

VIA OVERNIGHT AND ELECTRONIC MAIL

December 27, 2019

Hon. Michelle L. Phillips
Secretary
New York State Board on Electric Generation
Siting and the Environment
Three Empire State Plaza
Albany, New York 12233-1350

Re: Case 17-F-0619 – Application of Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility Located in the Town of Coxsackie, Greene County, New York.

Dear Secretary Phillips:

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (collectively, the “Co-Applicants”), Co-Applicants in the above-captioned proceeding, are proposing to construct a major electric generating facility in the Town of Coxsackie, Greene County, New York (the “Facility”). In order to construct the Facility, the Co-Applicants is applying for a certificate of environmental compatibility and public need (“Certificate”) from the New York State Board on Electric Generation Siting and the Environment (“Siting Board”) pursuant to Article 10 of the Public Service Law (“PSL”) and the Siting Board’s regulations (16 NYCRR Part 1000 *et seq.*).

Pursuant to PSL § 164 and 16 NYCRR § 1000.6, the Co-Applicants hereby files its Article 10 Application. Please find attached 10 paper copies and an electronic copy on a flash drive of the Application. A check payable to the Department of Public Service (“DPS”) for the Application intervenor fee required by PSL § 164(6) and 16 NYCRR § 1000.10(b)(1) is being delivered to the Director of the Office of Finance and Budget at Three Empire State Plaza, Albany, New York 12233 on or about December 27, 2019 under separate cover.

Pursuant to 16 NYCRR § 1000.6(c)(1), enclosed with the Application is the pre-filed panel testimony of the expert witnesses whom the Co-Applicants intend to offer at any hearing required by PSL § 165. The pre-filed testimony includes the qualification of each witness and specifies the portion of the Application for which each witness is responsible or supports.

Pursuant to PSL § 164(2)(a) and 16 NYCRR § 1000.6(a), copies of the Application will be served on the parties identified on the enclosed Statutory Service List. An affidavit of service of the Application showing that a copy of the Application and accompanying

documents were served on all those required to be served, as required by 16 NYCRR § 1000.6(c)(2), will be filed under separate cover.

Pursuant to 16 NYCRR §§ 1000.7(a) and 1000.7(b)(1), a Notice of Submission of Application with a summary and map showing the location of the Facility (“Notice of Submission of Application”) was published in the following newspapers at least three days in advance of the date the Application is being filed: the Catskill Daily Mail, the Shop & Find, the Times Union, and the Hudson Valley 360. Pursuant to 16 NYCRR §§ 1000.6(c)(3) and 1000.7(l), the Notice of Submission of Application with proofs of publication are attached hereto.

In addition, pursuant to 16 NYCRR §§ 1000.7(b)(2) and (b)(3), at least three days in advance of the date on which the Application is being filed, the Co-Applicants served a copy of the Notice of Submission of Application on each member of the New York State Legislature in whose district the Facility is proposed to be located and on all persons who have filed a statement with the Secretary to the Siting Board requesting that they receive all such notices. Copies of the Notice of Submission of Application with proofs of service are attached hereto.

Pursuant to 16 NYCRR § 1000.6(c)(4), attached hereto (without enclosures) is a copy of a letter-brief to Presiding Examiner James A. Costello, requesting that certain information contained in appendices to the Application be exempt from public disclosure under the New York Freedom of Information Law (“FOIL”) (Public Officers Law (“POL”) §§ 84–90) and Subpart 6-1 of the New York State Public Service Commission’s regulations. Pursuant to 16 NYCRR § 6-1.3(b), confidential information has been redacted from the version of the Application enclosed herewith and served pursuant to PSL § 164(2)(a) and 16 NYCRR § 1000.6(a).

Pursuant to 16 NYCRR § 1000.6(c)(5), the following are the names, addresses, telephone numbers, and e-mail addresses of the Co-Applicants and their attorney:

Co-Applicants:

Gabriel Wapner
Hecate Greene, LLC
621 W. Randolph Street
Chicago, Illinois 60661
(833) 529-6597
contact@greenecountysolar.info

Co-Applicants’ Counsel:

Sam M. Laniado
Tyler W. Wolcott
Read and Laniado, LLP
25 Eagle St.
Albany, New York 12207
sml@readlaniado.com
tyler@readlaniado.com

Please do not hesitate to contact me if you have any questions regarding this filing.

Respectfully submitted,

READ AND LANIADO, LLP
Attorneys for Hecate Energy Greene 1
LLC, Hecate Energy Greene 2 LLC,
and Hecate Energy Greene County 3
LLC

By: /s/
Sam M. Laniado
Tyler W. Wolcott
sml@readlaniado.com
tyler@readlaniado.com

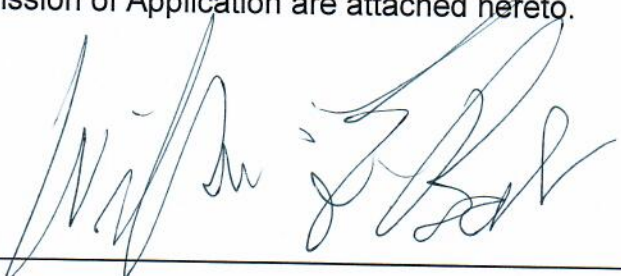
Enclosures

cc: DMM Party List
Statutory Service List

Application of Hecate Energy Greene 1 LLC and Hecate Energy Greene 2 LLC, and Hecate Energy Greene County for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility Located in the Town of Cossackie, Greene County.


AFFIDAVIT OF SERVICE

I, William Backes of Power Communications, in Saratoga Springs, New York, caused the document entitled 'Notice of Submission of Application' for the Greene County Solar Farm proposed in Cossackie, New York', to be sent via email on December 18, 2019 to the required parties, as identified in 16 New York Codes, Rules and Regulations § 1000.7. A list of the recipients to whom this document was sent and a copy of the Notice of Submission of Application are attached hereto.



William Backes

Sworn to me before this 20th day of December 2019



Notary Public

ERIC MOHAMED
Notary Public, State of New York
No. 01MO6204845
Qualified in Schenectady County
Commission Expires April 27, 2021

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County
3 LLC

50-Megawatt Solar Photovoltaic Generation Project
Town of Coxsackie, Greene County, New York

NOTICE OF SUBMISSION OF APPLICATION

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (“Hecate Greene”) are seeking authority from the New York State Board on Electric Generation Siting and the Environment (the “Siting Board”) to construct a 50-megawatt (“MW”) solar photovoltaic electric generating facility (the “Facility”) in the Town of Coxsackie, Greene County, New York, under Article 10 of the New York State Public Service Law (“PSL”). Pursuant to PSL § 164 and 16 NYCRR § 1000.7, Hecate Greene hereby provides notice that, on or about December 23, 2019, it intends to file its Application with the Siting Board for a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of the Facility.

The Facility components will include solar photovoltaic panel arrays connected by underground collection lines that will generate electricity to be delivered into New York State’s transmission system via interconnections with an existing Central Hudson transmission line. The Facility is proposed to be constructed on land leased from owners of private property.

The Facility will safely generate enough clean, renewable electricity to power approximately 13,000 households. The Facility will not emit or discharge any pollutants, and it will avoid other impacts associated with traditional fossil-fueled generating facilities, such as water usage. The Facility will also contribute to New York’s goal of generating 70% of all electricity consumed in the State with renewable resources by 2030, and eliminating all power-sector emissions by 2040. Further, the Facility will benefit the economic growth of the local community through the creation of temporary and permanent jobs, increased tax revenues, and new payments to local farmers that will help them maintain farming operations on other properties.

Construction and operation of the Facility will not result in negative impacts to health, air, or water resources. The Facility is mostly located on land that is already cleared and therefore avoids disturbances to forested lands to the maximum extent practicable. All impacts resulting from construction and operation of the Facility have been minimized to the maximum extent practicable.

The Applicant intends to request a Water Quality Certification (“WQC”) pursuant to Section 401 of the Federal Clean Water Act. The WQC is necessary to obtain a permit from the U.S. Army Corps of Engineers.

The Application contains all the information by the proposed stipulations filed in this Article 10 proceeding. Studies and analyses as required by the proposed stipulations and Article 10 address many disciplines such as land use, noise, preliminary engineering, avians, and decommissioning. The Siting Board will determine whether the Application is compliant with the Article 10 requirements. Once it is deemed compliant, the Administrative Law Judges (“ALJs”) assigned to this proceeding will schedule a public hearing and issue a notice that intervenor funds, in the amount of \$50,000, will be available for eligible parties participating in the Application phase. The ALJs will also schedule a pre-hearing conference to identify parties, award intervenor funds, identify issues for the hearing, and establish a case schedule. After the hearings, intervenors may submit briefs to the ALJs who will then issue a recommended decision, upon which the Siting Board will render its decision on whether to certify the Facility and under what conditions. State

law requires that the Siting Board must render a decision on the Application within 12 months of its determination that the Application is compliant with the Article 10 requirements.

Interested, eligible municipal and local parties may apply for intervenor funding to be used to pay for expenses such as administrative, attorney, and/or consultant fees. A guide to applying for intervenor funding can be found on the New York State Department of Public Service's ("DPS") website by using the following direct link: goo.gl/avcprS.

Any interested person wishing to receive all notices concerning the Facility may submit a request to Hon. Michelle L. Phillips, Secretary, New York State Board on Electric Generation Siting and the Environment, Agency Building 3, Albany, NY 12223-1350 or electronically to secretary@dps.ny.gov. Documents concerning the Siting Board's review of the Facility may be viewed at the DPS website located at www.dps.ny.gov by clicking "Search" on the homepage and then entering Case 17-F-0619 in "Search by Case Number."

Additional information on how to participate in this proceeding may be obtained by contacting Hecate Greene's project representative or the Siting Board Public Information Coordinator:

Hecate Greene Representative

Gabriel Wapner
Hecate Energy, LLC
621 W Randolph St.
Chicago, IL 60661
833-529-6597
contact@greencountysolar.info

Siting Board Public Information Coordinator

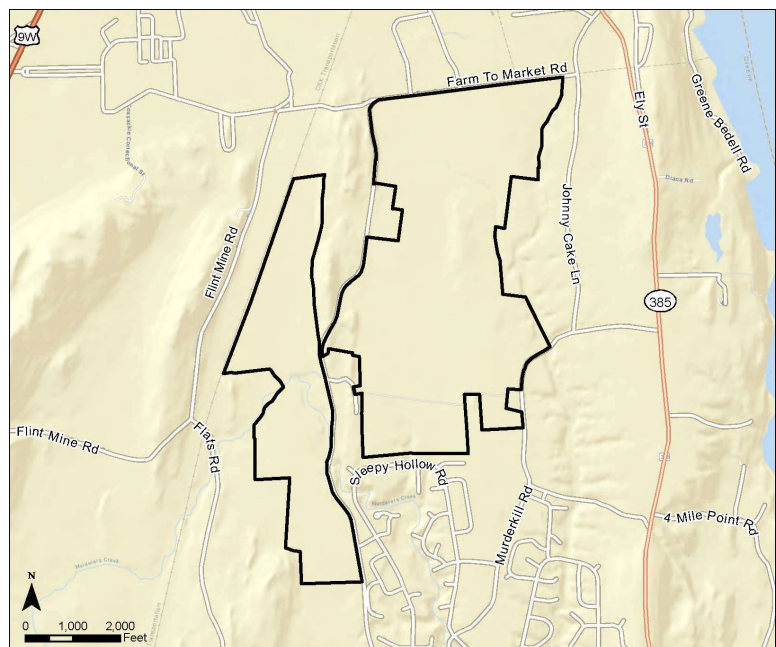
James Denn
NYS Department of Public Service
3 Empire State Plaza
Albany, NY 12223
518-474-7080
james.denn@dps.ny.gov

To find more information, please go to the Siting Board's website (www.dps.ny.gov/SitingBoard) or the Facility website (<https://www.greencountysolar.info/>) or call the Facility's toll-free number: 833-529-6597.

A copy of the Application will be served on the Town Supervisor of the Town of Coxsackie. The Application, when filed, may be examined during normal business hours at the Offices of the Department of Public Service at 3 Empire State Plaza, Albany, NY 12223, and at the following local document repositories:

- Hermance Memorial Library
1 Ely St.
Coxsackie, NY 12051
- D.R. Evarts Library
80 2nd St.
Athens, NY 12015
- Village of Coxsackie Village Hall
119 Mansion St.,
Coxsackie, NY 12051
- Town of Coxsackie Town Hall
16 Reed St.
Coxsackie, NY 12051

To the right is a map that shows the location of the Facility site.



Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3	Phone	Email
Whiteman Osterman & Hanna LLP	Dobles	Alexandra	Associate	One Commerce Plaza		Albany NY 12210	(518) 487-7600	adobles@woh.com
Scenic Hudson, Inc.	Friedrichsen	Audrey	Land Use and Environmental Advocacy Attorney	1 Civic Center Plaza Suite 200		Poughkeepsie NY 12601	(845) 473-4440 x226	afriedrichsen@scenichudson.org
New York State Office of Parks, Recreation, and Historic Preservation	Ball Chinian	Alane	Regional Director	19 Roosevelt Drive		Saratoga Springs NY 12866	(518) 584-2535	alane.ballchinian@parks.ny.gov
NY State Senate	Amedore Jr.	George A.	46th District	Albany Office	Legislative Office Building, Room 802	Albany NY 12247	(518) 455-2350	amedore@nysenate.gov
NYS Department of Public Service – Office of Electric, Gas and Water	Davis	Andrew		Empire State Plaza, Agency Building 3		Albany NY 12223	(518) 486-2885	Andrew.davis@dps.ny.gov
	Tollefson	Anson		29 Elm St		Coxsackie NY 12051		
NYS Department of Public Service - Office of Hearings and Administrative Dispute Resolution	Belsito	Anthony		Empire State Plaza	Agency Building 3 (3rd Fl.)	Albany NY 12223		Anthony.Belsito@dps.ny.gov
Alliance for Clean Energy New York, Inc.	Dufresne	Zack	Director of Member Services, Clean Energy Advocate	119 Washington Avenue Suite 1G		Albany NY 12210	(518) 432-1405	Article10@aceny.org
Sierra Club Atlantic Chapter	Downs	Roger	Conservation Director	744 Broadway		Albany NY 12207	(518) 426-9144	Atlantic.chapter@sierraclub.org
NYSDEC	Seggos	Basil	Commissioner	625 Broadway		Albany NY 12233-1011		basil.seggos@dec.ny.gov
	Baxter	Doug		71 Adams Rd		Athens NY 12015		
	Cure	Betty		96 Ely Street		Coxsackie NY 12051		
Town of Coxsackie Planning Board	Haeussler	Bruce	Chairman	Town Hall –	16 Reed Street	Coxsackie NY 12051	(518) 731-2727	bhaeussler@bblinc.com
NYS Department of Transportation, Region 1	Barnes P.E.	Pat	Regional Director	Executive Office	50 Wolf Road, Suite 1s50	Albany NY 12232	(518) 457-3522	brian.kirch@dot.ny.gov
	Tighe	Brian		63 Sutton Place		Coxsackie NY 12051		
Greene County Economic Development, Tourism & Planning Department	Hart	Warren	Director of Economic Development & Planning	411 Main Street 4th Floor Suite 419		Catskill NY 12414	(518) 719-3290	business@discovergreene.com
	Metz	Carol A		1381 Sleepy Hollow Rd		Athens NY 12015		
	Gardner	Cari						
NYS Department of Public Service	Partyka	Cassandra	Assistant Counsel	Empire State Plaza	Agency Building 3 (18th Fl.)	Albany NY 12223	(518) 474-0517	cassandra.partyka@dps.ny.gov
	CT							
Town of Coxsackie	Hotaling	Bambi	Town Clerk	Town Hall – 16 Reed Street		Coxsackie NY 12051	(518) 731-2727	clerk@coxsackie.org

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3	Phone	Email
Greene County Legislature	Martinez	Charles	District 2 Representative	38 Flint Mine Rd.		Coxsackie NY 12051	(518) 731-8825	cmartinez@discovergreene.com
New York State Department of Agriculture and Markets	Ball	Richard	Commissioner	10B Airline Drive		Albany NY 12235	(585) 457-8876	commissioner@agriculture.ny.gov
Saint Regis Mohawk Tribe				412 State Route 37		Akwesasne NY 13655		communications@srmt-nsn.gov
Real Information about Solar Energy - R.I.S.E.	Frame	Seth		59 Lafayette Ave.		Coxsackie NY 12051	(307) 752-5292	ConnectwithRISE@gmail.com
	Copleston	Leslie		597 Riverside Ave		Coxsackie NY 12051		
NYSDEC, Central Office	Whitehead	Daniel	Director	Major Project Management	625 Broadway	Albany NY 12233-1750	(518) 402-9167	deppermitting@dec.ny.gov
	Yost	Daryl		1667 Farm to Market Road		Coxsackie NY 12051		
New York Progressive Action Network	Gardner	Donald		369 Tommy Trail #1244		Athens, NY 12015	(518) 444-4593	donald@gardnerproject.com
Audubon Society of New York	Burns	Elizabeth	Development & Communications Associate	State Headquarters –	2 Third Street, Suite 480	Troy NY 12180	(518) 869-9731	eburns@audubon.org
	Hill Jr.	Ed						
Hecate Energy LLC	Wapner	Gabriel		621 W. Randolph St		Chicago IL 60661	518-788-7337	GWapner@HecateEnergy.com
Scenic Hudson, Inc.	Carlock	Hayley	Director of Environmental Advocacy	1 Civic Center Plaza Suite 200		Poughkeepsie NY 12601	(845) 473-4440	hcarlock@scenichudson.org
NYS Department of Public Service	Behnke	Heather	Assistant Council	Empire State Plaza	Agency Building 3 (18th Fl.)	Albany NY 12223	(518) 474-5474	heather.behnke@dps.ny.gov
Columbia County	Tanner	Holly	County Clerk	560 Warren Street		Hudson NY 12534	(518) 828-3339	Holly.tanner@columbiacountyny.com
New York State Hudson River Valley Greenway- Greenway Conservancy for the Hudson River Valley	Burke	Kevin M.	Acting Chair	625 Broadway 4th Floor		Albany NY 12207	(518) 473-3835	hrvg@hudsongreenway.ny.gov
Town of Coxsackie, Supervisor	Hanse	Richard K.	Supervisor	Town Hall –	16 Reed Street C	Coxsackie NY 12051	(518) 731-2727	info@coxsackie.org
NYS Department of State	Rosado	Rossana	Secretary of State	One Commerce Plaza	99 Washington Avenue	Albany NY 12231-0001	(518) 473-2293	info@dos.ny.gov
NYS Energy Research and Development Authority	Barton	Alicia	President	17 Columbia Circle		Albany NY 12203	(518) 862-1090	info@nyserda.ny.gov
NYS Energy Research and Development Authority	Kauffman	Richard	Chair	17 Columbia Circle		Albany NY 12203	(518) 862-1090	info@nyserda.ny.gov
US Senate	Gillibrand	Kirsten E.	US Senator	Leo W. O'Brien Federal Office Building	11A Clinton Avenue, Room 821	Albany NY 12207	(518) 431-0120	invite@gillibrand.senate.gov
NYS Public Service Commission	Denn	James	Public Information Officer	Empire State Plaza	Agency Building 3 (20th Fl.)	Albany NY 12223	(518) 474-7080	James.denn@dps.ny.gov

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3	Phone	Email
New York State Department of Agriculture and Markets	Mulford	Jason		10B Airline Drive		Albany NY 12235		Jason.mulford@agriculture.ny.gov
	Ellis	Joe		6 Van Dyck St		Coxsackie NY 12051		
	Benson	John						
Greene County Soil and Water Conservation District	Flack	Jeff	Executive Director	907 Greene County Office Bldg.		Cairo NY 12413	(518) 622-3620	jeff@gcswcd.com
Greene County Emergency Services	Farrell	John	Director	25 Volunteer Drive		Cairo NY 12413	(518) 622-3643	jfarrell@discovergreene.com
Grant & Lyons LLP on behalf of Saving Greene	Lyons	John		P.O. Box 370		Rhinecliff NY 12574	845-876-2800	jlyons@grantlyons.com
	Jones	Margaret		323 Adams Road		Athens, NY 12015		
Greene Land Trust	Knapp	Jill	Executive Director	270 Mansion Street		Coxsackie NY 12051	518-731-5544	jsk53@cornell.edu
	Zoller	Judy		10 Luke St		Coxsackie NY 12051		
New York State Department of Environmental Conservation	Paulsen	Kara	Assistant Attorney 3	625 Broadway - 14th Floor		Albany NY 12233	518-402-9191	kara.paulsen@dec.ny.gov
New York State Department of Agriculture and Markets	Tylutki	Kathleen		10B Airline Drive		Albany NY 12235	(518) 457-2851	Kathleen.Tylutki@agriculture.ny.gov
	McCarran	Cindy		35 Noble St		Coxsackie NY 12051		
Greene County American Legion (3rd District)	Koster	Keith	Department Vice Commander	6 Deerleap Place		Saratoga NY 12866	(518) 583-9235	Keith.koster@xerox.com
ACE NY	Gasperini	Kathleen	Communications Consultant	119 Washington Avenue Suite 1G		Albany NY 12210	518-432-1405 x226	kgasperini@aceny.org
Saving Greene	Rose	Kim		P. O. Box 369		Coxsackie NY 12051	518-469-3446	kmrose927@gmail.com
New York State Department of Environmental (NYSDEC), Central Office, Division of Environmental Permits, Major Project Management	Primeau	Kristy E.	Environmental Analyst	625 Broadway		Albany NY 12233-1750	(518) 402-9185	kristy.primeau@dec.ny.gov
	Martin	Kris		1755 Farm to Market Rd		Coxsackie NY 12051		
	Agovino	Luciano		10429 Route 9W		Coxsackie NY 12051		
Ichabod Crane School District	Bordick	Lee	Interim Superintendent	PO Box 820		Valatie NY 12184	(518) 758-7575 ext. 3002	lbordick@ichabodcrane.org
	Ferrara	Lorraine		2964 State Route 385		Coxsackie NY 12051		
	Schaefer	Christie		2964 State Route 385		Coxsackie NY 12051		
	Hoessle	Jeff		2929 State Route 385		Coxsackie NY 12051		
Tetra Tech, Inc.	Rivard	Linda	Project Manager					Linda.Rivard@tetrattech.com

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3	Phone	Email
Association of Property Owners of Sleepy Hollow Lake, Inc.	Mann	Laurel	Association Manager	Unit 1095 92 Randy Road		Athens NY 12015	(518) 731-6175	LMann@sleepyhollowlake.org
NYS Department of Public Service	Gillings	Lorna	Outreach Contact	Office of Consumer Services	3 Empire State Plaza, Agency Building 3	Albany NY 12223	(800) 342-3377	lorna.gillings@dps.ny.gov
Town of Athens	Stacey	Linda M.	Town Clerk	2 First Street		Athens NY 12015	(518) 945-1052 option 2	lstacey@townofathensny.com
Sleepy Hollow Lake Association of Property Owners	Wolfe	Laurel		Unit 1095 92 Randy Road		Athens NY 12015	518-731-6175	lwolfe@sleepyhollowlake.org
Tetra Tech, Inc.	Gresock	Lynn	Vice President & Project Manager	3 Lan Drive, Suite 100		Westford, MA 01886	978-303-8527	lynn.gresock@tetrattech.com
Participating Landowner	Flach	Mark	Individual Landowner	402 County Road 101		Selkirk NY 12158	(518) 588-8661	markflach77@gmail.com
New York State Department of Environmental Conservation	Bonilla	Mary	Senior Attorney	625 Broadway - 14th Floor		Albany NY 12233	518-402-9536	maryanne.bonilla@dec.ny.gov
	Blinn	Mary		188 Mansion St		Coxsackie NY 12051		
	Jaeger	Mary Jo		87 Tommy Trail		Athens NY 12015		
Columbia County Board of Supervisors	Murell	Matt B.	Chairman	401 State Street		Hudson NY 12534	(518) 828-1527	matt.murell@columbiacountyny.com
NYS Department of Public Service - Office of Hearings and Administrative Dispute Resolution	Leary	Maureen		Empire State Plaza	Agency Building 3 (3rd Fl.)	Albany NY 12223		maureen.leary@dps.ny.gov
New York Energy Research and Development Authority	Leddy	Maureen	Senior Project Manager	17 Columbia Circle		Albany NY 12203		maureen.leddy@nyserda.ny.gov
Village of Coxsackie	Evans	Mark	Mayor	119 Mansion Street		Coxsackie NY 12051	(518) 731-2718	mayor@villageofcoxsackie.com
	Deering	Michael						
	Evans	Mark						
Greene County	Farrell	Marilyn	County Clerk	411 Main Street		Catskill NY 12414	(518) 719-3255	mfarrell@discovergreene.com
	Rausch	Michael H		180 County Route 81 #3		Climax NY 12042		
	Novak	Mary		46 Sutton Place		Coxsackie NY 12051		
	Turner	Natalie		623 Rt 81		Climax NY 12042		
Village of Coxsackie	Bereznak	Nikki	Village Clerk	119 Mansion Street		Coxsackie NY 12051	(518) 731-2718	NBereznak@villageofcoxsackie.com
	Dorn	Nancy		142 Haunted Circle		Athens, NY 12210		
Empire State Development Corporation	Tompkins	Kenneth	Mohawk Valley Regional Director	207 Genesee Street		Utica NY 13501	(315) 793-2366	nys-mohawkval@esd.ny.gov
NYS Department of Economic Development	Zemsky	Howard	Commissioner	633 Third Avenue Floor 37		New York NY 10017		nys-nyc@esd.ny.gov

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3	Phone	Email
NYS Department of State Office of Planning – Coastal Consistency Bureau				One Commerce Plaza	99 Washington Ave	Albany NY 12231-0001	(518) 474-6000	opd@dos.ny.gov
	Hollinde	Pam		1667 Farm to Market Road		Coxsackie NY 12051		
	Maxwell	Pat		PO Box 214		Coxsackie NY 12051		
	Doyle	Patrick		615 Vanderlyn Lane		Slingerland NY 12159		
	Knighton	Robert						
New York State Department of Health	Thomas	Richard	Assistant Counsel	Corning Tower Empire State Plaza		Albany NY 12237	not provided	richard.thomas1@health.ny.gov
NYS Office of General Services	Destito	RoAnn	Commissioner	41st Floor Corning Tower	Empire State Plaza	Albany NY 13342	(518) 474-3899	RoAnn.Destito@ogs.ny.gov
	Yost	Jolene		1667 Farm to Market Road		Coxsackie NY 12051		
Greene County Economic Development, Tourism & Planning Department	Schiafo	Rich	Director/Deputy County Administrator	411 Main Street 4th Floor Suite 419		Catskill NY 12414	(518) 719-3290	rschiafo@discovergreene.com
	Yost	Joanne		1667 Farm to Market Road		Coxsackie NY 12051		
	Saving Greene							
	Chimento	Chris		2159 Farm to Market Rd		Coxsackie NY 12051		
Stockbridge-Munsee Community Band of Mohican Nation	Holsey	Shannon	Tribal President	N8476 MoHeConNuck Road		Bowler WI 54416	(715) 793-4387	Shannon.holsey@mohican-nsn.gov
	Jacobovitch	Sheldon						
Barton& Loguidice, D.P.C	LeFevre	Stephen	Senior Managing Hydrologist	10 Airline Drive	Suite 200	Albany, NY 12205	518-218-1801	slefevre@bartonandloguidice.com
Read and Laniado, LLP	Laniado	Sam	Partner	25 Eagle Street		Albany NY 12207-1901	(518) 465-9313	sml@readlaniado.com
Coxsackie-Athens Central School District	Squier	Randall W.	Superintendent of Schools	24 Sunset Blvd		Coxsackie NY 12051	(518) 731-1710	squierr@cacsd.org
	Smith	Stacey		3 Luke St		Coxsackie NY 12051		
New York Independent System Operator	Bemis	Michael	Board Chair	10 Krey Boulevard		Rensselaer NY 12144	(518) 356-6060	stakeholder_services@nyiso.com
Town of Stockport	Novak	Sandra M.	Town Clerk	Stockport Town Hall -	2787 Atlantic Avenue	Hudson NY 12534	(518) 828-9389 ext. 7	stkptc@mhccable.com
Hudson City School District	Suttmeier	Maria Lagana (Dr.)	Superintendent	215 Harry Howard Ave		Hudson NY 12534	(518) 828-4360	suttmeierm@hudsoncsd.org
	Rice	Jeanette						
New York State Assembly	Tague	Chris	102nd District	Albany Office LOB 402		Albany NY 12248	(518) 455-5363	taguec@nyassembly.gov

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3	Phone	Email
New York State Department of Agriculture and Markets	Wells	Tara	Senior Attorney	10B Airline Drive		Albany NY 12235	(518) 487-6084	Tara.Wells@agriculture.ny.gov
	Hodgens	Ed						
Greene County Legislature	Hobart	Thomas	District 2 Representative	411 Main St Suite 408		Catskill NY 12414	(518) 859-7803	thobart@discovergreene.com
Greene County Legislature	Hobart	Thomas	District 2 Representative	411 Main St Suite 408		Catskill NY 12414	(518) 859-7803	thobart@discovergreene.com
	Tighe	Andrew		2135 Farm to Market Rd		Coxsackie NY 12051		
Read and Laniado, LLP	Wolcott	Tyler	Associate	25 Eagle Street		Albany NY 12207	(518) 465-9313	tyler@readlaniado.com
NYS Division of Homeland Security and Emergency Services	Hauer	Jerome	Commissioner	State Office Campus Building 7A Suite 710	1220 Washington Ave.	Albany NY 12242	(518) 242-5000	website@dhses.ny.gov
	Rolleri	Louis		PO Box 108		Earlton NY 12058		
	Yost	Joanne						

Application of Hecate Energy Greene 1 LLC and Hecate Energy Greene 2 LLC, and Hecate Energy Greene County for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility Located in the Town of Coxsackie, Greene County.

AFFIDAVIT OF SERVICE

I, William Backes of Power Communications, in Saratoga Springs, New York, caused the document entitled 'Notice of Submission of Application' for the Greene County Solar Farm proposed in Coxsackie, New York', to be sent via email and or mail on December 18, 2019 to the required parties, as identified in 16 New York Codes, Rules and Regulations § 1000.7. A list of the recipients to whom this document was sent and a copy of the Notice of Submission of Application are attached hereto.



William Backes

Sworn to me before this 20th day of December 2019



ERIC MOHAMED
Notary Public, State of New York
No. 01MO6204845
Qualified in Schenectady County
Commission Expires April 27, 2021

Notary Public

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County
3 LLC

50-Megawatt Solar Photovoltaic Generation Project
Town of Coxsackie, Greene County, New York

NOTICE OF SUBMISSION OF APPLICATION

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (“Hecate Greene”) are seeking authority from the New York State Board on Electric Generation Siting and the Environment (the “Siting Board”) to construct a 50-megawatt (“MW”) solar photovoltaic electric generating facility (the “Facility”) in the Town of Coxsackie, Greene County, New York, under Article 10 of the New York State Public Service Law (“PSL”). Pursuant to PSL § 164 and 16 NYCRR § 1000.7, Hecate Greene hereby provides notice that, on or about December 23, 2019, it intends to file its Application with the Siting Board for a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of the Facility.

The Facility components will include solar photovoltaic panel arrays connected by underground collection lines that will generate electricity to be delivered into New York State’s transmission system via interconnections with an existing Central Hudson transmission line. The Facility is proposed to be constructed on land leased from owners of private property.

The Facility will safely generate enough clean, renewable electricity to power approximately 13,000 households. The Facility will not emit or discharge any pollutants, and it will avoid other impacts associated with traditional fossil-fueled generating facilities, such as water usage. The Facility will also contribute to New York’s goal of generating 70% of all electricity consumed in the State with renewable resources by 2030, and eliminating all power-sector emissions by 2040. Further, the Facility will benefit the economic growth of the local community through the creation of temporary and permanent jobs, increased tax revenues, and new payments to local farmers that will help them maintain farming operations on other properties.

Construction and operation of the Facility will not result in negative impacts to health, air, or water resources. The Facility is mostly located on land that is already cleared and therefore avoids disturbances to forested lands to the maximum extent practicable. All impacts resulting from construction and operation of the Facility have been minimized to the maximum extent practicable.

The Applicant intends to request a Water Quality Certification (“WQC”) pursuant to Section 401 of the Federal Clean Water Act. The WQC is necessary to obtain a permit from the U.S. Army Corps of Engineers.

The Application contains all the information by the proposed stipulations filed in this Article 10 proceeding. Studies and analyses as required by the proposed stipulations and Article 10 address many disciplines such as land use, noise, preliminary engineering, avians, and decommissioning. The Siting Board will determine whether the Application is compliant with the Article 10 requirements. Once it is deemed compliant, the Administrative Law Judges (“ALJs”) assigned to this proceeding will schedule a public hearing and issue a notice that intervenor funds, in the amount of \$50,000, will be available for eligible parties participating in the Application phase. The ALJs will also schedule a pre-hearing conference to identify parties, award intervenor funds, identify issues for the hearing, and establish a case schedule. After the hearings, intervenors may submit briefs to the ALJs who will then issue a recommended decision, upon which the Siting Board will render its decision on whether to certify the Facility and under what conditions. State

law requires that the Siting Board must render a decision on the Application within 12 months of its determination that the Application is compliant with the Article 10 requirements.

Interested, eligible municipal and local parties may apply for intervenor funding to be used to pay for expenses such as administrative, attorney, and/or consultant fees. A guide to applying for intervenor funding can be found on the New York State Department of Public Service's ("DPS") website by using the following direct link: goo.gl/avcprS.

Any interested person wishing to receive all notices concerning the Facility may submit a request to Hon. Michelle L. Phillips, Secretary, New York State Board on Electric Generation Siting and the Environment, Agency Building 3, Albany, NY 12223-1350 or electronically to secretary@dps.ny.gov. Documents concerning the Siting Board's review of the Facility may be viewed at the DPS website located at www.dps.ny.gov by clicking "Search" on the homepage and then entering Case 17-F-0619 in "Search by Case Number."

Additional information on how to participate in this proceeding may be obtained by contacting Hecate Greene's project representative or the Siting Board Public Information Coordinator:

Hecate Greene Representative

Gabriel Wapner
Hecate Energy, LLC
621 W Randolph St.
Chicago, IL 60661
833-529-6597
contact@greencountysolar.info

Siting Board Public Information Coordinator

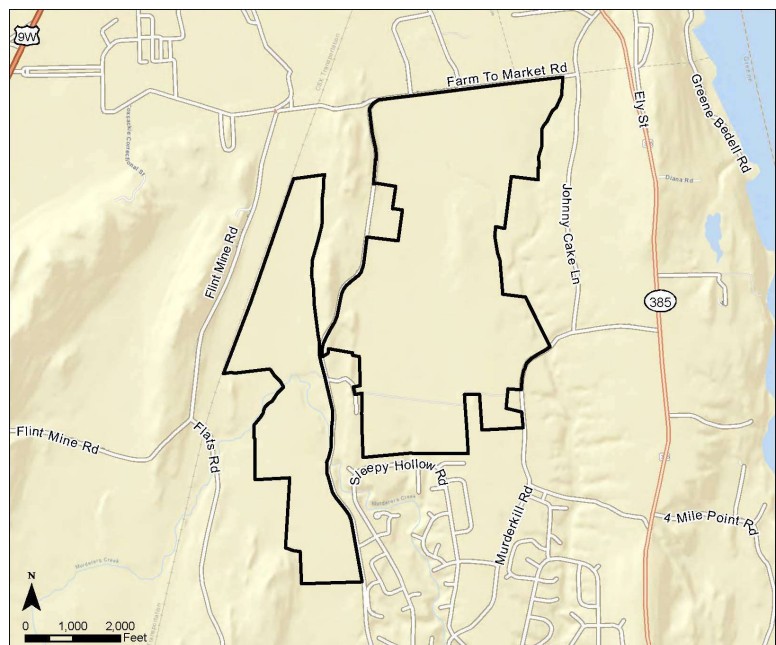
James Denn
NYS Department of Public Service
3 Empire State Plaza
Albany, NY 12223
518-474-7080
james.denn@dps.ny.gov

To find more information, please go to the Siting Board's website (www.dps.ny.gov/SitingBoard) or the Facility website (<https://www.greencountysolar.info/>) or call the Facility's toll-free number: 833-529-6597.

A copy of the Application will be served on the Town Supervisor of the Town of Coxsackie. The Application, when filed, may be examined during normal business hours at the Offices of the Department of Public Service at 3 Empire State Plaza, Albany, NY 12223, and at the following local document repositories:

- Hermance Memorial Library
1 Ely St.
Coxsackie, NY 12051
- D.R. Evarts Library
80 2nd St.
Athens, NY 12015
- Village of Coxsackie Village Hall
119 Mansion St.,
Coxsackie, NY 12051
- Town of Coxsackie Town Hall
16 Reed St.
Coxsackie, NY 12051

To the right is a map that shows the location of the Facility site.



Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
2071 Sleepy Hollow Corp				188 Eckford St		Brooklyn, NY 11222
21st Century Dev. Corp.				PO Box 100		Athens, NY 12015
Aaron's Assets				PO Box 274		Glenmont, NY 12077
Aaron's Assets Inc				370 Mansion St		West Coxsackie, NY 12192
Archaeological Ass Inc LI Chap				PO Box 268		Southold LI, NY 11971
Assoc. of Property Owners SHL				92 Randy Rd Unit 1095		Athens, NY 12015
Athens Lower Village Historic District	Brunner	Lynn J.	Town of Athens Historian	2 First Street		Athens NY 12015
Cedar Shade Farm LLC				334 Kings Rd		Coxsackie, NY 12051
Central Hudson Gas & Elec				284 South Ave		Poughkeepsie, NY 12602
Central Hudson Gas & Electric Corp.	Mosher	Michael	President	284 South Avenue		Poughkeepsie NY 12601
Columbia County Airport	Knox	Dean	Airport Manager	401 State Street		Hudson NY 12534
Columbia-Boulder LLC				PO Box 69		Coeymans, NY 12045
Community In Coxsackie				PO Box 314		Coxsackie, NY 12051
County of Greene				411 Main St		Catskill, NY 12414
Coxsackie Correctional Facility				11260 State Route 9W		Coxsackie NY 12051
Coxsackie-Athens Cent. School				24 Sunset Blvd		Coxsackie, NY 12051
CSX				214 E Main Street		Batavia NY 14020
Ducommun Aerostructures NY Inc				23301 S Wilmington Ave		Carson, CA 90745
Equinox Properties		LLC		2 Progress Dr		Clifton Park, NY 12065
Flach Family Trust				128 Hamilton Rd		Athens, NY 12015
Freedom Mortgage Corportation				10500 Kincaid Dr		Fishers, IN 46037
G Family Properties LLC				57 Townsend Rd		Wanaque, NJ 07420
Garden Club						Coxsackie, NY 12051
Greene Correctional Facility				165 Plank Road		Coxsackie NY 12051
Greene County	Groden	Shaun S.	Administrator	411 Main Street		Catskill NY 12414
Greene County				411 Main St		Catskill, NY 12414
Greene County Agricultural Society, Inc.	Licata	Tara	President	P.O. Box 84		Greenville NY 12083
Greene County Historical Society				90 County Road 42		Coxsackie NY 12051
Greene County IDA				270 Mansion St		Coxsackie, NY 12051
Greene County Industrial Development Agency	VanShaack	René	Executive Director	270 Mansion Street		Coxsackie NY 12051
Igloo Series III REO LLC				PO Box 517		Titusville, PA 16354
Karlsen Contracting LLC				95 S River St		Coxsackie, NY 12051
Kline Kill Airport	Kerner	George	Manager	PO Box 271		Chatham NY 12037
Kuxakee Prop. LLC				80 Beecher Rd		Coxsackie, NY 12051
Mansion Street Development				11 Wayne Dr		Coxsackie, NY 12051
Marsan Properties Inc.				PO Box 250		Coxsackie, NY 12051
Mizrachi Family Inv LLC				17 Bow St		Forest Hills, NY 11375
MNM Estates LLC				127 RT 59 C5A		Monsey, NY 10952

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
Natural Resource Upper Hudson & Catskills				270 Mansion St		Coxsackie, NY 12051
NYS Thruway Authority	Finch	Bill	Executive Director	Adm Headquarters 200 Southern Blvd.	P.O. Box 189	Albany NY 12201-0189
NYS Urban Dev Corp				PO Box 191		Catskill, NY 12414
Occupations Inc.				15 Fortune Rd. West		Middletown, NY 10941
Preston Dev Group LLC				159 Delaware Ave		Delmar, NY 12054
R & W Green Structures LLC				2315 Rt 81		Earlton, NY 12058
R&S Francis Holdings Inc				187 Green Bedell Rd		Coxsackie, NY 12051
Richmore Aviation	Richards	Mahlon		PO Box 423		Hudson NY 12534
S H Lake Trustee				19 Grissom Dr		Clifton Park, NY 12065
SHL Ass of Prop Owners				92 Randy Rd Unit 1095		Athens, NY 12015
SHL Sewerage Co Inc				92 Randy Rd Unit 1095		Athens, NY 12015
St Mary's Catholic Church				80 Mansion St		Coxsackie, NY 12051
State of New York				411 Main St		Catskill, NY 12414
Summit Tech&Resources LLC				PO Box 100		Ramsey, NJ 07446
The Ass of Prop Owners SHL				92 Randy Rd		Athens, NY 12015
US Bank Trust NA				3630 Peachtree Rd NE Ste 1500		Atlanta, GA 30326
US House of Representatives	Delgado	Antonio	19th Congressional District	1007 Longworth HOB		Washington DC 20515
US Senate	Schumer	Charles E.	US Senator	Leo O'Brien Building Room 420		Albany NY 12207
Village of Athens	Wynne	Mary Jo	Village Clerk	2 First Street		Athens NY 12015
Village of Coxsackie				119 Mansion St		Coxsackie, NY 12051
Village of Coxsackie Historic Preservation Committee	Maxwell	Patricia	Temporary Chairperson/Member	119 Mansion Street		Coxsackie NY 12051
Village of Coxsackie Planning Board	Maxwell	Patricia	Chairperson	119 Mansion Street		Coxsackie NY 12051
Village of Coxsackie Zoning Board of Appeals	Willis	Peter	Chairman	119 Mansion Street		Coxsackie NY 12051
Visions Federal Credit				24 McKinley Ave		Endicott, NY 13760
VVL Property Management Inc				PO Box 55		Athens, NY 12015
W A Properties LLC				PO Box 274		Glenmont, NY 12077
Wenwei LLC				43 Fifth Ave Apt 6W		New York, NY 10003
	Emily Kunchala (as Trustee)			71 Sutton Pl		Coxsackie, NY 12051
	Abel	Eileen D.		PO Box 399		Coxsackie, NY 12051
	Agasan	Alice		2607 Heron Landing Ct		Orlando, FL 32837
	Ahmed	Shamsu Uddin		37-06 72nd St Apt 1C		Jackson Heights, NY 11372
	Ahmed	Hussain		30622		Sharjah, UAE
	Alam	Najmul M.		2070 Sleepy Hollow Rd		Athens, NY 12015
	Allo	Robert W.		109 Heritage Rd		Clinton Corners, NY 12514

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Altieri	John P.		94 Jenkins Ave		North Babylon, NY 11703
	Altobelli	Pina		25 Fulmar Rd		Mahopac, NY 10541
	Alvarez	Camilo		514 East 9Th St		Brooklyn, NY 11218
	Andersen	Robert		142 Adams Rd		Athens, NY 12015
	Anderson	Joseph M.		1581 Farm To Market Rd		Coxsackie, NY 12051
	Anderson	George		753 Durant Ave		Staten Island, NY 10308
	Apa	Chellie Lee		PO Box 283		Coxsackie, NY 12051
	Aquino	Anicia		1071 Peterson St		Myrtle Beach, SC 29577
	Armstead	Myra B.		8 Walnut Hill Rd		Poughkeepsie, NY 12603
	Auerbach	Steven R.		84 Superstitious Dr		Athens, NY 12015
	Baccari	Thomas P.		661 Toni Ct		Yorktown Heights, NY 10598
	Baker	George C.		1466 Sleepy Hollow Rd		Athens, NY 12015
	Balsano	Michael		93 Petersville Rd		New Rochelle, NY 10801
	Barbeau	Scott		242 Dodge St		Beverly, MA 01915
	Barnhart	William C.		8 Charity Ct Unit 2110		Athens, NY 12015
	Barror	Florette		65 Ely St		Coxsackie, NY 12051
	Baxter	Bruce		49 Washington Ave		Coxsackie, NY 12051
	Baxter	Douglas		71 Adams Rd		Athens, NY 12015
	Baxter	Richard Kurt		61 Sunset Blvd		Coxsackie, NY 12051
	Beckmann	Alfred		1767 Broadway		Hwelett, NY 11557
	Bedford	Robert		PO Box 353		Coxsackie, NY 12051
	Beiter	Kevin		2013 Sleepy Hollow Rd Unit 2129		Athens, NY 12015
	Bender	Kimberly K.		149 S River St		Coxsackie, NY 12051
	Bender	Kimberly K.		102 S River St		Coxsackie, NY 12051
	Benenati	Ann		49 Henry St		Selden, NY 11784
	Bennett	Scott M.		37 Johnny Cake Ln		Coxsackie, NY 12051
	Bennett	Gordon W.		48 Johns Jog #1156		Athens, NY 12015
	Bennett	William		PO Box 56		Coxsackie, NY 12051
	Benson	John F.		57 Ely St		Coxsackie, NY 12051
	Berlin	Joseph J.		80 Ely St		Coxsackie, NY 12051
	Berlin	Andrew A.		70 Ely St		Coxsackie, NY 12051
	Bernard	Matthew		4 Kriss Krossing		East Greenbush, NY 12061
	Betke	Louis P.		PO Box 203		Coxsackie, NY 12051
	Bie	Daniel G.		323 Lasher Rd		Tivoli, NY 12583
	Biscone	Donna		2551 Rt 385		Coxsackie, NY 12051
	Bleau	Gregory J.		245 Hamilton Rd		Athens, NY 12015
	Boakes	Timothy E.		531 Adams Rd		Coxsackie, NY 12051
	Bogardus	Brent E.		1 Molly White Dr		Coxsackie, NY 12051
	Bohonyi	George E.		341 Treeline Trce		Port St Lucie, FL 34986
	Boms	Erica		3 Fish Ct		Athens, NY 12015
	Bonge	Daniel J.		386 Massapequa Ave		Massapequa, NY 11758

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Bourguignon	Christopher		3 Greenwood Dr		Coxsackie, NY 12051
	Bowman	Michele A.		4 Wolf Ct Unit 1185		Athens, NY 12015
	Braden	Matthew		2 Molly White Dr		Coxsackie, NY 12051
	Branley	Andrew		80 Daredevil Dr Unit 2151		Athens, NY 12015
	Brauer	Gary Erich		PO Box 1048		Fairborn, OH 45324
	Brennan	Judee L.		97 Kaydeross Park Rd		Saratoga Springs, NT 12866
	Brinkmann	Timothy		12 Wiley's Swamp Ct Unit 1078		Athens, NY 12015
	Buchanan	James R.		PO Box 183		Pallenville, NY 12463
	Buchanan	Dean		474 Schoharie Tpke		Athens, NY 12015
	Burdick	Shawn L.		11 Greenwood Dr		Coxsackie, NY 12051
	Burner-Lawrence	Lauren		614 40th St Apt B1		Brooklyn, NY 11232
	Busanic	Karlo V.		119 Ichabod Crane Cir #2045		Athens, NY 12015
	Byla	Ausrine		77 Randy Rd 1167		Athens, NY 12015
	Capaccio	John		266 E 211Th St		Bronx, NY 10461
	Carlson	Eric R.		7 Will Palmer Rd		Catskill, NY 12414
	Carrera	Jose L.		81 Ely St		Coxsackie, NY 12051
	Cary	Carl T.		196 Johnny Cake Ln		Coxsackie, NY 12051
	Cary	Jeanne L.		576 Flint Mine Rd		Coxsackie, NY 12051
	Chamoun	Maria DelRosario		8610 Bay 16th St Fl 2		Brooklyn, NY 11214
	Chapman	Tyrone L.		81 Haunted Cir		Athens, NY 12015
	Chewins	Thomas E.		4 Molly White Dr		Coxsackie, NY 12051
	Chiarella	Philip A.		964 Flats Rd		Coxsackie, NY 12051
	Chimento	Christopher		2159 Farm To Market Rd		Coxsackie, NY 12051
	Chiong	Elizabeth		35 Dam Van Winkle Cir		Athens, NY 12015
	Chiu	Paksiu		39-16 50th St		Woodside, NY 11377
	Chiudina	James		51 Brom Bones Ln		Athens, NY 12015
	Cirino	Letizia		5 Munson Rd		Pleasantville, NY 10570
	Clark	Beth Ann		226 Johnny Cake Ln		Coxsackie, NY 12051
	Clarke	Rosa		88-10 Whitney Ave #1G		Elmhurst, NY 11373
	Clouthier	Shawn A.		8 Molly White Dr		Coxsackie, NY 12051
	Cole	Robert		5 Catskill Ct		Athens, NY 12015
	Cole	Adam B.		38 Church St		Coxsackie, NY 12051
	Coleman	Tyrone		2163 Farm To Market Rd		Coxsackie, NY 12051
	Condy	John		9 Supertitious Dr		Athens, NY 12015
	Conforti	Lawrence		423 Stewart Ave		Bellmore, NY 11710
	Conklin	Stanley		15 Utopian Pl		Airmont, NY 10901
	Conlin	Brett		1975 Sleepy Hollow Rd		Athens, NY 12015
	Connolly	Victoria D.		53 Washington Ave		Coxsackie, NY 12051
	Cook	Barbara L.		112 Johnny Cake Ln		Coxsackie, NY 12051
	Cordaro	Bonnie JeanAntonucci		34 Smith Crossing Rd		Wappinger Falls, NY 12590
	Cordeau	Darren		368 Johnny Cake Ln		Coxsackie, NY 12051

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Coscia	Bruce A.		61 Ely St		Coxsackie, NY 12051
	Costanzo	Domenick J.		36 Hollister St		Coxsackie, NY 12051
	Costello	Cynthia A.		223 Johnny Cake Ln		Coxsackie, NY 12051
	Coupe	Michael C.		15 Mystery Ct Unit 2201		Athens, NY 12015
	Cramer	James		43 Van Brunt Dr		Athens, NY 12015
	Craw	Paul		145 South River St		Coxsackie, NY 12051
	Cristina	Rocco		345 Herricks Dr		New Hyde Park, NY 11040
	Cronin	Keith		67 Washington Ave		Coxsackie, NY 12051
	Cure	Betty J.		96 Ely St		Coxsackie, NY 12051
	Curtis	Ann		63 Dame Van Winkle Cir		Athens, NY 12015
	Czarnecki	Cynthia A.		105 Hamilton Rd		Athens, NY 12015
	Daley	Robert P.		1542 Rt 300		Newburgh, NY 12550
	D'Amelia	Ronald		1 Fox Pl		Hicksville, NY 11801
	Daniel	Stephen E.		723 Jerome St		Brooklyn, NY 11207
	Daoust	Robert Michael		45 Washington Ave		Coxsackie, NY 12051
	D'arcangelis	Howard J.		85 Ely St		Coxsackie, NY 12051
	De Luca	Robert T.		66 Ely St		Coxsackie, NY 12051
	De Pietro	Michael		41 Washington Ave		Coxsackie, NY 12051
	Dederick	Wendy		1987 Sleepy Hollow Rd		Athens, NY 12015
	Dehoff	Brenton		146 Adams Rd		Athens, NY 12015
	Deleon	Victor Sr		939 Tunsbrook Dr		Toms River, NJ 08753
	DelTosto	Henry P.		148 Magnolia Ave		Kearny, NJ 07032
	Denenberg	Alexsandr		1111 River Rd Apt A-07		Edgewater, NJ 07020
	DePietro	Michael A.		12 Beechwood Dr		Coxsackie, NY 12051
	Derby	Jay F.		442 North Quaker Ln		Hyde Park, NY 12538
	DeRuggiero	John Jr		55 Rte 66 East St		Kerhonkson, NY 12446
	Desrosiers	Robert C.		58 Ely St		Coxsackie, NY 12051
	Diaz	Evelyn E.		54 Church St		Coxsackie, NY 12051
	DiBenedetto	Vincent		50 Redwood Ave		Staten Island, NY 10303
	Diehl	Vernea T.		426 Adams Rd		Coxsackie, NY 12051
	Distefano	Luigi		1043 Schoharie Tpke		Catskill, NY 12414
	Ditchfield	Sheila M.		55 Ely St		Coxsackie, NY 12051
	Dittmar	Kenn E.		65 Hamilton Rd		Athens, NY 12015
	Dolan	Paul		1490 Sleepy Hollow Rd		Athens, NY 12015
	Donofrio	Kenneth		58 Longdale St		Staten Island, NY 10314
	Dorr	Matthew		78 Superstitious Dr		Athens, NY 12015
	Dougherty	Andrew		124 Adams Rd		Athens, NY 12015
	Dragon	Steven T.		2455 State Rt 385		Coxsackie, NY 12051
	Drake	Kathleen		9 Molly White Dr		Coxsackie, NY 12051
	Drewello	Frank H.		1002 Flint Mine Rd		Coxsackie, NY 12051
	Ducey	Kathleen		10 Bircher Ave		Poughkeepsie, NY 12601

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Dusevic	Maria		3492 Route 44 Apt 16		Millbrook, NY 12545
	Eddy	Robert Ray		49 Ichobod Crane Cir		Athens, NY 12015
	Eglen	Shirley A.		4905 Ashford Dr		Upper Marlboro, MD 20772
	English	John		2060 Eastern Pkwy		Brooklyn, NY 11207
	Erdmann	Steven James		13 Budd Ln		East Greenbush, NY 12061
	Eskinazi	Robert		PO Box 132		Coxsackie, NY 12051
	Esposito	Rose A.		316 Sloan Ct		Matawan, NJ 07747
	Failla	Joseph C. Jr.		253 Blacksmith Rd		Levittown, NY 11756
	Falgiano	Neal J.		865 Farm To Market Rd		Athens, NY 12015
	Faltings	Kirsten		20 Old Baltus Ct		Athens, NY 12015
	Faraone	Ann M.		49 Cricket Town Rd		Stony Point, NY 10980
	Farrand	William C. IV		18 Molly White Dr		Coxsackie, NY 12051
	Fay	Bradley		38 Haunted Cir		Athens, NY 12015
	Fedoryszyn	Edward		PO Box 73		Coxsackie, NY 12051
	Fedoryszyn-Whittaker	Evita M.		173 Johnny Cake Ln		Coxsackie, NY 12051
	Feinberg	Elliot		111 Hicks St Apt 7m		Brooklyn, NY 11201
	Ferenczy	William A.		234 Adams Rd		Athens, NY 12015
	Figueras	Ares Apollo		169 Haunted Cir		Athens, NY 12015
	Finnegan	Michael C. SR		20 Park St		Albany, NY 12207
	Fitzpatrick	Thomas		232 Johnny Cake Ln		Coxsackie, NY 12051
	Flach	John P.		127 Hamilton Rd		Athens, NY 12015
	Flach	John P.		128 Hamilton Rd		Athens, NY 12015
	Flanagan	John		14 Essex Pl		Commack, NY 11725
	Fleming	Lillian		10 Sunset Ct Unit 1062		Athens, NY 12015
	Fori	Thomas J.		9 Sunset Blvd		Coxsackie, NY 12051
	Forman	James M.		93 Mandalay Dr		Poughkeepsie, NY 12603
	Forschner	Thomas		186 Adams Rd		Athens, NY 12015
	Fowlkes	David L.		207 Kingsboro 2Walk Apt4c		Brooklyn, NY 11233
	Francese	Jason		53 Brom Bones Ln Unit 1225		Athens, NY 12015
	Francett	Bryan		1890 Sleepy Hollow Rd		Athens, NY 12015
	Frattali	Elio A.		215 Clunie Ave		Yonkers, NY 10703
	Fredenburgh	Gail		6 Molly White Dr		Coxsackie, NY 12051
	Friel	Thomas		70 Johnny Cake Ln		Coxsackie, NY 12051
	Fucito	Thomas		152 Vernal Butler Rd		Purling, NY 12470
	Gagliardo	Angela F.		730 Willow Rd		Lancaster, PA 17601
	Gallagher	Martina		149 Beecher Rd		Coxsackie, NY 12051
	Gallogly	John		104 Ely St		Coxsackie, NY 12051
	Gambacorta	June		249 Johnny Cake Ln		Coxsackie, NY 12051
	Garner	Charles M.		39 Washington Ave.		Coxsackie, NY 12051
	Garvey	Philip R.		41 Sacandaga Rd		Scotia, NY 12302
	Gates	Kathryn		43 Sutton Pl		Coxsackie, NY 12051

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Geiger	Rudolph C.		256 Adams Rd		Athens, NY 12015
	Geiss	William		2059 Sleepy Hollow Rd		Athens, NY 12015
	Giangrande	Ruth		12 Charity Ct		Athens, NY 12015
	Gibbs	Richard L.		2151 Farm To Market Rd		Coxsackie, NY 12051
	Gifford	Kenneth A.		15 Van Houten Dr Unit 1097		Athens, NY 12015
	Goetchius	David J.		18 Mystery Ct #1154		Athens, NY 12015
	Golson	Earlean		36 Edgecomb Ave		New York, NY 10030
	Gonzales	Eulalia		5650 Netherland Ave		Riverdale, NY 10471
	Gonzalez	Glisobel M.		72 Thiells Rd		Stony Point, NY 10980
	Gonzalez	Augustin		102-44 85th Ave		Richmond Hill, NY 11418
	Gransbury	Patricia		87 Washington Ave		Coxsackie, NY 12051
	Grant	Darwin Howard		219 Martins Hill Rd		Ravena, NY 12143
	Greenaway	Edward		40 Church St		Coxsackie, NY 12051
	Grundman	James		847 Union Valley Rd		Catskill, NY 12414
	Grunstra	Thomas J.		235 Johnny Cake Ln		Coxsackie, NY 12051
	Gurvitch	Maxwill		PO Box 581		Latham, NY 12110
	Haas	Stephanie		118 Stacey St		Coxsackie, NY 12051
	Hajduk	Gregory		6 Genesee Ave		Lake Katrine, NY 12445
	Hakes	Todd L.		980 Flats Rd		Athens, NY 12015
	Halsted	Curtis E.		21 Hamilton Rd		Athens, NY 12015
	Hanse	Richard K.		51 Sutton Pl		Coxsackie, NY 12051
	Hanson	Dean L.		51 Church St		Coxsackie, NY 12051
	Hargrave	Vanessa		142 Bayview Ave		Port Washington, NY 11050
	Hartofilis	Mayra		1154 Somerset Circle Sq		Dunedin, FL 34698
	Hasbourne	Charles		98-25 Horace Harding Exp		Queens, NY 11368
	Hashim	Elias K.		2507 South Rd Ste 105		Poughkeepsie, NY 12601
	Hazelton	Guy W.		4 Beechwood Dr		Coxsackie, NY 12051
	Hefferin	Francis		43 Wendover Dr		Huntington, NY 11743
	Heines	Dennis T.		2 N Montgomery St		Athens, NY 12015
	Herwick	Charles		5 Greenwood Dr		Coxsackie, NY 12051
	Higgins	Nelson E. III		20 Mystery Ct		Athens, NY 12015
	Hillicoss	Gary		71 Washington Ave		Coxsackie, NY 12051
	Hock	Sandra		12 Molly White Dr		Coxsackie, NY 12051
	Hoessle	Jeffry		2929 State Rt 385		Coxsackie, NY 12051
	Holbrook	Paul A.		173 Church Dr		Mastic Beach, NY 11951
	Horn	Doris		77 Washington Ave		Coxsackie, NY 12051
	Hotaling	Ronald F.		396 Adams Rd		Coxsackie, NY 12051
	Hotaling	Earl K.		109 Haunted Cir		Athens, NY 12015
	Hotaling	Katherine G.		3290 Rt 81		Surprise, NY 12176
	Houle	Dean		2 Brom Bones Ln		Athens, NY 12015
	Howard	Earleen		168 Stacey Rd		Coxsackie, NY 12051

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Hummer	Richard J.		86 Washington Ave #2		Coxsackie, NY 12051
	Iannaccone	Anthony J.		35 Fresh Pond Ln		Southampton, NY 11968
	Ilan	Ari		300 North End Ave Apt 17A		New York, NY 10282
	Inzerillo	Trustee Victoria		3 Molly White Dr		Coxsackie, NY 12051
	Irwin	Jason A.		8 Hollister St		Coxsackie, NY 12051
	Isaac	Doumer		321 East 32Nd St		Brooklyn, NY 11226
	Isabelle	Aaron D.		59 Brom Bones Ln 2005		Athens, NY 12015
	Jack	Brian A.		5825 SE Riverboat Dr		Stuart, FL 34997
	Jagdah	Girish Maganlal		60684		Sharjah, UAE
	Jones	Margaret M.		323 Adams Rd		Athens, NY 12015
	June	Timothy D.		71 Ely Street		Coxsackie, NY 12051
	Kampe-Nace	Karoline		PO Box 163		New Baltimore, NY 12124
	Kaplan	Alden B.		10 Catskill Ct #1305		Athens, NY 12015
	Kayne	Susan		1700 Farm to Market Rd		Coxsackie NY 12051
	Kelly	Bryan		50 Nature's Way		Cinton Corners, NY 12514
	Kelly	Jonathan E.		4 Greenwood Dr		Coxsackie, NY 12051
	Kelsey	Jenelle		128 Haunted Cir		Athens, NY 12015
	Kenick	Susan		67 Sutton Pl		Coxsackie, NY 12051
	Kennedy	James		47 Sutton Pl		Coxsackie, NY 12051
	Kessler	William		2379 Rt 385		Coxsackie, NY 12051
	Khan	Noor Gul		81659R		Dubai, UAE
	Khan	Muhammed A.		PO Box 1001		Bethpage, NY 11714
	Kingsley	Thomas A.		165 Hamilton Rd		Athens, NY 12015
	Klein	Paul T.		312 Bender Ln		Glenmont, NY 12077
	Kohler	Daniel M.		1604 Noral Pl		Alexandria, VA 22308
	Konsul	Sheryl Ann		64 Church St		Coxsackie, NY 12051
	Kratochwill	Michael J.		7 Beechwood Dr		Coxsackie, NY 12051
	Krieger	Joe		13 Legend Ct Unit 2100		Athens, NY 12015
	Kumar	Prasoon		22320		Sharjah, UAE
	Kunz	Seth F.		2 Legend Ct Unit 2029		Athens, NY 12015
	Lach	Mary Ann J.		1 Fairview Ave		Staten Island, NY 10314
	LaFountain	Rachel		43 Hamilton Rd		Athens, NY 12015
	LaFountain	Nicholas P.		43 Hamilton Rd		Athens, NY 12015
	Laivins	Ralph		94 Weaver Ave		Ephrata, PA 1722
	Lambertson	Andrea		15 Andre Ct 2130		Athens, NY 12015
	Lampman	Matthew C.		25 Hollister St		Coxsackie, NY 12051
	Landi	Gerard A.		25 Market Ln Unit 1186		Athens, NY 12015
	Lang	Jeffrey		125 Ichabod Crane Cir 2021		Athens, NY 12015
	Larocca	Melody		13 Dunhill Dr		Somers, NY 10589
	Lasher	Perry M.		68 Church St		Coxsackie, NY 12051

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Lee	Edward A.		70 Washington Ave		Coxsackie, NY 12051
	Lee	Steven		30 Dorchester Rd		Ronkonkoma, NY 11779
	Lein	Terence E.		6 Beechwood Dr		Coxsackie, NY 12051
	Lenny	Timothy P.		1 Greenwood Dr		Coxsackie, NY 12051
	Lento	Ralph		56 Church St		Coxsackie, NY 12051
	Lento	Jennifer		60 Church St		Coxsackie, NY 12051
	Leonard	Mary Patricia		4 Lawrence Ave		Coxsackie, NY 12051
	Lew	Manling		7 Bender Rd		Waldwick, NJ 07463
	Lidestri	Joseph P.		700 Flats Rd		Athens, NY 12015
	Limbach	Joseph G.		25 Tree Toad Rd #2084		Athens, NY 12015
	Lindstrom	Jennifer E.		59 Sutton Pl		Coxsackie, NY 12051
	Link	Goerge		5 Harbor Ct		Copaigue, NY 11726
	Lisk	Erica P.		3033 State Route 385		Coxsackie, NY 12051
	Lopez	Antonio		35 Crawford St		Yonkers, NY 10705
	Lopez	John		187 Kentucky Way		Freehold, NJ 07728
	Loughran	Anthony		1831 Sleepy Hollow Rd		Athens, NY 12015
	Luft	Ryan		72 Van Brunt Dr #2055		Athens, NY 12015
	Lyons	Janet A.		60 Sparrow Ridge Rd		Catskill, NY 12414
	Mabee	Robert		148 Stacey Rd		Coxsackie, NY 12051
	Macari	John		PO Box 307		Coxsackie, NY 12051
	Maggio	Charles		472 North Country Rd		St James, NY 11780
	Marafioti	Joseph		7 Greenwood Dr		Coxsackie, NY 12051
	Marano	Federico		2610 Crossland Hills Dr		Winston Salem, NC 27106
	Marks	Paul M.		11 Van Houten Dr		Athens, NY 12015
	Martin	Gregory		194 Stacey Rd		Coxsackie, NY 12051
	Martin	Kristyne S V S		1755 Farm To Market Rd		Coxsackie, NY 12051
	Martin	Michael		121 Haunted Cir		Athens, NY 12015
	Martinez	Joseph F.		46 Ely St		Coxsackie, NY 12051
	Martinez	Charles A.		38 Flint Mine Rd		Coxsackie, NY 12051
	Martinez	Charles A.		48 Flint Mine Rd		Coxsackie, NY 12051
	Mathes	Joan Marie		10 Beechwood Dr		Coxsackie, NY 12051
	Mathes	Alexander Jr		24 Molly White Dr		Coxsackie, NY 12051
	Matteo	Amedeo		9 Charity Ct Unit 1181		Athens, NY 12015
	Mc Kee	Kevin G.		19023 Harbor Cove Ln		Cornelius, NC 28031
	McCampbell	Joyce		1318 Farm To Market Rd		Coxsackie, NY 12051
	McCarthy	Jo Ann G.		PO Box 849		Sandy Springs, SC 29667
	McCarthy	Sean J.		357 West 55th St Apt 1J		New York, NY 10019
	Mccoach	Kathryn		339 Lake Dr		Lake Peekskill, NY 10537
	McCullagh	Kevin		115 Tammy Trl Unit 1068		Athens, NY 12015
	Mcdermott	James J.		62 Washington Ave		Coxsackie, NY 12051
	McGivney	Conor D.		1344 Farm to Market Road		Coxsackie, NY 12051

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	McGowan	Lawrence J.		240 Hamilton Rd		Athens, NY 12015
	McHale	Michael J. Jr.		52 Washington Ave		Coxsackie, NY 12051
	Mckee	William P.		23 Bridle Ln		Hicksville, NY 11801
	McKenney	James W.		50 Washington Ave		Coxsackie, NY 12051
	Mcquade	Jill Marie		340 Johnny Cake Ln		Coxsackie, NY 12051
	Meade	James K.		90 Stacey Rd		Coxsackie, NY 12051
	Meier	Daniel		576 Flint Mine Rd		Coxsackie, NY 12051
	Meier	Thomas		56 Mile Square Rd		Yonkers, NY 10701
	Meier	Timothy		296 Rt 51		Coxsackie, NY 12051
	Meier	Timothy		296 Route 51		Coxsackie, NY 12051
	Meier	David		580 Flint Mine Rd		Coxsackie, NY 12051
	Merchant	Shane		3 Washington Ave		Coxsackie, NY 12051
	Micalizzi	Frank		19 Encampment Pl		Ridgefield, CT 06877
	Miele	James A.		25 Glenwood Ave		Hiawatha, NJ 07034
	Migliara	Cologero		230 Evans Ave		Elmont, NY 11003
	Milano	Peter A.		71 Mount Harmony Rd		Bernardsville, NJ 07924
	Miller	Vernon Jr		2 West Lakeview Trl		Wharton, NJ 07885
	Millett	Eugene		28 Hollister St		Coxsackie, NY 12051
	Mingo	Alan C.		8 Bart Dr		Canton, CT 06019
	Minshell	Gregg R.		1 Swartout Rd		Coxsackie, NY 12051
	Mintz	Paul D.		1971 Sleepy Hollow Rd		Athens, NY 12015
	Miranda	Archimedes L.		135 Gelston Ave		Brooklyn, NY 12209
	Mitchell	Christopher G.		114 Randy Rd Unit 1005		Athens, NY 12015
	Mitchell	Christopher G.		75 Randy Rd		Coxsackie, NY 12051
	Moats	Lawrence E.		14 N Washington St		Athens, NY 12015
	Monitto	Anthony		2900 St. Theresa Ave		Bronx, NY 10461
	Monnier	Joanna		14 Jumel Ter		New York, NY 10032
	Moor	Frank		1391 Sleepy Hollow Rd		Athens, NY 12015
	Morales	Lucas		2 Woodstone Ln		Palm Coast, FL 32164
	Morales	Chloe Martha		3001 Route 130 Apt 14E		Delran, NJ 08075
	Morgan	Rebecca		54 Van Houten Dr		Athens, NY 12015
	Morrone	John E.		63 Pembrook Dr		Mineola, NY 11501
	Mudge	Edward J. Sr		16 Molly White Dr		Coxsackie, NY 12051
	Muller	Rosemary H.		224 Stacey Rd		Coxsackie, NY 12051
	Muller	Steven R.		500 Adams Rd		Coxsackie, NY 12051
	Mulrooney	John A.		1 Elm St		Coxsackie, NY 12051
	Myftarago	Aleksander		415 92nd St Apt 1L		Brooklyn, NY 11209
	Nacey	Linda J.		1883 Farm To Market Rd		Coxsackie, NY 12051
	Nadolne	Mark		7 Tulip Ln		Port Washington, NY 11050
	Nawani	Amit Lekhu		21091		Dubai, UAE
	Nazarov	Vladimir		2188 Sleepy Hollow Rd		Athens, NY 12015

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Nepomuceno	Antonio C.		46-03 211th St		Bayside, NY 11361
	Niosi	Michelle		272 Johnny Cake Ln		Coxsackie, NY 12051
	Niosi	Sara M.		259 Johnny Cake Ln		Coxsackie, NY 12051
	Norton	Christine		10 Molly White Dr		Coxsackie, NY 12051
	Novak	Mary-Ann		46 Sutton Pl		Coxsackie, NY 12051
	O'Connor	Elizabeth A.		14 Horatio St Apt 7b		New York, NY 10014
	Ogilvie	Colleen		79 Gendron Dr		Wells, ME 04090
	Olivett	Thomas J.		8 Beechwood Dr		Coxsackie, NY 12051
	Olivieri	Anthony		540 Kissam Rd		Peekskill, NY 10566
	Oringer	Richard		1541 Sleepy Hollow Rd		Athens, NY 12015
	Pacuk	Susan		54 Adams Rd		Athens, NY 12015
	Page	Marie-France		1762 Sleepy Hollow Rd		Athens, NY 12015
	Palmateer	Lance		324 Johnny Cake Ln		Coxsackie, NY 12051
	Palmer	Dale S.		60 Stacey Rd		Coxsackie, NY 12051
	Palmer	Garry J.		7 Pheasant Ln		Catskill, NY 12414
	Palmer	Richard		875 Flats Rd		Athens, NY 12015
	Palmer	Gilbert A.		875 Flats Rd		Athens, NY 12015
	Parella	David L.		62 Church St		Coxsackie, NY 12051
	Parker	Melvin O.		8000 Shore Front Pkwy		Rockaway Beach, NY 11693
	Parks	Brittany		69 Washington Ave		Coxsackie, NY 12051
	Parrow	Wayne G.		6 Greenwood Dr		Coxsackie, NY 12051
	Partridge	Tessa		1700 Farm to Market Rd		Coxsackie NY 12051
	Partridge	Tessa		1700 Farm To Market Rd		Coxsackie, NY 12051
	Pascuzzi	Joel		22 Hollister St		Coxsackie, NY 12051
	Pascuzzi	Michael P.		77 Van Brunt Dr		Athens, NY 12015
	Patti	Christopher		59 Sunset Blvd, PO Box 131		Coxsackie, NY 12051
	Pellegrino	Eugene		3 Superstitious Dr		Athens, NY 12015
	Pepe	Vincent		628 Empirel Ave		North Babylon, NY 11703
	Pereira	Paul		51312		Indian Orchard, MA 01152
	Perez	Richard		10 Dunderave Rd		White Plains, NY 10603
	Perez	Candido		553 W 187th St Apt 44		New York, NY 10033
	Perilli	David		7 Greenlawn Rd		Cortland Manor, NY 10567
	Perry	Linda		382 Johnny Cake Ln		Coxsackie, NY 12051
	Persichilli	Joseph		86 Superstitious Dr		Athens, NY 12015
	Peters	Ruth E.		1682 High Hill Rd		Earlton, NY 12058
	Petralia	Sandra M.		2 Tree Toad Ct		Athens, NY 12015
	Petramale	Michael		202 Adams Rd		Athens, NY 12015
	Petti	Richard		13435 Cedarville Way		Colorado Springs, CO 80921
	Piano	Robert J.		188 Old Rt 23 #1		Cairo, NY 12413
	Picayo	Carla		13 N Water St		Athens, NY 12015

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	Piccolo	Salvatore F.		885 Farm To Market Rd		Athens, NY 12015
	Pieruzzi	Gordon		125 Hamilton Rd		Athens, NY 12015
	Pigott	Mary Jo		PO Box 512		New Baltimore, NY 12124
	Pigott	William		19 Hollister St		Coxsackie, NY 12051
	Pitchai	P B		294377		Dubai, UAE
	Plass	Ronald		24 Brom Bones Ln Unit 1243		Athens, NY 12015
	Poulin	Peter		200 Old Siek Rd		Troy, NY 12180
	Powell	William III		290 Harold Meyers Rd		Earlton, NY 12058
	Presto	Steven L.		1436 Sleepy Hollow Rd		Athens, NY 12015
	Proper	Darryl		55 Washington Ave		Coxsackie, NY 12051
	Querciagrossa	Anthony		320 Cascades Dr		Saint Charles, MO 63303
	Quinlivan	Donald F. Jr		819 Flint Mine Rd		Coxsackie, NY 12051
	Rahn	Robert		2A The Brooks Farm Ln		Chester, NY 10918
	Ransom	Dumas		204-08 45th Rd		Bayside, NY 11361
	Raser	Jason C.		12 Garret Pl		Glen Rock, NJ 07452
	Rausch	Max K.		89 Johnny Cake Ln		Coxsackie, NY 12051
	Ray	Maureen		PO Box 5253		Bergenfield, NJ 07621
	Recine	Luisa		1 Beechwood Dr		Coxsackie, NY 12051
	Reilly	Joyce		30 Needle Park Cir Apt 6		Queensbury, NY 12804
	Reuter	Alexandra N.		63 Sutton Pl		Coxsackie, NY 12051
	Rice	Roger		580 Adams Rd		Coxsackie, NY 12051
	Riley	Bryan		80 Johns Jog 1065		Athens, NY 12015
	Ringwald	Dianne		57 New St		Coxsackie NY 12051
	Ritter	Alexander		552 Adams Rd		Coxsackie, NY 12051
	Ritter	Stephen		149 Potic Creek Rd		Coxsackie, NY 12051
	Ritter	Richard L. Sr		957 Flats Rd		Coxsackie, NY 12051
	Ritter	Erica		34 Jane St Apt 34A		Saugerties, NY 12477
	Roberts	Lorraine A.		892 Flats Rd		Athens, NY 12015
	Roldan	Carmen E.		16573 Nw 21St St		Pembroke Pines, FL 33028
	Romito	Matthew A.		448 Fifth Ave		Pelham, NY 10803
	Rondeau	Jon P.		135 Day St		Newington, CT 06111
	Rose	Jeffery		2924 Route 385		Coxsackie NY 12051
	Rose	Jeffrey W.		2924 Rt 385		Coxsackie, NY 12051
	Ross	Katherine L.		1832 Sleepy Hollow Rd		Athens, NY 12015
	Rudolph	Maureen		49 Church St		Coxsackie, NY 12051
	Ruecker	Ann		1639 Sleepy Hollow Rd		Athens, NY 12015
	Ryder	Patricia		328 Earle Ave		Lynbrook, NY 11563
	Sadlon	S		64 Lupine Way		Stirling, NJ 07980
	Sakmann	William		13 Wall St		Farmingdale, NY 11735
	Salluce	Stephen		396 Murderkill Rd		Athens, NY 12015
	Samothrakis	Soterios		242-22 89th Ave		Bellerose, NY 11426

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	Sanchez	Jesse		106 East Main St Apt C		Pawling, NY 12564
	Sandberg	Kenneth R.		17 Hollister St		Coxsackie, NY 12051
	Santos	Michelle A.		697 Flint Mine Rd		Coxsackie, NY 12051
	Sapone	Francis J.		2931 Rt 385		Coxsackie, NY 12051
	Sarraga	Henry		147 E 8th St		Brooklyn, NY 11218
	Saunders	Dennis P.		430 Shore Rd Apt 9H		Long Beach, NY 11561
	Sawchuk	Olga		137 Brown St		Mineola, NY 11501
	Sawchuk	Donna Lynn		137 Brown St		Mineola, NY 11501
	Sawyer	Dawn		63 Washington Ave		Coxsackie, NY 12051
	Schaefer	Charles		2964 Route 385		Coxsackie, NY 12051
	Schlenker	Christopher J.		1692 Rt 385		Athens, NY 12015
	Schoenborn	Gustave C. Jr		PO Box 333		Coxsackie, NY 12051
	Schubert	Karen A.		90 Washington Ave		Coxsackie, NY 12051
	Schulman	Donniel		61 Deal St		Harrington Park, NJ 07640
	Scott	Stuart		1 Northview Ter		Yonkers, NY 10703
	Seidner	Neil		11 Riverview Ct		Athens, NY 12015
	Serazio	Carol		13 Johnny Cake Ln		Coxsackie, NY 12051
	Sherman	Maria		21 Shoal Dr		Barnegat, NJ 08005
	Sickles	John E.		18 Mc Connell Ave		Ravena, NY 12413
	Singh	Maninder		282620 Old Baltus Rd Lot VV-20		Dubai
	Singh	Jennifer		2140 Sleepy Hollow Rd		Athens, NY 12015
	Singh	Maninder		282620 Old Baltus Rd Lot VV-20		Dubai, UAE
	Sirol	Esther		106 East 101St St		New York, NY 10029
	Skalski	Johnny		52 Edgewood Ave		New Providence, NJ 07974
	Skilba	Joseph O.		337 Murders Kill Rd		Athens, NY 12015
	Smith	Stephen G.		363 E Lakecrest Dr		Bluffton, TX 78607
	Smith	Clarence C.		22 Harder Rd		Woodstock, NY 12498
	Smith	Dorothy		82 Flint Mine Rd		Coxsackie, NY 12051
	Smith	Dawn Marie		113 Johnny Cake Ln		Coxsackie, NY 12051
	Smith	Sarah Jane		2 Beechwood Dr		Coxsackie, NY 12051
	Snowden	Jonathan		349 Adams Rd		Coxsackie, NY 12051
	Snyder	Janice		10 Greenwood Dr		Coxsackie, NY 12051
	Sossei	Catherine E.		8 Orchard Ln		W Coxsackie, NY 12192
	Spano	Linda		5 Beechwood Dr		Coxsackie, NY 12051
	Speenburgh	Wayne		96 Washington Ave		Coxsackie, NY 12051
	Spombiantti	Prudence B.		3 Jayne Ave		Melville, NY 11747
	Spordone	Patricia		1536 Sleepy Hollow Rd		Athens, NY 12015
	Squier	Randall W.		75 Sutton Pl		Coxsackie, NY 12051
	St. Germain	Michael		3 Beechwood Dr		Coxsackie, NY 12051
	Starke	Steven		2 Hollister St		Coxsackie, NY 12051
	Stawicki	Richard W.		1553 Sleepy Hollow Rd		Athens, NY 12015

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	Stenzler	Paula		3612 Matira Ct		Cleront, FL 34711
	Sterritt	Thomas		PO Box 101		Hannacroix, NY 12087
	Stevenson	Wayne		125 Cole Ln		W Cocksackie, NY 12192
	Streifeneder	Chelsea		2755 Rt 385		Cocksackie, NY 12051
	Stumpf	John		76 Stacey Rd		Cocksackie, NY 12051
	Sutton	Paul A.		44 Sutton Pl		Cocksackie, NY 12051
	Talay	Scott		PO Box 22		Cocksackie, NY 12051
	Tanella	Gerard T.		111 Quarry Dr		Woodland Park, NJ 07424
	Taylor	Robert		9 Hemlock Ln		Wingdale, NY 12594
	Taylor	Mary E.		15 Hollister St		Cocksackie, NY 12051
	Teator	David		1352 Farm To Market Rd		Cocksackie, NY 12051
	Tergeoglou	Timothy J.		20 Market Ln		Athens, NY 12015
	Thomas	Kent		116 Ichabod Crane Cir		Athens, NY 12015
	Thompson	Doreen M.		14014 123rd Ave		South Ozone Park, NY 11436
	Tighe	Michael		2121 Farm To Market Rd		Cocksackie, NY 12051
	Tilley	Sean		1743 Sleepy Hollow Rd		Athens, NY 12015
	Tolli	Robert		298 Bullet Hole Rd		Mahopac, NY 10541
	Tomecek	Richard		1476 Apenzell Ln		Lewisville, TX 75067
	Tompkins	Edward		56 Ely St		Cocksackie, NY 12051
	Toolsie	Savatree		200 Claremont Ave 53		New York, NY 10027
	Torres	Gilbert Jr		11 W 2nd St Unit 209		Bethlehem, PA 18015
	Tower	Jon		PO Box 347		South Cairo, NY 12482
	Towle	Alice D.		220 Dover Point Rd		Dover, NH 03820
	Tozier	Edward A.		88 Stacey Rd		Cocksackie, NY 12051
	Tozzi	Michael		20 Ellen Ave		Mahopac, NY 10541
	Turco	William A.		PO Box 125		Athens, NY 12015
	Tuttle	Edward S. Jr		7 Superstitious Dr Unit 2177		Athens, NY 12015
	Tyner	David F.		72 Van Houten Dr 2161		Athens, NY 12015
	Ulscht	Evan M.		2156 Sleepy Hollow Rd		Athens, NY 12015
	Valentine	William		2 Shadywood Ct		Huntington, NY 11743
	Van Alphen	Charles J.		5 Molly White Dr		Cocksackie, NY 12051
	Van Gelder	Sal		7569 Las Couces Ct		Boynton Beach, FL 33437
	Van Gorden	Jennifer Elizabeth		433 Shady Ln		Coeymans Hollow, NY 12046
	Van Valkenburg	Robert J. Sr		43 Johnny Cake Ln		Cocksackie, NY 12051
	Van Wie	Robert T.		102 Washington Ave		Cocksackie, NY 12051
	Van Zutphen	Louis A. Jr.		7 Sleepy Ct #1009		Athens, NY 12015
	VanAusdle	Kim		66 Church St		Cocksackie, NY 12051
	VanBuren	John D.		12 Brom Bones Ln		Athens, NY 12015
	Vasapollo	Derek J.		398B Turnpike St		S Easton, MA 02375
	Venter	George		21337 39th Ave #339		Bayside, NY 11361
	Ventura	Kathy M.		1452 Farm To Market Rd		Cocksackie, NY 12051

Agency	Last Name	First Name	Title	Address - 1	Address - 2	Address - 3
	Vera	Quadalupe T.		150-29 87th Rd		Briarwood, NY 11432
	Victoria Inzerillo (Trustee)			3 Molly White Dr		Coxsackie, NY 12051
	Villanova	Frank		26 Heather Dr		Clifton Park, NY 12065
	Vining	Anthony Sr		20 Flint Mine Rd		Coxsackie, NY 12051
	Vinson	Ronald D.		437 Pelham Rd		New Rochelle, NY 10801
	Walker	Michelle Lee		85 Washington Ave		Coxsackie, NY 12051
	Walker	Beverly		2097 Farm To Market Rd		Coxsackie, NY 12051
	Walkley	Gary A.		745 Flats Rd		Athens, NY 12015
	Wallace	Barton F.		59 Washington Ave		Coxsackie, NY 12051
	Walsh	David		1484 Sleepy Hollow Rd Unit 1039		Athens, NY 12015
	Washington	Anthony		196 Stacey Rd		Coxsackie, NY 12051
	Weinstein	Barbara		373 Murderskill Rd		Athens, NY 12015
	Welch	Robert		134 County Rt 26		Climax, NY 12042
	Wells	William		91 Overlook Dr		Sebastian, FL 32976
	Wendover	Sylvia J.		52 Johns Jog		Athens, NY 12015
	West	Patrick G.		37 New St		Coxsackie, NY 12051
	Westfall	Daniel F.		58 Washington Ave		Coxsackie, NY 12051
	Wexler	Thomas M.		117 Massachusetts Ave		Congers, NY 10920
	Whalen	Michael J.		71 Haswell Rd		Watervliet, NY 12189
	Whitbeck	Stanley R.		84 Washington Ave		Coxsackie, NY 12051
	Whittaker	Bruce J.		173 Johnny Cake Ln		Coxsackie, NY 12051
	Wilson	Richard		169 Adams St East		East Islip, NY 11730
	Wilson	Stephen		41 Morningside Rd		Verona, NJ
	Winslow	Dolores E		8 Sunset Ct Unit 1051		Athens, NY 12015
	Witte	Charles E. Jr.		12 Sleepy Ct #2140		Athens, NY 12015
	Womack	Jimmie		442 Plymouth Ave		Schnectady, NY 12308
	Wood	Roger R.		76 Ely St		Coxsackie, NY 12051
	Woytowich	Victor J.		9 Yost Ct #1208		Athens, NY 12015
	Yost	Daryl J.		1667 Farm To Market Rd		Coxsackie, NY 12051
	Yost	Joanne H.		1667 Farm To Market Rd		Coxsackie, NY 12051
	Young	Joan		107 Browns Crossing		Catskill, NY 12414
	Zimmer	Edward C.		142 Natures Ln		Miller Place, NY 11764
	Zuk	Mary		23 Cotluss Rd		Riverdale, NJ 07457
	Zulme	Francelene		2 Second St		Athens, NY 12015

Application of Hecate Energy Greene 1 LLC and Hecate Energy Greene 2 LLC, and Hecate Energy Greene County for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility Located in the Town of Coxsackie, Greene County.

