

Final Report | Front Runner 2015 | October 2023



Introduction to Solar

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NYSERDA's Model Solar Law

Tier 3 and Tier 4 systems:

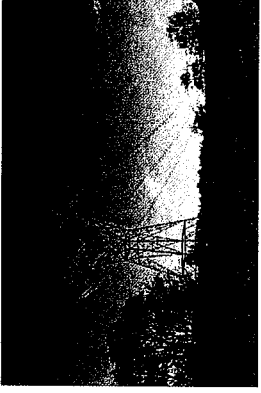
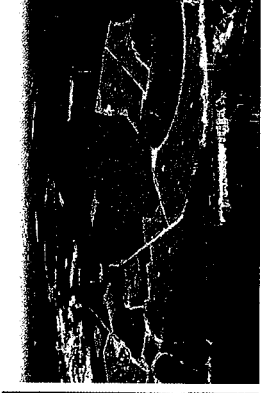
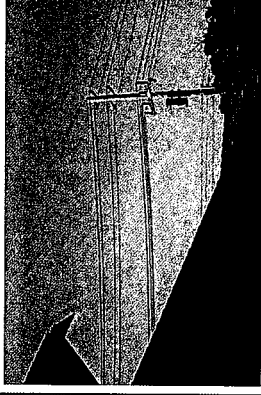

- System components shall occupy no more than [50]% of the **Mineral Soil Groups (MSG) 1-4 area**
- May exceed the [50]% threshold if it incorporates onsite Farm Operation
- Review Board may exempt portions if MSG 1-4 land is not viable for agricultural production
- Adhere to NYS Department of Agriculture and Markets guidelines
-

Additional requirements for Tier 4:

- Tier 4 System components, equipment, and associated impervious surfaces shall not occupy more than [50%] of the **Active Agricultural Lands** within the Facility Area
- Exceedance of [50%] threshold may be allowed based on the Reviewing Board's determination that the land is being used for a Farm Operation



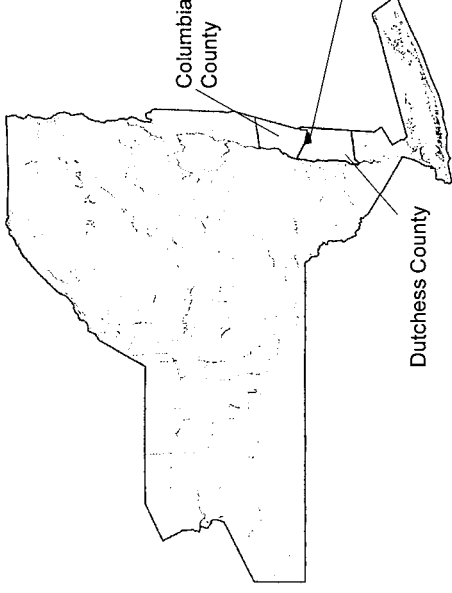
Introduction to Solar: Grid Infrastructure

	Transmission Lines	Distribution Lines
Purpose	Transmit electricity from power generating infrastructure to substations over longer distances	Transmit electricity to/from individual customers, smaller generating infrastructure, and substations
Equipment / Voltage	3-phase power lines; >34.5 kV	1-phase or 3-phase power lines; <69 kV
Relevant Solar Project Type & Characteristics	<p>Large-scale generation projects</p> <ul style="list-style-type: none"> - Capacity: >5 MW - Acreage: Typically requires ~100+ acres - Purpose: Provide electricity for grid at-large ('front-of-meter') - Permitting jurisdiction: State-level for >25 MW - Business Model in NYS: Wholesale power/capacity markets, REC contracts 	<p>Distributed generation projects</p> <ul style="list-style-type: none"> - Capacity: <5 MW - Acreage: Typically requires 15-40 acres - Purpose: Provide electricity for defined offtaker(s) ('behind-the-meter') - Permitting jurisdiction: Local land-use regulations - Business Model in NYS: Retail markets, PPAs
Photo examples	 	 