AFFIDAVIT OF SERVICE

On December 26th and or 27th, 2019, I, William Backes of Power Communications, in Saratoga Springs, New York, caused the 'Application for a Certificate of Environmental Compatibility and Public Need' for the Greene County Solar Facility proposed in the Town of Coxsackie, Greene County, New York to be sent either via priority mail and or hand delivery, as indicated, to the required parties, as identified in 16 New York Codes, Rules and Regulations §1000.6. A list of the recipients is attached hereto.

Signature: _____

William Backes

Sworn to me before this 20th day of December 20 19

Notary Public

Crystal Tate
Notary Public, State of New York
Qualified in Warren County
No. 01TA6387674
Commission Expires: February 19, 2023

Crystal Tate
Notary Public, State of New York
Qualified in Warren County
No. 01TA6387674
Commission Expires: February 19, 2023

Hard Copy with Email Count	Agency	Last Name	First Name	Title	New Address - 1	New Address - 3	Phone	Email
1	New York State Office of Parks, Recreation, and Historic Preservation	Ball Chinian	Alane	Regional Director	19 Roosevelt Drive	Saratoga Springs NY 12866	(518) 584-2535	alane.ballchinian@parks.ny.gov
1	NYS Department of Transportation, Region 1	Barnes P.E.	Pat	Regional Director	Executive Office 50 Wolf Road, Suite 1s50	Albany NY 12232	(518) 457-3522	brian.kirch@dot.ny.gov
1	Village of Cossackie	Bereznak	Nikki	Village Clerk	119 Mansion Street	Cossackie NY 12051	(518) 731-2718	NBereznak@villageofcossackie.com
1	Heermance Memorial Library	Deubert	Linda	Director	1 Ely Street	Cossackie, NY 12051	518-731-8084	director@heermancelibrary.org
1	Village of Cossackie	Evans	Mark	Mayor	119 Mansion Street	Cossackie NY 12051	(518) 731-2718	mayor@villageofcossackie.com
1	D.R. Everts Library	Furgal	Timothy	Director	80 2nd Street	Athens, NY 12015	518-945-1417	director@drevartslibrary.org
1	Town of Cossackie, Supervisor	Hanse	Richard K.	Supervisor	Town Hall – 16 Reed Street	Cossackie NY 12051	(518) 731-2727	info@cossackie.org
1	Town of Cossackie	Hotaling	Bambi	Town Clerk	Town Hall – 16 Reed Street	Cossackie NY 12051	(518) 731-2727	clerk@cossackie.org
1	Office of the Attorney General	James	Letitia	Attorney General	The Capitol	Albany, NY 12224-0341		nysag@ag.ny.gov
1	NYS Department of State	Rosado	Rossana	Secretary of State	One Commerce Plaza - 99 Washington Avenue	Albany NY 12231-0001	(518) 473-2293	info@dos.ny.gov
2	New York State Department of Economic Development	Gertler	Eric	Commissioner	625 Broadway	Albany NY 12245		nys-nyc@esd.ny.gov
2	NYS Energy Research and Development Authority	Kauffman	Richard	Chair	17 Columbia Circle	Albany NY 12203	(518) 862-1090	info@nyserda.ny.gov
2	New York State Department of Health	Zucker, M.D., J.D.	Howard A.	Commissioner	New York State Department of Health, Corning Tower, Empire State Plaza	Albany, NY 12237		dohweb@health.ny.gov
3	NYSDEC, Region 4	Goertz	Keith	Regional Director	1130 North Westcott Road	Schenectady, NY 12306-2014	(518) 357-2068	R4info@dec.ny.gov
10 - E & Big Map	New York State Board on Electric Generation Siting and the Environment	Phillips	Michelle	Secretary to the Commission	Empire State Plaza, Agency Building 3 (14th Fl.)	Albany, NY 12223-1350	(518) 474-6530	secretary@dps.ny.gov
4 & E	New York State Department of Environmental (NYSDEC), Central Office, Division of Environmental Permits, Major Project Management	Primeau	Kristy E.	Environmental Analyst	625 Broadway	Albany NY 12233-1750	(518) 402-9185	kristy.primeau@dec.ny.gov
E	NYS Department of Public Service - Office of Hearings and Administrative Dispute Resolution	Belsito	Anthony		Empire State Plaza, Agency Building 3 (3rd Fl.)	Albany NY 12223		Anthony.Belsito@dps.ny.gov
E	New York State Department of Environmental Conservation	Bonilla	Mary	Senior Attorney	625 Broadway - 14th Floor	Albany NY 12233	518-402-9536	maryanne.bonilla@dec.ny.gov
E	Scenic Hudson, Inc.	Carlock	Hayley	Director of Environmental Advocacy	1 Civic Center Plaza Suite 200	Poughkeepsie NY 12601	(845) 473-4440	hcarlock@scenichudson.org
E	NYS Public Service Commission	Denn	James	Public Information Officer	Empire State Plaza, Agency Building 3 (20th Fl.)	Albany NY 12223	(518) 474-7080	james.denn@dps.ny.gov
E	Whiteman Osterman & Hanna LLP	Dobles	Alexandra	Associate	One Commerce Plaza	Albany NY 12210	(518) 487-7600	adobles@woh.com
E	Alliance for Clean Energy New York, Inc.	Dufresne	Zack	Director of Member Services, Clean Energy Advocate	119 Washington Avenue Suite 1G	Albany NY 12210	(518) 432-1405	Article10@aceny.org
E	Real Information about Solar Energy - R.I.S.E.	Frame	Seth		59 Lafayette Ave.	Cossackie NY 12051	(307) 752-5292	ConnectwithRISE@gmail.com
E	Scenic Hudson, Inc.	Friedrichsen	Audrey	Land Use and Environmental Advocacy Attorney	1 Civic Center Plaza Suite 200	Poughkeepsie NY 12601	(845) 473-4440 x226	afriedrichsen@scenichudson.org
E	Tetra Tech, Inc.	Gresock	Lynn	Vice President & Project Manager	3 Lan Drive, Suite 100	Westford, MA 01886	978-303-8527	lynn.gresock@tetrattech.com
E	Read and Laniado, LLP	Laniado	Sam	Partner	25 Eagle Street	Albany NY 12207-1901	(518) 465-9313	sml@readlaniado.com
E	NYS Department of Public Service - Office of Hearings and Administrative Dispute Resolution	Leary	Maureen		Empire State Plaza, Agency Building 3 (3rd Fl.)	Albany NY 12223		maureen.leary@dps.ny.gov
E	Grant & Lyons LLP on behalf of Saving Greene	Lyons	John		P.O. Box 370	Rhinecliff NY 12574	845-876-2800	jlyons@grantlyons.com
E	New York State Department of Agriculture and Markets	Mulford	Jason		108 Airline Drive	Albany NY 12235		Jason.mulford@agriculture.ny.gov
E	NYS Department of Public Service	Partyka	Cassandra	Assistant Counsel	Empire State Plaza, Agency Building 3 (18th Fl.)	Albany NY 12223	(518) 474-0517	cassandra.partyka@dps.ny.gov
E	New York State Department of Environmental Conservation	Paulsen	Kara	Attorney / Excelsior Service Fellow	625 Broadway - 14th Floor	Albany NY 12233	518-402-9191	kara.paulsen@dec.ny.gov
E	New York State Department of Health	Phillips	Michael		Corning Tower, Empire State Plaza	Albany, NY 12237	518-474-6936	Michael.Phillips@health.ny.us
E	Tetra Tech, Inc.	Rivard	Linda	Project Manager	3 Lan Drive, Suite 100	Westford, MA 01886		Linda.Rivard@tetrattech.com
E	Saving Greene	Rose	Kim		P. O. Box 369	Cossackie NY 12051	518-469-3446	kmrose927@gmail.com

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TYLER W. WOLCOTT

HOWARD J. READ
Of Counsel

Via Overnight and Electronic Mail

December 27, 2019

Hon. James A. Costello
Presiding Examiner
New York State Board on Electric Generation Siting and the Environment
3 Empire State Plaza, 18th Floor
Albany, New York 12223-1350

RE: Case 17-F-0619 – Application of Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility Located in the Town of Coxsackie, Greene County, New York.

Dear Judge Costello:

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (the “Co-Applicants”) hereby request that confidential status be granted to certain information being submitted as part of the Co-Applicants’ Article 10 Application in the above-captioned proceeding, and that such information be exempt from public disclosure pursuant to the New York Freedom of Information Law (“FOIL”) (Public Officers Law (“POL”) §§ 84–90) and Subpart 6-1 of the New York State Public Service Commission’s (“Commission”) regulations, as made applicable to the New York State Board on Electric Generation Siting and the Environment (the “Board”) by 16 NYCRR § 1000.3.

Specifically, the Co-Applicants seek protection for the following documents, which are required for the Application but contain trade secrets, confidential commercial information, and/or critical energy infrastructure information:

- Appendix 5-A: System Impact Study Reports;
- Appendix 14-A: Estimated Costs for the Facility;
- Appendix 20-A: Phase 1A Archaeological Investigation Report
- Appendix F (Avian Species-Specific Survey Reports) of Appendix 22-C: Habitat Assessment and Preliminary Impact Determination Report; and
- Appendix 29-A: Site Restoration and Decommissioning Cost Estimate.

Section 6-1.4 of the Commission's regulations provides that a "party requesting confidential status shall submit the record containing such information to the presiding officer in electronic form or by mail and shall clearly identify the portions of the record considered to be confidential."¹ In addition, "the party submitting confidential information to the presiding officer shall also submit a comprehensive brief specifying in detail the reasons why such information should be accorded confidential status as provided for in section 6-1.3 (b)(2)."²

The Commission's regulations define a "trade secret" as "any formula, pattern, device or compilation of information which is used in one's business, and which provides an opportunity to obtain an advantage over competitors who do not know or use it."³ POL § 86(5) defines "critical infrastructure" as "systems, assets, places or things, whether physical or virtual, so vital to the state that the disruption, incapacitation or destruction of such systems, assets, places or things could jeopardize the health, safety, welfare or security of the state, its residents or its economy." Pursuant to 16 NYCRR § 6-1.3(b)(2) and POL § 87(2):

a person submitting trade secret or confidential commercial information to the Department shall clearly state the reason(s) why the information should be excepted from disclosure, as provided for in §87(2)(d) of the Public Officers Law. In all cases, the person must show the reasons why the information, if disclosed, would be likely to cause substantial injury to the competitive position of the subject commercial enterprise. Factors to be considered include, but are not necessarily limited to:

- (i) the extent to which the disclosure would cause unfair economic or competitive damage;
- (ii) the extent to which the information is known by others and can involve similar activities;
- (iii) the worth or value of the information to the person and the person's competitors;
- (iv) the degree of difficulty and cost of developing the information;
- (v) the ease or difficulty associated with obtaining or duplicating the information by others without the person's consent; and
- (vi) other statute(s) or regulations specifically excepting the information from disclosure.

Appendix 5-A: System Impact Study Reports

Appendix 5-A consists of the System Impact Study reports ("SISs") conducted by the New York Independent System Operator, Inc. ("NYISO") for the Greene County Solar Facility (the "Facility").

¹ 16 NYCRR § 6-1.4(a)(1).

² 16 NYCRR § 6-1.4(a)(2).

³ 16 NYCRR § 6-1.3(a).

This information, if publicly disclosed, could pose a danger to electric system reliability and endanger “the health, safety, welfare or security of the state, its residents or its economy.” POL § 86(5). The NYISO considers its power flow, stability, and short-circuit data as critical energy infrastructure information and restricts access to it to those parties who agree to not disclose it to others. Furthermore, the Commission has consistently held that the information in such studies should be protected from public disclosure as critical infrastructure information.⁴ Accordingly, Appendix 5-A should be exempt from public disclosure.

Appendix 14-A: Estimated Costs for the Facility and Appendix 29-A: Site Restoration and Decommissioning Cost Estimate

Appendix 14-A consists of highly sensitive, proprietary information related to confidential financial data and capital cost estimates for the major components of the Facility. Similarly, Appendix 29-A consists of highly sensitive, proprietary information related to the estimated costs for site restoration and decommissioning. This information satisfies the definition of trade secret under the Commission’s regulations.

The information contained in both Appendix 14-A and Appendix 29-A was developed by the Co-Applicants using its unique knowledge and experience. Thus, it would difficult for others to replicate the information. The information is not known outside of the Co-Applicants’ business. This type of information is highly protected because it provides an opportunity to gain an advantage over competitors who do not know it.

Public dissemination of Appendix 14-A and Appendix 29-A would cause substantial economic harm to the Co-Applicants and place them at a competitive disadvantage. It would prejudice the Co-Applicants’ ability to secure the most cost-effective contracts for elements of the Facility and decommissioning if bidders in competitive procurements knew the estimated capital costs. No party to a negotiation over price would willingly disclose precisely how much it is willing to spend. Therefore, public disclosure of Appendix 14-A and Appendix 29-A would result in a “substantial injury to the competitive position” of the Co-Applicants.

Moreover, the Commission has previously held that capital cost information is protected from disclosure as trade secret.⁵ Therefore, the cost estimates contained in Appendix 14-A and Appendix 29-A are trade secrets under the Commission’s regulations and should be exempt from public disclosure.

⁴ See Case 06-T-0650, *N.Y. Regional Interconnect, Inc.*, Ruling Granting Protection for Critical Energy Infrastructure Information (July 31, 2008); Case 08-T-0746, *Village of Arcade & Noble Allegany Windpark, LLC*, Ruling Granting Request for Confidential Status (July 30, 2008); Case 08-T-0034, *Hudson Transmission Partners, LLC*, Ruling Granting Protection for Critical Energy Infrastructure Information (Apr. 25, 2008); Case 07-T-0140, *Noble Wethersfield Windpark, LLC*, Ruling Granting Protection from Disclosure of Critical Infrastructure Information (Mar. 15, 2007).

⁵ Case 08-T-0034, *Hudson Transmission Partners, LLC*, Ruling Granting Protection for Project’s Estimated Capital Costs (Mar. 6, 2008); Case 05-E-1222, *N.Y. Elec. & Gas Corp.*, Ruling Granting Trade Secret Protection to NYSEG’s Mobile Radio System Cost Estimates (Oct. 13, 2005).

Appendix 20-A: Phase 1A Archaeological Investigation Report

Appendix 20-A contains information on the character and locations of archaeological and cultural resources. It was developed using agency records that include site location information only available to agency representatives and professional archaeologists and their researchers. To protect this location information from potential vandalism and unauthorized investigations, archaeological reports are filed with federal and State review agencies as privileged and confidential documents and protected from public disclosure under federal and State law.⁶

POL § 87(2)(a) prohibits the public disclosure of records that “are specifically exempted from disclosure by state or federal statute.” Both the State and federal historic preservation acts contain provisions that authorize agencies to withhold information on archaeological sites from the public to protect sites against possible damage. New York State Historic Preservation Law § 14.07 authorizes the Office of Parks, Recreation and Historic Preservation to withhold information from the public where the sites “may be damaged by unauthorized investigators if their locations be generally publicized.”⁷ Additionally, the National Historic Preservation Act § 307103(a) authorizes federal agencies to withhold information on locations of historic properties from public disclosure if it is determined that there is a risk of harm to the property. The Commission has previously recognized the need to protect the location of archaeological resources from public disclosure.⁸ Therefore, the information contained in Appendix 20-1 is exempt from public disclosure under FOIL.

Appendix F (Avian Species-Specific Survey Reports) of Appendix 22-C: Habitat Assessment and Preliminary Impact Determination Report

Appendix F (Avian Species-Specific Survey Reports) of Appendix 22-C: Habitat Assessment and Preliminary Impact Determination Report contains the results of the grassland breeding bird and winter grassland raptor surveys conducted for Application. This information is exempt from public disclosure pursuant to POL § 87(2)(a) and Environmental Conservation Law (“ECL”) § 3-0301(2)(r).

Appendix F of Appendix 22-C identifies various avian species that are listed as endangered, threatened, or special concern by the State of New York. This appendix also identifies habitat used by such species. POL § 87(2)(a) exempts from public disclosure record that “are specifically exempted from disclosure by state” statute. ECL § 3-0301(2)(r) exempts from public disclosure information pertaining the habitats of State-listed species. Therefore, the information contained in Appendix F of Appendix 22-C is exempt from public disclosure.

⁶ See National Historic Preservation Act § 307103; New York State Historic Preservation Act § 14.09; 9 NYCRR § 427.8.

⁷ See also 9 NYCRR § 427.8 (New York State regulation implementing New York State Historic Preservation Act).

⁸ See Case 12-T-0248, *New York State Elec. & Gas Corp.*, Order on Waiver Requests (Sept. 14, 2012), at 4–5, 11.

For the foregoing reasons, the items described above qualify for exemption from disclosure under FOIL as trade secret, confidential commercial information, and/or critical infrastructure information.

Respectfully submitted,

READ AND LANIADO, LLP
Attorneys for Hecate Energy Greene 1 LLC,
Hecate Energy Greene 2 LLC, and Hecate
Energy Greene County 3 LLC

By: /s/
Sam M. Laniado
Tyler W. Wolcott
sml@readlaniado.com
tyler@readlaniado.com

Attachments

cc: DMM Party List (w/o attachments)
Statutory Service List (w/o attachments)

NEW YORK STATE BOARD ON ELECTRIC
GENERATION SITING AND THE ENVIRONMENT

Case 17-F-0619 – Application of Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility Located in the Town of Coxsackie, Greene County.

**PRE-FILED DIRECT PANEL TESTIMONY
ON BEHALF OF
THE CO-APPLICANTS**

Panel Witnesses:

Philip Mooney
Gabriel Wapner
Matt Dadswell
Lori Davidson
Pat Green
Lynn Gresock
Tricia Pellerin
Robert Peltier
Linda Rivard
Joshua Berkow
James David

Dated: December 23, 2019

1 **Q. Please state the names, employers, business addresses, and the purpose of the**
2 **testimony of the individual members of the Panel.**

3 A. Philip Mooney, Hecate Energy LLC (“Hecate”), 621 West Randolph Street, Chicago, IL
4 60661.

5 **Q. Please summarize your credentials.**

6 A. My position at Hecate is Vice President Engineering and Development. I have been
7 employed there since about October 2014. I have a B.S. in Mechanical Engineering and
8 a Master’s in Business Administration. I have approximately 30 years of experience,
9 primarily in the electric power sector, developing and implementing power generation
10 projects and associated facilities. I helped develop over 10,000 MW of fossil fueled and
11 renewable power generation projects in domestic and international markets, including the
12 New York market. I specialize in engineering, planning, licensing, and arranging and
13 administering project contracts for power infrastructure projects.

14 I have been with Hecate Energy for over 5 years providing technical support and
15 management leadership. I am responsible for supporting and leading various aspects of
16 Hecate’s power project development. I manage various engineering aspects of many
17 projects in Hecate’s portfolio, including early stage contract and permitting, and
18 negotiating and administering construction contracts. I help ensure that Hecate’s projects
19 are arranged and implemented according to the project goals and in compliance with
20 contractual and regulatory requirements. I am often involved in projects from early stage
21 development through completion and operation.

22 My CV is attached below.

1 **Q. What is the purpose and scope of your testimony in this proceeding?**

2 A. To sponsor certain portions of the Article 10 Application of Hecate Energy Greene 1
3 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (the “Co-
4 Applicants”).

5 **Q. What portion(s) of the Application is your testimony sponsoring?**

6 A. I am sponsoring the entire Application.

7 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
8 **direction and supervision?**

9 A. Yes.

10 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
11 **publications, data, or documents produced by persons other than yourself or your**
12 **company? If so, please cite these sources.**

13 A. References are provided in corresponding Exhibits.

14 **Q. Will the next member of the Panel please introduce himself?**

15 A. Gabriel Wapner, Hecate, 621 W Randolph Street, Chicago, IL 60661.

16 **Q. Please summarize your credentials.**

17 A. My position at Hecate is Director of Development. I have been employed there
18 approximately 6 years. I have a B.S. in Applied Economics and Management from
19 Cornell University and 11 years of energy industry experience. At Hecate, I oversee
20 ongoing project development and execution efforts, including site selection, permitting,
21 offtake agreement negotiation, subcontractor contracting, and technology selection.

22 My CV is attached below.

1 **Q. What is the purpose and scope of your testimony in this proceeding?**

2 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

3 **Q. What portion(s) of the Application is your testimony sponsoring?**

4 A. I am sponsoring the entire Application.

5 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
6 **direction and supervision?**

7 A. Yes.

8 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
9 **publications, data, or documents produced by persons other than yourself or your**
10 **company? If so, please cite these sources.**

11 A. References are provided in corresponding Exhibits.

12 **Q. Will the next member of the Panel please introduce himself?**

13 A. Matt Dadswell, Tetra Tech, Inc. ("Tetra Tech"), 19803 North Creek Parkway, Bothell,
14 WA 98011.

15 **Q. Please summarize your credentials.**

16 A. My position at Tetra Tech is Social Scientist/Economist. I have been employed there
17 approximately 22 years. I received a B.A. in Economics and Geography from
18 Portsmouth Polytechnic in England, a M.A. in Geography from the University of
19 Cincinnati, and completed 2 years of Ph.D. studies in Geography at the University of
20 Washington. I have more than 20 years of experience managing and conducting social
21 and economic studies and impact analyses for energy and natural resource management
22 projects throughout the United States, including renewable energy generation and

1 transmission lines. Prior to working with Tetra Tech, I was employed by another similar
2 firm for 4 years.

3 My current responsibilities with Tetra Tech involve managing and preparing
4 social and economic studies and impact analyses for energy and natural resource
5 management projects.

6 My CV is attached below.

7 **Q. What is the purpose and scope of your testimony in this proceeding?**

8 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

9 **Q. What portion(s) of the Application is your testimony sponsoring?**

10 A. Exhibit 27.

11 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your
12 direction and supervision?**

13 A. Yes.

14 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,
15 publications, data, or documents produced by persons other than yourself or your
16 company? If so, please cite these sources.**

17 A. References are provided in corresponding Exhibits.

18 **Q. Will the next member of the Panel please introduce herself?**

19 A. Lori S. Davidson, Tetra Tech, 1560 Broadway, Suite 1400, Denver, CO 80202.

20 **Q. Please summarize your credentials.**

21 A. My position at Tetra Tech is Environmental Planner/Visual Resource Specialist. I have
22 been employed there since May 2012. I have a Bachelor of Science degree in
23 Environmental Studies and Applications from Michigan State University and a Masters

1 in Landscape Architecture from the University of Michigan. My experience includes
2 environmental planning and landscape architecture with a focus on visual resource
3 inventory and analysis. Experience specifically related to visual resources includes
4 conducting visual resource inventories and impact analysis and preparing visual resource
5 studies in support of federal, state, and local compliance. I have experience in visual
6 impact assessment and analysis on both local and federal solar and wind facilities, linear
7 transmission projects, and oil and gas facilities throughout the United States. In 2012, I
8 completed the U.S. Bureau of Land Management's Visual Resource Management
9 training course.

10 My current responsibilities include serving as visual resource specialist on several
11 energy related projects which include tasks such as desktop analysis, conducting visual
12 resource field reconnaissance, and preparing visual analysis in support of permitting
13 efforts. I also work with Tetra Tech's GIS and visualization specialists in preparation of
14 viewshed analysis, photographic simulations, and figures and graphics to support visual
15 analyses.

16 My CV is attached below.

17 **Q. What is the purpose and scope of your testimony in this proceeding?**

18 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

19 **Q. What portion(s) of the Application is your testimony sponsoring?**

20 A. Exhibit 24, the accompanying Visual Impact Assessment Report, and applicable
21 Appendices.

22 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
23 **direction and supervision?**

1 A. Yes.

2 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
3 **publications, data, or documents produced by persons other than yourself or your**
4 **company? If so, please cite these sources.**

5 A. References are provided in the relevant Exhibit 24 and Visual Impact Assessment report.
6 In addition to the references noted above, my testimony also relies upon information
7 prepared by Mott MacDonald (Substation and Collector System design, Solar Array
8 General Arrangement design, and Landscape Plan).

9 **Q. Will the next member of the Panel please introduce himself?**

10 A. Pat Green, Tetra Tech, 301 Ellicott Street, Buffalo, NY 14203.

11 **Q. Please summarize your credentials.**

12 A. My position at Tetra Tech is Ecological Services Manager. I have been employed there
13 since June 2011. I have a bachelor's degree from the State University of New York at
14 Morrisville. I am a retired wilderness guide (previously licensed in New York State) and
15 spent some time as a naturalist interpreter. My consulting experience includes wetland
16 delineation, habitat assessment, species specific surveys, threatened and endangered
17 species conservation and management plan development, wetland and waterbody
18 restoration assessments, regulatory agency coordination, large data management,
19 geospatial analysis and mapping, wetland and waterbody permitting, project
20 management, permit compliance management, and team management.

21 I am the Ecological Services Manager for most projects in our office. I have a
22 team of biologists I manage to complete the purely ecological components of projects,
23 primarily aquatic resource surveys, habitat assessments, and follow up reporting. I also

1 generally lead coordination efforts with state and federal regulatory agencies to identify
2 regulatory interests and obtain threatened and endangered species clearances for projects.
3 Any follow-up requirements for species-specific surveys and mitigation measures also
4 generally falls to me. I am responsible for many components of permit applications for
5 Clean Water Act impacts, and function as construction support for ongoing projects.
6 Much of my work focuses on coordinating with other teams (such as erosion and
7 sediment control design) and clients, as well as providing quality control for my team's
8 projects.

9 My CV is attached below.

10 **Q. What is the purpose and scope of your testimony in this proceeding?**

11 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

12 **Q. What portion(s) of the Application is your testimony sponsoring?**

13 A. Exhibit 22 and Exhibit 23, and their associated Appendices.

14 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your
15 direction and supervision?**

16 A. Yes.

17 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,
18 publications, data, or documents produced by persons other than yourself or your
19 company? If so, please cite these sources.**

20 A. References are provided in corresponding Exhibits.

21 **Q. Will the next member of the Panel please introduce herself?**

22 A. Lynn Gresock, Tetra Tech, 3 Lan Drive, Suite 100, Westford, MA 01886.

23 **Q. Please summarize your credentials.**

1 A. I am a Vice President in Tetra Tech's Energy Program. I have been employed there for
2 over 6 years. I was awarded a Bachelor of Science Degree in Environmental Design
3 from the University of Massachusetts in 1984. I have over 35 years of experience in
4 regulatory issues as they relate to environmental permitting and compliance for a wide
5 range of projects. Since June of 1984, when I started working for an environmental
6 consulting firm in Boston, I have been employed by various environmental consulting
7 firms similar to Tetra Tech, with the exception of 2 years when I worked directly for an
8 independent power producer based in Maryland known as U.S. Generating Company.
9 For much of my career, I have focused on providing consulting services for energy
10 projects. My experience includes obtaining environmental approvals for more than
11 30,000 MW of electric generation capacity. I have provided development permitting and
12 support for a wide range of generating facilities, including renewable energy facilities. I
13 have supported project development from early definition phases, through obtaining
14 licensing approvals, construction oversight, and operational compliance support.

15 In my current position, I provide project management and oversight for a wide
16 range of energy permitting, due diligence, and compliance projects, including for solar
17 energy facilities.

18 My CV is attached below.

19 **Q. What is the purpose and scope of your testimony in this proceeding?**

20 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

21 **Q. What portion(s) of the Application is your testimony sponsoring?**

22 A. I am sponsoring the entire Application.

1 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
2 **direction and supervision?**

3 A. Yes.

4 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
5 **publications, data, or documents produced by persons other than yourself or your**
6 **company? If so, please cite these sources.**

7 A. References are provided in corresponding Exhibits.

8 **Q. Will the next member of the Panel please introduce herself?**

9 A. Tricia Pellerin, Tetra Tech, 160 Federal Street, 3rd Floor, Boston, MA 02110.

10 **Q. Please summarize your credentials.**

11 A. My position at Tetra Tech is Senior Acoustic Engineer. I have been employed there for
12 approximately 12 years. I have a Bachelor of Engineering Science Degree and Master of
13 Engineering Science Degree in Chemical/Biochemical Engineering from The University
14 of Western Ontario. I have also completed postgraduate training for DataKustik's
15 CadnaA acoustic modeling software package (basic and advanced), underwater acoustic
16 and signal processing offered by Penn State, and noise control for buildings,
17 manufacturing plants, equipment and products offered by Hoover & Keith. Since
18 graduating university, I have accumulated over 14 years of environmental consulting
19 experience focusing on the area of acoustics. I have been involved in the planning and
20 permitting of numerous small and large-scale environmental impact statements, acoustic
21 impact assessments, and air quality impact assessments. I have extensive experience in
22 assessing potential noise impacts, performing pre- and post-construction field studies,
23 conducting acoustic modeling analyses, and performing regulatory compliance

1 determinations for both conventional (transmission line, gas pipeline, peaking facilities,
2 LNG terminals, upgraders, etc.) and renewable energy projects (wind energy, solar)
3 throughout the United States, Canada and internationally. I have also been involved with
4 conducting underwater acoustic modeling and impacts assessments for offshore wind
5 energy projects and meteorological data collection towers with the purpose of assessing
6 potential impacts on sensitive marine species.

7 As a Senior Acoustic Engineer at Tetra Tech, my responsibilities include
8 providing technical expertise on the subject of acoustics and vibration, conducting field
9 investigation work, management of field teams, deployment of measurement equipment,
10 management of data acquisition systems, data analysis, and conducting a proficient level
11 of computer modeling applications and techniques. I have assisted clients with satisfying
12 their permitting needs involving the New York Public Service Commission, as well as
13 other various governing international, federal, state, and local noise and vibration
14 compliance requirements.

15 My CV is attached below.

16 **Q. What is the purpose and scope of your testimony in this proceeding?**

17 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

18 **Q. What portion(s) of the Application is your testimony sponsoring?**

19 A. Exhibit 19 and its Appendices.

20 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
21 **direction and supervision?**

22 A. Yes.

1 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
2 **publications, data, or documents produced by persons other than yourself or your**
3 **company? If so, please cite these sources.**

4 A. References are provided in corresponding Exhibits.

5 **Q. Will the next member of the Panel please introduce himself?**

6 A. Robert Peltier, Tetra Tech, 301 Ellicott Street, Buffalo, NY 14203.

7 **Q. Please summarize your credentials.**

8 A. My position at Tetra Tech is Cultural Resources Project Manager and Archaeological
9 Principal Investigator. I have been employed there approximately 7 years. I received a
10 B.A. in Anthropology/Archaeology from the State University of New York at Buffalo
11 (1997) and a M.A. in Historic Preservation from Goucher College (2005). I am a
12 Registered Professional Archaeologist (RPA) with over 23 years of experience in cultural
13 resources management. I have managed numerous Phase I through III reviews and
14 compliance/contracting archaeological projects for local, state, and federal agencies, as
15 well as industrial and commercial businesses. I have also served as Principal Investigator
16 for numerous historic resource studies, involving architectural and historic property
17 inventory evaluations, viewshed analysis, NRHP eligibility assessments, and
18 HABS/HAER recordation.

19 I serve as the Tetra Tech Buffalo Office's cultural resources program manager
20 and principal investigator. My responsibilities include managing all facets of the cultural
21 resource permitting process, including managing a team of 12 full-time and part-time
22 staff, fiscal budgets, and overseeing quality control of all cultural resource reporting.

23 My CV is attached below.

1 **Q. What is the purpose and scope of your testimony in this proceeding?**

2 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

3 **Q. What portion(s) of the Application is your testimony sponsoring?**

4 A. Exhibit 20 and its Appendices.

5 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
6 **direction and supervision?**

7 A. Yes.

8 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
9 **publications, data, or documents produced by persons other than yourself or your**
10 **company? If so, please cite these sources.**

11 A. References are provided in corresponding Exhibits.

12 **Q. Will the next member of the Panel please introduce herself?**

13 A. Linda Rivard, Tetra Tech, 451 Presumpscot Street, Portland, ME 04103.

14 **Q. Please summarize your credentials.**

15 A. My position at Tetra Tech is Environmental Scientist and Planner. I have been employed
16 there since August 2007. I have a Bachelor of Science in Marine and Freshwater Biology
17 from the University of New Hampshire. I am an aquatic biologist with over 19 years of
18 experience in biological research, environmental permitting, and preparation of a variety
19 of environmental compliance documents. I have been directly involved with
20 management of several solar development projects located in New England, providing
21 permitting, planning, and overall project management support.

22 As an Environmental Scientist and Planner at Tetra Tech, I am responsible for
23 providing overall support and management of energy-related projects as they navigate the

1 local, state, and federal permitting process. I oversee numerous technical teams through
2 their completion of field surveys and desktop analyses, including senior level review of
3 technical documents to ensure quality and consistency is maintained across all
4 deliverables.

5 My CV is attached below.

6 **Q. What is the purpose and scope of your testimony in this proceeding?**

7 A. My role was to work with the subject matter experts on this panel and coordinate their
8 input for preparation of the Application.

9 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
10 **publications, data, or documents produced by persons other than yourself or your**
11 **company? If so, please cite these sources.**

12 A. References are provided in corresponding Exhibits.

13 **Q. Will the next member of the Panel please introduce himself?**

14 A. Joshua A. Berkow, Mott MacDonald, 438 Main Street, Suite 300, Buffalo, NY 14202.

15 **Q. Please summarize your credentials.**

16 A. My position at Mott MacDonald is Senior Engineer. I have been employed there since
17 October 2018. I have a B.S. and an M.S. in Electrical Engineering from the State
18 University of New York at Buffalo. I am a licensed electrical engineer in New York and
19 several other states. My experience includes project management, design management,
20 design engineering, and consulting for wind energy, solar energy, battery energy storage,
21 natural gas combined cycle, substation, HVDC, distribution line, and transmission line
22 projects. I have worked for independent power producers and consulting firms.

1 I am the lead engineer for multiple wind, solar, HVDC, and battery projects. I
2 coordinate efforts across engineering disciplines, while accomplishing tasks within my
3 own discipline. I also set standards and provide quality control oversight for junior
4 engineers.

5 My CV is attached below.

6 **Q. What is the purpose and scope of your testimony in this proceeding?**

7 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

8 **Q. What portion(s) of the Application is your testimony sponsoring?**

9 A. Exhibit 11 and its Appendices.

10 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your**
11 **direction and supervision?**

12 A. Yes.

13 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,**
14 **publications, data, or documents produced by persons other than yourself or your**
15 **company? If so, please cite these sources.**

16 A. My testimony relies upon information from the New York Independent System Operator,
17 Inc., Tetra Tech, TEC Land Surveying, PC, and Chint Power Systems.

18 **Q. Will the next member of the Panel please introduce himself?**

19 A. James David, PowerGEM LLC, 632 Plank Road #101, Clifton Park, NY 12065.

20 **Q. Please summarize your credentials.**

21 A. My position at PowerGEM LLC is Market Applications Product Manager. I have been
22 employed there since April 2007. I have a Bachelor of Science in Electrical Engineering
23 from Clarkson University and an M.B.A. from University at Albany. I have 26 years of

1 experience in the energy industry, including 6 years of experience at New York
2 Independent System Operator, Inc. (2001-2007) and prior experience at National
3 Grid/Niagara Mohawk.

4 I am responsible for leading market simulation and production cost simulation
5 projects for clients throughout the United States, primarily generation and transmission
6 developers seeking to understand future energy markets, project impacts, and risks. I also
7 provide Product Management for our PROBE LT market simulation software, ensuring
8 the software is continually updated to perform accurate production cost modeling.

9 My CV is attached below.

10 **Q. What is the purpose and scope of your testimony in this proceeding?**

11 A. To sponsor certain portions of the Co-Applicants' Article 10 Application.

12 **Q. What portion(s) of the Application is your testimony sponsoring?**

13 A. Exhibit 8 and its Appendices.

14 **Q. Were these Exhibits, Application sections, or studies prepared by you or under your
15 direction and supervision?**

16 A. Yes.

17 **Q. In your testimony, will you refer to, or otherwise rely upon, any studies,
18 publications, data, or documents produced by persons other than yourself or your
19 company? If so, please cite these sources.**

20 A. References are provided in corresponding Exhibits.

Philip Mooney

SUMMARY:

Philip Mooney has more than 30 years of engineering and commercial experience in the energy field developing and implementing power generation projects and associated facilities. He has been with Hecate Energy for 5 years providing a significant contribution to Hecate's growth as a leading firm in the US renewable power sector. Philip is responsible for supporting and leading the development of Hecate's power projects and is helping establish strategies for Hecate's development in the evolving electricity grid storage market.

Prior to joining Hecate Energy, Philip was Vice President of Development at Sithe Global Power (and its predecessor Sithe Energies) where he helped develop over 10,000 MW of electric power generation projects in domestic and international markets. He specializes in engineering, planning, establishing licensing strategies, and contract arrangements for power infrastructure projects.

Philip contributed to Sithe's growth during the emerging US independent power industry; developing medium-sized cogeneration facilities and larger utility scale power projects in the NYISO, NE-ISO, and PJM markets. He also played a key role in Sithe's expansion into the international energy markets developing projects in Asia, Australia, Africa, and South America:

- lead role in Sithe's 250 MW Bujagali Hydropower Project in Uganda, financed by World Bank Group, and was the lead manager for Sithe's 165 MW Amaila Falls Hydropower Project in Guyana.
- key role in Sithe's acquisition of the former Boston Edison assets and development of 2,400 MW of new gas fired generation at Mystic Station and Fore River Station near Boston.
- held technical and management roles for development of over 1200 MW of power projects in New York State's emerging independent power market, including the 1000 MW Independence Station.

Philip holds a Mechanical Engineering degree from University at Buffalo and MBA from Syracuse University.

EXPERIENCE

Hecate Energy

2014 - present

Vice President Engineering and Development

Responsible for engineering, planning, permitting, development of renewable and fossil power, and grid storage projects. Leads engineering and environmental planning teams during project development. Negotiates and administers key project contracts including energy offtake, equipment supply, EPC construction, O&M services, and investment agreements. Has or is implementing solar power projects ranging 1 MW to 800MW in areas including California, Texas, New York, Florida, Georgia, Maryland, Louisiana, Ohio, Rhode Island, and New Mexico, ensuring that the projects are arranged and implemented according to the project goals and in compliance with contractual and regulatory requirements.

Sithe Global

2004 - 2014

Project development and management of power generation and transmission line projects; with oversight of legal, environmental, and engineering support teams. Managed various aspects of new project acquisitions, asset evaluation, development, and construction management in North and South America, Europe, Africa, and Asia. Technologies included combined cycle, coal, hydro, LNG, solar, and wind. Established development strategies, market assessments, technical and financial parameters, licensing approach. Maintained budget and investment reports. Negotiated project agreements; offtake, community host, utility interconnects, and EPC.

Vice President Development

- **165 MW Amaila Falls Hydroelectric (Guyana):** Managed development and licensing in anticipation of multilateral bank financing for a planned remote hydroelectric plant, 200km access road, and 270km high voltage transmission line. Oversaw consulting team surveys, analyses, and publishing of an environmental / social assessment. Managed all in-country development including local office & staff, public consultations, and logistics. Participated in negotiations of project agreements. Key interface with government and lender representatives. Ensured all project agreements were consistent.
- **850 MW Southdown Combined Cycle (Toronto):** Established project development alternatives and coordinated with construction team to ensure key lender issues and regulatory requirements were addressed. Helped develop proposal for Ontario Power Authority - Southwest GTA Generation Procurement.
- **1000 MW Teramo Combined Cycle (Central Italy):** Managed project design and licensing in emerging IPP energy

market. Assessed electricity market dynamics and established negotiating positions for community host agreement, tolling agreement, and EPC construction. Maintained budget and investment reports. Oversaw utility and land arrangements.

- **250 MW Bujagali Hydroelectric (Uganda):** Managed design update and licensing of the largest independent power project in Sub-Saharan Africa. Oversaw licensing, land acquisition and resettlement planning for over 5000 project affected people. Managed construction procurement for the run of river hydro project and 100 km transmission line. Set new social and environmental benchmarks for the World Bank Group IFC financed project. Closely participated in negotiations of project agreements with the Government of Uganda, lenders, and construction contractors.
- **400 MW Gas Turbine Peaking (Toronto):** Managed licensing and public outreach team that gained favorable public perception amid significant opposition to nearby competing projects. Helped negotiate equipment supply and coordinated with balance of plant construction design team. Helped develop proposal to Ontario Power Authority.

Independent Management Consultant

2003 – 2004

Provided engineering and management services on energy related projects including; early stage development, turbine manufacturing, and asset management.

- **Fulton Cogeneration Associates:** Facility and asset management for a 45 MW cogeneration plant in NYISO merchant market. Managed transition to new ownership; new fuel supply, NYISO market participation, and facility operation and maintenance. Developed & maintained financial proforma and managed operating business plan.
- **GE Energy:** Advised production staff at General Electric's Schenectady plant improving of quality and production.
- **Constellation Energy:** Managed procurement and planning for the replacement of a 600 MW low pressure steam turbine at the Nine Mile Point Nuclear Station. Managed monthly cash flows for a \$40 million project budget.
- **Other Assignments:**
 - Explored renewable energy opportunities in Northeast US including; site evaluations, planning, and feasibility.
 - Explored acquisition of a 300MW asset in Western US; assessing energy markets and tolling options.

Sithe Energies

1990 – 2003

Managed engineering and development activities for domestic and international power projects. Progressively increased responsibilities in design, planning, development of plant configurations and construction specifications, management of engineering and licensing consultant teams, contract negotiations, community relations, and development aspects. Worked in a broad range of areas including early & late stage development, acquisition evaluations, construction management, and asset management

Project Development Manager

- **800 MW Heritage Combined Cycle (Upstate New York):** Managed development of a combined cycle project using General Electric's launch H-System technology. Managed \$4 million development budget and licensing team to gain significant public support and project approvals in record time under the new Article X regulatory framework. Negotiated contracts for utility supplies, interconnects, and EPC construction.
- **3000 MW Boston Area Repowering Projects (Boston):** Managed licensing activities for an ambitious brownfield project development on the former Boston Edison assets. Setup the development plans and managed project licensing efforts that ultimately received approvals in record time for three separate projects. Managed various business and engineering projects supporting overall regional development, including an ambitious emissions reduction project.

Project Engineer

- **170 MW Smithfield Cogeneration Facility (Australia):** Managed owner engineering activities for the development and construction of the first independent combined cycle plant in the emerging Australian energy market. Developed specifications and participated in contract negotiations with utilities, steam host, and construction contractors.
- **1000 MW Independence Cogeneration Facility (Upstate NY) and other Domestic & International Projects:** Engineering and licensing management for the successful completion of five new power stations (1400 megawatts) in New York and Ontario, including 1000MW Independence Station, among largest at the time.
- Pursued other development opportunities in the US, Europe, and Asia. Conducted engineering and energy analyses, project feasibility and due diligence, and project scoping. Participated in negotiations with utilities, steam hosts, contractors, and lenders. Progressively increased responsibilities in project management, bridging the gap between technical and financing teams. Visited many overseas nations for site assessments and early development work.

Education and Certifications

Masters Business Administration Syracuse University
Bachelors Mechanical Engineering University at Buffalo
New York State Licensed Professional Engineer

GABE WAPNER

SUMMARY

Gabe has 11 years of utility and renewable energy experience. At Hecate he oversees ongoing project development and execution efforts, including site selection, permitting, offtake negotiation, subcontractor contracting, and technology selection.

Prior to joining Hecate Energy Gabe served in several business development roles for Yingli Solar. Initially Gabe managed Yingli's utility scale business and subsequently he managed all Latin American business development for Yingli Americas.

Gabe began his career as an investment banker in the Power and Utilities Group Barclays Capital. His advisory work focused on the acquisition and divestiture of power generation assets.

Gabe graduated with honors from Cornell University's Charles H. Dyson School of Business.

PROFESSIONAL EXPERIENCE

Hecate Energy – Chicago, Illinois **Director of Development**

2013-present

At Hecate, Gabe oversees ongoing project development and execution efforts, including site selection, permitting, offtake negotiation, subcontractor contracting, and technology selection. Has or is implementing solar power and battery projects ranging 1 MW to 800MW in areas including California, Texas, New York, Georgia, Maryland, Ontario and Rhode Island, ensuring that the projects are arranged and implemented according to the project goals and in compliance with contractual and regulatory requirements.

Yingli Solar – São Paulo, Brazil **Latin America Business Development Manager**

2011-2013

Gabe managed all Latin American business development for Yingli Americas and was the company's first employee in the region.

- 2011: began Latin American business, cultivated 6 customers in 4 countries
- 2012: grew business to 22 customers, 9 countries
- Ran the sales process for 2014 FIFA World Cup LEED-certified stadiums in Brazil, closed Maracanã deal
- Administered the creation of subsidiaries in Brazil, Chile, and Mexico
- Actively developed distribution and pricing strategies in highly dynamic markets
- Conducted extensive economic, socioeconomic, and solar industry research to determine target markets

Yingli Solar – New York, NY **Business Development Associate**

2009-2011

Gabe joined Yingli Solar as the company's fifth Americas employee and was an integral team member as the company grew its US market share from 4% to 15% from 2009-2011.

- Developed and managed utility-scale customer accounts
- Earned the business of five US utilities making the company a leader in the US utility market
- Negotiated over \$70 million in transactions and oversaw orders from RFP submittal to order fulfillment
- Built solar project financial models to evaluate customers' pricing requests
- Constructed and maintained pricing database which became the framework for all pricing decisions
- Built and maintained a bankability deck which articulated and demonstrated the company's financial

strength

- Created and consistently improved a commercial deck which presented the company's value proposition
- Collaboratively produced investor relations presentations for public quarterly earnings calls
- Operated in a startup environment contributing to sales, marketing, logistics, and operations management

Barclays Capital (formerly Lehman Brothers) – New York, NY

2008-2009

Investment Banking Analyst—Global Power & Utility Group

Gabe began his post-graduate professional career in power and utilities investment banking.

- Advised on the sale of a diverse portfolio of seven electric generation assets
 - Maintained aggregated asset valuation model
 - Co-authored the offering memorandum and information memorandum
 - Performed exhaustive due diligence by interfacing with clients, management and counterparties
 - Synthesized environmental consultant and independent engineer generation plant reports
- American Electric Power \$475 million senior notes offering
- Portland General Electric \$176 million follow-on equity offering
- Collaboratively composed client presentations
 - Constructed merger, acquisition, financing, debt-sizing, and rate-based financial models
 - Conducted extensive research of alternative energy technologies
 - Provided detailed market and sector analysis and updates
 - Evaluated opportunities for strategic, institutional, and financial investors

Lehman Brothers – New York, NY

2007

Investment Banking Summer Analyst—Private Equity Real Estate Group

- Screened real estate development project finance models to determine investment attractiveness
- Analyzed market and site-specific data for a wide variety of construction projects
- Reviewed potential investments to ensure they were environmentally compliant

EDUCATION

Cornell University, College of Agriculture and Life Sciences – Ithaca, NY

2004-2008

BS with Honors in Applied Economics and Management

EXPERIENCE SUMMARY

Mr. Dadswell has 25 years of experience managing and conducting social and economic studies and impact analysis and preparing EIS and EA documents for energy and natural resource management projects throughout the United States. Specific project experience includes renewable energy projects, transmission lines, and pipelines; hydroelectric facilities; federal land management; military base closures; port development; and environmental restoration.

EDUCATION

PhD Candidate, Economic Geography, 1995 to 1997, University of Washington

MA, Economic Geography, 1990, University of Cincinnati

BA, Economics and Geography, 1988, Portsmouth Polytechnic, England

SELECTED PROJECT EXPERIENCE

Avangrid Renewables, Inc., Economic Impact Study of the La Joya Project, Torrance County, NM (2018). Evaluated the economic impacts of a proposed 500 MW wind energy project to be constructed in two phases in Torrance County, New Mexico. Estimated total (direct, indirect, and induced) economic output, employment, and labor income at the county and state levels using a modified version of the DOE National Renewable Energy Laboratory's (NREL's) Jobs and Economic Development Impact (JEDI) Land-based Wind Model (JEDI Wind model) and data obtained from IMPLAN. Modified the JEDI Wind and Transmission Line models to incorporate detailed actual construction data from a nearby similar project.

Lendlease Energy Development LLC, Economic and Fiscal Impact of Nestlewood Solar, Clermont and Brown Counties, OH (2018). Evaluated the economic and fiscal impacts of a proposed 80-MW solar photovoltaic electric generating facility in Clermont and Brown Counties, Ohio. Estimated total (direct, indirect, and induced) economic output, employment, and labor income using a modified version of the DOE National Renewable Energy Laboratory's NREL's JEDI Photovoltaics (PV) model. Estimated tax revenues that would be expected to accrue as a result of Project construction and operation.

Rocky Mountain Power, Gateway West Transmission Line Project Wyoming Industrial Site Permit Application, Multiple Counties, WY (2017 to 2018). Prepared the social and economic impact assessment for the Gateway West Project in Carbon and Sweetwater counties. Addressed impacts to population, economic and fiscal conditions, housing, municipal services, fire protection and law enforcement, education, health care, and human services. Estimated regional economic impacts using a multi-county IMPLAN model. Developed estimates of the property and sales and use taxes associated with construction and operation of the proposed facility. Assessed the availability of labor and impacts to housing and other local and regional socioeconomic resources.

Seneca Wind LLC, Economic and Fiscal Impact of Seneca Wind, Seneca County, OH (2018). Evaluated the economic and fiscal impacts of a proposed 212 MW (85 turbines) wind energy project in Seneca County, Ohio. Estimated total (direct, indirect, and induced) economic output, employment, and labor income at the county and state levels using a modified version of the DOE National Renewable Energy Laboratory's (NREL's) Jobs and Economic Development Impact (JEDI) Land-based Wind Model (JEDI Wind model) and data obtained from IMPLAN. Estimated tax revenues that would be expected to accrue as a result of Project construction and operation.

NextEra Energy Resources, LLC, Economic and Fiscal Impact Study for the Chicot Solar Energy Project, Chicot County, AR (2017). Evaluated the economic and fiscal impacts of a proposed 100 megawatt (MW) solar photovoltaic project on approximately 860 acres of private land in Chicot County, Arkansas. Assessed the regional economic impacts of construction and operation of the proposed facility in terms of employment, labor income, and economic output using the IMPLAN economic modeling package. Impacts were estimated separately at the local (Chicot County) and state level. Estimated local and state tax revenues that would be expected to accrue as a result of Project construction and operation.

NextEra Energy Resources, LLC, Economic and Fiscal Impact Study for the Stuttgart Solar Energy Project, Arkansas County, AR (2016). Evaluated the economic and fiscal impacts of a proposed 81 megawatt (MW) solar photovoltaic project on approximately 475 acres of private land in Arkansas County, Arkansas. Assessed the regional economic impacts of construction and operation of the proposed facility in terms of employment, labor income, and economic output using the IMPLAN economic modeling package. Impacts were estimated separately at the local (Arkansas County) and state level. Estimated local and state tax revenues that would be expected to accrue as a result of Project construction and operation.

Ninnescah Wind Energy LLC, Economic Impact of the Ninnescah Wind Energy Project, Pratt County, KS (2015). Evaluated the economic impacts of a proposed 209 MW (121 turbines) wind energy project and 60-mile electric transmission line in Pratt County, Kansas. Estimated total (direct, indirect, and induced) economic output, employment, and labor income at the county and state levels using a modified version of the JEDI Wind model and data obtained from IMPLAN.

Plains and Eastern Clean Line, LLC, and U.S. Department of Energy, Plains & Eastern Transmission Line NEPA EIS, TX, OK, AR, TN (2013 to 2015). Evaluated the social and economic impacts of a 700 mile, overhead 600-kV high voltage direct current (HVDC) electric transmission system and associated facilities. The proposed transmission line and facilities cross 33 counties in four states (Texas, Oklahoma, Arkansas, and Tennessee). Assessed the availability of labor and impacts to housing and other local and regional socioeconomic resources. Estimated regional economic impacts using multipliers derived from the U.S. Bureau of Economic Analysis RIMS II model. Developed estimates of the property and sales and use taxes associated with construction and operation of the proposed facilities. Evaluated the impacts of potential wind facilities (connected actions) using IMPLAN and NREL's JEDI Wind model.

Genesis Solar LLC, Genesis Solar Energy Project, Riverside County, CA (2009). Prepared the socioeconomic analysis for a proposed 250 MW solar generating facility in the Sonoran desert, west of the city of Blythe, California. This analysis addressed the availability of labor for the construction and operation phases of the proposed facility, the potential for workers to temporarily or permanently relocate to the project area, and the impacts this would have on housing and other local and regional socioeconomic resources. Assessed the regional economic impacts of the project using an input-output model developed using IMPLAN modeling software and data. Developed estimates of the property and sales and use taxes associated with construction and operation of the proposed facility. Evaluated environmental justice impacts in accordance with Executive Order 12898.

Stirling Energy Services, Solar One, San Bernardino County, CA (2008). Prepared the socioeconomic analysis for a proposed 850 MW solar generating facility on BLM-managed land in the Mojave Desert, east of Barstow, California. This analysis addressed the availability of labor and impacts to housing and other local and regional socioeconomic resources. Assessed the regional economic impacts of the project using an input-output model developed using IMPLAN modeling software and data. Developed estimates of the property and sales and use taxes associated with construction and operation of the proposed facility. Evaluated environmental justice impacts in accordance with Executive Order 12898.

PROFESSIONAL SUMMARY

Ms. Davidson is a project manager and has over 12 years of experience in environmental planning and landscape architecture with an extensive focus on visual resource inventory and analysis. Specific areas of expertise include conducting comprehensive visual resource inventories and impact analysis and preparing visual resource studies in support of National Environmental Policy Act (NEPA) compliance, California Energy Commission (CEC) compliance, Bureau of Ocean Energy Management (BOEM) compliance, and the Arizona Power Plant and Transmission Line Siting Committee compliance for the Arizona Corporation Commission (ACC) as well as for other state or local regulations and policies. Ms. Davidson has project experience in visual impact assessment and analysis on both local and federal linear transmission projects, solar and wind facilities, and oil and gas facilities throughout the United States. Ms. Davidson has also completed the U.S. Bureau of Land Management's Visual Resource Management training course in 2012.

Education

- MLA, Landscape Architecture, University of Michigan, 2005
- BS, Environmental Studies & Application, Michigan State University, 1998

SELECTED PROJECT EXPERIENCE

Visual Resource Specialist, Lund Hill Solar Project, Klickitat County, WA

Ms. Davidson served as a visual resource specialist responsible for the preparation of the visual analysis for inclusion in the Environmental Impact Statement (EIS) for the Lund Hill Solar Project (project). The project consists of 150-megawatt (MW) solar energy facility on approximately 1,700 acres of land. Ms. Davidson's responsibilities included conducting a desktop inventory of visual resource, identifying sensitive viewers, assessing project contrast and associated impacts, and was the primary author of the visual section of the EIS.

Visual Resource Lead, Adelanto Solar Project, San Bernardino County, CA

Ms. Davidson served as the lead visual resource specialist responsible for the preparation of an Aesthetics Impact Report (report) in support of the City of Adelanto Conditional Use Permit application for the Adelanto Solar Project (project). The project

consists of construction of a solar generation facility on approximately 206 acres of land and construction of a 1.4-mile-long distribution line upgrade. Ms. Davidson's responsibilities included conducting a desktop inventory for visual resources, identifying sensitive viewers, assessing project contrast and associated impacts, and was the primary author of the report.

Visual Resource Specialist, Joshua Tree Solar Farm, San Bernardino County, CA

Ms. Davidson served as a visual resource specialist supporting the preparation of the Visual Impacts Report for the Joshua Tree Solar Farm project. The project consists of a 20 MW solar facility located on approximately 115 acres of land. Ms. Davidson assisted with the visual resource assessment and writing sections of the Visual Impacts Report.

Visual Resource Lead, Soventix-Cloverdale Solar Project, Sonoma County, CA

Ms. Davidson served as the lead visual resource specialist responsible for the preparation of the visual assessment resource report in support of the Sonoma County Conditional Use permit application. The project consists of fixed-tilt PV solar panels with a generating capacity of w MW of alternating current power. Ms. Davidson's specific efforts include a desktop inventory for visual resources and preparing the visual assessment resource report.

Visual Resource Specialist, Silverado Power, Solar Generating Facility, Antelope Valley, CA

Ms. Davidson served as a visual resource specialist supporting the preparation of visual resource assessments for six PV solar project sites in Antelope Valley, CA in compliance with the Los Angeles County CEQA guidelines. Ms. Davidson assisted in writing sections of the visual assessments and completing contrast rating worksheets in support of the visual analysis.

Landscape Architect, Picacho Photovoltaic (PV) Solar, Pinal County, AZ

Ms. Davidson served as the landscape architect responsible for preparing a conceptual landscape plan in support of the Pinal County permitting process. The project consists of 400 MW solar facility located on approximately 2,776 acres of land in Pinal County. Ms. Davidson was responsible for developing an overall conceptual landscape plan illustrating areas to be landscaped and identifying buffer zones. Ms. Davidson also prepared a representative plan view for each landscape buffer zone, cross sections of each landscape buffer zone,

preliminary plans material list, landscape details, and a preliminary cost estimate.

Visual Resource Lead, Bay State Offshore Wind Project, MA and RI

Ms. Davidson served as the lead visual resource specialist for the permitting of an offshore wind facility located within a BOEM designated Renewable Energy Lease Area located approximately 14 nautical miles off the coast of Martha's Vineyard, MA. The project consists of up to 110 turbines, offshore O&M platform, 2 offshore substations, 2 export cables, and 1 onshore substation. Ms. Davidson's specific efforts include a desktop inventory for visual resources, field reconnaissance, and preparing the visual impact assessment technical report and visual section for the construction and operation plan.

Visual Resource Lead, Virginia Offshore Wind Technology Advancement Project, Virginia Beach, VA

Ms. Davidson served as the lead visual resource specialist for the permitting of a 12-MW offshore wind technology testing facility located in federal waters approximately 24 nautical miles off the coast of Virginia Beach, Virginia. The VOWTAP consists of two 6-MW turbines, stand-alone metocean instrumentation platforms, and approximately 27 miles of 34.5-kilovolt (kV) marine and terrestrial cable located in both federal and state waters. Ms. Davidson's specific efforts included conducting a desktop inventory for visual resources and field reconnaissance; and preparing the visual impact assessment technical report. Based off the visual impact assessment technical report, Ms. Davidson also prepared the visual resource section of the VOWTAP Research Activities Plan (RAP).

Visual Resource Lead, Coachella Flats Wind Energy Repower Project, Palm Springs, CA

Ms. Davidson served as the lead visual resource specialist supporting the preparation of a Visual Resource Analysis for the Coachella Flats Wind Energy Repower Project which includes the removal of approximately 500 existing wind turbines on Bureau of Land Management-managed and Coachella Valley Water District-owned lands and replace them with 327 new wind turbines. Ms. Davidson's responsibilities included conducting a desktop inventory for visual resources, identifying sensitive viewers, and assessing project contrast and associated impacts. Ms. Davidson also coordinated with other visual team members and provided review the visual simulations created as part of the visual analysis.

Visual Resource Lead, Equitrans, L.P., Equitrans Expansion Project, PA and WV

The project includes construction of approximately 9 miles of natural gas pipeline, abandonment of an existing compressor station, and construction of a new compressor station and other associated facilities in Pennsylvania and West Virginia. As the primary author of the aesthetic section of Resource Report 8 (Land Use, Recreation, and Aesthetics), Ms. Davidson conducted a desktop inventory for visual resources in order to describe the affected environment and assess the potential permanent and temporary visual impacts that may be caused by construction and operation of the pipeline and associated facilities to visual receptors associated with residences, recreation areas and travel routes.

Visual Resource Specialist, Plains and Eastern Environmental Impact Statement, Various Locations, OK, TN, AR

Ms. Davidson served as a visual resource specialist supporting the preparation of an EIS for the proposed Plains & Eastern Project which includes an overhead ± 600 kV HVDC electric transmission system located from the Oklahoma Panhandle region to load-serving entities in the Mid-South and Southeast. Ms. Davidson's specific efforts included providing peer review and consultation to 3rd party consultant for the visual resource technical report inventory and impact methodology; developing the methodology for assessing visual resource impacts associated with the transmission line, alternatives, converter stations and AC collection systems for the Project EIS. Ms. Davidson also provided assistance in the Draft EIS phase by responding to comments received by the public and other stakeholders related to technical NEPA questions.

Visual Resource Specialist Equitrans (EQT) Midstream Partners, LP, Mountain Valley Pipeline Project, VA and WV

Visual resource analyst assisting with field inventory efforts and supporting applicant-prepared documentation for a proposed 303-mile gas pipeline from northwestern West Virginia to southern Virginia. The project demonstrated unique visual concerns including the crossing of the Blue Ridge Parkway and Appalachian National Scenic Trail. In addition, Ms. Davidson prepared a supplemental visual resource assessment report for the portion of the Project crossing the Weston Gauley Bridge Trail which is under the jurisdiction of the U.S. Army Corps of Engineers.

EXPERIENCE SUMMARY

Mr. Green is an Ecologist and GIS Analyst with professional experience in natural resource management, permitting, agency coordination, multiple field team management, technical writing, wildlife ecology, plant ecology and identification, and data management. Mr. Green's strong knowledge of ecosystems, GIS/GPS technologies, and has the problem solving skills to lead environmental components of projects requiring many levels of permitting with different agencies. Mr. Green has worked through permitting with agencies such as FERC, USACE, USFWS, NYSDEC, and most regulatory agencies in Pennsylvania and Ohio. Strong background in wetland delineation, mitigation site assessment, orthoimagery analysis, Endangered Species Act surveys, coordination, technical reporting, impact analysis, and GIS mapping/data management provide for a wide platform of experience and skillsets to draw from when planning surveys, building permit applications, and finding creative solutions to complex problems. Mr. Green helps predict, anticipate, and resolve agency comments on behalf of clients and has strong communication skills coupled with prior project experiences and professional relationships with regulators, allowing clear and concise communication of results and recommendations to project managers, clients, and agency staff. Mr. Green's range of experience from ground-level work on scientific research projects to lead roles in team project management allows evaluation of projects from a broad analysis perspective and he provides commentary to solve any issues that could arise. Mr. Green has excellent personnel management skills and believes in facilitating employee growth and developing junior staff into their best potential, ranging from professional field staff to future task and/or project management. Mr. Green is highly proficient at multitasking and has managed significant components of large projects for important clients simultaneously. Mr. Green is driven, committed, and always completes tasks to the best of his ability, including the highest level of accuracy, consistently.

Professional experience encompasses:

- Project Management
- Protected Species Impact Analysis
- Federal and State Permitting and Planning
- Management of Biological Resource Field Studies
- GIS data analyses, management, and mapping
- Renewable Energy Projects

RELEVANT EXPERIENCE

Although Mr. Green continues to work on many types of projects, including various environmental due diligence surveys, permitting, managing large-scale RFPs, construction logistics, and monitoring requirements across the northeast, only significant projects and long-term roles are outlined below.

2019

Ecological Manager, Reporting, Greene County Solar Project, Hecate Energy, Greene County, New York. Serving as ecological manager for all environmental work associated with developing a solar array network regulated under Article 10 of the NYS Department of Public Service. Includes coordination and management of field survey data such as aquatic resource delineations and species-specific surveys. Leading on-going coordination with regulating agencies including USFWS, USACE, and NYSDEC. Includes preparation of Article 10 Exhibits 22 and most of 23, as well as Joint Permit Application preparation.

Ecological Manager, Reporting, Coeymans Solar Project, Hecate Energy, Albany County, New York. Serving as ecological manager for all environmental work associated with developing an approximately 430-acre solar array network regulated under Article 10 of the NYS Department of Public Service. Includes coordination and management of field survey data such as aquatic resource delineations and species-specific surveys. Leading on-going coordination with regulating agencies including USFWS,

EDUCATION

BT, Renewable Resources,
Morrisville State College, 2010.

TRAINING/CERTIFICATIONS

Blood borne Pathogens (ARC)

Adult First Aid/CPR (ARC)

Infant/Child First Aid/CPR (ARC)

Wilderness First Aid

NYSDEC Licensed Guide: fishing,
hunting, backpacking, boats and
canoes, whitewater rafting

Erosion and Sediment Control
(NYSDEC)

50-hr Bat Survey Training, 2012

38-hr Wetland Delineation
Training, 2011

SKILLS

Wetland delineation

Habitat assessment

GIS analysis and mapping

Data management

Large-project field coordinator

Technical Writing

Threatened and endangered
species

Large project permitting

Target species surveys

OFFICE

Buffalo, New York

YEARS OF EXPERIENCE

4 years Management

9 years Biologist

USACE, and NYSDEC. Includes preparation of Article 10 Exhibits 22 and most of 23, as well as Joint Permit Application preparation.

Ecological Manager, Reporting, Anode Bed Upgrade, Sunoco Pipeline, Southern Pennsylvania. Serving as manager for all environmental surveys associated with approximately 75 miles of anode protection installed on an existing pipeline. Assisting with permit application development.

Ecological Manager, Reporting and Permitting, Community Solar Install, Confidential Client, Cortland County, New York. Served as manager for all environmental surveys associated and permitting lead at multiple levels, including local, state, and federal. Ensured all environmental due diligence was completed for the client.

2018-current

Ecological Manager, Reporting and Permitting, Community Solar Install, Confidential Client, Wyoming County, New York. Serving as manager for all environmental surveys associated and permitting lead at multiple levels, including local, state, and federal. Ensured all environmental due diligence was completed for the client.

2017-current

Project Manager, Pipeline Repairs, Sunoco Pipeline, Ohio, New York, and Pennsylvania. Serving as project manager for any pipeline repairs that needed to occur with potential impacts to aquatic resources, including coordinating and managing environmental surveys, and erosion and sediment control plan development, permit applications, and agency coordination. Primary contact for all work in multiple levels, including local, state, and federal. Ensured all environmental due diligence was completed for the client.

Permit Compliance Lead, various pipeline projects, various clients, Pennsylvania. Serving as manager for all environmental surveys associated and permitting lead at multiple levels, including local, state, and federal. Ensured all permit conditions are being tracked and fulfilled, through coordination of surveys, preparation and submission of reports, and constant coordination with representatives from agency stakeholders.

2015-current

Aquatic Resource Permitting and Protected Species Lead, Pennsylvania Pipeline Project, Sunoco Pipeline, Southern Pennsylvania. Provide impact analysis for a new, 300-mile long pipeline as well as support agency meetings and mitigation and avoidance measures. Work closely with clients, permitting agencies, and subcontractors to obtain all necessary documents for a Joint Permit Application and any proposed modifications. Obtain clearances from all regulating agencies for any modifications proposed on the project.

2015-2017

Field Team Manager and Permitting Lead, Reporting and Permitting, New Pipeline Install, Confidential Client, McKean County, Pennsylvania, and various counties, New York. Lead Aquatic Resource Permitting, FERC author of RR2 and RR3, Field Team Manager, Protected Species Lead for permitting/mitigation, GIS/GPS Data Manager. Served as field manager for all environmental surveys associated with this FERC-regulated pipeline project. Coordinated several teams concurrently for wetland delineations, threatened and endangered species surveys, and agency visits. Worked closely with management staff from land agents, the client, and property owners to ensure safe and permitted access to project areas. Managed survey requests and staff workloads to appropriately complete additional surveys requested by the client for reroutes, new project components, and other project facilities. Worked closely with regulatory agencies to develop survey plans, locations, and timing restrictions for all environmental surveys.

2018

Ecological Manager, Reporting and Permitting, Community Solar Install, Confidential Client, Cortland County, New York. Served as manager for all environmental surveys associated and permitting lead at multiple levels, including local, state, and federal. Attended town hall meetings. Ensured all environmental due diligence was completed for the client.

2015

Rare, Threatened, and Endangered Species Surveys, Inventory Study, New Jersey Department of Environmental Protection, Vernon, New Jersey. Served as lead biologist for remote sensing efforts for bobcats, long-tailed weasels, and short-tailed weasels in a state wilderness area. Developed survey plan, approved by the NJ Department of Environmental Protection. Set up cameras and attractant scents and baits for target species, and oversaw data management, reporting, and final delivery to client.

2014

Rare, Threatened, and Endangered Species Surveys, Inventory Study, Confidential Client, Virginia Beach, Virginia. Served as an assistant mist net surveyor at two installations in Virginia Beach, Virginia on a project to capture the federally threatened northern long eared bat. Worked closely with the lead biologist to optimize survey success based on habitats and survey restrictions.

Predator Monitoring Surveys, Threat Analysis, Confidential Client, Oceanside, California. Served as lead biologist for photo surveys of potential predators of the endangered Stephenson's Kangaroo Rat. Surveyed the protected enclosure for the

species and placed cameras around the perimeter of the enclosure to identify potential predators. Identified tracks and scat in order to place the trail cameras in optimal locations.

Wetland Delineation, Habitat Surveys, Reporting and Permitting, Mariner East 8" Pipeline Repair Project, Sunoco Pipeline, Various Towns, Pennsylvania. Served as a Field Team Lead and Field Manager, GPS technician and assistant wetland delineator as well as evaluate habitat for various repair locations across southern Pennsylvania. All wetlands, including those not federally jurisdictional, are delineated based on the criteria set forth in the 1987 USACE manual and 2012 Eastern Mountains and Piedmont Regional Supplement. Plant community typing, plant identification, and soil classification procedures were used to assess each wetland. A report including field maps, datasheets, GPS data, and photographs was furnished to the client. GIS management of all data and repair areas used to perform permitting impact analysis to the USACE and PADEP. Managed as many as six crews (up to 15 personnel) simultaneously while keeping delineation geographic data up-to-date for the client to review in real time.

2013

Wetland Delineation, Habitat Surveys, Reporting and Permitting, Mariner East Houston to Delmont Project, Sunoco Pipeline, Houston, Pennsylvania. Served as a Field Team Lead, GPS technician and assistant wetland delineator as well as evaluate habitat for a proposed 50 mile natural gas pipeline right-of-way in a 100 foot survey area. All wetlands, including those not federally jurisdictional, are delineated based on the criteria set forth in the 1987 USACE manual and 2012 Eastern Mountains and Piedmont Regional Supplement. Plant community typing, plant identification, and soil classification procedures were used to assess each wetland. This information was then compiled into a report including field maps, datasheets, GPS data, and photographs and furnished to the client. Classification of habitat types intersected by the pipeline was performed to determine suitability for known threatened or endangered species. Habitat analysis was completed for USFWS and Pennsylvania Game Commission.

Rare, Threatened, and Endangered Species Surveys and Reporting, Inventory Study, Confidential Client, Virginia Beach, Virginia. Served as an assistant mist net surveyor at two installations in Virginia Beach, Virginia on a project to capture the state-listed Rafinesque's big eared bat and the federally threatened northern long eared bat. Worked closely with the lead biologists to optimize survey success based on habitats and survey restrictions. Subsequently provided a technical report with methods to prevent impacts to the species and recommendations for the client to enhance or maintain the populations of the species while working in conjunction with the appropriate regulatory agencies.

Invasive Mammal Surveys and Reporting, Inventory Study, Confidential Client, Chesapeake and Virginia Beach, Virginia. Served as a field biologist for the inventory of invasive mammals using passive camera surveys and wandering transects at four naval installations in Virginia. Identified field sign (prints, scat, slides, dens) and extents of impacts caused by nutria. Also identified prints and scat for coyote to locate high-potential sites to construct scent-station. Bait and lure was used to attract the target species and a high-quality motion sensor trail camera was used to record any animals that visited the scent station.

2012

Rare, Threatened, and Endangered Species Surveys and Reporting, Inventory Study, Confidential Client, Chesapeake and Virginia Beach, Virginia. Served as an assistant mist net surveyor at two installations in Virginia Beach, Virginia on a project to capture the state-listed Rafinesque's big eared bat. Worked closely with the client and lead biologists to optimize survey success based on habitats and survey restrictions. Subsequently provided a technical report with methods to prevent impacts to the species and recommendations for the client to enhance or maintain the populations of the species while working in conjunction with the appropriate regulatory agencies.

Wetland Delineation, Habitat Surveys and Reporting, New Fractionator and Pipeline Install, Confidential Client, Corpus Christi, Texas. Served as Field Team Lead, wetland delineator, and habitat assessor for proposed natural gas liquid fractionator plant and associated 19 mile pipeline right-of-way in a 200 foot survey area. All wetlands, including those not federally jurisdictional, are delineated based on the criteria set forth in the 1987 USACE manual and 2010 Gulf Coast Regional Supplement. Plant community typing, plant identification, and soil classification procedures were used to assess each wetland. This information was then compiled into a report including field maps, datasheets, GPS data, and photographs to be furnished to the client. Classification of habitat types intersected by the pipeline were performed to determine the suitability for known threatened or endangered species. Habitat analysis and subsequent Biological Assessment completed for USFWS and EPA. State Threatened and Endangered Species report submitted to Texas Parks and Wildlife Department.

Invasive Species Delineation and Protected Species Surveys and Subsequent Reporting, New Transmission Line Install, Confidential Client. Served as a GPS technician and invasive species surveyor on a 16.5 mile overhead electric line installation project. Recorded infestations of known invasive species and prepared a report with figures for the client. Identified potential habitat for NYS Protected species and prepared a technical memo with figures to submit to the client and regulating agencies.

2011

Wetland Delineation, Habitat Surveys and Reporting, New Pipeline Install, Confidential Client. Served as a wetland delineator and habitat evaluator for proposed 35 mile pipeline with an associated 75 foot right-of-way. All wetlands, including those not federally jurisdictional, are delineated based on the criteria set forth in the 1987 USACE manual. Plant community typing, plant identification, and soil classification procedures were used to assess each wetland. Classification of habitat types

intersected by the pipeline was performed to determine the suitability for known threatened or endangered species, the Golden Winged Warbler and Indiana Bat. This information was then compiled into a report including field maps, datasheets, GPS data, and photographs and furnished to the client. Habitat analysis and subsequent Biological Evaluation completed for USFS Wayne National Forest- Marietta, Ohio.

Habitat Assessment for Threatened and Endangered Species, Confidential Client, Grand Haven, Michigan. Served as a T&E species consultant for a pipeline abandonment project. Completed site visit and resulting concurrence request letters to USFWS and MDNR.

Wetland Delineation and Mitigation Site Assessment, Confidential Client. Served as a wetland delineator and GPS technician for approximately 5 miles of proposed ROW access roads in Western New York. All federally jurisdictional wetlands were delineated based on the criteria set forth in the 1987 USACE manual. Plant community typing, plant identification, and soil classification procedures were used to assess each wetland. Assessed mitigation sites based on density and frequency of invasive species and habitat change.

Other Professional Experience

Post Construction Monitoring, Bats and Wind Energy Cooperative, Bat Conservation International, 2010. This project employed multiple bat survey techniques to assess the impacts of constructed wind farms on bat populations. Activities conducted under this large-scale project included bat mist netting, acoustic analyses, and mortality surveys.

- Participated in mist netting activities in order to identify physical characteristics (scarring, remaining fungal infections) of white nose syndrome in bats that have survived the winter. Mist netting took place under the supervision of a USFWS certified Indiana Bat biologist in central Pennsylvania at an abandoned mine site in north central Pennsylvania. Ten foot by four foot nets were used and checked for capture success at fifteen minute intervals. Bats were removed from the net, identified, sexed, aged (if possible), had reproductive status identified, and released.
- Set up Anabat recording equipment at meteorological towers to record bat calls of various species. Subsequently analyzed recorded sounds from the Anabat using Analook to isolate bat calls, including occasional species of bats and frequency of occurrence.
- Searched transects within grid search plots at selected turbines at Locust Ridge Wind Project II in Shenandoah, Pennsylvania for bat and bird carcasses. Completed data sheets for each carcass and logged all data into a computer database. Hair and wing samples were collected on fatalities to be sent to an off-site lab for isotope analysis.
- **Habitat Assessment, Morrisville State Inventory Project, Morrisville State College.** Performed habitat assessment on 100 acres of very diverse habitat based on overstory, understory, and groundcover vegetation and density, as well as assessing overall health of plotted areas and mapping the plots on ArcGIS with all data attributed to appropriate habitat polygons.

CHRONOLOGICAL HISTORY

Ecological Services Manager, Tetra Tech Inc., 2011 to current. Buffalo, New York.

Wilderness Guide, Adirondack Exposure. 2009 to 2011. Old Forge, New York.

Field Technician, Bat Conservation International, 2010. Sheppton, Pennsylvania.

NYSDEC Environmental Education Intern, 2010. Cheektowaga, New York.

Experience Summary

Ms. Gresock has over 35 years' experience in regulatory issues as they relate to environmental permitting and compliance for a wide range of projects. In recent years, she has specialized in permitting and due diligence activities for projects in the energy sector. Her project experience includes the preparation of environmental impact assessments and reports; regulatory strategy for industrial, commercial and residential development projects; site selection and suitability studies; municipal planning documents; and permit applications. Ms. Gresock has also represented clients on environmental matters at public hearings and has spoken at seminars on environmental issues. She has prepared and directed numerous environmental impact statements and other resource permits, and has extensive experience in guiding projects through regulatory channels in a timely and responsive manner. Ms. Gresock has also worked within the industrial sector and with regulatory agencies; she combines a unique perspective with the knowledge to successfully develop and implement environmental strategies.

Ms. Gresock has focused for many years on providing consulting services for energy projects. Her project experience includes obtaining environmental approvals for more than 20,000 megawatts (MW) of electric generation capacity. She has provided development permitting and support for a wide range of facilities, including fossil-fuel fired power facilities, solar and wind energy facilities, natural gas pipelines, electric transmission lines, and LNG facilities. She has supported project development from early definition phases, through obtaining licensing approvals, construction oversight and operational compliance support. Her knowledge of energy project issues brings practical consulting advice resulting in environmental permits that meet project operational needs.

Education

BS, Environmental Design (Landscape Architecture and Regional Planning), University of Massachusetts, 1984

Representative New York and Solar Project Experience

Hecate Energy, Coeymans Solar and Greene County Solar, Albany County and Greene County, New York

Principal-in-charge for Article 10 permitting associated with two solar energy facilities. Full environmental studies, negotiation of stipulations, application documentation, and associated outreach and support of related issues.

Nestlewood Solar I LLC, Nestlewood Solar, Clermont and Brown Counties, Ohio

Full environmental licensing of a proposed 80-megawatt (MW) photovoltaic solar energy facility. Work includes preparation of Ohio Power Siting Board (OPSB) documentation and mapping; wetland and species activities; cultural resources; visual assessment; and related outreach.

Pine Gate Renewables, LLC, Five Solar Energy Facilities in Rhode Island

Environmental consulting services to support five approximately 1 MW solar facilities in locations throughout Rhode Island including environmental review to support National Environmental Policy Act (NEPA) review associated with United States Department of Agriculture (USDA) funding; bat monitoring; and archaeological surveys.

Wallingford Renewable Energy, LLC, Wallingford Renewable Energy, Wallingford, Connecticut

Lead environmental consultant for permitting an approximately 20 MW solar project in Wallingford, Connecticut. Portions of the project will be located on a capped landfill, while the remaining arrays will be located on an adjacent parcel. Tetra Tech prepared the Connecticut Siting Council (CSC) Petition Approval; CSC approval was received within 3 months of submittal. In addition to the broad topics required in the CSC Petition, Tetra Tech provided support for layout, stormwater, wetland, vernal pool,

listed species, geotechnical, and site cleanup issues. Tetra Tech will continue to provide support during construction.

Confidential Solar Projects, Critical Issues Assessment, New York, Ohio, Massachusetts, and Connecticut

Project manager and/or principal-in-charge for numerous potential solar energy facilities in a variety of settings in various locations within New York, Ohio, Massachusetts and Connecticut. Services typically include desktop review of key environmental and community features, and development of a permitting plan. Certain sites have also included specific investigations related to wetlands, species, or cultural resource issues in order to understand siting feasibility and further refine permitting requirements.

Cricket Valley Energy Project, Advanced Power North America, Dover, New York

Environmental licensing for a 1,000-MW combined cycle project requiring an Environmental Impact Statement (EIS) through the State Environmental Quality Review Act (SEQR) process as well as federal, state and local permits. The project's location on an industrial property, portions of which have been in use for many years, requires consideration of potential site contamination and cleanup, as well as building demolition issues. Other project issues include air quality; wetland and endangered species issues associated with the site's proximity to the Swamp River; development of an on-site groundwater supply; stormwater management; and other potential community concerns such as noise, visual, traffic and effect on services. Supported outreach through public open house and topical Working Group meetings. Prepared remediation/closure plan, and supported preparation of the project for construction, including associated with its proposed electric transmission interconnection.

Heritage Station, Sithe, Oswego, New York

Managed environmental licensing for an 800-MW combined cycle project on the 190-acre Independence Station cogeneration facility site. The project required review under the Article X process. As a part of this process, detailed stipulations were developed as a scope for the environmental evaluation. The resulting seven-volume application was confirmed by the Department of Public Service to have completely responded to the stipulation requirements, and was approved under an expedited settlement process. Key issues included the use of Lake Ontario water in the proposed wet cooling system, and potential cumulative effects associated with the project and the adjacent cogeneration facility. The full range of environmental disciplines was examined for the project.

Cogeneration Facility, U.S. Generating Company, Rotterdam, New York

Successfully obtained environmental permits for a 230 MW generating facility. Responsibilities included preparation of a multidisciplinary EIS under SEQR, Army Corps of Engineers wetlands permits, state wetland permits, air permits, water discharge permits, and Public Service Commission documentation for the proposed electrical interconnections. Continual environmental design input and strategic management enabled the project to meet an aggressive schedule for obtaining environmental approvals.

Cogeneration Facility, U.S. Generating Company, Guilderland, New York

Managed environmental permitting for a 230 MW independent power production facility. Responsibilities included preparation of a multidisciplinary EIS under SEQR, Army Corps of Engineers wetlands permits, air permits, and Public Service Commission approvals for proposed natural gas and electrical interconnections. Early environmental screening and involvement in project design enabled the client to develop a site plan meeting applicable environmental standards.

Avoca Natural Gas Storage Project, U.S. Generating Company, Avoca, New York

Assisted in permitting a proposed underground natural gas storage facility in upstate New York. As a part of this effort, permit review was performed to identify outstanding tasks to be completed for full compliance throughout all phases of project construction and operation. In addition, peer review was provided for several permit submittals, and assistance was provided during project due diligence efforts.

Wallkill Natural Gas Pipeline, U.S. Generating Company, New York and New Jersey

Managed Federal Energy Regulatory Commission (FERC) environmental submittals and related permits associated with a proposed 24-mile natural gas pipeline extending from the site of a proposed electric generating facility in Wallkill New York to an existing Tennessee Gas Pipeline Company compressor station in Wantage, New Jersey. Issues included concerns associated with potential impact to wetlands, a protected plant species, archaeological resources, a protected easement of the Appalachian Trail, and cold water fisheries. Community concerns were also addressed, including construction impact and effects of the proposed installation and clearing on nearby business owners.

Gas Pipeline Extension, International Paper and Niagara Mohawk Power Corp., Oswego, New York

Managed preparation and submittal of an Article VII application to the New York Public Service Commission describing a proposed gas pipeline extension to serve a cogeneration facility. Responsibilities included environmental resource field surveys, literature reviews, agency and community contact, coordination of color graphics, text preparation, direct testimony in support of the document, and participation in interrogatory proceedings.

PROFESSIONAL SUMMARY

Tricia Pellerin is a Senior Acoustic Engineer and Project Manager with the Boston office with a background in chemical and biochemical engineering. With more than 14 years of consulting experience, Ms. Pellerin has been involved in the planning and permitting of many small and large-scale environmental impact statements, noise impact assessments, and air quality impact assessments. Ms. Pellerin has extensive experience in assessing potential noise impacts, performing pre- and post-construction field studies, conducting acoustic modeling analyses, and performing regulatory compliance determinations for both conventional (transmission line, gas pipeline, peaking facilities, LNG terminals, upgraders, etc.) and renewable energy projects (wind energy, solar) throughout the United States, Canada and internationally. She has also been involved with conducting underwater acoustic modeling and impacts assessments for offshore wind energy projects and meteorological data collection towers with the purpose of assessing potential impacts on sensitive marine species.