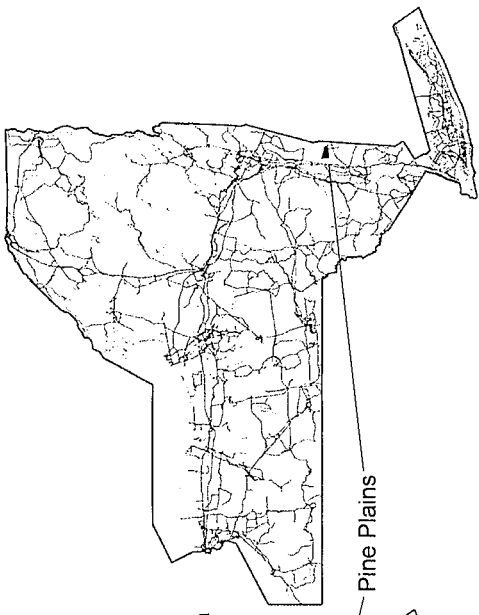
Town of Pine Plains

1. Intro
2. Solar PV Hosting Capacity
3. High Voltage Transmission Lines
4. Town of Pine Plains Zoning
5. Electric Infrastructure + Zoning
6. Electric Infrastructure + Ag/Mining Overlays

Map of NYS Counties Highlighting Dutchess & Neighboring Columbia



Map of Transmission Infrastructure* in NYS



**Transmission line mapping is only available for lines carrying voltages between 69 kV-765 kV. Transmission lines operating at lower voltages are missing from this dataset. Partly due to the sensitive nature of this infrastructure, updated and thorough transmission data is difficult to locate.*

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Purposes/benefits of this exercise:

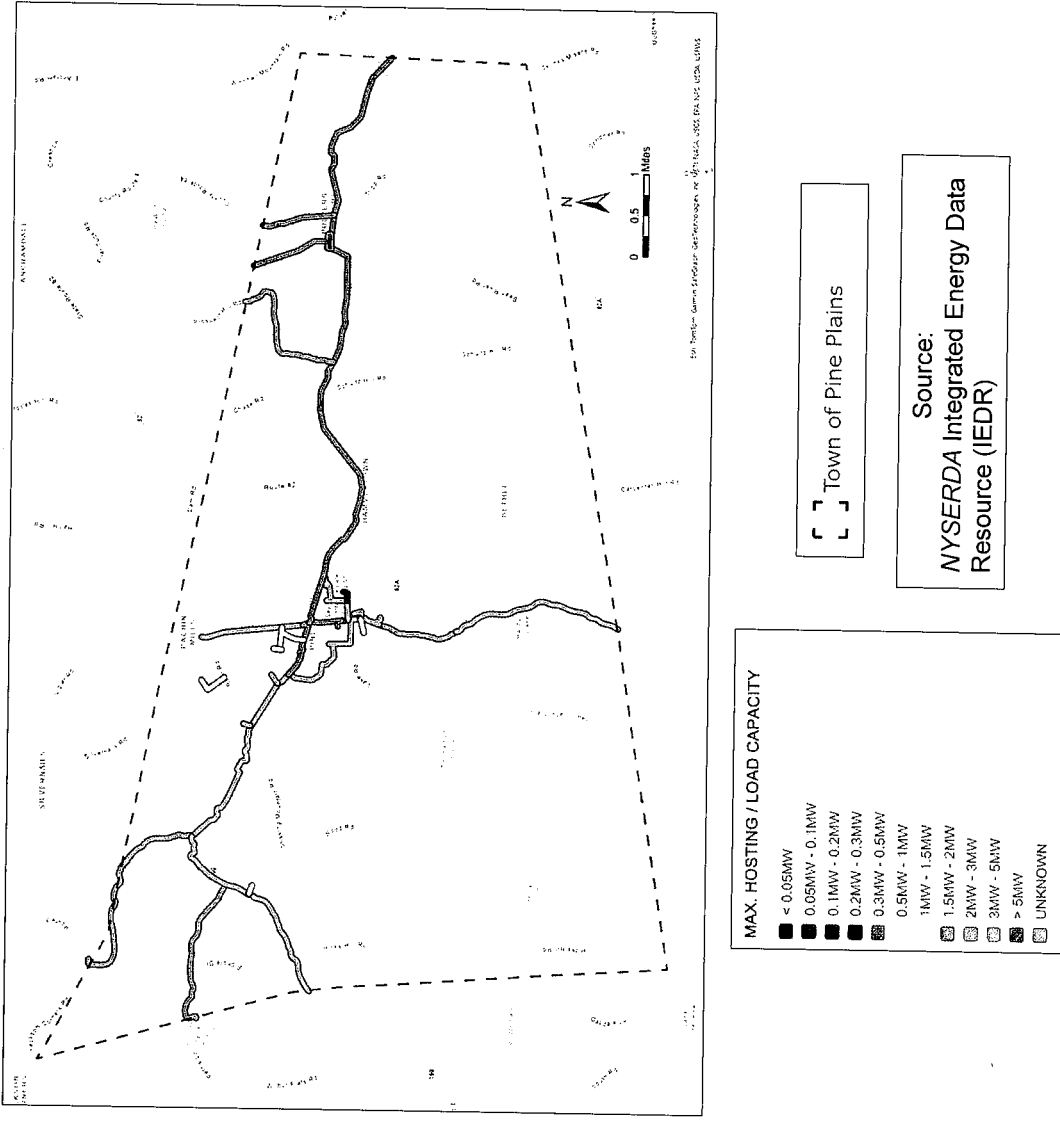
- Visualize and plan around local energy infrastructure
- Gain familiarity with **tools/criteria used by solar developers**
- Identify **potential locations** for solar development, based on criteria including:
 - Grid proximity
 - Grid hosting capacity
 - Existing zoning
 - Proximal land use