EDUCATION

- Environmental Science Graduate Program, The University of Western Ontario, 2005
- MESC, Chemical and Biochemical Engineering, The University of Western Ontario, 2005
- BESC, Chemical and Biochemical Engineering, The University of Western Ontario, 2002

SELECTED PROJECT EXPERIENCE

Acoustic Engineer, Avangrid Renewables LLC, Bakeoven Energy Project, Wasco County, OR

Bakeoven Wind, LLC, a subsidiary of Avangrid Renewables, LLC, proposes to construct and operate the Bakeoven Energy Project in southern Wasco County, near Shaniko, Oregon. Ms. Pellerin was involved in conducting the acoustic analysis for the first phase of the wind energy and solar components. She also coordinated the field program to collect operational sound measurements at an existing solar facility and to collect ambient data within the proposed project study area. Analysis results were compared to the applicable ODOE noise regulations and an Exhibit X submittal was prepared.

Acoustic Engineer, Avangrid Renewables LLC, Lund Hill Solar Energy Project, Klickitat County, WA

The Lund Hill Solar Project is a 150-megawatt solar energy within Klickitat County, Washington. CadnaA was used to analyze potential noise impacts associated with the facility at nearby noise sensitive receptors. Results were evaluated relative to the Washington noise regulations. Construction noise was also assessed, and noise mitigation measures were recommended. The analysis was compiled into a section of the overall project EIS.

Acoustic Engineer, NextEra Energy Resources Calverton Solar Energy Center Project, NY

NEER is proposing to build and operate the Calverton Solar Energy Center, which would consist of 23 MW of capacity. Ms. Pellerin analyzed both construction and operational sound impacts using CadnaA. Operational sound sources include the transformer at the substation, inverters, and pad-mounted transformers. Project compliance was assessed relative to the Town Riverhead, which incorporates land use zoning boundaries.

Acoustic Engineer, Mountain Home Solar 1, LLC, Mountain Home Solar Project, ID

Ms. Pellerin completed an acoustic modeling analysis and compliance assessment for the Mountain Home Solar Project in Elmore County, Idaho. The Project is a ground-mounted single axis tracking photovoltaic system, with a nominal capacity of up to 20 megawatt alternating current. Elmore County Zoning specifies noise requirements so the model analyzed the interconnect and pad-mounted transformers as well as the inverters and motors. Compliance was assessed relative to the requirements and the results were presented in a technical memo.

Acoustic Engineer, NextEra Energy Resources McCoy Solar Energy Project, CA

An acoustic assessment was completed for the McCoy Solar Energy Project, which consists of the plant itself (solar field, substations) and linear facilities, an 11-mile 230-kV transmission line and associated switchyard. Project construction and operational noise emissions were analyzed and compliance was assessed relative to the Riverside County Noise Ordinance.

Acoustic Engineer, Beautiful Earth Group LLC Del Sur Solar Project, CA

The Project, located in Lancaster, CA would consist of two 19-MW solar energy generation facilities that

employ photovoltaic modules to convert sunlight directly into electrical energy; no heat transfer fluid or cooling water is used. Other facilities include an electrical collection system and inverter system, two substations and a transmission line. Tetra Tech addressed the City of Lancaster's development guidelines by conducting an acoustic modeling analysis of Project construction and operation. Construction noise mitigation measures were recommended and a noise complaint procedure was devised.

Acoustic Engineer, Silverado Power, Various Solar Facilities, CA

Tetra Tech supported Silverado Power in the permitting of several solar facilities in California including the Antelope Solar Greenworks Solar Generating Facility, North Lancaster Ranch Solar Generating Facility, Western Antelope Blue Sky Ranch Solar Generating Facility, American Solar Greenworks Solar Generating Facility, Silver Sun Greenworks Solar Generating Facility, and the Lancaster WAD Solar Generating Facility. For each facility comprehensive acoustic analyses were conducted in accordance with CEQA as well as requirements at the county and local levels. CadnaA was used to calculate received sound levels at nearby noise sensitive receptors and construction was also analyzed in a more qualitative fashion. Vibration levels were also assessed and the need for noise mitigation was reviewed.

Acoustic Engineer, National Grid, New York Energy Solution, NY

National Grid is proposed to construct the New York Energy Solution Project, which consists of a 345-kV transmission line and several substations and switching stations. The Project would traverse eight counties and 31 towns between Utica and Poughkeepsie. The most restrictive and controlling requirements are those prescribed by the New York State Department of Environmental Conservation. Baseline sound data were collected in the vicinity of the proposed substations and switching stations. In addition, an assessment of construction and operational noise was conducted. More detailed modeling was completed using CadnaA for the substations and switching stations, analyzing different potential cooling methods. Noise mitigation options were also investigated and applied, as necessary, to comply with the applicable requirements. Results of the analysis were compiled in the Article VII application submitted to the New York Department of Public Service.

Acoustic Engineer, Rochester Gas and Electric Corporation, Rochester Area Reliability Project, NY

The Rochester Area Reliability Project consisted of 345 and 115 Kilovolt transmission lines, improvements to three existing substations, and construction of one new 345 kV/115kV substation (Station 255) in Monroe County. Ms. Pellerin was involved with conducting the acoustic analysis in support of the Project's Article VII application. Both construction and operation were analyzed and modeled and Project compliance was assessed against local requirements and the New York State Department of Environmental Conservation noise guidelines issued under the State Environmental Quality Review Act.

Acoustic Engineer, Dominion Transmission Inc., New Market Project, NY.

Dominion Transmission, Inc. is seeking authorization from the Federal Energy Regulatory Commission (FERC) pursuant to Section 7(c) of the Natural Gas Act to construct and operate the proposed New Market Project. The Project consists of two new compressor station facilities and changes to four existing gas transmission facilities in Chemung, Tompkins, Madison, Herkimer, Montgomery and Schenectady Counties, New York. Ms. Pellerin was involved in the preparation of the Resource Report 9 acoustic analysis, which is a filing requirement under FERC. Noise generated by the proposed Project including that from construction and operation were analyzed and potential impacts to noise sensitive areas were assessed with respect to FERC noise criteria and applicable requirements at the state and local levels.

Acoustic Engineer, Liberty Natural Gas, LLC, Port Ambrose Deepwater Port Third-Party EIS, NY.

Supporting the third-party EIS prepared as part of an environmental review of the Port Ambrose Deepwater Port license application. The project involves an offshore natural gas deepwater port facility that would be located in the New York Bight and would consist of two submerged turret loading buoys located in federal waters 17 nautical miles southeast of Jones Beach, New York and 24 nautical miles east of Long Branch, New Jersey. Responsibilities included reviewing in-air and underwater acoustic analyses conducted and preparing data requests, as necessary. Ms. Pellerin also helped to draft the noise-related EIS sections.

EXPERIENCE SUMMARY

Mr. Peltier meets the Secretary of Interior qualifications for consulting archaeologist and architectural historian. He is a Registered Professional Archaeologist and is fully qualified to conduct Phase I-III review and compliance/contracting projects, reporting, and site monitoring for local, state, and Federal agencies and industrial and commercial businesses. He has served as Project Manager/Principal Investigator on numerous archaeological investigations, either for NHPA Section 106 historic preservation compliance, NEPA, or conducting academic research and has authored numerous cultural resource reports. Mr. Peltier has also served as Principal Investigator for numerous historic resources studies, involving architectural and historic property inventory evaluations, viewshed analysis, NRHP eligibility assessments, and HABS/HAER recordation. With over 19 years of experience performing cultural resources studies throughout the Northeast, Great Lakes, and Southern Plains, Mr. Peltier's research interests and specialties include Iroquoian studies, pre-contact settlement patterning and subsistence studies, and early 19th century Mennonite architecture and settlement patterning throughout western New York.

RELEVANT EXPERIENCE

Proposed Dryden Road Solar Photovoltaic Plant Project, SUN8 PDC LLC. Principal Investigator for cultural resource survey (Phase I) and historic sites inventory for a for a proposed 157-acre solar facility development, in the Town of Dryden, Tompkins County, NY. Cultural resources assessment included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

Proposed Ellis Tract Solar Photovoltaic Plant Project, SUN8 PDC LLC. Principal Investigator for cultural resource survey (Phase I) and historic sites inventory for a for a proposed 168-acre solar facility development, in the Town of Dryden, Tompkins County, NY. Cultural resources assessment included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

Bellisario Solar Photovoltaic Plant Project, SUN8 PDC LLC. Principal Investigator for cultural resource survey (Phase I) and historic sites inventory for a for a proposed 200-acre solar facility development, in the Town of Lapeer, Cortland County, NY. Cultural resources assessment included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

Multiple Proposed Solar Photovoltaic Plant Projects, ForeFront Power, LLC. Principal Investigator for cultural resource surveys (Phase I) and historic sites inventories for multiple ForeFront solar facilities across western and central NY. Cultural resources assessment included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

EDUCATION

M.A., Historic Preservation,
Goucher College, Towson, MD

B.A., Anthropology/Archaeology
(minor American Studies), State
University of New York, Buffalo,
NY

AREA OF EXPERTISE

Archaeology
Historic Preservation
Architectural History

REGISTRATIONS/ AFFILIATIONS

Register of Professional
Archaeologists

TRAINING/CERTIFICATIONS

40 hour HAZWOPER

10 hour OSHA Construction

Section 106/NEPA Compliance
Training

Business of CRM, Contracting and
Project Management

Health & Safety for CRM
Professionals

OFFICE

Buffalo, New York

YEARS OF EXPERIENCE

22 years CRM

YEARS WITHIN FIRM

Tetra Tech start date: 2013

CONTACT

rob.peltier@tetratech.com

716-541-9226 (office)

716-510-9115 (cell)

FCC Communications Tower Project, Chevron. Principal Investigator for cultural resource survey, including archaeological assessment and historic property evaluation and sites inventory for two proposed FCC communication towers – HHTX Russel Trust Tower (Loving County, TX) and Loving Tower (Eddy County, NM). Cultural resources assessment included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, and historic properties evaluations. Consulted and coordinated with the FCC, TX and NM SHPO, and Tribal Historic Preservation Office involvement.

Pennsylvania Pipeline Project and Ohio Pipeline Project, Sunoco Logistics, L.P. Cultural Resources Project Manager for 54-mile and 306-mile natural gas liquids pipelines from Scio, Harrison County, OH to Houston, Washington County, PA and from Houston, PA to Sunoco Logistics, L.P. Marcus Hook facility in Delaware County, Pennsylvania. Served as Co-Principal Investigator of a multi-disciplinary team of cultural resource specialists included archaeologists, architectural historians, anthropologists, and geomorphologists.

Lockridge Extension 30-inch Pipeline Project, Natural Gas Pipeline Company of America, LLC. Principal Investigator for 20.6 miles of pipeline looping and associated above ground facilities in Reeves, Ward, and Pecos Counties, Texas. Project involved cultural resources assessment, Resource Report No. 4 and FERC filing. Cultural resources assessments included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, and the processing and analysis of prehistoric and historic artifacts. The Project also involved a historic properties evaluation and viewshed analysis.

Sweden Valley FERC Filing Project, Dominion Transmission, Inc. Authored Resource Report 6 (Geological Resources) for the Sweden Valley Federal Energy Regulatory Commission (FERC) 7 (c) Filing Project. The Project was located in Ohio and Pennsylvania with multiple pieces of pipeline and associated facility work. The Project consisted of the placement of new pipeline and upgrades at existing facilities.

Orion Extension 36-inch Pipeline Project, Kinder Morgan. Principal Investigator for 12.93 miles of pipeline looping and modifications to three compressor stations in Wayne and Pike Counties, Pennsylvania. Project involved cultural resources assessment, Resource Report No. 4 and FERC filing. Cultural resources assessments included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, and the processing and analysis of prehistoric and historic artifacts. The Project also involved a historic properties evaluation and viewshed analysis.

Susquehanna West 36-inch Pipeline Project, Kinder Morgan. Principal Investigator for 8.1 miles of pipeline looping and modifications to three compressor stations in Bradford and Tioga Counties, Pennsylvania. Project involved cultural resources assessment, Resource Report No. 4 and FERC filing. Cultural resources assessments included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, and the processing and analysis of prehistoric and historic artifacts. The Project also involved a historic properties evaluation and viewshed analysis.

Northern Access 2016 24-inch Pipeline Project, National Fuel Gas Supply Corporation. Co-Principal Investigator for 96 miles of pipeline looping and associated above ground facilities in Niagara, Erie, Cattaraugus, and Allegany Counties, New York and McKeon County, Pennsylvania. Project involved cultural resources assessment, Resource Report No. 4 and FERC filing. Cultural resources assessments included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, and the processing and analysis of prehistoric and historic artifacts. The Project also involved a historic properties evaluation and viewshed analysis.

Archaeological Resource Investigations for 3100 Clinton Road Development, West Seneca, NY. Principal Investigator for Phase I, II, and III archaeological investigations for a proposed 54-acre commercial development. Project includes Phase II archaeological site evaluations and Phase III archaeological mitigation at the Precontact Rosina Site, Town of West Seneca, Erie County, NY. Consulted and coordinated with the NYS OPRHP, NYSDEC, the USACE-Buffalo, and Tribal Historic Preservation Office involvement.

Archaeological Monitoring for the Navy Operational Support Center Site Circulation and Parking Improvements Project (Buffalo) – NAVFAC-Mid Atlantic PWD-Maine. Principal Investigator for trenching and construction monitoring for site improvement project, City of Buffalo, Erie County, NY. Cultural resources investigation included archival research on previous land use, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various

agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

Historic Architectural Impact and Viewshed Assessments, Verizon Wireless. Principal Investigator for several dozen Verizon Wireless collocation facilities throughout the New York metropolitan area, including the Boroughs of Manhattan, Queens, Brooklyn, Staten Island, and the Bronx. Historic Architectural Impact and Viewshed Assessments included a reconnaissance survey (visual assessment, site walkover, and photodocumentation), background research, and historic architectural site file searches. The studies were carried out in accordance with cultural resource management practices as required on the Federal and State level and in accordance with the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas executed by the FCC, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation (2004).

Archaeological Resource Investigations for the Dive Culvert Rehabilitation Project, Lockport, NY, NYS Canal Corporation. Principal Investigator for archaeological investigations for a proposed culvert rehabilitation project along the NRHP-listed Erie Canal. Project included overall cultural resource assessment, archaeological sensitivity assessment, archival research on previous land use in the form of written and oral histories, aerial photographs, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, and historic properties viewshed evaluation. Consulted and coordinated with the NYS Canal Corporation and the NYS OPRHP.

FERC, South Texas Expansion Project and Pomelo Connector Pipeline Project – TX. Authored cultural resource documentation associated with preparation of FERC EA combining two proposed projects involving construction of two new compressor stations, additional compression and upgrades at four existing compressor stations, and approximately 14 miles of new 30-inch diameter pipeline in five counties in Texas.

Soil Restoration Project, Former Coast Guard Station (V-65), National Aeronautics and Space Administration, Goddard Space Flight Center, Wallops Flight Facility, Wallops Island, Virginia. Provided onsite archaeological monitoring during all excavation activities associated with the removal and restoration of lead contaminated soils at the former Coast Guard Station (V-65). Project included overall cultural resource assessment, archaeological sensitivity assessment, archival research on previous land use in the form of written and oral histories, aerial photographs, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, and the processing and analysis of prehistoric and historic artifacts.

Proposed Veterans Affairs Western New York National Cemetery Expansion Project. Principal Investigator for cultural resource survey (Phase I) and historic sites inventory for a proposed 132-acre expansion to the VA cemetery development, in the Town of Pembroke, Genesee County, NY. Cultural resources assessments included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations. Consulted and coordinated Tribal Historic Preservation Office involvement.

Cultural Resource Investigations for the New York State Thruway Authority Reconstruction Project, NY. Project Manager/Principal Investigator for cultural resource survey (Phase I), historic sites inventory, and compliance documentation for the New York State Thruway Authority Reconstruction Project of MP 378.20 to MP 393.70 in the Towns of Batavia, Stafford, and LeRoy, Genesee County, NY. Cultural resources investigation included archival research on previous land use in the form of written and oral histories, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

Cultural Resource Investigations for Sections Along the Erie Canal - USACOE. Project Manager/Principal Investigator for cultural resource investigation (Phase I) and historic sites inventory for a municipal development project adjacent to the following Central NY sections of the Erie Canal: Galen (Village of Galen, Wayne County); Lyons (Town of Lyons, Wayne County); Clyde (Town of Clyde, Wayne County); and Macedon (Town of Macedon, Wayne County).

Cultural Resource Investigations for the Peace Bridge Plaza Construction Project (Buffalo) - USACOE. Project Manager/Principal Investigator for cultural resource investigation (Phase IB), historic sites inventory, trenching and construction monitoring for bridge plaza expansion project, City of Buffalo, Erie County, NY. Cultural resources investigation included archival research on previous land use, aerial photographs, property tax files, USGS topographic maps, historic maps and the archives and records at various agencies and depositories, surface and subsurface archaeological investigations, the processing and analysis of prehistoric and historic artifacts, and historic properties evaluations.

National Register of Historic Places Nomination – Batavia Veterans Affairs Medical Center, Batavia, NY. Cultural Resource Investigations for National Register of Historic Places Nominations for the Batavia Veterans Affairs Medical Center, City of Batavia, Genesee County, NY.

Experience Summary

Ms. Rivard is a biologist with over 19 years of experience in biological research, environmental permitting, and preparing various environmental compliance documents, including National Environmental Policy Act documentation and Integrated Natural Resources Management Plans (INRMPs). She also is a veteran of the United States Air Force, with four years of military experience in the Pacific in support of the 18th Fighter Wing in Okinawa, Japan, and serving during the Gulf War. She has experience working with public and private clients, governmental agencies, and non-profit organizations. She has been the field team leader for several projects involving collection of water quality and benthic macroinvertebrate samples, documentation of physical habitat data, and collection of terrestrial invertebrates. The application and interpretation of data analysis methods, and comprehensive reporting have been part of her responsibilities in support of biological projects. Ms. Rivard has strong writing and data analysis skills, which allow her to participate in the preparation of many different types of biological, natural resources, and environmental compliance reports and planning documentation. Ms. Rivard has managed a variety of projects, from small-scale to large, multi-year projects.

Education

BS, Marine and Freshwater Biology, University of New Hampshire, 2000

Training

Basic and Advanced Erosion Control Practices; Maine Department of Environmental Protection
Biological and Habitat Assessment for Water Resource Professionals
Biological Assessment Training; Maine Department of Transportation
Erosion and Sediment Control Practices
Introduction to the California Environmental Quality Act
Spider Identification; Maine Entomological Society
Stream Smart Workshop; Maine Audubon

Representative Experience

Confidential Client, Solar Projects, CT and ME

Assisting with permitting support, reporting, and administrative tasks associated with seven solar projects planned for development in Connecticut and Maine. Project manager support is being provided to ensure the fast-paced schedule for securing the Connecticut Siting Council Application and Maine Site Location of Development Act permits are met, including oversight and management of subcontractors that are providing civil engineering, cultural resources, acoustic study, visual impact assessment, stormwater planning, public outreach, and transmission interconnection design services. Technical services being provided by Tetra Tech include wetland delineation, vernal pool, and bat acoustic surveys, as well preparation of an environmental site conditions report and rare and listed species habitat assessments.

U.S. Army Garrison, Environmental Assessments (EAs), West Point, NY

Responsible for preparation of several EAs for development projects located at the United States Army Garrison at West Point (West Point), New York. Projects included construction of the Stony Lonesome housing development, privatization of Army lodging program, construction of a new Cadet barracks building, and the South Post Upgrades project (includes construction/renovation of the West Point Visitors Center, renovation of the West Point Museum, and demolition of the Five Star Inn and construction of a new hotel). These EAs analyzed the environmental impacts of the projects in accordance with National Environmental Policy Act (NEPA) requirements and included preparation of visual assessments to analyze each projects impact on the West Point, Hudson River, and Hudson

Highlands viewsheds. Particular assessment of impacts to cultural and historical resources was required for each project, due to the project location within or proximity to the West Point National Historic Landmark District, which contains many National Register eligible and listed properties and landscapes. Coordination to complete the public review of these documents and preparation of a Finding of No Significant Impact also was required for each of the EAs. EAs prepared for West Point were often fast-tracked.

Rochester Technology Park Ecological Assessment, Gates, NY

Project manager for an ecological assessment conducted in a stormwater retention pond located at an industrial park located in Gates, NY. Field sampling of the stormwater retention pond included collection of fish and fish tissue, benthic macroinvertebrates, and sediment samples for laboratory analysis. Goal of the study was to determine human health risks associated with fish consumption, contaminant levels within fish and sediment, and characterization of the fish and benthic communities. Results of the contaminant analysis performed by the analytical laboratory was tabulated, analyzed, and summarized in a data and documentation report, which analyzed contaminant results against established fish and sediment contaminant criteria, and human health risk criteria.

U.S. Army Corps of Engineers (USACE), New York District, Environmental Impact Statement (EIS) for the Mamaroneck and Sheldrake Rivers Flood Risk Management Project

Responsible for preparing several sections of the Mamaroneck and Sheldrake Flood Risk Management EIS, including assisting with development of the Description of Proposed Action and Alternatives and administrative record, and writing the existing conditions and analysis sections for water resources, fish and wildlife, and coastal zone management resources. The project, located in the Village of Mamaroneck, Westchester County, New York, is intended to implement various flood damage reduction measures in an effort to improve flood and storm protection for the Village, and reduce the hazard caused by repetitive flooding in this highly developed area. This EIS evaluated the potential environmental impacts associated with the project in accordance with NEPA requirements.

Maine Army National Guard (MEARNG), INRMP, EA

Project manager for preparation of the INRMP and EA prepared for the MEARNG Auburn Facility. The INRMP was prepared as a requirement of the Sikes Act (16 United States Code § 670a et seq) and Army Regulation 200-3, and was designed to provide natural resources managers with recommendations for management of natural resources located at the facility, including maintaining, restoring, and protecting natural resources, and protection and management of federally listed threatened and endangered species. In conjunction with the INRMP, an EA was also prepared as a companion document to the INRMP to satisfy NEPA requirements.

Invenergy, Hardin Wind Project Biological Surveys, Hardin County, OH

Deputy project manager for overseeing completion of five biological surveys for the Hardin Wind Project located in Hardin County, Ohio. Coordinated with field teams for completion of five surveys, including a wetland delineation, rare plant survey, freshwater mussel survey, habitat assessment, and a raptor nest survey. Assisted project manager with all elements of the project including subcontracting, coordination of field teams and schedules, budget tracking, and reporting.

U.S. Department of the Navy Maine Installations Biological Survey Work and Plans, ME

Project manager for overseeing various biological survey work and plan development for three Navy installations located in Maine, including Naval Computer and Telecommunications Area Master Station Atlantic Detachment (NCTAMSLANT DET) Cutler, Great Pond Outdoor Adventure Center, and Survival, Evasion, Resistance and Escape School. Biological survey work and reporting includes completion of fish surveys, forest inventories, invertebrate surveys, deer population and habitat surveys,

invasive species surveys, erosion control surveys, high elevation bird surveys. This project also included establishment of a long-term Monitoring Avian Productivity and Survivorship station at NCTAMSLANT DET Cutler, and completion of 5 years of summer surveys was initiated in 2015 and is ongoing. Development of a fire management plan also was prepared for NCTAMSLANT DET Cutler. Responsible for coordinating survey schedules and access requirements, project tracking and budgets, and assisting with the survey and reporting work.

Vernal Pool and Invertebrate Survey, Spruce Mountain and Saddleback Mountain Wind Projects, Patriot Renewables, Inc., ME

Participated as part of the field team that conducted vernal pool field surveys at two proposed wind farm sites. Potential vernal pools were surveyed for the presence of vernal pool faunal species, including amphibian and reptiles, to determine if the pools met the criteria of significant habitat based on Chapter 335 Significant Wildlife Habitat of the State of Maine's Natural Resources Protection Act. Focused stream surveys also were performed to identify the presence of the Roaring Brook mayfly (*Epeorus frisonii*), a globally rare and Maine endangered species. Field surveys for the mayfly included site reconnaissance to identify suitable habitat and sampling locations, field sampling to determine presence within suitable habitat, data processing, and report generation. Training on the mayfly field sampling protocol was provided by Maine Department of Inland Fisheries and Wildlife, including hands-on field training and assistance provided by an expert mayfly entomologist recommended by Maine Department of Inland Fisheries and Wildlife.

MEARNG, Hollis Training Site Invertebrate Survey, Hollis, ME

Project manager for overseeing completion of a terrestrial invertebrate survey of the MEARNG Hollis Training Site located in Hollis, Maine. The terrestrial survey targeted collection of rare butterfly and moth species that could potentially occur within the pitch-pine barren habitat located at the site. Handled all elements of the project including management, subcontracting, assisting with field efforts, budget tracking and reporting.

Maine Department of Transportation, Biological Assessments and Surveys, Various Projects, ME

Project manager and assistant scientist for preparation of biological assessments and completion of biological surveys for various Maine Department of Transportation projects, including bridge work and road improvement projects. Survey work includes habitat assessments for northern long-eared bat and Atlantic salmon, and vernal pool, stream, and wetland surveys.

USACE, New York District, Peckman River Flood Control Project, Baseline Benthic Macroinvertebrate and Habitat Characterization, Essex County, NJ

Field team biologist for a comprehensive stream survey that involved collection of benthic macroinvertebrates and physical habitat information using the U.S. Environmental Protection Agency Rapid Bioassessment Protocol for Streams and Wadeable Rivers. Two reaches of the Peckman River were surveyed, including one reference reach and a project reach. Collected data were analyzed in a summary report, which were used to establish baseline information for proposed construction of flood-control measures within the study area.

USACE, New York District, Stream Habitat Assessment for the Mamaroneck and Sheldrake Rivers Flood Risk Management Project, NY

Field team biologist for a comprehensive stream survey conducted in support of a proposed USACE, New York District flood damage reduction measures project. Conducted benthic macro-invertebrate sampling, finfish sampling, and habitat assessments along three sub-reaches of the Mamaroneck and Sheldrake rivers. Sampling and assessment techniques followed the U.S. Environmental Protection Agency's Rapid Bioassessment Protocol for Streams and Wadeable Rivers.

Sanford Vernal Pool Survey, Sanford, ME

Assisted with vernal pool field surveys on an approximately 1,200-acre property in Sanford, Maine in support of potential development for a confidential client. Survey work included identification of potential vernal pool habitats in accordance with Chapter 335 of the Maine Natural Resources Protection Act, and identification of vernal pool fauna and egg masses. Global positioning system and photographic data also were collected.

Salt Marsh Restoration Projects, Scarborough Marsh, Scarborough, ME

Participated in field and reporting activities for the post-restoration portion of the Mill Brook, Cascade Brook, and Nonesuch River Salt Marsh Restoration projects located within Scarborough Marsh, Scarborough, Maine. Field requirements involved set up of water level transducers at established water monitoring stations located within restored areas of the salt marsh, mosquito dip net sampling, nekton sampling, and photographic documentation. Periodic downloads of water level data in the field was performed, along with collection of water quality data at established water monitoring stations. Data and reporting requirements included creation of data tables for presentation of collected field data, development of yearly or multi-year summary reports, and presentation of data at a local water conference.

USACE, New England District, Draft Quality Assurance Project Plan (QAPP)

Assisted in preparation of the Draft QAPP for water quality sampling in association with the Upper Merrimack River Assessment Study. The Draft QAPP specified field, laboratory, and quality assurance procedures, and was developed to be consistent with the established Field Sampling Program. The QAPP was developed as a standalone document for use by other contractors or governmental agencies to conduct the water quality sampling program and identified requirements for laboratory analysis of collected water samples.

NextEra, Due Diligence for Various Wind Projects

Assisted with a due diligence review of over 40 wind projects located throughout the U.S., for which NextEra was interested in purchasing. Due diligence review included review of existing documents, maps and reports to identify project issues that could impact receipt of required permits and approvals needed for two wind projects located in Oklahoma and Texas. Review and research of federal, state, and local permits and approvals was required, as well as application of ratings for permitting, biological, cultural, NEPA, stakeholder, and other categories of interest identified by NextEra. Cost estimates also were required for outstanding issues identified for each project. The due diligence review required frequent internal discussions and coordination, which allowed us to meet the very short timeline identified by NextEra for completion of the project reviews.

U.S. Geological Survey, Global Change Research Project, Three Rivers, CA

Field work involved data collection in support of a demography study investigating the effects of global change, natural and prescribed fire, and air pollution on the native tree species of the Sierra Nevada. Visited tagged trees in predetermined plots located in Sequoia and Yosemite National Parks to analyze trees for health, physical damage, and disease. Conducted mortality evaluations on trees that had died within the past year, and collected seedling and recruitment data. Use of maps and setup of transect plots, and use of handheld data collection equipment required. Worked, hiked, and backpacked in inclement weather and rough terrain.

Joshua Berkow, PE

Personal summary

Education:

MS, Electrical Engineering,
State University of New York
at Buffalo, 2008

BS, Electrical Engineering,
State University of New York
at Buffalo, 2005

Registrations:

Professional Engineer:

AL #37300, 2018
CO #PE.0053527, 2017
NY #089635, 2011
IL #062069933, 2017
MI #6201066568, 2017
VA #0402058866, 2018
OR #92984PE, 2017

Professional memberships:

Member of Institute of
Electrical and Electronic
Engineers (IEEE)

Member IEEE Substations
Committee, D8 Working
Group, IEEE Standard 1267

Key skills:

Electrical Design, Physical
Design, Design Review,
Project Management,
Specifications, Cost
Estimation, Independent
Engineering, Power System
Planning, Battery Storage
System Selection.

Years in practice:

11

Mr. Berkow is an experienced power engineering professional specializing in solar energy, wind energy, energy storage, and substations in the US and internationally. He has worked for independent power producers, utility consultants, and research laboratories. He has experience in the planning, development, engineering, procurement, project management, cost estimation, and construction of wind plants, PV plants, battery storage systems, substations, and transmission lines.

Employment history

2018 - Present	Mott MacDonald
2016 - 2018	RINA Consulting
2012 - 2016	HDR
2011 - 2011	SunEdison
2007 - 2011	BQ Energy / Apex Clean Energy / Axio Power

Selected projects

Apex Clean Energy, Miscellaneous Projects, USA: Engineer responsible for the preparation of interconnection applications, single line diagrams, power flow modelling data, and a PSSE power flow models of wind and solar power plants for submittal to ERCOT, NYISO, PJM, and MISO.

Apex Clean Energy, Galloo Island Wind Farm, NY: Engineer responsible for managing the reactive power study, review of the geophysical survey, and creation of cable procurement specifications for a 30km submarine cable.

Apex Clean Energy, Phantom Solar Project, TX: Engineer responsible for the design review of the interconnection of a solar project to an existing 12.47kV substation in Texas.

APL Renewables, Miscellaneous Projects, USA: Engineer responsible for the preparation of interconnection applications, single line diagrams, power flow modelling data, and a PSSE power flow models of wind and solar power plants for submittal to NV Energy and TVA.

Atlas Renewable Energy, Guajiro Solar Project, Mexico: Engineer responsible for the owner's engineering review of the interconnection works for a 100MWac solar power plant in Mexico. The project included a 230-34.5kV substation 12 miles of overhead 230kV line and 1 mile of underground 230kV line.

Beon Energy Solutions, Karadoc Solar Farm (BayWa), Australia: Project Manager and Engineer responsible for the plant and DC electrical design of a 90MWac solar power plant in Victoria, Australia.

Brookfield, Terraform Power Acquisition, USA/Canada/LATAM: Engineer responsible for the on-site facility inspections, interconnection document review, and equipment warranty reviews for the acquisition of a portfolio of 540MW of solar projects in multiple states in the US, Canada, and Latin America. Mr. Berkow's review focused on projects in California, Chile, and Ontario.

Brookfield, Virginia Portfolio, VA: Engineer responsible for site plan development, interconnection scoping, and negotiation of interconnection works for two (2) 60MW solar projects in Virginia.

Brookfield, New York Hydro Electric & Solar Co-Location Analysis, NY: Engineer responsible for evaluating available interconnection capacity, interconnection cost, and connection feasibility to existing facilities for a portfolio of solar projects in NY. The projects were to be co-located and connected behind the meter at existing hydro-electric power plants.

Brookfield, Coremas Solar Project, Brazil: Engineer responsible for quality control of a technical advisory report on the financing of 210MW of solar projects in Brazil. Mr. Berkow focused on the interconnection works for the first 60MW of the projects, and the arrangements

needed to energize the remaining 150MW. Mr. Berkow also assisted the team in modelling the energy production from the facilities.

Brookfield, Confidential Solar Project, NY: Engineer responsible for evaluating available interconnection capacity, interconnection cost, and connection feasibility for a 5MW proposed solar project in the North Country of New York State.

Carolina Solar Energy, Powell's Creek & Sunnybrook Solar Projects, VA: Engineer responsible for preparing decommissioning cost estimates for a 70MW and 51MW solar project in Virginia. The estimate included the cost of decommissioning the associated substations, and the salvage value of all materials.

Corporacion Interamericana para el Financiamiento de Infraestructura (CIFI), Fray Lazaro Solar Project, Honduras: Engineer responsible for a technical advisory review of the interconnection on the financing of a 50MW solar project in Honduras. The review included the interconnection works, interconnection agreement, and operational requirements from CRIE and ENEE.

Cypress Creek Renewables, Decommissioning Estimates, USA: Engineer responsible for preparing decommissioning cost estimates for solar projects from 2 – 100MW in CO, IL, MD, NY, SC, and TX. The estimates >10MW included the cost of decommissioning the associated substations.

Cypress Creek Renewables, Michigan Portfolio, MI: Engineer responsible for preparing interconnection requests to Consumers Energy and DTE for a portfolio of 86 solar projects from 2 – 10MW in Michigan. The deliverables included single line diagrams, impedance calculations, site plans, and completed applications.

Edify Energy, Gannawarra ESS Grid Connection, Australia: Engineer responsible for independent technical review of the grid connection contract, grid connection works, and operational requirements for a 25MW/50MWh energy storage system using Tesla Powerpacks in Victoria, Australia. The system was co-located with a solar power plant but operated separately. The structure of the grid connection contract and allocation of responsibilities was unique for Australia due to the differing ownership and operational requirements of the co-located facilities.

Epuron, Clermont Solar Farm Grid Connection, Australia: Engineer responsible for independent technical review of the grid connection for the financing of a 75MW solar project in Queensland, Australia. The engineer identified and assisted the owner in characterizing reliability constraints which could impact the project.

ESCO Pacific, Childers Solar Farm Grid Connection, Australia: Engineer responsible for independent technical review of the grid connection for the financing of a 67.5MW solar project in Queensland, Australia.

ESCO Pacific, Rollingstone Solar Farm Technology Review, Australia: Engineer responsible for the independent technical review of code compliance of the SunPower Oasis 3 system for use on a 100MW solar project in Queensland, Australia.

Fauji Foundation, FWEL Solar Feasibility Study, Pakistan: Engineer responsible for the interconnection feasibility review of a two (2) 50MW solar projects co-located with existing wind farms in Sindh, Pakistan.

Flamma Corporation, HVDC Transmission Line RFP Support, Mexico: Engineer responsible review of vendor submittals to ensure compliance with RFP requirements for a proposed 600km HVDC transmission line from Mexicali, Baja California, Mexico to Hermosillo, Sonora, Mexico. Mr. Berkow reviewed technical submittals related to the HVDC converter stations and the transmission line, to assist the owner in preparing a response to the RFP for the project. The system was a 1000MW bipolar HVDC system. Mr. Berkow also prepared an O&M specification and O&M work description for the proposed project.

Galehead Renewable Energy, Washington Portfolio, WA: Engineer responsible for preparing generic interconnection documents that could be used on multiple projects in Pacificorp territory.

Gauss Energia, Aura 1 Solar Project, Mexico: Engineer responsible for the specification and design of a 3MW expansion of an existing solar energy project in Baja California Sur, Mexico. The design included string inverters spread through the array, and integration into the medium

voltage collection system of the existing 30MW plant. Special attention was paid to thermal constraints to limit derating of the equipment.

Gauss Energia, Aura 3 Solar Project, Mexico: Engineer responsible for the owner's engineer review of the grid connection works for a 30MW solar project in Baja California Sur, Mexico. The grid connection works included a substation, transmission line, and SCADA integration into the control center at a nearby solar project.

Gestamp, Copperton Wind Farm, South Africa: Engineer responsible for the owners engineer review of the grid connection studies, grid connection works, and grid operational requirements for a 102MW wind energy project in Northern Cape, South Africa. The engineer identified and assisted the owner in rectifying several grid compliance deficiencies in the EPC contractor's scope of work.

Confidential Client, Solar + Storage FEED, Guam: Engineer responsible for the front-end engineering for a 30MW solar and energy storage project in Guam. The Client requested engineering services to assist with their response to an RFP from the Guam Power Authority. Mr. Berkow prepared preliminary plant designs, managed a team to perform yield estimates, and performed preliminary battery size optimization.

Greentale Capital, Hernandaris Solar Project, Paraguay: Engineer responsible for the grid connection review and transmission capacity review for a proposed 800MW solar project in Alto Parana, Paraguay. The location of the project allowed for transmission into Brazil or Paraguay. Transmission capacity estimates were required for both jurisdictions.

The Energy Foundation, Michigan Grid Study, MI: Engineer responsible for a transmission planning study in Michigan. The Client sought to evaluate importing up to 1.5GW of energy into Michigan by converting the existing MISO-IESO phase angle regulators at one site in Michigan to a HVDC interface. Mr. Berkow managed the studies team, and provided preliminary arrangements and cost estimates for the HVDC interface. The goal was to determine whether this option would be less expensive than installing new gas generation capacity in Michigan. Results were submitted as testimony to the Michigan PSC in a rate case.

Hexagon Energy, Decommissioning Estimates, VA: Engineer responsible for preparing decommissioning cost estimates for a 16MW and 80MW solar project in Virginia. The estimate included the cost of decommissioning the associated substations, and the salvage value of all materials.

Island Green Power, California Portfolio, CA: Engineer responsible for reviewing the interconnection studies for a 250MW and a 60MW solar project in Corning and Desert Hot Springs, California respectively. Mr. Berkow provided a detailed assessment of the study results, risks associated, and potential future costs. This was used as an input into the Client's future development decisions on the project.

Jabil Energy, Mariental, Kokerbook, and NCF Solar Projects, Namibia: Engineer responsible for an independent evaluation of DC cable ampacity at three solar projects in Namibia. Concerns had been raised about the calculation methods for the DC cables and whether they complied with the correct SABS and IEC standards. In question were both the soil characteristics (Thermal resistivity and moisture content) and the use of cyclic uprating.

Confidential Client, Ohio Solar Portfolio, OH: Engineer responsible for preparation of interconnection capacity assessments, interconnection requests, interconnection cost estimates, PSSE model validation, and study reviews for a portfolio of solar PV projects totaling 400MW connected to PJM in Ohio. As part of the study review, Mr. Berkow also performed what-if analysis to estimate the impact of changes in the queue on required upgrades and cost allocations. Mr. Berkow also lead the engineering site development.

Confidential Client, Alabama Solar Portfolio, AL: Engineer responsible for preparation of interconnection capacity assessments, interconnection requests, interconnection cost estimates, PSSE model validation, and study reviews for a portfolio of multiple 80MW of solar PV projects connected to the Southern Company system. Mr. Berkow also lead the engineering site development.

Confidential Client, New York Solar Portfolio, NY: Engineer responsible for preparation of interconnection capacity assessments, interconnection requests, interconnection cost estimates, PSSE model validation, and study reviews for a portfolio of eight (8) solar and one (1) wind project connected to the NYISO system (NYSEG, National Grid). Mr. Berkow also lead

the engineering site development for the projects and the NYPSC Article 10 engineering for two (2) of the PV projects.

Confidential Client , Solar + Storage RFP Support, Trinidad: Engineer responsible for preparation of technical requirements, system sizing, and cost estimation for a proposed 50MW solar co-located with energy storage system in Trinidad.

Metka, Fray Lazaro Solar Project, Honduras: Engineer responsible for a technical advisory review of the interconnection on the financing of a 50MW solar project in Honduras. The review included the interconnection works, interconnection agreement, and operational requirements from CRIE and ENEE.

Natixis, Colidim and Jolipark Solar Projects, Chile: Engineer responsible for review of the interconnection works, interconnection agreements, and operational restrictions for the financing of a 16MW and a 50MW solar project in Chile.

Neoen, Paradise Park Solar Project, Jamaica: Engineer responsible for preliminary design, detailed design reviews, and interconnection requests for the interconnection works for a 30MW solar project in Jamaica. Mr. Berkow supervised the detailed engineering by the EPC contractor to ensure the European design engineers complied with the requirement for US standards. Mr. Berkow also liaised with Jamaica Public Service on the interconnection requirements and prepared the technical data for performing the system impact studies.

Origis, MS Solar 1 Project, MS: Engineer responsible for review of construction redlines and job books to certify mechanical completion of a 52MW solar project in Mississippi. Mr. Berkow worked with a team of engineers to review drawings and test reports for the civil, structural, and electrical components to ensure construction was completed according to the design requirements.

Origis, FL Solar 3 Project, FL: Engineer responsible for review of construction redlines and job books to certify mechanical completion of a 20MW solar project in Florida. Mr. Berkow worked with a team of engineers to review drawings and test reports for the civil, structural, and electrical components to ensure construction was completed according to the design requirements.

Proparco, Pocri Solar Project: Engineer responsible for independent technical evaluation of the interconnection works, connection contract, and operational restrictions for a 15MW distribution connected solar project in Panama. The review was conducted as part of financing for the project.

Corporacion Interamericana para el Financiamiento de Infraestructura (CIFI), Puerto Sandino Solar Project, Nicaragua: Engineer responsible for independent technical evaluation of the interconnection works, connection contract, and operational restrictions for a 10MW distribution connected solar project in Nicaragua. The review was conducted as part of financing for the project.

Confidential Client, Transmission Injection Study, VA: Engineer responsible for conducting a transmission injection study for a portfolio of proposed PV projects (30MW, 50MW, 78MW, 90MW, and 150MW) in Virginia. Mr. Berkow assisted the client in making assumptions on which prior queued projects proceed, and worked with a team of planners to analyze the impact of the prior queued and proposed projects in the transmission system. Mr. Berkow also analyzed data produced by PJM to estimate network upgrades and cost allocations for the three propose projects which had queue positions.

Confidential Client, Oregon Solar Portfolio, OR: Engineer responsible for producing preliminary technical documentation for interconnection request for a portfolio of fifty (50) 2MW solar projects in Oregon connected to Pacificcorp and Portland General Electric.

Confidential Client, Columbia Solar Portfolio, Columbia: Engineer responsible for independent technical evaluation of the interconnection works, connection contract, and operational restrictions for a portfolio of solar projects in Columbia ranging from 8MW - 100MW connecting to the distribution, subtransmission, and transmission systems. The review was conducted as part of financing for the project. Mr. Berkow reviewed the connection studies, connection contracts, proposed interconnection works, and existing infrastructure. A key area of review related to evaluating system reliability as that area of Columbia had poorer performance than the nation as a whole.

Wirsol, Clermont Solar Project, Australia: Engineer responsible for an owners engineering design review of the interconnection works for a 75 MW solar project in Queensland, Australia.

Mr. Berkow's review included the detailed design, compliance with the generator performance standards, detailed design studies, and connection contracts.

Wirsol, Wemen Solar Project, Australia: Engineer responsible for an owners engineering design review of the interconnection works for an 87.75 MW solar project in Victoria, Australia. Mr. Berkow's review included the detailed design, compliance with the generator performance standards, detailed design studies, and connection contracts.

International Financial Corporation (World Bank), Scaling Solar and Storage: Engineer responsible for scoping, technical approach, and quality control as part of a team to create a standard-offer financing / PPA package for solar + storage projects. The engineer, the team, and IFC worked together to create a package of standard power purchase and financing documents that could be utilized in Sub-Saharan Africa and Central Asia to reduce risks for the offtakers, developers, and financiers. The team solicited input from storage vendors, EPC contractors, financiers and utilities prior to finalizing the program. The program was an expansion of an existing program to finance solar energy in Africa and Asia.

Montana-Dakota Utilities, 115/57kV Ray Junction Substation, ND: Project Engineer responsible for the electrical design and managing the physical, civil, and structural design of a 115kV ring bus and 57kV main-transfer bus. The substation was a greenfield station providing a new source for MDU's 57kV sub- transmission system. Mr. Berkow worked closely with the project manager on the design, procurement, and construction support for this project.

Burke Divide Electric Coop, Ambrose 115/25kV Substation, ND: Project Manager and Lead Engineer responsible for engineering, procurement support, and construction support for a new 115kV line tap and 25kV distribution station with 115kV capacitor banks.

Burke Divide Electric Coop, Hawkeye Substation Rebuild, ND: Project Manager responsible for engineering management, procurement support, and construction support for rebuilding an existing 115/25kV distribution substation. The substation had been damaged and needed to be re-built in a short time frame to support critical loads.

GCL Solar, Multi-MW Solar Farm & Storage, Puerto Rico: Project Engineer responsible for providing Owner's Engineer support to the client. The island location is driving challenging interconnection requirements including voltage regulation, frequency regulation, and ramp rate control which may require the installation of energy storage devices. Mr. Berkow was responsible for interpreting the requirements and finding solutions to meet stringent interconnection requirements. An RFP for multi-MW battery energy storage was written, issued, and evaluated as part of this project.

MidAmerican Energy, EPC Cost Estimation, MVP4 Project: Project Manager and Lead Engineer responsible for developing an engineering, procurement, and construction cost estimate and detailed proposal to MidAmerican for a new substation and transmission line.

Detroit Edison Company, EPC Cost Estimation, Zenon Substation: Project Manager and Lead Engineer responsible for developing an engineering, procurement, and construction cost estimate and detailed proposal to DTE for a new distribution substation.

McKenzie Electric Coop, Killdeer Substation, ND: Project Manager and Lead Engineer responsible for engineering, procurement support, and construction support for a new 115kV main-bus and 25kV distribution station. The project is a greenfield substation designed to fit into the footprint of an existing storage yard. The project also involved an underground fiber optic connection to a nearby WAPA substation for relay coordination.

McKenzie Electric Coop, Timber Creek Substation, ND: Project Manager and Lead Engineer responsible for engineering, procurement support, and construction support for a new 115kV BAAH and 25kV distribution station.

McKenzie Electric Coop, Timber Creek 230kV Addition, ND: Project Manager and Lead Engineer responsible for engineering, procurement support, and construction support for a new 230kV line terminal at an existing 115kV BAAH / 25kV transmission / distribution station.

McKenzie Electric Coop, Southeast Area Substations, ND: Project Engineer responsible for engineering, procurement support, and construction support for three new 115kV to 25kV distribution stations, and one new 115kV ring bus substation.

Black Hills Energy, Arequa Gulch Transformer #2, CO: Project Manager and Project Engineer for engineering, procurement support, and construction support for the addition of a new 115/13.8kV transformer to an existing substation. HDR performed the work under an EPC

contract. Mr. Berkow worked closely with the design team in Ann Arbor and with HDR's construction team in Kansas City.

Phoenix Solar, Simon Solar Project, GA: Electrical Engineer responsible for the quality control review of the interconnection substation for a 30MWac photovoltaic solar project.

Public Service New Hampshire, Smith Hydro Station, NH: Project Manager responsible for the quality control review of protection and control upgrades to an existing substation.

Snohomish County PUD, MESA 1A & 1B Project, WA: Project Engineer responsible for design review of a 1MW battery energy storage system. The project is a battery storage test bed for comparing multiple lithium ion technologies. HDR provided Owner's Engineering support, ground grid design, and environmental review for two battery systems.

Snohomish County PUD, MESA 2 Project, WA: Project Engineer responsible for design review of a 2.4MW Vanadium Redox battery energy storage system. HDR provided Owner's Engineering support, ground grid design review, and environmental review for the battery system.

Guam Power Authority, Desktop Reliability & Storage Review, Guam: Project Engineer responsible for review of systems studies on the GPA power grid. The project involved reviewing studies, providing a high level assessment of reliability upgrades, and a high level evaluation of energy storage options.

DTE Energy, Uwharrie LFG Generator, NC: Project Engineer responsible for review of the substation design for a new landfill gas generating facility. The project involved an owners engineering review of the complete design of the facility. Mr. Berkow also created the generator interconnection application to Progress Energy.

E.On Climate & Renewables, Solar & Storage Interconnection Analysis, CA: Project Engineer responsible for reviewing utility switching diagrams and filings at the California Public Utilities Commission. The project involved evaluating substations, transmission lines, and land availability to determine optimal places to construct solar energy & storage facilities in California. Mr. Berkow worked closely with HDR's GIS team to coordinate the analysis of suitable land, and with outside consultants on power flow analysis.

Burke Divide Electric Coop, SCADA Implementation, ND: Project Engineer responsible for implementing SCADA at 17 existing substations. Mr. Berkow supervised a design team which created relay settings and connected intelligent electronic devices to an RTU at each station.

Capital Electric Coop, Record Drawings, ND: Project Engineer responsible for preparation of record drawings for 10 existing substations. The stations were constructed several years prior to drawing preparation with limited design drawings available. Records were created from a site walks, a review of detailed photographs, and interview of maintenance personnel.

Wheatland Electric Coop, Jameson Energy Center Interconnection Study, KS: Project Engineer responsible for writing a generator interconnection study for a new natural gas power plant. Mr. Berkow reviewed the system planning studies performed for the project and made recommendations on upgrades required to interconnect the project. The final deliverable was a generator interconnection study report to the transmission owner and the power pool.

Alliant Energy, Riverside Energy Center Owners Engineering, WI: Project Engineer responsible preliminary engineering and EPC technical specifications for the interconnection of a new natural gas combined cycle power plant at an existing power plant. Mr. Berkow was responsible for drawings, specifications, and cost estimation to support both an EPC procurement process and a CPCN.

Holland Board of Public Works, Holland Energy Center Owners Engineering, MI: Project Engineer responsible preliminary engineering and EPC technical specifications for the interconnection of a new natural gas combined cycle power plant. Mr. Berkow was responsible for drawings, specifications, and cost estimation to support an EPC procurement process. Mr. Berkow also performed preliminary engineering and cost estimation for other system upgrades triggered by the new plant. Mr. Berkow was also responsible for review of contractor submittals related to the substation.

PacifiCorp, Energy Storage Study, OR: Project Engineer responsible review of pricing of non-hydro energy storage systems as part of an integrated resource plan.

Powder River Energy, Teckla Substation Relocation, WY: Project Engineer responsible review of cost estimation and feasibility study review for relocation of a substation to support

load growth due to mining activities. The station was a 230kV BAAH, 69kV BAAH, 25kV radial bus design 14 line positions, three transformers, and two capacitor banks.

Detroit Edison Company, Integrated Resource Plan, MI: Project Engineer responsible review of preliminary transmission planning studies and preparation of switchyard cost estimates.

Indeck, Energy Storage Technology Assessment, USA: Project Engineer responsible for a detailed assessment of available energy storage technologies and markets in 2015. Mr. Berkow conducted a survey of technology providers, power markets, and research documents to prepare an analysis of investment opportunities for independent power producers in the energy storage market. The document was to be used as a basis for determining when, where, and how an existing IPP could leverage existing assets to enter the market.

California Department of Water Resources, Thermalito Hydro Rebuild, CA: Project Engineer responsible for a DC load study and battery UPS system sizing for the rebuild of the controls for an existing hydroelectric facility. Mr. Berkow analyzed the DC loads and sized the system as per IEEE Std. 485-2010.

LG&E / KU, Energy Storage R&D Site, KY: Project Engineer responsible for preliminary engineering, preliminary equipment specifications, and preparation of an EPC specification for an energy storage test facility. Mr. Berkow sized the facility hardware to accommodate multiple energy storage systems and load banks to test energy storage systems without impacts on the local distribution grid. The facility was designed to take into account varying form factors and battery types. Mr. Berkow acted as a senior advisor during the design phase of the project.

SunEdison, Harmonic Snubber Design, NV: Project Engineer responsible for specification and design of a harmonic snubber for the SNWA River Mountains Solar project. Mr. Berkow led a design team to create a physical layout, control system design, and technical specifications based on an Owner-provided harmonics study. Mr. Berkow reviewed also vendor approval drawings and created installation drawings for the snubber.

Black Hills Energy, Squaw Gulch Substation, CO: Project Manager and Project Engineer responsible for engineering, procurement support, and construction support for a new 69/15kV substation to support a mining expansion. The project was delivered using an EPC contract with HDR in the prime role. The project involved complex terrain, a compact design, and design for high altitude conditions.

Peel Energy Recovery Center, Substation Cost Estimation, ON: Project Engineer responsible preliminary facility layout and cost estimation for multiple options for interconnecting a new waste-to-energy center in metro-Toronto. The project involved a compact design and requirements for redundant transmission connection.

GridLiance, Lowell L&P Evaluation, MI: Project Manager responsible evaluating a potential asset transfer of the transmission assets of Lowell Light and Power. Mr. Berkow reviewed the design of the LLP system, coordinated a field inspection of transmission assets, and assisted with the inspection report.

GridLiance, Michigan Mapping, MI: Project Manager responsible for creating an integrated planning map of the transmission system of Michigan's lower peninsula. Mr. Berkow worked with a GIS mapping team to create georeferenced maps for utility infrastructure from FERC Form 715 data and aerial imagery. This was combined with purchased GIS transmission data to create an integrated multi-utility map of the state.

GridLiance, New Ulm Public Utilities Evaluation, MN: Project Manager and Engineer responsible for evaluating the prospect of providing redundant transmission service, upgrade to 115kV, and a potential transmission asset transfer for New Ulm Public Utilities. Mr. Berkow reviewed available transmission maps, transmission planning studies, and aerial imagery to evaluate the system.

GridLiance, Grand Haven BLP Upgrade Study, MI: Project Engineer responsible for scoping and cost estimating upgrades to the Grand Haven Board of Light & Power transmission system to accommodate outages or a complete retirement at their existing power plant. Mr. Berkow performed a site inspection of their existing transmission and substation assets and made two sets of recommendations: upgrades at the existing voltage (69kV) and a total system upgrade to 138kV. Mr. Berkow also worked with the planning engineers to define the scope of work for planning studies to evaluate the plant outage.

GridLiance, Coldwater BPU Upgrade Study, MI: Project Engineer responsible for scoping and cost estimating upgrades to the Coldwater Board of Public Utilities transmission system to

accommodate the addition of a new 50MW load. Mr. Berkow coordinated a site inspection of their existing transmission and substation assets and assisted with the inspection report. Mr. Berkow also worked with the planning engineers to define the scope of work for planning studies to evaluate the load additions.

Exelon, Clinton Energy Storage Project, OH: Project Engineer responsible for Owner's Engineer review of the EPC contract and the design of a lithium-ion battery energy storage system in Ohio.

SunPower, Boulder Substation, NV: Substation Project Manager responsible for the design of a 230-35kV substation for a 150MW solar project. The scope of work included the full EPC delivery of the project and included the system planning studies to address harmonics, insulation coordination, and power factor correction.

O'ahu Energy Storage Project, HI: Project Engineer responsible for the 30% design, scoping, system sizing, and technology selection for a 120MW/30-min lithium-ion energy storage system in Hawaii. HDR submitted an EPC proposal in response to a public request for proposals. Mr. Berkow led the technical effort to prepare the response to the RFP. HDR was shortlisted for the project, but was not ultimately awarded a contract.

SunEdison, Hana Hou Solar & Storage Project, HI: Project Engineer responsible for preliminary physical and electrical design of a photovoltaic solar energy project. Mr. Berkow was responsible for managing the interconnection study and negotiating the interconnection provisions of the Power Purchase Agreement.

Axio Power, Acquisition Due Diligence: Project Engineer responsible for providing engineering support for the acquisition of Axio Power and its development portfolio of solar projects by SunEdison.

Axio Power, IC Sunshine Solar & Storage Project, HI: Project Engineer responsible for preliminary physical and electrical design of a photovoltaic solar energy project. Mr. Berkow was responsible for managing the interconnection study and negotiating the interconnection provisions of the Power Purchase Agreement. Mr. Berkow assisted in the successful removal of energy storage requirements from the PPA.

Axio Power, Greenfield Solar Project, MA: Engineering Manager responsible for development of a photovoltaic solar energy project on a closed solid-waste landfill. Mr. Berkow was responsible for the detailed design and for managing the interconnection process with WMECO.

Apex Clean Energy, Various Wind, Offshore Wind, and Solar Projects, USA: Project Engineer responsible for preliminary physical and electrical design of multiple wind energy, offshore wind energy, solar PV, and landfill-based solar PV projects. Mr. Berkow managed the interconnection process for multiple simultaneous projects in SPP, MISO, PJM, and NYISO. Mr. Berkow reviewed studies, negotiated interconnection agreements, and contracted for internal preliminary interconnection studies.

BQ Energy, Lake Erie Winds Project, NY: Project Engineer responsible for preliminary development plans for an offshore wind energy facility in Lake Erie. Mr. Berkow assisted in the grant application from NYSERDA to obtain funds for the study. Mr. Berkow led the effort to create a preliminary design, evaluate interconnection, evaluate potential environmental impacts, and design a foundation capable of withstanding ice scour.

BQ Energy, Fresh Kills Wind Farm, NY: Project Engineer responsible for preliminary development plans for a wind energy facility on the Fresh Kills Landfill in Staten Island, NY. Mr. Berkow assisted in the grant application from NYSERDA to obtain funds to perform the preliminary development. Mr. Berkow led the effort to create a preliminary design, evaluate the interconnection, evaluate potential environmental impacts, and evaluate novel foundations designs for use on municipal solid waste landfills. Results of the study were given to the City of New York which are incorporated into the planning for a new city park at Fresh Kills.

BQ Energy, Various Wind and Solar Projects, USA: Project Manager responsible for preliminary physical and electrical design of multiple wind and solar PV projects. Mr. Berkow was also responsible for high-level transmission screening studies utilizing power flow models, transmission maps, and past interconnection studies to determine optimal points of interconnection.

BQ Energy, Kenai Winds Storage & Wind Project, AK: Project Engineer responsible for physical and electrical design of a utility scale wind energy project. This project involved re-use and retrofit of existing electrical facilities at a moth-balled fertilizer plant. Mr. Berkow also

responsible for managing the interconnection process, reviewing studies, and negotiating terms of an interconnection agreement. Mr. Berkow was also responsible for the energy resource estimate and estimates of future fossil fuel prices. The project was subject to ramp rate limitations due to the limitations of the existing hydroelectric and fossil generators. Mr. Berkow worked with the interconnecting utility to evaluate energy storage options and gain funding for a system from the State of Alaska. The project was ultimately abandoned due to transmission system constraints.

BQ Energy, Steel Winds Project, NY: Project Engineer responsible for interconnection application to NYISO and interconnection process management. Duties also included assisting in a determination on non-FERC jurisdiction using the 7-factor test.

Publications

J. Berkow, "Pulsed Laser Surface Processing of Alumina for High Voltage Power Applications," Master's thesis, Electrical Engineering, State University of New York at Buffalo, May 2008.

W.J. Sarjeant, J. Zirnheld, A. Halstead, J. Berkow, J. Cieri, N. Chokshi, "Investigation of Surface Flashover on Dielectrics Enhanced by Excimer Laser Processing," Presented at: Power Modulator Conference 2006, IEEE International, Washington D.C., May 2006.

W.J. Sarjeant, J. Berkow, S. Olabisi, M. Hood, K. Struzik, H. Singh, "Inductance, Capacitance, and Resistance of a Surrogate Exploding Wire," Presented at: Power Modulator Conference 2006, IEEE International, Washington D.C., May 2006.

Conference Presentations

"Addressing Siting Challenges for Successful Energy Projects in the Northeast," Presented at: NEWMOA Northeast States – EPA Workshop on Siting Renewable Energy Projects at Closed Solid Waste Landfills and Contaminated Sites, Enfield CT, June 2008.

"Development of Renewable Energy Projects on Brownfield and Industrial Properties," Presented at: ASTSWMO2010 Renewable Energy on Contaminated Lands Forum, Washington D.C., April 2010

"Development of Renewable Energy Projects on Brownfield and Industrial Properties," Presented at: Renewable Energy on Potentially Contaminated Land Webinar Series: Department of Energy's Technical Assistance Program Sponsored by: US. EPA, ONLINE, October 2010.

"Offshore Wind Interconnection Challenges," Presented at: GreenPower Conferences 2nd Annual Conference and Exposition on Offshore Wind Power, Boston MA, February 2011.

"Interconnection and Integration Challenges in Island Markets," Presented at: Solar Power International 2013, Chicago IL, October 2013.

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EXPERTISE

ENERGY MARKET DESIGN &
SIMULATION

PRODUCT MANAGEMENT

BIDDING STRATEGY DEVELOPMENT

TRANSMISSION CONGESTION
ANALYSIS

ISO/RTO MARKET RULES EXPERT

TECHNICAL COMMUNICATION

PROFESSIONAL PROFILE

Power systems engineer with MBA, currently working in a joint product management / consulting role. A leader with recent success driving business development, significantly increasing both software sales and consulting revenues. Thorough understanding of energy markets and experience with ISOs, utilities, energy marketers, generation owners, and other ISO market participants. Ability to help clients understand their position in energy markets and offer strategies to improve their operational success and revenues. Effective communicator capable of “bridging the gap” between technical software development staff and the software requirements of clients.

EXPERIENCE

PowerGEM LLC, Austin TX (current) & Clifton Park NY, 2007-Present
Market Applications Product Manager

Product Management Responsibilities and Accomplishments

- Guide development of the PROBE market simulation software and applications. Identify client requirements, review market rules, and translate rules and requirements into technical specifications. Develop proposals, work statements, and negotiate contracts.
- Increased PROBE use from specific applications at two ISOs to widespread use for multiple market applications at the five largest US ISOs.
- Developed a strategy to market PROBE outside of ISOs and licensed several new clients, nearly doubling license revenue.
- Increased PowerGEM consulting revenues by adapting PROBE for consulting studies and creating a market analysis practice area.
- Developed a PROBE application with ISO New England to proactively study the market impact of planned generation and transmission outages; presented the process and results to FERC.
- Primary contact for client questions. Maintain marketing material; develop training material and provided energy market and software training for hundreds of users.

Consulting Responsibilities and Projects

- Lead market simulation and production cost simulation projects for clients throughout the United States, primarily generation and transmission developers seeking to understand future energy markets, project impacts, and risks.
- Analyzed potential locations for onshore wind, offshore wind, solar, and energy storage projects for renewable energy developers.
- Modeled the PJM real-time market for the year 2026 to study the operational impact of renewable energy scenarios (subcontractor to GE energy).
- Perform consulting studies with ISOs, smaller utilities, and government agencies to understand potential changes to market design ranging from short-term operational design issues such as multi-day market benefits, to long-term policy issues such as emission reduction strategies.

New York Independent System Operator, Guilderland & Rensselaer NY, 2001-2007

Market Design Specialist (2005-2007)

- Evaluate existing and proposed market rules and review market design alternatives.
- Participate in working group meetings to discuss market design ideas with Market Participants.
- Write briefing papers for Senior Management and the Board of Directors on current topics in the industry, including environmental dispatch, capacity ownership, and marginal pricing.

Senior Market Analyst / Market Monitor (2001-2005)

- Analyzed the performance of New York's energy markets and identified market design flaws.
- Studied transmission constraints, congestion costs, and transmission congestion contract (TCC) revenues. Identified potential for congestion-based market power.
- Analyzed the impact of bidding strategies, virtual trading, and outages on the NYISO markets.

Niagara Mohawk Power Corporation (National Grid), 1993-2001

Supervisor-Energy Delivery, Saratoga NY

Electric Planning Engineer, Albany NY

Regional Support Engineer, Syracuse NY

EDUCATION

University at Albany, Albany NY

MBA, May 1998

specializing in Finance

Clarkson University, Potsdam NY

B.S., Electrical Engineering, May 1993

specializing in Power Systems

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Acronyms/Abbreviations

%	percent
AC	alternating current
ACSR	aluminum conductor steel reinforced
AHJ	authorities having jurisdiction
ALTA	American Land Title Association
ANS	A-weighted noise-compensated
ANSI	American National Standards Institute
Application	Article 10 Application
BLM	Bureau of Land Management
BMP	Best Management Practice
CCA	Community Choice Aggregation
CES	Clean Energy Standard
CFR	Code of Federal Regulations
CHGE	Central Hudson Gas and Electric Corporation
Co-Applicants	Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC
CO ₂	carbon dioxide
CWA	Clean Water Act
dBA	A-weighted decibel
ECL	New York State Environmental Conservation Law
ECMP	Environmental Compliance and Monitoring Program
EMF	electric and magnetic fields
EMS	emergency medical services
EPC	Engineering, Procurement, and Construction
ERP	Emergency Response Plan
EPC	engineering, procurement, and construction
FEMA	federal emergency management agency
FTA	Federal Transit Administration
FTE	full-time equivalent
GHG	Greenhouse gas
HSE	
Manager	Health, Safety and Environmental Manager
IMPLAN	commercially available economic modeling package
ISMP	Invasive Species Management Plan
ISO	International Organization for Standardization
kV	kilovolt
L ₉₀	sound level exceeded 90% of the time
L _{dn}	day-night sound level
L _{eq}	continuous sound level (in decibels)
	A-weighted long-term average sound level determined over all 8-hour nighttime periods over a year
L _{night, outside}	
LOD	limit of disturbance
LSEs	load-serving entities
LSZs	landscape similarity zones

MCM	thousands of circular mils
MIS	Minimum Interconnection Standard
MW	megawatts
N/A	not applicable
NLCD	National Land Cover Data
NREL	National Renewable Energy Laboratory
NYCRR	New York Codes, Rules and Regulations
NYISO	New York Independent System Operator
NYSDEC	New York State Department of Environmental Conservation
NYSDOL	New York State Department of Labor
NYSDOT	New York State Department of Transportation
NYSDPS	New York Department of Public Services
NYSERDA	New York State Energy Research and Development Authority
NYSPSC	New York State Public Service Commission
NSAs	noise sensitive areas
O&M	Operations and Maintenance
OATT	Open Access Transmission Tariff
OSP	Operations and Management Service Provider
PILOT	payment in lieu of taxes
PIP	Public Involvement Plan
POI	point of interconnection
PV	photovoltaic
QA/QC	quality assurance/quality control
RECs	renewable energy credits
ROW	right-of-way
SEP	State Energy Plan
SIS	System Impact Study
Siting Board	New York State Board on Electric Generation Siting and the Environment
SOC	standard occupational classification
SPCC	spill prevention, control and countermeasures plan
SSP	Site Security Plan
State	New York State
SWPPP	Stormwater Pollution Prevention Plan
the Facility	the Greene County Solar Facility
the Facility Area	approximately 827 acres along Farm to Market Road, between United States Route 9W and County Route 385
the Study Area	All land within 2 miles of the Facility Area
US	United States
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VdB	vibration decibel
VIA	visual impact assessment
W	watt
WHO	World Health Organization



Greene County Solar Facility

Case No. 17-F-0619

1001.1 Exhibit 1

General Requirements

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Appendix 1-A. Certificates of Formation

EXHIBIT 1 GENERAL REQUIREMENTS

This Exhibit addresses the requirements specified in Stipulation 1, and, therefore, the requirements of 16 NYCRR § 1001.01. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 1.

(a) The Co-Applicants

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (hereafter referred to as the Co-Applicants), are the Co-Applicants in this Article 10 Application (Application) proceeding. Hecate Energy Greene 1 LLC and Hecate Energy Greene 2 LLC are wholly-owned subsidiaries of Hecate Energy New York LLC, and Hecate Energy Greene County 3 LLC is a wholly-owned subsidiary of Hecate Energy NAF LLC. The Co-Applicants are proposing to construct the Greene County Solar Facility (the Facility), a 50-megawatt (MW) photovoltaic (PV) solar energy generation facility in the Town of Cossackie, Greene County, New York.

(1) Contact Information

The Co-Applicants can be reached at:

621 West Randolph Street
Chicago, IL 60661
Call toll-free: (833) 529-6597
Facsimile Number: (312) 284-4514
Email: contact@greencountysolarfacility.info

(2) Facility Website

The Facility website can be found at: <https://www.greencountysolar.info>

(3) Public Contact

The Greene County Solar Project Team representatives are Gabriel Wapner and Philip Mooney. They may be reached at:

621 West Randolph Street
Chicago, IL 60661
Call toll-free: (833) 529-6597
Facsimile Number: (312) 284-4514
Email: contact@greencountysolarfacility.info

(4) Principal Officer

The Co-Applicants are wholly-owned subsidiaries of Hecate Energy New York LLC and Hecate Energy NAF LLC (Hecate Energy LLC). The Principal Officer of Hecate Energy New York LLC and Hecate Energy NAF LLC is Chris Bullinger; he can be reached at:

621 West Randolph Street
Chicago, IL 60661
Call toll-free: (833) 529-6597
Facsimile Number: (312) 284-4514

Email: CBullinger@HecateEnergy.com

(5) Co-Applicant Agents

Application-related documents and other correspondence should be served on the public contacts identified in Exhibit 1(a)(3). In addition, the Co-Applicants desire service of documents or other correspondence on the following agents:

Sam M. Laniado
Read and Laniado, LLP
25 Eagle Street
Albany, NY 12207
Phone: (518) 465-9313
Facsimile: (518) 465-9315
sml@readlaniado.com

Lynn Gresock
Tetra Tech, Inc.
3 Lan Drive, Suite 100
Westford, MA 01886
Phone: (978) 303-8527
Facsimile: (978) 392-0527
lynn.gresock@tetrattech.com

(6) Type of Business

The Co-Applicants are wholly-owned subsidiaries of Hecate Energy New York LLC and Hecate Energy NAF LLC. Hecate Energy New York LLC and Hecate Energy NAF LLC are developers of solar power plants, wind power plants, natural gas-fired power plants, and energy storage solutions that was founded in 2012. Headquartered in Chicago, Illinois, Hecate Energy, LLC's team members have developed thousands of MWs of solar, wind, and natural gas-fired electric generating projects and energy storage solutions, including several projects in New York. For more information visit <http://www.hecateenergy.com>, or email Solutions@HecateEnergy.com.

(7) Documents of Formation

The 50-MW Facility is comprised of a 20-MW PV solar energy generation facility (Hecate Energy Greene 1 LLC); a 20-MW PV solar energy generation facility (Hecate Energy Greene 2 LLC); and a 10-MW solar energy generation facility (Hecate Energy Greene County 3 LLC), which collectively will be owned by the Co-Applicants.

The Certificates of Formation for these entities are included as Appendix 1-A to this Application.



Greene County Solar Facility

Case No. 17-F-0617

Appendix 1-A

Certificates of Formation

HECATE ENERGY GREENE 1 LLC

A limited liability company formed under the laws of Delaware (the "Company")

The initial members of the Company are identified as:

Hectate Energy LLC

Solely for your convenience, at your instruction and to expedite the filing of the Certificate of Formation for the Company, The Company Corporation ("TCC") signed the document as Organizer. TCC does not have, and has never had, any other connection with the Company. The conclusion of TCC's participation in the Company's formation is effective at the moment of the Company's formation. In the event TCC signing the formation document results in TCC being regarded as a member and/or manager of the Company, this statement constitutes the resignation of TCC from those capacities effective at the moment of the Company's formation.

THE COMPANY CORPORATION, Organizer

Date: July 11, 2016

By: Margaret Rosado

Name: Margaret Rosado

Title: Assistant Secretary

Hecate Energy Greene 2 LLC a Limited Liability Company formed under the laws of Delaware (the Company”)

The initial members of the Company are identified as:

Hectate Energy LLC

Solely for your convenience, at your instruction and to expedite the filing of the Certificate of Formation for the Company, The Company Corporation (“TCC”) signed the document as Organizer. TCC does not have, and has never had, any other connection with the Company. The conclusion of TCC’s participation in the Company’s formation is effective at the moment of the Company’s formation. In the event TCC signing the formation document results in TCC being regarded as a member and/or manager of the Company, this statement constitutes the resignation of TCC from those capacities effective at the moment of the Company’s formation.

THE COMPANY CORPORATION, Organizer

Date July 12, 2016

By: Margaret Rosado
Name: Margaret Rosado
Title: Assistant Secretary

HECATE ENERGY GREENE COUNTY 3 LLC a Limited Liability Company formed under the laws of Delaware (the Company")

The initial managers of the Company are identified as:

HECATE ENERGY LLC

Solely for your convenience, at your instruction and to expedite the filing of the Certificate of Formation for the Company, The Company Corporation ("TCC") signed the document as Organizer. TCC does not have, and has never had, any other connection with the Company. The conclusion of TCC's participation in the Company's formation is effective at the moment of the Company's formation. In the event TCC signing the formation document results in TCC being regarded as a member and/or manager of the Company, this statement constitutes the resignation of TCC from those capacities effective at the moment of the Company's formation.

THE COMPANY CORPORATION, Organizer

Date January 25, 2017

By: Margaret Rosado
Name: Margaret Rosado
Title: Assistant Secretary



Greene County Solar Facility

Case No. 17-F-0619

1001.2 Exhibit 2

Overview and Public Involvement

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EXHIBIT 2 OVERVIEW AND PUBLIC INVOLVEMENT

This Exhibit addresses the requirements specified in Stipulation 2, and, therefore, the requirements of 16 NYCRR § 1001.2. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 2.

(a) Brief Description of the Facility

The Greene County Solar Facility (the Facility), proposed within an area located along Farm to Market Road, between United States Route 9W and New York State Route (NY) 385 encompassing approximately 827 acres (the Facility Area) (Figure 2-1), will consist of photovoltaic (PV) solar arrays and associated infrastructure. The Facility will have a nameplate capacity of approximately 50 megawatts (MW) (alternating current [AC]) and is expected to generate approximately 93,406 megawatt-hours of energy annually. The actual Facility footprint will occupy approximately 379 acres of the approximately 827-acre Facility Area (Figure 2-2).

The Co-Applicants have an option to lease the Facility Area parcels from private landowners. Additional land agreements will not be needed for the interconnection to the transmission system since a majority of the Facility output will connect with the utility transmission system via interconnection facilities built on the lands that have been secured within the Facility Area, and the remaining Facility output will interface with the transmission system via a short distribution voltage line to be provided the local utility, Central Hudson Gas and Electric Corporation (CHGE), within an existing CHGE right-of-way (ROW).

The PV panels for the Facility will be ground-mounted on a low-profile racking system that will be supported by small I-beam posts driven into the ground; this results in an extremely small ground disturbance footprint associated with the panels. The Facility has chosen single-axis tracking structures, which allow the panels to follow the sun throughout the day and produce additional renewable energy. The Facility will consist of the following components:

- A solar field of PV panels producing direct current electricity mounted on single-axis tracking structures that will follow the sun throughout the day;
- Inverters within weather rated enclosures dispersed throughout the Facility (amongst the solar arrays) to convert direct current electricity to AC electricity;
- Medium voltage transformers that will raise the low voltage from the inverters to medium voltage cable collection systems (13.8 kilovolt [kV] and 34 kV) that will extend underground to collection points for connection to the transmission grid;
- New on-site adjacent collection substations to which the solar 34 kV medium voltage collection systems will connect to and be raised to the 69 kV transmission voltage;
- New CHGE built switchyard to be located adjacent to the solar collection substation on lands within the Facility Area that will connect to the Facility to the CHGE 69 kV transmission line located directly adjacent to the Facility Area;
- A new 13.8 kV pole mounted electrical recloser switch which will connect the 13.8 kV medium voltage solar collection system to the CHGE grid;
- A new CHGE-built approximately 0.85 mile long offsite 13.8 kV distribution line that will connect portion of the Facility output to the existing grid at Cocksackie Substation that is connected to the CHGE 69 kV transmission line (Figure 2-1);

- Monitoring, control, and protection systems to remotely control the solar Facility to reliably operate on the New York State (State) grid;
- Internal civil infrastructure, including parking, permanent gravel access roads and grass pathways, security fencing around Facility equipment, and landscape screening vegetation;
- Temporary laydown, construction office trailers, and other temporary facilities and equipment staging areas during construction of the Facility, all within the planned limit of disturbance within Facility Area; and
- Conservation areas planned for continued agricultural uses, or potentially for habitat conservation.

The Facility will connect to an existing 69-kV transmission line via on site switchyard and distribution line to the nearby existing Cocksackie Substation, owned and operated by CHGE. The CHGE transmission line forms the western boundary of the Facility Area.

The Facility is accessible via public roads that have been evaluated and assessed to be suitable. No improvements to public road intersections or the addition of turnarounds will be required, as further described in Exhibit 25. There is adequate workforce in the region to support the construction, operation, and maintenance of the Facility. The Facility construction and Operations and Maintenance will strive to use local labor and material and equipment sourced within the State.

During construction of the Facility, annual construction payroll will be approximately \$10.3 million, with direct non-payroll expenditures within the State estimated at an additional \$21.3 million. When secondary effects associated with these expenditures are added, the total direct, indirect, and induced economic activity is estimated to be between \$44.83 and \$49.54 million dollars. Once operational, the Facility is expected to directly result in an annual (over the life of the Facility) payroll expenditures of \$133,000 along with non-payroll expenditures and payments within the State of approximately \$1 million annually. These economic benefits are provided within the context that this Facility also will not cause an increased demand on local services, such as water, wastewater or schools.

The Facility production of renewable energy is expected to lower locational marginal power pricing in the State. The Facility renewable energy is estimated to reduce greenhouse gas emissions by 63,574 tons in the State, as well as reducing other emissions associated with displacement of fossil-fired energy generation. The implementation of the Facility will support important statewide goal to increase its renewable energy sources. As an early solar energy project in the State, the Facility will help accelerate efforts for future renewable development in the State.

The Facility will not significantly alter the underlying land preserving/improving the land for future agricultural use. The Co-Applicants have committed to decommissioning methods that will enable the Facility Area to be returned to agricultural use after the operational life of the Facility.

The Facility implementation will provide valuable resources to the host farmer landowner supporting continued agricultural activities.

Through careful siting of the Facility solar components, the wetland and cultural resources present on the Facility Area will be protected. Conservation and mitigation areas proposed by the Co-Applicants will enhance wildlife habitat within the Facility Area.

The proposed change in use from active agriculture (with its potential for erosion and use of pesticides/herbicides) to managed low-growing vegetation will provide for year-round stabilization of soil, and more stable stormwater runoff improvements. These improvements will benefit downstream watersheds, such as Sleepy Hollow Lake due to reductions in sedimentation runoff and nutrient loading.

Representative scenarios comparing existing agricultural uses to having the Facility in place indicate that the stabilized soil and ground of the Facility is expected to result in an approximately 91% reduction in sedimentation runoff from the Facility Area.

The Facility is, therefore, able to provide for statewide, regional, and local benefits in a number of ways.

(b) Brief Summary of Application Contents

This Application is provided as 41 Exhibits (33 of which are applicable to solar projects), which include supporting figures and tables, as well as relevant technical information provided in associated appendices. Table 2-1 provides a summary of the Application contents. A notation of Not Applicable (N/A) in the Appendices column identifies the eight exhibits that do not apply to this Application.

Table 2-1. Summary of Application Contents

Exhibit	Title	Appendices
1	General Requirements	1-A. Certificates of Formation
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3	Location of Facilities	--
4	Land Use	4-A. Adjacent Parcels Information 4-B. Existing Zoning Districts within the 2-mile Study Area 4-C. Aerial Photographs of the Facility Area 4-D. Consistency with New York State Department of Agriculture and Markets (NYSDAM) Guidelines 4-E. Flach Media Article
5	Electric Systems Effects	5-A. System Impact Study Reports 5-B. Example UL Certification 5-C. Preliminary Operation and Maintenance (O&M) Plan
6	Wind Power Facilities	Not Applicable (N/A)
7	Natural Gas Power Facilities	N/A
8	Electric System Production Modeling	8-A. Electric System Production Modeling Report
9	Alternatives	9-A. Fixed-tilt Racking Structures versus Single-axis Tracking Structures
10	Consistency with Energy Planning Objectives	--
11	Preliminary Design Drawings	11-A. Preliminary Design Drawings
12	Construction	12-A. Preliminary Quality Assurance/Quality Control (QA/QC) Plan 12-B. Complaint Resolution Plan
13	Real Property	13-A. Certified American Land Title Association (ALTA) Survey
14	Costs of Facilities	14-A. Estimated Costs for the Facility
15	Public Health and Safety	15-A. Glare Analysis
16	Pollution Control Facilities	--
17	Air Emissions	--
18	Safety and Security	18-A. Preliminary Construction Site Security Plan 18-B. Preliminary Operations Site Security Plan 18-C. Preliminary Emergency Action Plan

Exhibit	Title	Appendices
19	Noise and Vibration	19-A. Acoustical Impact Assessment 19-B. Post-Construction Noise Evaluation Plan
20	Cultural Resources	20-A. Office of Parks, Recreation, and Historic Preservation (OPRHP) Correspondence 20-B. Phase IA Archaeological Investigation Report 20-C. Unanticipated Discovery Plan
21	Geology, Seismology, and Soils	21-A. Geotechnical Investigation Report
22	Terrestrial Ecology Wetlands	22-A. Plant and Wildlife Species Lists 22-B. Existing Plant Communities Report 22-C. Habitat Assessment and Preliminary Impact Determination Report 22-D. Invasive Species Management Plan (ISMP) 22-E. Avian Cumulative Impact Assessment Report 22-F. Vernal Pool Survey Technical Memorandum 22-G. 2019 Aquatic Resource Report 22-H. Supplemental Aquatic Resources Report 22-I. Wetland Functions and Values Assessment
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29	Site Restoration and Decommissioning	29-A. Site Restoration and Decommissioning Cost Estimate
30	Nuclear Facilities	N/A
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41	Applications to Modify or Build Adjacent	N/A

(c) Brief Description of the Public Involvement Program before Submission of the Application

Consultation with stakeholders has been ongoing since preparation of the Public Involvement Program (PIP) Plan, which established a prescriptive plan for consulting with stakeholders (see Exhibit B of the PIP Plan). Since the PIP Plan's final submission, the Master List of Stakeholders has been updated based on the Co-Applicants' consultations and meetings with stakeholders and requests received via the Co-Applicants' website, general email and/or toll-free telephone number. An updated Master List of Stakeholders is included in Appendix 2-A of this Exhibit. The Co-Applicants have completed the consultations identified in the PIP Plan, and in many cases, have had additional stakeholder meetings and communications. The results of these meetings are summarized in the Meeting Log, an updated version of which is submitted on a quarterly basis to the New York State Board on Electric Generation Siting and the Environment (Siting Board). The most recent Meeting Log is included as Appendix 2-B of this Exhibit. The Meeting Log will continue to be updated and filed quarterly with the Siting Board throughout the entire Article 10 Application certification process. The Co-Applicants also distributed stakeholder mailings and held a public open house on February 21, 2018. Notice of the public open house was mailed to approximately 914 stakeholders and residents (all identified stakeholders, host landowners, adjacent landowners, and other landowners within 2 miles of the Facility) and published in local newspapers, including Times Union, The Daily Mail, Hudson Valley 360, and Shop and Find. Based on the open house sign-in sheet, approximately 75 individuals signed in; others attended but did not sign in.

In addition to the open house and other meetings, the Co-Applicants have a Facility-specific website (<https://www.greenecountysolar.info/>), an email address (contact@greenecountysolarfacility.info) and a toll-free number (833-529-6597) to provide responses to any questions or comments. The Co-Applicants have provided paper copies of all documents presented at the open house at the following repositories: Heermance Memorial Library, D.R. Evarts Library, Village of Coxsackie Village Hall, and Town of Coxsackie Town Hall. Electronic copies of major Facility documents can be accessed from the Facility's website and all Article 10 Application documents and filings are on the Siting Board's website.¹

(d) Brief Description of the Public Involvement Program after Submission of the Application

The Co-Applicants will continue to engage stakeholders following submission of this Article 10 Application. The Co-Applicants will continue to attend applicable Town Board meetings. In addition, the Co-Applicants will continue to meet with other local public stakeholders, as appropriate. The Co-Applicants also will continue communication with non-public entities as identified in the PIP Plan and through outreach activities. In addition, as noted in the PIP Plan, the Co-Applicants will hold at least one more open house meeting following submission of this Article 10 Application. All the above ongoing PIP Plan activities will continue to be tracked and filed in the quarterly Meeting Log.

¹<http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=17-F-0619&submit=Search>

(e) Brief Overall Analysis

(1) The Facility Represents a Beneficial Addition to the Electric System and is in the Public Interest

The Facility will generate electricity without combusting fuel or releasing pollutants into the ambient air. The Facility also is anticipated to displace air emissions from fossil fuel-fired power plants and lower wholesale zonal prices. The Facility will produce enough zero-emission energy to power approximately 13,000 average households in the State.

Facility construction and operation will serve the public interest of those living proximate to the Facility Area. The Co-Applicants are committed to hiring locally whenever possible and have already employed several people from the State to assist with the development of the Facility. Additionally, as described in more detail in Exhibit 27, the Facility is anticipated to provide on-site employment during construction for an estimated total of 122 full-time equivalent jobs in construction trades, including equipment operators, truck drivers, laborers, and electricians with estimated on-site employment ranging between 63 and 167 people. Facility operation would provide direct employment for the equivalent of 2 or more full-time equivalent jobs in operations and maintenance over the 35- to 40-year expected life of the Facility.

In addition to jobs within the State, the Co-Applicants plan to contribute significant revenue to the local community through payment-in-lieu-of-tax and host community agreements. The Facility will provide significant, reliable income for the landowner of the Facility Area, money which will benefit the local community and economy. The public interest also will be served by reducing greenhouse gas emissions and improving air quality. Overall, statewide carbon dioxide emission levels will be reduced by 63,574 tons once the Facility is operational. The Facility's emissions reduction would be equivalent to eliminating emissions from almost 14,000 cars (United States Environmental Protection Agency no date).