Limitations of this exercise:

- **Temporality:** hosting capacity is not fixed, but **evolves over time** based on additions/retirements/upgrades
- **Distribution vs transmission:** Hosting capacity is only available at distribution-level, not transmission-level, so is helpful for DER but not large-scale projects.
- **Transmission layer:** only captures lines at and above 69 kV

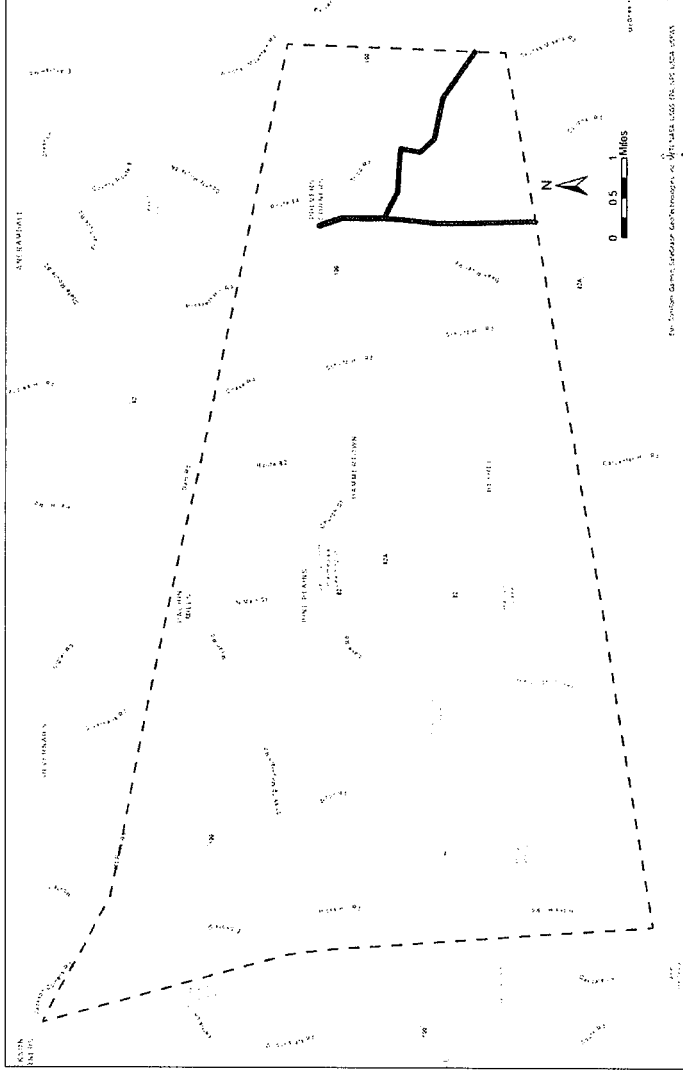
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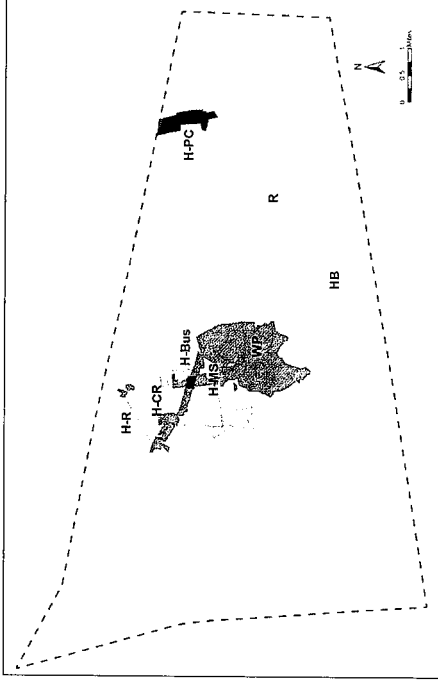
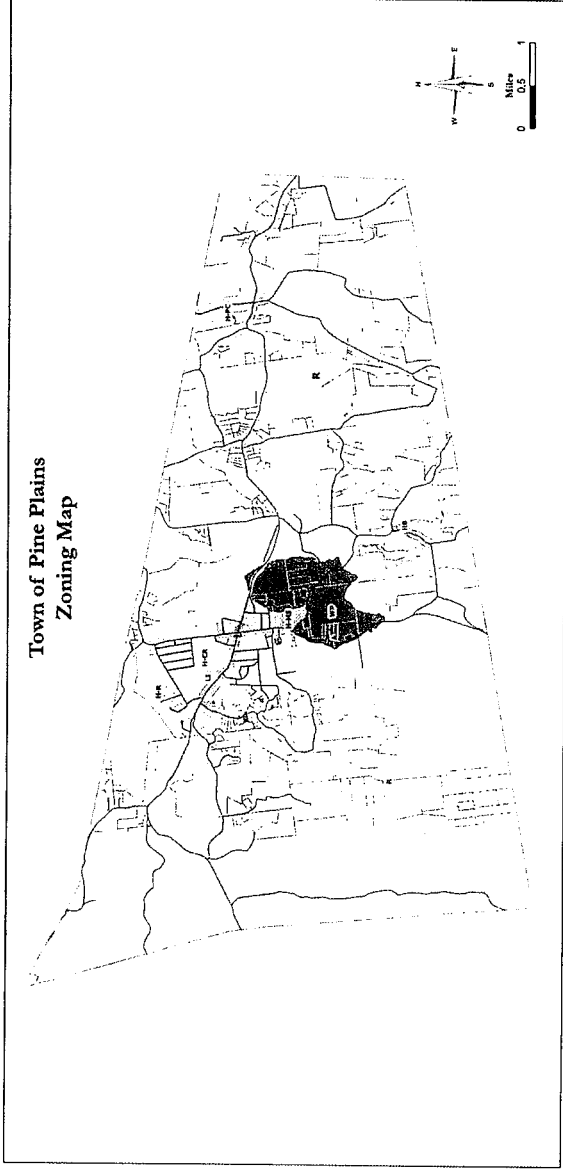
□ Town of Pine Plains
— 69 kV+ Transmission Lines

Source:
Geospatial Management Office (Department of Homeland Security) Homeland Infrastructure Foundation-Level Data