The Facility will, therefore, serve the public interest and promote the objectives of the State Energy Plan, the Clean Energy Standard and the Climate Leadership and Community Protection Act, helping the State meet its goals of reducing greenhouse gas emissions, stabilizing energy costs, and diversifying energy supply sources.

(2) The Facility will Avoid or Minimize Impacts, to the Maximum Extent Practicable

As further described in Exhibit 22, the Facility Area is comprised primarily of approximately agricultural land (75%), forest (9%), open land² (11%), scrub-shrub (2%) and developed land (1%). No rare or exemplary natural communities or critical habitats were identified within the Facility Area. Impacts to vegetation associated with Facility construction and operation have been avoided or minimized through an informed design process, including siting Facility components on only approximately 50% of the available Facility Area. The proposed Facility footprint results in relatively minor impacts to mature and young successional forest habitats by siting panel arrays within active or fallow agricultural fields. Furthermore, linear Facility components (e.g., access roads and electrical trenches) have been collocated to the extent practicable, and previously disturbed areas, such as existing access roads, have been incorporated into the Facility design to the maximum extent practicable.

Impacts to vegetative communities have been minimized consistently throughout the process of siting components. This Article 10 Application reflects up to 379 acres of temporary impact to vegetation, including approximately 370 acres of temporary use during the Facility economic life and 9 acres of permanent loss

² Open land is comprised of meadows and successional fields, and residential lawns.

prior to decommissioning. However, the majority of vegetative impacts is proposed within existing cropland, and vegetation will be restored within much of the impacted area. In addition, Facility components will occupy the Facility Area for the 35- to 40-year operational life of the Facility but the Facility Area may be returned to agricultural use following Facility decommissioning. Approximately 11.9 acres of tree clearing is proposed. No specific plant community will be significantly reduced in population or completely eradicated as a result of the Facility. Facility construction and operation will not adversely impact any rare or protected plants or significantly impact any ecological communities.

A majority of access pathways, collection lines, and PV solar modules have been sited within agricultural fields to minimize impacts to each specific habitat and reduce the amount of fragmentation events in each vegetative community. Most forest or scrubland areas that will be cleared for Facility construction will be allowed to revegetate with native, low-profile vegetation once the Facility is operational. Accordingly, the land will be ready for return to agricultural use once decommissioning is complete.

As further discussed in Exhibit 23, the Facility will not have an incremental adverse effect on drinking water supplies or groundwater quality or quantity and, in fact, has been calculated to contribute to water quality improvements due to an approximately 91% reduction in soil loss and nutrient loading over the life of the Facility, which will improve water quality at downstream locations within the watershed such as Sleepy Hollow Lake. During construction, no blasting is anticipated to occur, and only minimal grading will be required. In addition, given the measured groundwater depths within the Facility Area, it is not anticipated that Facility construction will negatively impact on-site groundwater. To avoid direct work or disruption within the groundwater table, the Co-Applicants will use measures outlined in the Facility's preliminary Stormwater Pollution Prevention Plan, provided as Appendix 23-B, and will develop a Spill Prevention, Control, and Countermeasure Plan, as discussed in Exhibit 23, to further provide for groundwater protection.

Once operational, the Facility will consist of the solar arrays placed above a ground surface that will be restored with a seed mix containing native herbaceous species that are of low-growing. In wetland areas, the Facility will use a native wetland seed mix appropriate for the southeastern New York region, and if proper species seeds are available, pollinator species will be added to this mix. This full herbaceous ground cover helps improve water quality in the watershed downstream of the Facility through limiting erosion and sedimentation offsite, and it also is effective at binding the remnant nutrients from the previous agricultural activities and generally isolating them to the Facility Area. Any on-site herbicide use in support of the Invasive Species Management Plan (provided as Appendix 22-C) is expected to be limited, selective, highly targeted and infrequent, particularly when compared to the existing normal agricultural practices in regular use in the Facility Area. There are no New York State Department of Environmental Conservation-(NYSDEC-) protected surface waters or other water bodies located within the Facility Area. Best management practices and other water resources protection measures contained within the Preliminary Stormwater Pollution Prevention Plan will minimize temporary impacts to existing intermittent and ephemeral stream segments that exist within the Facility Area.

Best management practices will be used to control erosion and sedimentation during the construction effort, with reseeded and stabilization occurring prior to removal of the temporary features. Stream channel restoration will occur where underground electrical features are placed and around installed culverts. All streams where impact is proposed are either intermittent or ephemeral in nature and classified by NYSDEC as Class C, with no trout designations. No aquatic species of concern were identified during background review, surveys or agency coordination phases of the preconstruction surveys. It is unlikely, therefore, that the potential impacts to stream features will affect any state or federally listed threatened or endangered species, state species of special concern, or species of greatest conservation need as identified in the State's Wildlife Action Plan.

With the Facility in place, the native low-growing vegetation that will be maintained within the Facility will stabilize the substrate and continue to reduce the potential for downstream erosion and sedimentation. The lack of routine disturbance, present when active agriculture is practiced, is expected to have benefits to adjacent stream systems and downstream water quality over time, including at downstream locations such as Sleepy Hollow Lake.

The Co-Applicants have worked hard to avoid and minimize wetland impacts with the Facility design and layout. A total 12.7 acres of wetland are anticipated to be impacted within the limit of disturbance, including 1.2 acres of permanent fill, 11.5 acres of temporary wetland impacts, and 0.17 acre of permanent conversion of wetland vegetation classification. Most of the unavoidable wetland impact is located in emergent wetlands within existing agricultural fields, with only approximately 0.2 acre of permanent fill proposed in shrub wetlands. No forested wetlands will be directly impacted by Facility construction and operation.

Based on coordination with the New York Natural Heritage Program, the United States Fish and Wildlife Service, and NYSDEC, there are six protected species known to occur in the vicinity of the Facility Area (Table 2-2). Four of the six species are protected as Threatened or Endangered in the State, and the remaining two species are considered "Special Concern." Only two of the six species are federally protected under the Endangered Species Act.

Table 2-2. Protected Species Identified Near the Facility Area

Species	Scientific Name	Federal Status	State Status
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Threatened
Eastern small-footed bat	<i>Myotis leibii</i>	Not Applicable	Special Concern
Northern harrier	<i>Circus cyaneus</i>	Not Applicable	Threatened
Short-eared owl	<i>Asio flammeus</i>	Not Applicable	Endangered
Horned lark	<i>Eremophila alpestris</i>	Not Applicable	Special Concern

An analysis for each of the six protected species identified in Table 2-2 indicates that based on the natural life history of each species, the conditions in the Facility Area, avoidance and minimization efforts proposed, and results of species-specific surveys, the Facility is not likely to adversely affect any of the six species. Although none of the species were documented to be present within the Facility Area, avoidance and minimization measures have been implemented throughout Facility planning, and tree clearing has been limited to the greatest extent possible through the selection of open fields for most Facility layout features. To assure that the limited construction tree clearing has no potential to impact protected bat species, the Co-Applicants have committed to conduct tree clearing between November 1 and April 1, outside of the typical active season for summer roosting bats.

The Facility will generate electricity without contributing any perceptible additional sound to the existing acoustic ambient environment. Expected sound levels will be well below limits adopted by the Siting Board in recent Article 10 decisions. Temporary, local, and minor impacts to ambient sound levels could result from intermittent construction activities, but these impacts will be short-term, localized, and typical of routine construction projects.

There are eight previously identified archaeological sites within the Facility Area (USN A03905.000024;

USN A03905.000169; USN A03905.000174 through .000177; USN A03905.000190; and USN A03905.000193). Two of the sites (USN A03905.000190 and USN A03905.000193) within the Facility Area but will not be impacted by the site development plans. The remaining six archaeological resources fall within the Facility's archaeological Area of Potential Effect and have the potential to be impacted by the development, these sites are included in the on-going archaeological investigations which will be completed as soon as weather permits. In addition, research conducted for the Historic Resources study identified 35 State/National Register of Historic Places eligible or listed properties within a 1-mile radius of the Facility. The Facility will have no direct impact on any historic architectural resources (i.e., no historic structures will be damaged or removed as a result of Facility construction or operation). The field review conducted as part of the historic resources survey indicated that the topography, forested lots, existing buildings, street trees, yard vegetation, utility poles, and other objects obstruct distant views to the Facility. Due to rolling topography and abundant surrounding vegetation, there are no potential views of the Facility from the Village of Coxsackie or the hamlet of West Coxsackie, and the Facility is not expected to have any effect on the visual setting associated with historic resources in these locations.

A review of previously recorded properties was conducted within a 1-mile radius of the Facility. Site file searches indicated that there are 35 previously identified historic properties or districts that have been determined eligible for listing in or are listed in the S/NRHP, 29 of which occur within the Reed Street Historic District northeast of the Facility, located in the Village of Coxsackie (Table 20-1). One S/NRHP-eligible property, the Kadlick Farm (USN 03905.000067) is located directly adjacent to the Facility. Due to the Facility's proximity to this property, indirect impacts to the surrounding viewshed are possible. A second previously identified property, 964 Flat Road (USN 03905.000128), is located 482 feet west of the Facility, however, this property has been determined not eligible for the NRHP and will not be impacted by the proposed Project. No previously identified properties are located within the Facility Area.

Overall, the Facility will result in minimal to no change to the landscape conditions for most viewers within the 5-mile visual study area. It is anticipated that viewers not directly adjacent to the Facility will be mostly to completely screened by existing topography and/or vegetation and will, therefore, result in minimal to no visual impacts. Viewers adjacent to the Facility Area, including nearby residences and travelers along Farm to Market Road (County Route 57) and Adams Road, are more likely to have a direct view of the Facility, although travelers will be focusing on the road ahead of them and their view of the Facility would be fleeting at best. Existing vegetation and undulating topography are expected to screen most views along Farm to Market Road and Adams Road; new vegetation is proposed to further screen potential views. Based upon the modeling conducted, no type or occurrence of glare was predicted as a result of the Facility along Farm to Market Road, Adams Road, or at the Tetra Tech, Inc. visual simulation observation points.

Other programs also will be implemented to minimize impacts, including, but not limited to, a Complaint Resolution Plan (provided as Appendix 12-C), a Preliminary Operations and Maintenance Plan (provided as Appendix 5-C), and a site restoration and decommissioning plan (further discussed in Exhibit 29).

Construction traffic will primarily involve the use of aggregate trucks and semi-trailers as described in Exhibit 25. A daily average of 20–25 trucks are anticipated to support the delivery of equipment and construction activity. The Facility's access routes have been designed to minimize impacts to the maximum extent practicable. Based upon the technical assessment, provided as Appendix 25-A, no modifications are proposed in association with the Facility. Roadway conditions will be documented pre- and post-construction; if required, road way repairs will be completed in coordination with the respective authority.

Based on a review of publicly available data and field observations, an unused underground telecommunication line is located within the existing AT&T easement located within the Facility Area. The

Co-Applicants have avoided siting Facility components within this easement except for where underground electrical lines will cross perpendicular to the easement. The Co-Applicants are currently in negotiations with AT&T to relocate this easement to the eastern side of the western Facility parcel along Farm to Market Road (Figure 26-1). If this occurs, any line located within the easement would likely be abandoned in place. As a result of the communications and negotiations that have taken place with AT&T to date, no adverse impacts to this underground telecommunications line is expected, as it currently is not in use by AT&T. Additionally, although no other lines have been identified within the 2-mile Study Area (outside of the Facility Area), they would not be impacted by the Facility. They would not experience physical disturbance from construction activities or unintended bonding because they are not within the Facility Area. In addition, based on the Co-Applicants' understanding of the operational electronics of the Facility, no other potential for interference to telecommunication lines outside the Facility Area would result from operation of the Facility.

The Co-Applicants are completely avoiding and will not impact the existing utility ROWs (pipeline and electric lines) that are adjacent to the western Facility Area boundary, and as such, no encroachment guidelines are required. The Co-Applicants are coordinating with AT&T regarding the existing easement that runs north-south through the Facility Area, and once the design plans are finalized, AT&T and the Co-Applicants will cooperatively determine if encroachment guidelines are required for the unused underground telecommunications line and easement, to avoid and minimize potential conflicts with existing utility infrastructure during Facility construction and operation.

(3) The Facility is Designed to Operate in Compliance with Applicable State, and Substantive Local Laws and Regulations

As discussed in Exhibits 31 and 32, the Facility is designed and will operate in compliance with applicable state, and most substantive local laws and regulations concerning, among other matters, the environment and public health and safety. There are several local laws applicable to the Facility that have been identified as unreasonably burdensome (see Exhibit 31), and the Co-Applicants are requesting that the New York State Board on Electric Generation Siting and the Environment refuse to apply these local governmental restrictions. The Facility will be constructed as designed and will be operated in compliance with the Town of Coxsackie's applicable substantive local laws and regulations with the exception of the following:

- Zoning district restrictions for utility-scale solar (Code §§ 167-6(B)(1), (2))
- Lot coverage (Code § 167-6(B)(5))
- Buried lines and wiring (Code § 167-6(C)(4)(q))

Accordingly, the Co-Applicants respectfully submit that this Article 10 Application provides a sufficient evidentiary basis for the Siting Board to make the required statutory findings and determinations to issue an Article 10 Certificate.

(f) Benefited Consumers

The Co-Applicants have entered into a 20-year contract with the New York State Energy Research & Development Authority for 30 MW of Renewable Energy Credits and 20-year contracts with Eversource Energy and the United Illuminating Company for 20 MW of energy and Renewable Energy Credits. Physically, the energy produced by the Facility will be consumed by the nearest electrical loads, almost certainly in the State. The analysis presented in Exhibit 8 illustrates that the wholesale, zonal average, locational marginal price at the Facility's point of interconnection would decrease when the Facility

commences operation. Climate change knows no borders and the clean solar energy generated by the Facility will benefit State residents and all global citizens.

References

United States Environmental Protection Agency. No date. Green Vehicle Guide. Greenhouse Gas Emissions from a Typical Passenger Vehicle. Available online at: Greenhouse Gas Emissions from a Typical Passenger Vehicle. Accessed December 16, 2019.



Greene County Solar Facility

Case No. 17-F-0617

Exhibit 2 Figures

Figure 2-1 Facility Area

Figure 2-2 Facility Layout

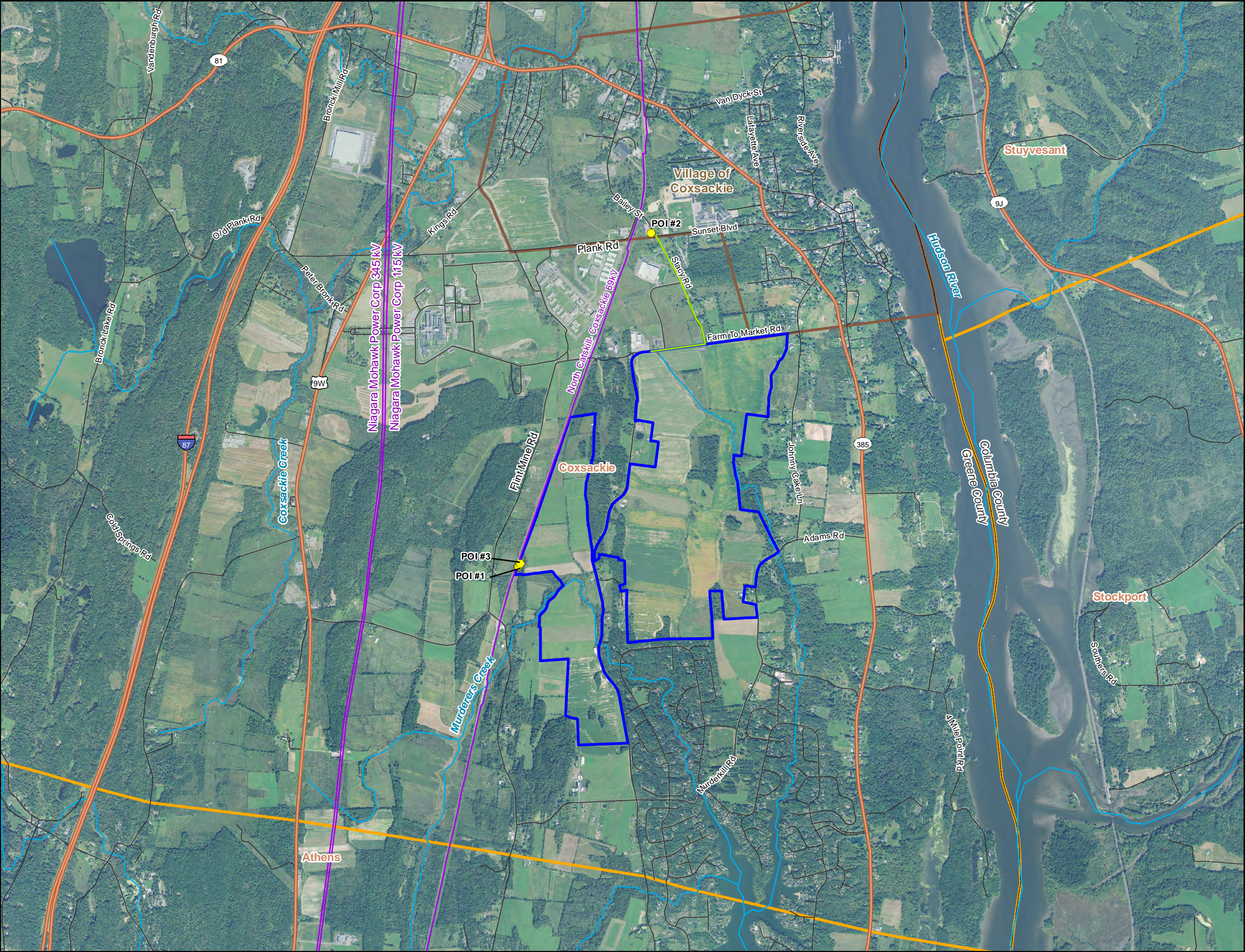
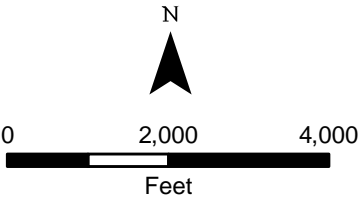


Figure 2-1
Facility Area

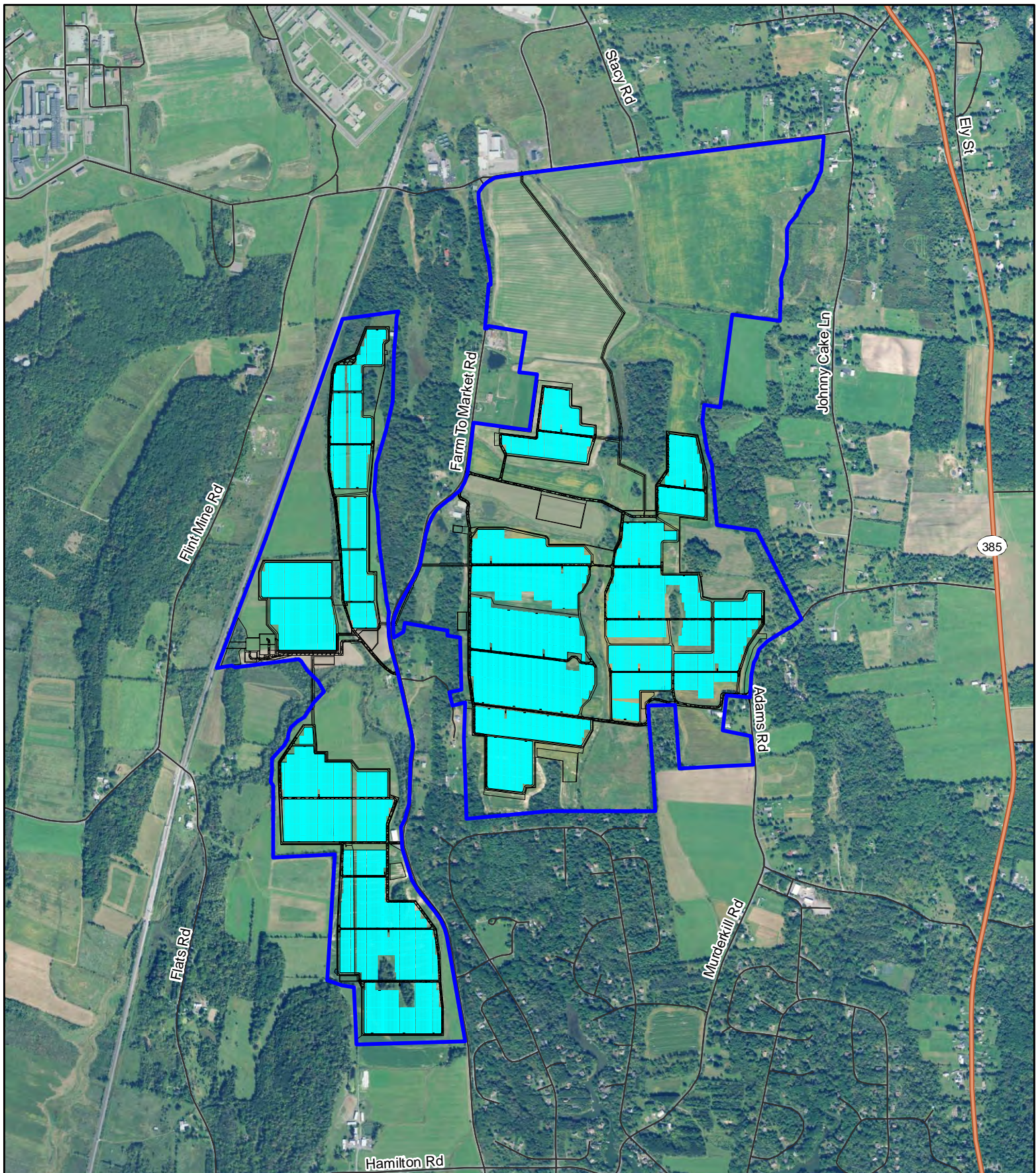
Greene County Solar Facility
Greene County, New York

- Facility Area
- Related Facility
- Point of Interconnection (POI)
- County Boundary
- City/Town Boundary
- Village Boundary
- Major Road
- Local Road
- Waterway
- Existing Transmission Line



Source: ESRI (2016), USDA NAIP (2017),
Ventyx (2019)

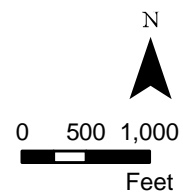




Legend

- Facility Area
- Facility Layout
- Panel Layout

Source: USDA NAIP (2017)



**Figure 2-2
Facility Layout**

Greene County Solar Facility
Greene County, New York



Greene County Solar Facility

Case No. 17-F-0617

Appendix 2-A

Master List of Stakeholders

Agencies and Businesses

ACE NY Kathleen Gasperini, Communications Consultant 119 Washington Avenue Suite 1G, Albany NY 12210 (518)-432-1405 x226 kgasperini@aceny.org	Coxsackie Correctional Facility 11260 State Route 9W, Coxsackie NY 12051 (518) 731-2781
Alliance for Clean Energy New York, Inc. Zack Dufresne, Director of Member Services, Clean Energy Advocate 119 Washington Avenue Suite 1G, Albany NY 12210 (518) 432-1405 Article10@aceny.org	Coxsackie-Athens Central School District Randall W. Squier, Superintendent of Schools 24 Sunset Blvd, Coxsackie NY 12051 (518) 731-1710 squierr@cacsd.org
Association of Property Owners of Sleepy Hollow Lake, Inc. Laurel Mann, Association Manager Unit 1095 92 Randy Road, Athens NY 12015 (518) 731-6175 LMann@sleepyhollowlake.org	CSX 214 E Main Street, Batavia NY 14020 (585) 345-7468
Athens Lower Village Historic District Lynn J. Brunner, Town of Athens Historian 2 First Street, Athens NY 12015 (518) 945-1052	Empire State Development Corporation Kenneth Tompkins, Mohawk Valley Regional Director 207 Genesee Street, Utica NY 13501 (315) 793-2366 nys-mohawkval@esd.ny.gov
Audubon Society of New York Elizabeth Burns, Development & Communications Associate State Headquarters –, 2 Third Street, Suite 480, Troy NY 12180 (518) 869-9731 eburns@audubon.org	Grant & Lyons LLP on behalf of Saving Greene John Lyons, P.O. Box 370, Rhinecliff NY 12574 845-876-2800 jlyons@grantlyons.com
Barton& Loguidice, D.P.C Stephen LeFevre, Senior Managing Hydrologist 10 Airline Drive, Suite 200, Albany, NY 12205 518-218-1801 slefevre@bartonandloguidice.com	Greene Correctional Facility 165 Plank Road, Coxsackie NY 12051 (518) 731-2741
Central Hudson Gas & Electric Corp. Michael Mosher, President 284 South Avenue, Poughkeepsie NY 12601 (845) 452-2700	Greene County Marilyn Farrell, County Clerk 411 Main Street, Catskill NY 12414 (518) 719-3255 mfarrell@discovergreene.com
Columbia County Holly Tanner, County Clerk 560 Warren Street, Hudson NY 12534 (518) 828-3339 Holly.tanner@columbiacountyny.com	Greene County Shaun S. Groden, Administrator 411 Main Street, Catskill NY 12414 (518) 719-3270
Columbia County Airport Dean Knox, Airport Manager 401 State Street, Hudson NY 12534 (518) 828-7011	Greene County Agricultural Society, Inc. Tara Licata, President P.O. Box 84, Greenville NY 12083 (518) 928-5457
Columbia County Board of Supervisors Matt B. Murell, Chairman 401 State Street, Hudson NY 12534 (518) 828-1527 matt.murell@columbiacountyny.com	Greene County American Legion (3rd District) Keith Koster, Department Vice Commander 6 Deerleap Place, Saratoga NY 12866 (518) 583-9235 Keith.koster@xerox.com
	Greene County Economic Development, Tourism & Planning Department Warren Hart, Director of Economic Development & Planning 411 Main Street 4th Floor Suite 419, Catskill NY 12414 (518) 719-3290 business@discovergreene.com

Agencies and Businesses

Greene County Economic Development, Tourism & Planning Department Rich Schiafo, Director/Deputy County Administrator 411 Main Street 4th Floor Suite 419, Catskill NY 12414 (518) 719-3290 rschiafo@discovergreene.com	Ichabod Crane School District Lee Bordick, Interim Superintendent PO Box 820, Valatie NY 12184 (518) 758-7575 ext. 3002 lbordick@ichabodcrane.org
Greene County Emergency Services John Farrell, Director 25 Volunteer Drive, Cairo NY 12413 (518) 622-3643 jfarrell@discovergreene.com	Kline Kill Airport George Kerner, Manager PO Box 271, Chatham NY 12037 (518) 527-2762
Greene County Historical Society 90 County Road 42, Coxsackie NY 12051 (518) 731-6490	New York Energy Research and Development Authority Maureen Leddy, Senior Project Manager 17 Columbia Circle, Albany NY 12203 maureen.leddy@nyserda.ny.gov
Greene County Industrial Development Agency René VanShaack, Executive Director 270 Mansion Street, Coxsackie NY 12051 (518) 731-5500	New York Independent System Operator Michael Bemis, Board Chair 10 Krey Boulevard, Rensselaer NY 12144 (518) 356-6060 stakeholder_services@nyiso.com
Greene County Legislature Thomas Hobart, District 2 Representative 411 Main St Suite 408, Catskill NY 12414 (518) 859-7803 thobart@discovergreene.com	New York Progressive Action Network Donald Gardner, 369 Tommy Trail #1244, Athens, NY 12015 (518) 444-4593 donald@gardnerproject.com
Greene County Legislature Charles Martinez, District 2 Representative 38 Flint Mine Rd., Coxsackie NY 12051 (518) 731-8825 cmartinez@discovergreene.com	New York State Assembly Chris Tague, 102nd District Albany Office LOB 402, Albany NY 12248 (518) 455-5363 taguec@nyassembly.gov
Greene County Soil and Water Conservation District Jeff Flack, Executive Director 907 Greene County Office Bldg., Cairo NY 12413 (518) 622-3620 jeff@gcswcd.com	New York State Department of Agriculture and Markets Jason Mulford, 10B Airline Drive, Albany NY 12235 Jason.mulford@agriculture.ny.gov
Greene Land Trust Jill Knapp, Executive Director 270 Mansion Street, Coxsackie NY 12051 518-731-5544 jsk53@cornell.edu	New York State Department of Agriculture and Markets Kathleen Tylutki, 10B Airline Drive, Albany NY 12235 (518) 457-2851 Kathleen.Tylutki@agriculture.ny.gov
Hecate Energy LLC Gabriel Wapner, 621 W. Randolph St, Chicago IL 60661 518-788-7337 GWapner@HecateEnergy.com	New York State Department of Agriculture and Markets Tara Wells, Senior Attorney 10B Airline Drive, Albany NY 12235 (518) 487-6084 Tara.Wells@agriculture.ny.gov
Hudson City School District Maria Lagana (Dr.) Suttmeier, Superintendent 215 Harry Howard Ave, Hudson NY 12534 (518) 828-4360 suttmeierm@hudsoncsd.org	New York State Department of Agriculture and Markets Richard Ball, Commissioner 10B Airline Drive, Albany NY 12235 (585) 457-8876 commissioner@agriculture.ny.gov

Agencies and Businesses

<p>New York State Department of Environmental (NYSDEC), Central Office, Division of Environmental Permits, Major Project Management Kristy E. Primeau, Environmental Analyst 625 Broadway, Albany NY 12233-1750 (518) 402-9185 kristy.primeau@dec.ny.gov</p>	<p>NYS Department of Public Service Heather Behnke, Assistant Council Empire State Plaza, Agency Building 3 (18th Fl.), Albany NY 12223 (518) 474-5474 heather.behnke@dps.ny.gov</p>
<p>New York State Department of Environmental Conservation Mary Bonilla, Senior Attorney 625 Broadway - 14th Floor, Albany NY 12233 518-402-9536 maryanne.bonilla@dec.ny.gov</p>	<p>NYS Department of Public Service Lorna Gillings, Outreach Contact Office of Consumer Services, 3 Empire State Plaza, Agency Building 3, Albany NY 12223 (800) 342-3377 lorna.gillings@dps.ny.gov</p>
<p>New York State Department of Environmental Conservation Kara Paulsen, Assistant Attorney 3 625 Broadway - 14th Floor, Albany NY 12233 518-402-9191 kara.paulsen@dec.ny.gov</p>	<p>NYS Department of Public Service Cassandra Partyka, Assistant Counsel Empire State Plaza, Agency Building 3 (18th Fl.), Albany NY 12223 (518) 474-0517 cassandra.partyka@dps.ny.gov</p>
<p>New York State Department of Health Richard Thomas, Assistant Counsel Corning Tower Empire State Plaza, Albany NY 12237 richard.thomas1@health.ny.gov</p>	<p>NYS Department of Public Service – Office of Electric, Gas and Water Andrew Davis, Empire State Plaza, Agency Building 3, Albany NY 12223 (518) 486-2885 Andrew.davis@dps.ny.gov</p>
<p>New York State Hudson River Valley Greenway- Greenway Conservancy for the Hudson River Valley Kevin M. Burke, Acting Chair 625 Broadway 4th Floor, Albany NY 12207 (518) 473-3835 hrvg@hudsongreenway.ny.gov</p>	<p>NYS Department of Public Service - Office of Hearings and Administrative Dispute Resolution Anthony Belsito, Empire State Plaza, Agency Building 3 (3rd Fl.), Albany NY 12223 Anthony.Belsito@dps.ny.gov</p>
<p>New York State Office of Parks, Recreation, and Historic Preservation Alane Ball Chinian, Regional Director 19 Roosevelt Drive, Saratoga Springs NY 12866 (518) 584-2535 alane.ballchinian@parks.ny.gov</p>	<p>NYS Department of Public Service - Office of Hearings and Administrative Dispute Resolution Maureen Leary, Empire State Plaza, Agency Building 3 (3rd Fl.), Albany NY 12223 maureen.leary@dps.ny.gov</p>
<p>NY State Senate George A. Amedore Jr., 46th District Albany Office, Legislative Office Building, Room 802, Albany NY 12247 (518) 455-2350 amedore@nysenate.gov</p>	<p>NYS Department of State Rossana Rosado, Secretary of State One Commerce Plaza, 99 Washington Avenue, Albany NY 12231-0001 (518) 473-2293 info@dos.ny.gov</p>
<p>NYS Department of Economic Development Howard Zemsky, Commissioner 633 Third Avenue Floor 37, New York NY 10017 nys-nyc@esd.ny.gov</p>	<p>NYS Department of State Office of Planning – Coastal Consistency Bureau One Commerce Plaza, 99 Washington Ave, Albany NY 12231-0001 (518) 474-6000 opd@dos.ny.gov</p>
	<p>NYS Department of Transportation, Region 1 Pat Barnes P.E., Regional Director Executive</p>

Agencies and Businesses

Office, 50 Wolf Road, Suite 1s50, Albany NY 12232 (518) 457-3522 brian.kirch@dot.ny.gov	markflach77@gmail.com
NYS Division of Homeland Security and Emergency Services Jerome Hauer, Commissioner State Office Campus Building 7A Suite 710, 1220 Washington Ave., Albany NY 12242 (518) 242-5000 website@dhses.ny.gov	Read and Laniado, LLP Sam Laniado, Partner 25 Eagle Street, Albany NY 12207-1901 (518) 465-9313 sml@readlaniado.com
NYS Energy Research and Development Authority Alicia Barton, President 17 Columbia Circle, Albany NY 12203 (518) 862-1090 info@nyserda.ny.gov	Read and Laniado, LLP Tyler Wolcott, Associate 25 Eagle Street, Albany NY 12207 (518) 465-9313 tyler@readlaniado.com
NYS Energy Research and Development Authority Richard Kauffman, Chair 17 Columbia Circle, Albany NY 12203 (518) 862-1090 info@nyserda.ny.gov	Real Information about Solar Energy - R.I.S.E. Seth Frame, 59 Lafayette Ave., Coxsackie NY 12051 (307) 752-5292 ConnectwithRISE@gmail.com
NYS Office of General Services RoAnn Destito, Commissioner 41st Floor Corning Tower, Empire State Plaza, Albany NY 13342 (518) 474-3899 RoAnn.Destito@ogs.ny.gov	Richmore Aviation Mahlon Richards, PO Box 423, Hudson NY 12534
NYS Public Service Commission James Denn, Public Information Officer Empire State Plaza, Agency Building 3 (20th Fl.), Albany NY 12223 (518) 474-7080 James.denn@dps.ny.gov	Saint Regis Mohawk Tribe 412 State Route 37, Akwesasne NY 13655' communications@srmt-nsn.gov
NYS Thruway Authority Bill Finch, Executive Director Adm Headquarters 200 Southern Blvd., P.O. Box 189, Albany NY 12201-0189 (518) 436-2700	Saving Greene Kim Rose, P. O. Box 369, Coxsackie NY 12051 518-469-3446 kmrose927@gmail.com
NYSDEC Basil Seggos, Commissioner 625 Broadway, Albany NY 12233-1011 basil.seggos@dec.ny.gov	Scenic Hudson, Inc. Hayley Carlock, Director of Environmental Advocacy 1 Civic Center Plaza Suite 200, Poughkeepsie NY 12601 (845) 473-4440 hcarlock@scenichudson.org
NYSDEC, Central Office Daniel Whitehead, Director Major Project Management, 625 Broadway, Albany NY 12233-1750 (518) 402-9167 deppermitting@dec.ny.gov	Scenic Hudson, Inc. Audrey Friedrichsen, Land Use and Environmental Advocacy Attorney 1 Civic Center Plaza Suite 200, Poughkeepsie NY 12601 (845) 473-4440 x226 afriedrichsen@scenichudson.org
Participating Landowner Mark Flach, Individual Landowner 402 County Road 101, Selkirk NY 12158 (518) 588-8661	Sierra Club Atlantic Chapter Roger Downs, Conservation Director 744 Broadway, Albany NY 12207 (518) 426-9144 Atlantic.chapter@sierraclub.org
	Sleepy Hollow Lake Association of Property Owners Laurel Wolfe, Unit 1095 92 Randy Road, Athens NY 12015 518-731-6175 lwolfe@sleepyhollowlake.org
	Stockbridge-Munsee Community Band of Mohican Nation Shannon Holsey, Tribal

Agencies and Businesses

<p>President N8476 MoHeConNuck Road, Bowler WI 54416 (715) 793-4387 Shannon.holsey@mohican-nsn.gov</p>	<p>US Senate Charles E. Schumer, US Senator Leo O'Brien Building Room 420, Albany NY 12207 (518) 431-4070</p>
<p>Tetra Tech, Inc. Lynn Gresock, Vice President & Project Manager 3 Lan Drive, Suite 100, Westford, MA 01886 978-303-8527 lynn.gresock@tetrattech.com</p>	<p>Village of Athens Mary Jo Wynne, Village Clerk 2 First Street, Athens NY 12015 (518) 945-1551</p>
<p>Tetra Tech, Inc. Linda Rivard, Project Manager Linda.Rivard@tetrattech.com</p>	<p>Village of Coxsackie Nikki Berezna, Village Clerk 119 Mansion Street, Coxsackie NY 12051 (518) 731-2718 NBerezna@villageofcoxsackie.com</p>
<p>Town of Athens Linda M. Stacey, Town Clerk 2 First Street, Athens NY 12015 (518) 945-1052 option 2 lstacey@townofathensny.com</p>	<p>Village of Coxsackie Mark Evans, Mayor 119 Mansion Street, Coxsackie NY 12051 (518) 731-2718 mayor@villageofcoxsackie.com</p>
<p>Town of Coxsackie Bambi Hotaling, Town Clerk Town Hall – 16 Reed Street, Coxsackie NY 12051 (518) 731-2727 clerk@coxsackie.org</p>	<p>Village of Coxsackie Historic Preservation Committee Patricia Maxwell, Temporary Chairperson/Member 119 Mansion Street, Coxsackie NY 12051 (518) 731-1302</p>
<p>Town of Coxsackie Planning Board Bruce Haeussler, Chairman Town Hall –, 16 Reed Street, Coxsackie NY 12051 (518) 731-2727 bhaeussler@bblinc.com</p>	<p>Village of Coxsackie Planning Board Patricia Maxwell, Chairperson 119 Mansion Street, Coxsackie NY 12051 (518) 731-1302</p>
<p>Town of Coxsackie, Supervisor Richard K. Hanse, Supervisor Town Hall –, 16 Reed Street C, Coxsackie NY 12051 (518) 731-2727 info@coxsackie.org</p>	<p>Village of Coxsackie Zoning Board of Appeals Peter Willis, Chairman 119 Mansion Street, Coxsackie NY 12051 (518) 731-2664</p>
<p>Town of Stockport Sandra M. Novak, Town Clerk Stockport Town Hall -, 2787 Atlantic Avenue, Hudson NY 12534 (518) 828-9389 ext. 7 stkptc@mhccable.com</p>	<p>Whiteman Osterman & Hanna LLP Alexandra Dobles, Associate One Commerce Plaza, Albany NY 12210 (518) 487-7600 adobles@woh.com</p>
<p>US House of Representatives Antonio Delgado, 19th Congressional District 1007 Longworth HOB, Washington DC 20515 (202) 225-5614</p>	<p>Saving Greene savinggreene@gmail.com</p>
<p>US Senate Kirsten E. Gillibrand, US Senator Leo W. O'Brien Federal Office Building, 11A Clinton Avenue, Room 821, Albany NY 12207 (518) 431-0120 invite@gillibrand.senate.gov</p>	

Adjacent Landowners

Luciano Agovino 10429 Route 9W, Cossackie NY 12051 [REDACTED]	Pam Hollinde, 1667 Farm to Market Road, Cossackie NY 12051 [REDACTED]
Doug Baxter 71 Adams Rd, Athens NY 12015 731-9308 [REDACTED]	Sheldon Jacobovitch [REDACTED]
John Benson [REDACTED]	Mary Jo Jaeger, 87 Tommy Trail, Athens NY 12015 [REDACTED]
Mary Blinn, 188 Mansion St, Cossackie NY 12051 [REDACTED]	Margaret Jones, 323 Adams Road, Athens, NY 12015 [REDACTED]
Chris Chimento 2159 Farm to Market Rd, Cossackie NY 12051 [REDACTED]	Susan Kayne, 1700 Farm to Market Rd, Cossackie NY 12051
Leslie Copleston, 597 Riverside Ave, Cossackie NY 12051 [REDACTED]	Robert Knighton [REDACTED]
CT [REDACTED]	Kris Martin, 1755 Farm to Market Rd, Cossackie NY 12051 [REDACTED]
Betty Cure 96 Ely Street, Cossackie NY 12051 [REDACTED]	Pat Maxwell, PO Box 214, Cossackie NY 12051 [REDACTED]
Michael Deering [REDACTED]	Cindy McCarran, 35 Noble St, Cossackie NY 12051 [REDACTED]
Nancy Dorn, 142 Haunted Circle, Athens, NY 12210 [REDACTED]	Carol A Metz 1381 Sleepy Hollow Rd, Athens NY 12015 [REDACTED]
Patrick Doyle, 615 Vanderlyn Lane, Slingerland NY 12159 [REDACTED]	Mary Novak, 46 Sutton Place, Cossackie NY 12051 [REDACTED]
Joe Ellis, 6 Van Dyck St, Cossackie NY 12051 [REDACTED]	Tessa Partridge, 1700 Farm to Market Rd, Cossackie NY 12051 [REDACTED]
Mark Evans, mevans@statetel.com	Michael H Rausch, 180 County Route 81 #3, Climax NY 12042 [REDACTED]
Lorraine Ferrara, 2964 State Route 385, Cossackie NY 12051 [REDACTED]	Jeanette Rice [REDACTED]
Cari Gardner cariyogi@gmail.com	Dianne Ringwald, 57 New St, Cossackie NY 12051 [REDACTED]
Ed Hill Jr. [REDACTED]	Kim Rise, on behalf of Saving Greene [REDACTED]
Ed Hodgens [REDACTED]	Louis Roller, PO Box 108, Earlton NY 12058 [REDACTED]
Jeff Hoessle, 2929 State Route 385, Cossackie NY 12051 [REDACTED]	