**Transmission line mapping is only available for lines carrying voltages between 69 kV- 765 kV. Transmission lines operating at lower voltages are missing from this dataset. Partly due to the sensitive nature of this infrastructure, updated and thorough transmission data is difficult to locate.*

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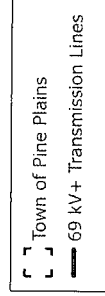
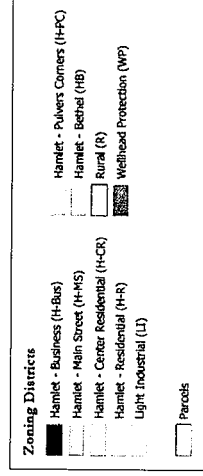
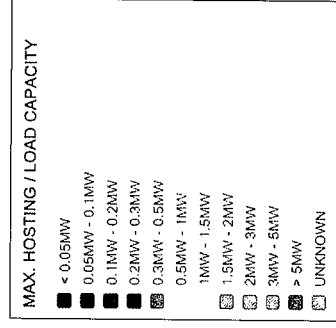
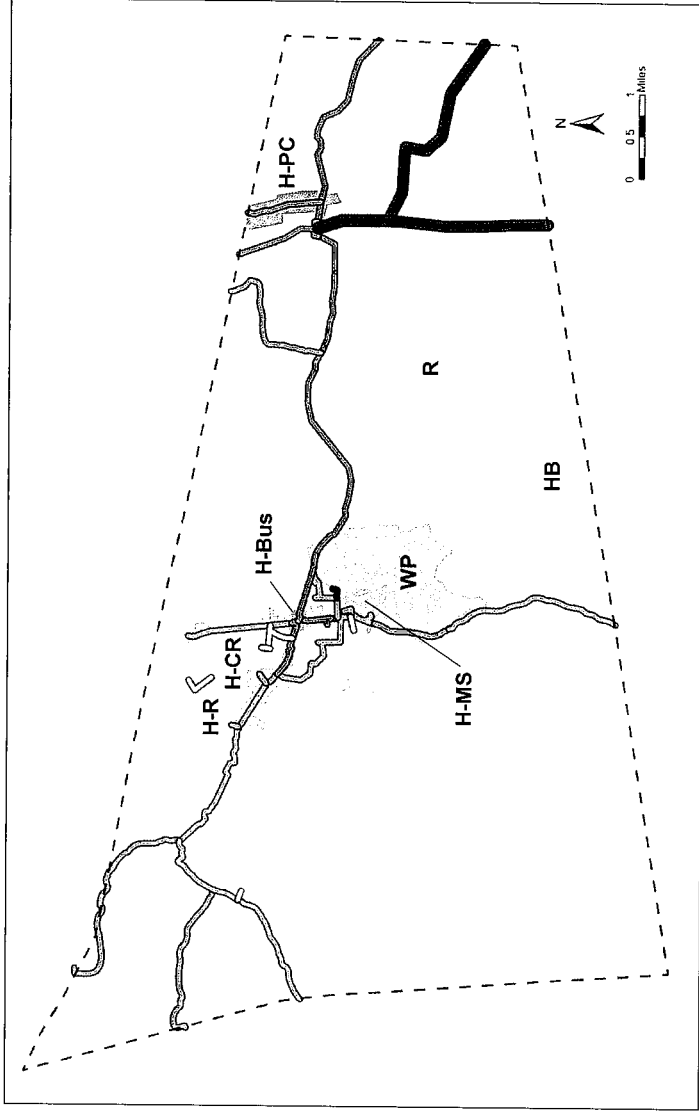
Zoning Districts

Hamlet - Business (H-Bus)	Hamlet - Pulvers Corners (H-PC)
Hamlet - Main Street (H-MS)	Hamlet - Bethel (HB)
Hamlet - Center Residential (H-CR)	Rural (R)
Hamlet - Residential (H-R)	Wellhead Protection (WP)
Light Industrial (LI)	Parcels

Source:
Dutchess County Department of Planning
& Development. Issued May 2022.
[Amended 10-20-2022 by L.L. No. 4-2022]

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