Adjacent Landowners

Jeffery Rose, 2924 Route 385, Cocksackie NY 12051 [REDACTED]	Central Hudson Gas & Elec 284 South Ave, Poughkeepsie, NY 12602
Christie Schaefer, 2964 State Route 385, Cocksackie NY 12051 [REDACTED]	Columbia-Boulder LLC PO Box 69, Coeymans, NY 12045
Stacey Smith, 3 Luke St, Cocksackie NY 12051 [REDACTED]	Community In Cocksackie PO Box 314, Cocksackie, NY 12051
Brian Tighe, 63 Sutton Place, Cocksackie NY 12051 [REDACTED]	County of Greene 411 Main St, Catskill, NY 12414
Andrew Tighe, 2135 Farm to Market Rd, Cocksackie NY 12051 [REDACTED]	Cocksackie-Athens Cent. School 24 Sunset Blvd, Cocksackie, NY 12051
Anson Tollefson, 29 Elm St, Cocksackie NY 12051 [REDACTED]	Ducommun Aerostructures NY Inc 23301 S Wilmington Ave, Carson, CA 90745
Natalie Turner, 623 Rt 81, Climax NY 12042 [REDACTED]	Equinox Properties LLC, 2 Progress Dr, Clifton Park, NY 12065
Daryl Yost, 1667 Farm to Market Road, Cocksackie NY 12051 [REDACTED]	Flach Family Trust 128 Hamilton Rd, Athens, NY 12015
Jolene Yost, 1667 Farm to Market Road, Cocksackie NY 12051 [REDACTED]	Freedom Mortgage Corporation 10500 Kincaid Dr, Fishers, IN 46037
Joanne Yost, 1667 Farm to Market Road, Cocksackie NY 12051 [REDACTED]	G Family Properties LLC 57 Townsend Rd, Wanaque, NJ 07420
Joanne Yost [REDACTED]	Garden Club Cocksackie, NY 12051
Judy Zoller, 10 Luke St, Cocksackie NY 12051 [REDACTED]	Greene County 411 Main St, Catskill, NY 12414
2071 Sleepy Hollow Corp 188 Eckford St, Brooklyn, NY 11222	Greene County IDA 270 Mansion St, Cocksackie, NY 12051
21st Century Dev. Corp. PO Box 100, Athens, NY 12015	Igloo Series III REO LLC PO Box 517, Titusville, PA 16354
Aaron's Assets PO Box 274, Glenmont, NY 12077	Karlsen Contracting LLC 95 S River St, Cocksackie, NY 12051
Aaron's Assets Inc 370 Mansion St, West Cocksackie, NY 12192	Kuxakee Prop. LLC 80 Beecher Rd, Cocksackie, NY 12051
Archaeological Ass Inc LI Chap PO Box 268, Southold LI, NY 11971	Mansion Street Development 11 Wayne Dr, Cocksackie, NY 12051
Assoc. of Property Owners SHL 92 Randy Rd Unit 1095, Athens, NY 12015	Marsan Properties Inc. PO Box 250, Cocksackie, NY 12051
Cedar Shade Farm LLC 334 Kings Rd, Cocksackie, NY 12051	Mizrachi Family Inv LLC 17 Bow St, Forest Hills, NY 11375
	MNM Estates LLC 127 RT 59 C5A, Monsey, NY 10952
	Natural Resource Upper Hudson & Catskills 270 Mansion St, Cocksackie, NY 12051
	NYS Urban Dev Corp PO Box 191, Catskill, NY 12414
	Occupations Inc. 15 Fortune Rd. West, Middletown, NY 10941

Adjacent Landowners

Preston Dev Group LLC 159 Delaware Ave, Delmar, NY 12054	John P. Altieri, 94 Jenkins Ave, North Babylon, NY 11703
R & W Green Structures LLC 2315 Rt 81, Earlton, NY 12058	Pina Altobelli, 25 Fulmar Rd, Mahopac, NY 10541
R&S Francis Holdings Inc 187 Green Bedell Rd, Cocksackie, NY 12051	Camilo Alvarez, 514 East 9Th St, Brooklyn, NY 11218
S H Lake Trustee 19 Grissom Dr, Clifton Park, NY 12065	Robert Andersen, 142 Adams Rd, Athens, NY 12015
SHL Ass of Prop Owners 92 Randy Rd Unit 1095, Athens, NY 12015	Joseph M. Anderson, 1581 Farm To Market Rd, Cocksackie, NY 12051
SHL Sewerage Co Inc 92 Randy Rd Unit 1095, Athens, NY 12015	George Anderson, 753 Durant Ave, Staten Island, NY 10308
St Mary's Catholic Church 80 Mansion St, Cocksackie, NY 12051	Chellie Lee Apa, PO Box 283, Cocksackie, NY 12051
State of New York 411 Main St, Catskill, NY 12414	Anicia Aquino, 1071 Peterson St, Myrtle Beach, SC 29577
Summit Tech & Resources LLC PO Box 100, Ramsey, NJ 07446	Myra B. Armstead, 8 Walnut Hill Rd, Poughkeepsie, NY 12603
The Association of Prop Owners SHL 92 Randy Rd, Athens, NY 12015	Steven R. Auerbach, 84 Superstitious Dr, Athens, NY 12015
US Bank Trust NA 3630 Peachtree Rd NE Ste 1500, Atlanta, GA 30326	Thomas P. Baccari, 661 Toni Ct, Yorktown Heights, NY 10598
Village of Cocksackie 119 Mansion St, Cocksackie, NY 12051	George C. Baker, 1466 Sleepy Hollow Rd, Athens, NY 12015
Visions Federal Credit 24 McKinley Ave, Endicott, NY 13760	Michael Balsano, 93 Petersville Rd, New Rochelle, NY 10801
VVL Property Management Inc PO Box 55, Athens, NY 12015	Scott Barbeau, 242 Dodge St, Beverly, MA 01915
W A Properties LLC PO Box 274, Glenmont, NY 12077	William C. Barnhart, 8 Charity Ct Unit 2110, Athens, NY 12015
Wenwei LLC 43 Fifth Ave Apt 6W, New York, NY 10003	Florette Barror, 65 Ely St, Cocksackie, NY 12051
Emily Kunchala (as Trustee), 71 Sutton Pl, Cocksackie, NY 12051	Bruce Baxter, 49 Washington Ave, Cocksackie, NY 12051
Eileen D. Abel, PO Box 399, Cocksackie, NY 12051	Douglas Baxter, 71 Adams Rd, Athens, NY 12015
Alice Agasan, 2607 Heron Landing Ct, Orlando, FL 32837	Richard Kurt Baxter, 61 Sunset Blvd, Cocksackie, NY 12051
Shamsu Uddin Ahmed, 37-06 72nd St Apt 1C, Jackson Heights, NY 11372	Alfred Beckmann, 1767 Broadway, Hwelett, NY 11557
Hussain Ahmed, 30622, Sharjah, UAE	Robert Bedford, PO Box 353, Cocksackie, NY 12051
Najmul M. Alam, 2070 Sleepy Hollow Rd, Athens, NY 12015	Kevin Beiter, 2013 Sleepy Hollow Rd Unit 2129, Athens, NY 12015
Robert W. Allo, 109 Heritage Rd, Clinton Corners, NY 12514	Kimberly K. Bender, 149 S River St, Cocksackie, NY 12051

Adjacent Landowners

Kimberly K. Bender, 102 S River St, Cocksackie, NY 12051
Ann Benenati, 49 Henry St, Selden, NY 11784
Scott M. Bennett, 37 Johnny Cake Ln, Cocksackie, NY 12051
Gordon W. Bennett, 48 Johns Jog #1156, Athens, NY 12015
William Bennett, PO Box 56, Cocksackie, NY 12051
John F. Benson, 57 Ely St, Cocksackie, NY 12051 [REDACTED]
Joseph J. Berlin, 80 Ely St, Cocksackie, NY 12051
Andrew A. Berlin, 70 Ely St, Cocksackie, NY 12051
Matthew Bernard, 4 Kriss Krossing, East Greenbush, NY 12061
Louis P. Betke, PO Box 203, Cocksackie, NY 12051
Daniel G. Bie, 323 Lasher Rd, Tivoli, NY 12583
Donna Biscione, 2551 Rt 385, Cocksackie, NY 12051
Gregory J. Bleau, 245 Hamilton Rd, Athens, NY 12015
Timothy E. Boakes, 531 Adams Rd, Cocksackie, NY 12051
Brent E. Bogardus, 1 Molly White Dr, Cocksackie, NY 12051
George E. Bohonyi, 341 Treeline Trce, Port St Lucie, FL 34986
Erica Boms, 3 Fish Ct, Athens, NY 12015
Daniel J. Bonge, 386 Massapequa Ave, Massapequa, NY 11758
Christopher Bourguignon, 3 Greenwood Dr, Cocksackie, NY 12051
Michele A. Bowman, 4 Wolf Ct Unit 1185, Athens, NY 12015
Matthew Braden, 2 Molly White Dr, Cocksackie, NY 12051
Andrew Branley, 80 Daredevil Dr Unit 2151, Athens, NY 12015
Gary Erich Brauer, PO Box 1048, Fairborn, OH 45324
Judee L. Brennan, 97 Kaydeross Park Rd, Saratoga Springs, NT 12866

Timothy Brinkmann, 12 Wiley's Swamp Ct Unit 1078, Athens, NY 12015
James R. Buchanan, PO Box 183, Pallenville, NY 12463
Dean Buchanan, 474 Schoharie Tpke, Athens, NY 12015
Shawn L. Burdick, 11 Greenwood Dr, Cocksackie, NY 12051
Lauren Burner-Lawrence, 614 40th St Apt B1, Brooklyn, NY 11232
Karlo V. Busanic, 119 Ichabod Crane Cir #2045, Athens, NY 12015
Ausrine Byla, 77 Randy Rd 1167, Athens, NY 12015
John Capaccio, 266 E 211Th St, Bronx, NY 10461
Eric R. Carlson, 7 Will Palmer Rd, Catskill, NY 12414
Jose L. Carrera, 81 Ely St, Cocksackie, NY 12051
Carl T. Cary, 196 Johnny Cake Ln, Cocksackie, NY 12051
Jeanne L. Cary, 576 Flint Mine Rd, Cocksackie, NY 12051
Maria DelRosario Chamoun, 8610 Bay 16th St Fl 2, Brooklyn, NY 11214
Tyrone L. Chapman, 81 Haunted Cir, Athens, NY 12015
Thomas E. Chewins, 4 Molly White Dr, Cocksackie, NY 12051
Philip A. Chiarella, 964 Flats Rd, Cocksackie, NY 12051
Christopher Chimento, 2159 Farm To Market Rd, Cocksackie, NY 12051 [REDACTED]
Elizabeth Chiong, 35 Dam Van Winkle Cir, Athens, NY 12015
Paksiu Chiu, 39-16 50th St, Woodside, NY 11377
James Chiudina, 51 Brom Bones Ln, Athens, NY 12015
Letizia Cirino, 5 Munson Rd, Pleasantville, NY 10570
Beth Ann Clark, 226 Johnny Cake Ln, Cocksackie, NY 12051
Rosa Clarke, 88-10 Whitney Ave #1G, Elmhurst, NY 11373

Adjacent Landowners

Shawn A. Clouthier, 8 Molly White Dr, Coxsackie, NY 12051
Robert Cole, 5 Catskill Ct, Athens, NY 12015
Adam B. Cole, 38 Church St, Coxsackie, NY 12051
Tyrone Coleman, 2163 Farm To Market Rd, Coxsackie, NY 12051
John Condry, 9 Supertitious Dr, Athens, NY 12015
Lawrence Conforti, 423 Stewart Ave, Bellmore, NY 11710
Stanley Conklin, 15 Utopian Pl, Airmont, NY 10901
Brett Conlin, 1975 Sleepy Hollow Rd, Athens, NY 12015
Victoria D. Connolly, 53 Washington Ave, Coxsackie, NY 12051
Barbara L. Cook, 112 Johnny Cake Ln, Coxsackie, NY 12051
Bonnie JeanAntonucci Cordaro, 34 Smith Crossing Rd, Wappinger Falls, NY 12590
Darren Cordeau, 368 Johnny Cake Ln, Coxsackie, NY 12051
Bruce A. Coscia, 61 Ely St, Coxsackie, NY 12051
Domenick J. Costanzo, 36 Hollister St, Coxsackie, NY 12051
Cynthia A. Costello, 223 Johnny Cake Ln, Coxsackie, NY 12051
Michael C. Coupe, 15 Mystery Ct Unit 2201, Athens, NY 12015
James Cramer, 43 Van Brunt Dr, Athens, NY 12015
Paul Craw, 145 South River St, Coxsackie, NY 12051
Rocco Cristina, 345 Herricks Dr, New Hyde Park, NY 11040
Keith Cronin, 67 Washington Ave, Coxsackie, NY 12051
Betty J. Cure, 96 Ely St, Coxsackie, NY 12051
Ann Curtis, 63 Dame Van Winkle Cir, Athens, NY 12015
Cynthia A. Czarnecki, 105 Hamilton Rd, Athens, NY 12015
Robert P. Daley, 1542 Rt 300, Newburgh, NY 12550

Ronald D'Amelia, 1 Fox Pl, Hicksville, NY 11801
Stephen E. Daniel, 723 Jerome St, Brooklyn, NY 11207
Robert Michael Daoust, 45 Washington Ave, Coxsackie, NY 12051
Howard J. D'arcangelis, 85 Ely St, Coxsackie, NY 12051
Robert T. De Luca, 66 Ely St, Coxsackie, NY 12051
Michael De Pietro, 41 Washington Ave, Coxsackie, NY 12051
Wendy Dederick, 1987 Sleepy Hollow Rd, Athens, NY 12015
Brenton Dehoff, 146 Adams Rd, Athens, NY 12015
Victor Sr Deleon, 939 Tunsbrook Dr, Toms River, NJ 08753
Henry P. DelTosto, 148 Magnolia Ave, Kearny, NJ 07032
Alexsandr Denenberg, 1111 River Rd Apt A-07, Edgewater, NJ 07020
Michael A. DePietro, 12 Beechwood Dr, Coxsackie, NY 12051
Jay F. Derby, 442 North Quaker Ln, Hyde Park, NY 12538
John Jr DeRuggiero, 55 Rte 66 East St, Kerhonkson, NY 12446
Robert C. Desrosiers, 58 Ely St, Coxsackie, NY 12051
Evelyn E. Diaz, 54 Church St, Coxsackie, NY 12051
Vincent DiBenedetto, 50 Redwood Ave, Staten Island, NY 10303
Vernea T. Diehl, 426 Adams Rd, Coxsackie, NY 12051
Luigi Distefano, 1043 Schoharie Tpke, Catskill, NY 12414
Sheila M. Ditchfield, 55 Ely St, Coxsackie, NY 12051
Kenn E. Dittmar, 65 Hamilton Rd, Athens, NY 12015
Paul Dolan, 1490 Sleepy Hollow Rd, Athens, NY 12015
Kenneth Donofrio, 58 Longdale St, Staten Island, NY 10314

Adjacent Landowners

Matthew Dorr, 78 Superstitious Dr, Athens, NY 12015	Ares Apollo Figueras, 169 Haunted Cir, Athens, NY 12015
Andrew Dougherty, 124 Adams Rd, Athens, NY 12015	Michael C. SR Finnegan, 20 Park St, Albany, NY 12207
Steven T. Dragon, 2455 State Rt 385, Cocksackie, NY 12051	Thomas Fitzpatrick, 232 Johnny Cake Ln, Cocksackie, NY 12051
Kathleen Drake, 9 Molly White Dr, Cocksackie, NY 12051	John P. Flach, 127 Hamilton Rd, Athens, NY 12015
Frank H. Drewello, 1002 Flint Mine Rd, Cocksackie, NY 12051	John P. Flach, 128 Hamilton Rd, Athens, NY 12015
Kathleen Ducey, 10 Bircher Ave, Poughkeepsie, NY 12601	John Flanagan, 14 Essex Pl, Commack, NY 11725
Maria Dusevic, 3492 Route 44 Apt 16, Millbrook, NY 12545	Lillian Fleming, 10 Sunset Ct Unit 1062, Athens, NY 12015
Robert Ray Eddy, 49 Ichobod Crane Cir, Athens, NY 12015	Thomas J. Fori, 9 Sunset Blvd, Cocksackie, NY 12051
Shirley A. Eglen, 4905 Ashford Dr, Upper Marlboro, MD 20772	James M. Forman, 93 Mandalay Dr, Poughkeepsie, NY 12603
John English, 2060 Eastern Pkwy, Brooklyn, NY 11207	Thomas Forschner, 186 Adams Rd, Athens, NY 12015
Steven James Erdmann, 13 Budd Ln, East Greenbush, NY 12061	David L. Fowlkes, 207 Kingsboro 2Walk Apt4c, Brooklyn, NY 11233
Robert Eskinazi, PO Box 132, Cocksackie, NY 12051	Jason Francese, 53 Brom Bones Ln Unit 1225, Athens, NY 12015
Rose A. Esposito, 316 Sloan Ct, Matawan, NJ 07747	Bryan Francett, 1890 Sleepy Hollow Rd, Athens, NY 12015
Joseph C. Jr. Failla, 253 Blacksmith Rd, Levittown, NY 11756	Elio A. Frattali, 215 Clunie Ave, Yonkers, NY 10703
Neal J. Falgiano, 865 Farm To Market Rd, Athens, NY 12015	Gail Fredenburgh, 6 Molly White Dr, Cocksackie, NY 12051
Kirsten Faltings, 20 Old Baltus Ct, Athens, NY 12015	Thomas Friel, 70 Johnny Cake Ln, Cocksackie, NY 12051
Ann M. Faraone, 49 Cricket Town Rd, Stony Point, NY 10980	Thomas Fucito, 152 Vernal Butler Rd, Purling, NY 12470
William C. IV Farrand, 18 Molly White Dr, Cocksackie, NY 12051	Angela F. Gagliardo, 730 Willow Rd, Lancaster, PA 17601
Bradley Fay, 38 Haunted Cir, Athens, NY 12015	Martina Gallagher, 149 Beecher Rd, Cocksackie, NY 12051
Edward Fedoryszyn, PO Box 73, Cocksackie, NY 12051	John Gallogly, 104 Ely St, Cocksackie, NY 12051
Evita M. Fedoryszyn-Whittaker, 173 Johnny Cake Ln, Cocksackie, NY 12051	June Gambacorta, 249 Johnny Cake Ln, Cocksackie, NY 12051
Elliot Feinberg, 111 Hicks St Apt 7m, Brooklyn, NY 11201	Charles M. Garner, 39 Washington Ave., Cocksackie, NY 12051
William A. Ferenczy, 234 Adams Rd, Athens, NY 12015	Philip R. Garvey, 41 Sacandaga Rd, Scotia, NY 12302

Adjacent Landowners

Kathryn Gates, 43 Sutton Pl, Cocksackie, NY 12051
Rudolph C. Geiger, 256 Adams Rd, Athens, NY 12015
William Geiss, 2059 Sleepy Hollow Rd, Athens, NY 12015
Ruth Giangrande, 12 Charity Ct, Athens, NY 12015
Richard L. Gibbs, 2151 Farm To Market Rd, Cocksackie, NY 12051
Kenneth A. Gifford, 15 Van Houten Dr Unit 1097, Athens, NY 12015
David J. Goetchius, 18 Mystery Ct #1154, Athens, NY 12015
Earlean Golson, 36 Edgecomb Ave, New York, NY 10030
Eulalia Gonzales, 5650 Netherland Ave, Riverdale, NY 10471
Glisobel M. Gonzalez, 72 Thiells Rd, Stony Point, NY 10980
Augustin Gonzalez, 102-44 85th Ave, Richmond Hill, NY 11418
Patricia Gransbury, 87 Washington Ave, Cocksackie, NY 12051
Darwin Howard Grant, 219 Martins Hill Rd, Ravena, NY 12143
Edward Greenaway, 40 Church St, Cocksackie, NY 12051
James Grundman, 847 Union Valley Rd, Catskill, NY 12414
Thomas J. Grunstra, 235 Johnny Cake Ln, Cocksackie, NY 12051
Maxwill Gurvitch, PO Box 581, Latham, NY 12110
Stephanie Haas, 118 Stacey St, Cocksackie, NY 12051
Gregory Hajduk, 6 Genesee Ave, Lake Katrine, NY 12445
Todd L. Hakes, 980 Flats Rd, Athens, NY 12015
Curtis E. Halsted, 21 Hamilton Rd, Athens, NY 12015
Richard K. Hanse, 51 Sutton Pl, Cocksackie, NY 12051
Dean L. Hanson, 51 Church St, Cocksackie, NY 12051

Vanessa Hargrave, 142 Bayview Ave, Port Washington, NY 11050
Mayra Hartofilis, 1154 Somerset Circle Sq, Dunedin, FL 34698
Charles Hasbourne, 98-25 Horace Harding Exp, Queens, NY 11368
Elias K. Hashim, 2507 South Rd Ste 105, Poughkeepsie, NY 12601
Guy W. Hazelton, 4 Beechwood Dr, Cocksackie, NY 12051
Francis Hefferin, 43 Wendover Dr, Huntington, NY 11743
Dennis T. Heines, 2 N Montgomery St, Athens, NY 12015
Charles Herwick, 5 Greenwood Dr, Cocksackie, NY 12051
Nelson E. III Higgins, 20 Mystery Ct, Athens, NY 12015
Gary Hillicoss, 71 Washington Ave, Cocksackie, NY 12051
Sandra Hock, 12 Molly White Dr, Cocksackie, NY 12051
Jeffry Hoessle, 2929 State Rt 385, Cocksackie, NY 12051
Paul A. Holbrook, 173 Church Dr, Mastic Beach, NY 11951
Doris Horn, 77 Washington Ave, Cocksackie, NY 12051
Ronald F. Hotaling, 396 Adams Rd, Cocksackie, NY 12051
Earl K. Hotaling, 109 Haunted Cir, Athens, NY 12015
Katherine G. Hotaling, 3290 Rt 81, Surprise, NY 12176
Dean Houle, 2 Brom Bones Ln, Athens, NY 12015
Earleen Howard, 168 Stacey Rd, Cocksackie, NY 12051
Richard J. Hummer, 86 Washington Ave #2, Cocksackie, NY 12051
Anthony J. Iannaccone, 35 Fresh Pond Ln, Southampton, NY 11968
Ari Ilan, 300 North End Ave Apt 17A, New York, NY 10282
Trustee Victoria Inzerillo, 3 Molly White Dr, Cocksackie, NY 12051

Adjacent Landowners

Jason A. Irwin, 8 Hollister St, Cocksackie, NY 12051
Doumer Isaac, 321 East 32Nd St, Brooklyn, NY 11226
Aaron D. Isabelle, 59 Brom Bones Ln 2005, Athens, NY 12015
Brian A. Jack, 5825 SE Riverboat Dr, Stuart, FL 34997
Girish Maganlal Jagdah, 60684, Sharjah, UAE
Margaret M. Jones, 323 Adams Rd, Athens, NY 12015
Timothy D. June, 71 Ely Street, Cocksackie, NY 12051
Karoline Kampe-Nace, PO Box 163, New Baltimore, NY 12124
Alden B. Kaplan, 10 Catskill Ct #1305, Athens, NY 12015
Bryan Kelly, 50 Nature's Way, Cinton Corners, NY 12514
Jonathan E. Kelly, 4 Greenwood Dr, Cocksackie, NY 12051
Jenelle Kelsey, 128 Haunted Cir, Athens, NY 12015
Susan Kenick, 67 Sutton Pl, Cocksackie, NY 12051
James Kennedy, 47 Sutton Pl, Cocksackie, NY 12051
William Kessler, 2379 Rt 385, Cocksackie, NY 12051
Noor Gul Khan, 81659R, Dubai, UAE
Muhammed A. Khan, PO Box 1001, Bethpage, NY 11714
Thomas A. Kingsley, 165 Hamilton Rd, Athens, NY 12015
Paul T. Klein, 312 Bender Ln, Glenmont, NY 12077
Daniel M. Kohler, 1604 Noral Pl, Alexandria, VA 22308
Sheryl Ann Konsul, 64 Church St, Cocksackie, NY 12051
Michael J. Kratochwill, 7 Beechwood Dr, Cocksackie, NY 12051
Joe Krieger, 13 Legend Ct Unit 2100, Athens, NY 12015
Prasoon Kumar, 22320, Sharjah, UAE

Seth F. Kunz, 2 Legend Ct Unit 2029, Athens, NY 12015
Mary Ann J. Lach, 1 Fairview Ave, Staten Island, NY 10314
Rachel LaFountain, 43 Hamilton Rd, Athens, NY 12015
Nicholas P. LaFountain, 43 Hamilton Rd, Athens, NY 12015
Ralph Laivins, 94 Weaver Ave, Ephrata, PA 1722
Andrea Lambertson, 15 Andre Ct 2130, Athens, NY 12015
Matthew C. Lampman, 25 Hollister St, Cocksackie, NY 12051
Gerard A. Landi, 25 Market Ln Unit 1186, Athens, NY 12015
Jeffrey Lang, 125 Ichabod Crane Cir 2021, Athens, NY 12015
Melody Larocca, 13 Dunhill Dr, Somers, NY 10589
Perry M. Lasher, 68 Church St, Cocksackie, NY 12051
Edward A. Lee, 70 Washington Ave, Cocksackie, NY 12051
Steven Lee, 30 Dorchester Rd, Ronkonkoma, NY 11779
Terence E. Lein, 6 Beechwood Dr, Cocksackie, NY 12051
Timothy P. Lenny, 1 Greenwood Dr, Cocksackie, NY 12051
Ralph Lento, 56 Church St, Cocksackie, NY 12051
Jennifer Lento, 60 Church St, Cocksackie, NY 12051
Mary Patricia Leonard, 4 Lawrence Ave, Cocksackie, NY 12051
Manling Lew, 7 Bender Rd, Waldwick, NJ 07463
Joseph P. Lidestri, 700 Flats Rd, Athens, NY 12015
Joseph G. Limbach, 25 Tree Toad Rd #2084, Athens, NY 12015
Jennifer E. Lindstrom, 59 Sutton Pl, Cocksackie, NY 12051
Goerge Link, 5 Harbor Ct, Copaigue, NY 11726

Adjacent Landowners

Erica P. Lisk, 3033 State Route 385, Cossackie, NY 12051
Antonio Lopez, 35 Crawford St, Yonkers, NY 10705
John Lopez, 187 Kentucky Way, Freehold, NJ 07728
Anthony Loughran, 1831 Sleepy Hollow Rd, Athens, NY 12015
Ryan Luft, 72 Van Brunt Dr #2055, Athens, NY 12015
Janet A. Lyons, 60 Sparrow Ridge Rd, Catskill, NY 12414
Robert Mabee, 148 Stacey Rd, Cossackie, NY 12051
John Macari, PO Box 307, Cossackie, NY 12051
Charles Maggio, 472 North Country Rd, St James, NY 11780
Joseph Marafioti, 7 Greenwood Dr, Cossackie, NY 12051
Federico Marano, 2610 Crossland Hills Dr, Winston Salem, NC 27106
Paul M. Marks, 11 Van Houten Dr, Athens, NY 12015
Gregory Martin, 194 Stacey Rd, Cossackie, NY 12051
Kristyne S V S Martin, 1755 Farm To Market Rd, Cossackie, NY 12051
Michael Martin, 121 Haunted Cir, Athens, NY 12015
Joseph F. Martinez, 46 Ely St, Cossackie, NY 12051
Charles A. Martinez, 38 Flint Mine Rd, Cossackie, NY 12051
Charles A. Martinez, 48 Flint Mine Rd, Cossackie, NY 12051
Joan Marie Mathes, 10 Beechwood Dr, Cossackie, NY 12051
Alexander Jr Mathes, 24 Molly White Dr, Cossackie, NY 12051
Amedeo Matteo, 9 Charity Ct Unit 1181, Athens, NY 12015
Kevin G. Mc Kee, 19023 Harbor Cove Ln, Cornelius, NC 28031
Joyce McCampbell, 1318 Farm To Market Rd, Cossackie, NY 12051

Jo Ann G. McCarthy, PO Box 849, Sandy Springs, SC 29667
Sean J. McCarthy, 357 West 55th St Apt 1J, New York, NY 10019
Kathryn Mccoach, 339 Lake Dr, Lake Peekskill, NY 10537
Kevin McCullagh, 115 Tammy Trl Unit 1068, Athens, NY 12015
James J. Mcdermott, 62 Washington Ave, Cossackie, NY 12051
Conor D. McGivney, 1344 Farm to Market Road, Cossackie, NY 12051
Lawrence J. McGowan, 240 Hamilton Rd, Athens, NY 12015
Michael J. Jr. McHale, 52 Washington Ave, Cossackie, NY 12051
William P. Mckee, 23 Bridle Ln, Hicksville, NY 11801
James W. McKenney, 50 Washington Ave, Cossackie, NY 12051
Jill Marie Mcquade, 340 Johnny Cake Ln, Cossackie, NY 12051
James K. Meade, 90 Stacey Rd, Cossackie, NY 12051
Daniel Meier, 576 Flint Mine Rd, Cossackie, NY 12051
Thomas Meier, 56 Mile Square Rd, Yonkers, NY 10701
Timothy Meier, 296 Rt 51, Cossackie, NY 12051
Timothy Meier, 296 Route 51, Cossackie, NY 12051
David Meier, 580 Flint Mine Rd, Cossackie, NY 12051
Shane Merchant, 3 Washington Ave, Cossackie, NY 12051
Frank Micalizzi, 19 Encampment Pl, Ridgefield, CT 06877
James A. Miele, 25 Glenwood Ave, Hiawatha, NJ 07034
Cologero Migliara, 230 Evans Ave, Elmont, NY 11003
Peter A. Milano, 71 Mount Harmony Rd, Bernardsville, NJ 07924
Vernon Jr Miller, 2 West Lakeview Trl, Wharton, NJ 07885

Adjacent Landowners

Eugene Millett, 28 Hollister St, Cocksackie, NY 12051
Alan C. Mingo, 8 Bart Dr, Canton, CT 06019
Gregg R. Minshell, 1 Swartout Rd, Cocksackie, NY 12051
Paul D. Mintz, 1971 Sleepy Hollow Rd, Athens, NY 12015
Archimedes L. Miranda, 135 Gelston Ave, Brooklyn, NY 12209
Christopher G. Mitchell, 114 Randy Rd Unit 1005, Athens, NY 12015
Christopher G. Mitchell, 75 Randy Rd, Cocksackie, NY 12051
Lawrence E. Moats, 14 N Washington St, Athens, NY 12015
Anthony Monitto, 2900 St. Theresa Ave, Bronx, NY 10461
Joanna Monnier, 14 Jumel Ter, New York, NY 10032
Frank Moor, 1391 Sleepy Hollow Rd, Athens, NY 12015
Lucas Morales, 2 Woodstone Ln, Palm Coast, FL 32164
Chloe Martha Morales, 3001 Route 130 Apt 14E, Delran, NJ 08075
Rebecca Morgan, 54 Van Houten Dr, Athens, NY 12015
John E. Morrone, 63 Pembroke Dr, Mineola, NY 11501
Edward J. Sr Mudge, 16 Molly White Dr, Cocksackie, NY 12051
Rosemary H. Muller, 224 Stacey Rd, Cocksackie, NY 12051
Steven R. Muller, 500 Adams Rd, Cocksackie, NY 12051
John A. Mulrooney, 1 Elm St, Cocksackie, NY 12051
Aleksander Myftarago, 415 92nd St Apt 1L, Brooklyn, NY 11209
Linda J. Nacey, 1883 Farm To Market Rd, Cocksackie, NY 12051
Mark Nadolne, 7 Tulip Ln, Port Washington, NY 11050
Amit Lekhu Nawani, 21091, Dubai, UAE
Vladimir Nazarov, 2188 Sleepy Hollow Rd, Athens, NY 12015

Antonio C. Nepomuceno, 46-03 211th St, Bayside, NY 11361
Michelle Niosi, 272 Johnny Cake Ln, Cocksackie, NY 12051
Sara M. Niosi, 259 Johnny Cake Ln, Cocksackie, NY 12051
Christine Norton, 10 Molly White Dr, Cocksackie, NY 12051
Mary-Ann Novak, 46 Sutton Pl, Cocksackie, NY 12051
Elizabeth A. O'Connor, 14 Horatio St Apt 7b, New York, NY 10014
Colleen Ogilvie, 79 Gendron Dr, Wells, ME 04090
Thomas J. Olivett, 8 Beechwood Dr, Cocksackie, NY 12051
Anthony Olivieri, 540 Kissam Rd, Peekskill, NY 10566
Richard Oringer, 1541 Sleepy Hollow Rd, Athens, NY 12015
Susan Pacuk, 54 Adams Rd, Athens, NY 12015
Marie-France Page, 1762 Sleepy Hollow Rd, Athens, NY 12015
Lance Palmateer, 324 Johnny Cake Ln, Cocksackie, NY 12051
Dale S. Palmer, 60 Stacey Rd, Cocksackie, NY 12051
Garry J. Palmer, 7 Pheasant Ln, Catskill, NY 12414
Richard Palmer, 875 Flats Rd, Athens, NY 12015
Gilbert A. Palmer, 875 Flats Rd, Athens, NY 12015
David L. Parella, 62 Church St, Cocksackie, NY 12051
Melvin O. Parker, 8000 Shore Front Pkwy, Rockaway Beach, NY 11693
Brittany Parks, 69 Washington Ave, Cocksackie, NY 12051
Wayne G. Parrow, 6 Greenwood Dr, Cocksackie, NY 12051
Tessa Partridge, 1700 Farm To Market Rd, Cocksackie, NY 12051
Joel Pascuzzi, 22 Hollister St, Cocksackie, NY 12051

Adjacent Landowners

Michael P. Pascuzzi, 77 Van Brunt Dr, Athens, NY 12015
Christopher Patti, 59 Sunset Blvd, PO Box 131, Coxsackie, NY 12051
Eugene Pellegrino, 3 Superstitious Dr, Athens, NY 12015
Vincent Pepe, 628 Empire Ave, North Babylon, NY 11703
Paul Pereira, 51312, Indian Orchard, MA 01152
Richard Perez, 10 Dunderave Rd, White Plains, NY 10603
Candido Perez, 553 W 187th St Apt 44, New York, NY 10033
David Perilli, 7 Greenlawn Rd, Cortland Manor, NY 10567
Linda Perry, 382 Johnny Cake Ln, Coxsackie, NY 12051
Joseph Persichilli, 86 Superstitious Dr, Athens, NY 12015
Ruth E. Peters, 1682 High Hill Rd, Earlton, NY 12058
Sandra M. Petralia, 2 Tree Toad Ct, Athens, NY 12015
Michael Petramale, 202 Adams Rd, Athens, NY 12015
Richard Petti, 13435 Cedarville Way, Colorado Springs, CO 80921
Robert J. Piano, 188 Old Rt 23 #1, Cairo, NY 12413
Carla Picayo, 13 N Water St, Athens, NY 12015
Salvatore F. Piccolo, 885 Farm To Market Rd, Athens, NY 12015
Gordon Pieruzzi, 125 Hamilton Rd, Athens, NY 12015
Mary Jo Pigott, PO Box 512, New Baltimore, NY 12124
William Pigott, 19 Hollister St, Coxsackie, NY 12051
P B Pitchai, 294377, Dubai, UAE
Ronald Plass, 24 Brom Bones Ln Unit 1243, Athens, NY 12015
Peter Poulin, 200 Old Siek Rd, Troy, NY 12180
William III Powell, 290 Harold Meyers Rd, Earlton, NY 12058

Steven L. Presto, 1436 Sleepy Hollow Rd, Athens, NY 12015
Darryl Proper, 55 Washington Ave, Coxsackie, NY 12051
Anthony Querciagrossa, 320 Cascades Dr, Saint Charles, MO 63303
Donald F. Jr Quinlivan, 819 Flint Mine Rd, Coxsackie, NY 12051
Robert Rahn, 2A The Brooks Farm Ln, Chester, NY 10918
Dumas Ransom, 204-08 45th Rd, Bayside, NY 11361
Jason C. Raser, 12 Garret Pl, Glen Rock, NJ 07452
Max K. Rausch, 89 Johnny Cake Ln, Coxsackie, NY 12051
Maureen Ray, PO Box 5253, Bergenfield, NJ 07621
Luisa Recine, 1 Beechwood Dr, Coxsackie, NY 12051
Joyce Reilly, 30 Needle Park Cir Apt 6, Queensbury, NY 12804
Alexandra N. Reuter, 63 Sutton Pl, Coxsackie, NY 12051
Roger Rice, 580 Adams Rd, Coxsackie, NY 12051
Bryan Riley, 80 Johns Jog 1065, Athens, NY 12015
Alexander Ritter, 552 Adams Rd, Coxsackie, NY 12051
Stephen Ritter, 149 Potic Creek Rd, Coxsackie, NY 12051
Richard L. Sr Ritter, 957 Flats Rd, Coxsackie, NY 12051
Erica Ritter, 34 Jane St Apt 34A, Saugerties, NY 12477
Lorraine A. Roberts, 892 Flats Rd, Athens, NY 12015
Carmen E. Roldan, 16573 Nw 21st St, Pembroke Pines, FL 33028
Matthew A. Romito, 448 Fifth Ave, Pelham, NY 10803
Jon P. Rondeau, 135 Day St, Newington, CT 06111
Jeffrey W. Rose, 2924 Rt 385, Coxsackie, NY 12051

Adjacent Landowners

Katherine L. Ross, 1832 Sleepy Hollow Rd, Athens, NY 12015
Maureen Rudolph, 49 Church St, Cocksackie, NY 12051
Ann Ruecker, 1639 Sleepy Hollow Rd, Athens, NY 12015
Patricia Ryder, 328 Earle Ave, Lynbrook, NY 11563
S Sadlon, 64 Lupine Way, Stirling, NJ 07980
William Sakmann, 13 Wall St, Farmingdale, NY 11735
Stephen Salluce, 396 Murderkill Rd, Athens, NY 12015
Soterios Samothrakis, 242-22 89th Ave, Bellerose, NY 11426
Jesse Sanchez, 106 East Main St Apt C, Pawling, NY 12564
Kenneth R. Sandberg, 17 Hollister St, Cocksackie, NY 12051
Michelle A. Santos, 697 Flint Mine Rd, Cocksackie, NY 12051
Francis J. Sapone, 2931 Rt 385, Cocksackie, NY 12051
Henry Sarraga, 147 E 8th St, Brooklyn, NY 11218
Dennis P. Saunders, 430 Shore Rd Apt 9H, Long Beach, NY 11561
Olga Sawchuk, 137 Brown St, Mineola, NY 11501
Donna Lynn Sawchuk, 137 Brown St, Mineola, NY 11501
Dawn Sawyer, 63 Washington Ave, Cocksackie, NY 12051
Charles Schaefer, 2964 Route 385, Cocksackie, NY 12051
Christopher J. Schlenker, 1692 Rt 385, Athens, NY 12015
Gustave C. Jr Schoenborn, PO Box 333, Cocksackie, NY 12051
Karen A. Schubert, 90 Washington Ave, Cocksackie, NY 12051
Donniel Schulman, 61 Deal St, Harrington Park, NJ 07640
Stuart Scott, 1 Northview Ter, Yonkers, NY 10703

Neil Seidner, 11 Riverview Ct, Athens, NY 12015
Carol Serazio, 13 Johnny Cake Ln, Cocksackie, NY 12051
Maria Sherman, 21 Shoal Dr, Barnegat, NJ 08005
John E. Sickles, 18 Mc Connell Ave, Ravena, NY 12413
Maninder Singh, 282620 Old Baltus Rd Lot VV-20, Dubai
Jennifer Singh, 2140 Sleepy Hollow Rd, Athens, NY 12015
Maninder Singh, 282620 Old Baltus Rd Lot VV-20, Dubai, UAE
Esther Sirol, 106 East 101st St, New York, NY 10029
Johnny Skalski, 52 Edgewood Ave, New Providence, NJ 07974
Joseph O. Skilba, 337 Murders Kill Rd, Athens, NY 12015
Stephen G. Smith, 363 E Lakecrest Dr, Bluffton, TX 78607
Clarence C. Smith, 22 Harder Rd, Woodstock, NY 12498
Dorothy Smith, 82 Flint Mine Rd, Cocksackie, NY 12051
Dawn Marie Smith, 113 Johnny Cake Ln, Cocksackie, NY 12051
Sarah Jane Smith, 2 Beechwood Dr, Cocksackie, NY 12051
Jonathan Snowden, 349 Adams Rd, Cocksackie, NY 12051
Janice Snyder, 10 Greenwood Dr, Cocksackie, NY 12051
Catherine E. Sossei, 8 Orchard Ln, W Cocksackie, NY 12192
Linda Spano, 5 Beechwood Dr, Cocksackie, NY 12051
Wayne Speenburgh, 96 Washington Ave, Cocksackie, NY 12051
Prudence B. Spombiantti, 3 Jayne Ave, Melville, NY 11747
Patricia Spordone, 1536 Sleepy Hollow Rd, Athens, NY 12015
Randall W. Squier, 75 Sutton Pl, Cocksackie, NY 12051

Adjacent Landowners

Michael St. Germain, 3 Beechwood Dr, Coxsackie, NY 12051
Steven Starke, 2 Hollister St, Coxsackie, NY 12051
Richard W. Stawicki, 1553 Sleepy Hollow Rd, Athens, NY 12015
Paula Stenzler, 3612 Matira Ct, Cleront, FL 34711
Thomas Sterritt, PO Box 101, Hannacroix, NY 12087
Wayne Stevenson, 125 Cole Ln, W Coxsackie, NY 12192
Chelsea Streifeneder, 2755 Rt 385, Coxsackie, NY 12051
John Stumpf, 76 Stacey Rd, Coxsackie, NY 12051
Paul A. Sutton, 44 Sutton Pl, Coxsackie, NY 12051
Scott Talay, PO Box 22, Coxsackie, NY 12051
Gerard T. Tanella, 111 Quarry Dr, Woodland Park, NJ 07424
Robert Taylor, 9 Hemlock Ln, Wingdale, NY 12594
Mary E. Taylor, 15 Hollister St, Coxsackie, NY 12051
David Teator, 1352 Farm To Market Rd, Coxsackie, NY 12051
Timothy J. Tergeoglou, 20 Market Ln, Athens, NY 12015
Kent Thomas, 116 Ichabod Crane Cir, Athens, NY 12015
Doreen M. Thompson, 14014 123rd Ave, South Ozone Park, NY 11436
Michael Tighe, 2121 Farm To Market Rd, Coxsackie, NY 12051
Sean Tilley, 1743 Sleepy Hollow Rd, Athens, NY 12015
Robert Tolli, 298 Bullet Hole Rd, Mahopac, NY 10541
Richard Tomecek, 1476 Apenzell Ln, Lewisville, TX 75067
Edward Tompkins, 56 Ely St, Coxsackie, NY 12051
Savatree Toolsie, 200 Claremont Ave 53, New York, NY 10027

Gilbert Jr Torres, 11 W 2nd St Unit 209, Bethlehem, PA 18015
Jon Tower, PO Box 347, South Cairo, NY 12482
Alice D. Towle, 220 Dover Point Rd, Dover, NH 03820
Edward A. Tozier, 88 Stacey Rd, Coxsackie, NY 12051
Michael Tozzi, 20 Ellen Ave, Mahopac, NY 10541
William A. Turco, PO Box 125, Athens, NY 12015
Edward S. Jr Tuttle, 7 Superstitious Dr Unit 2177, Athens, NY 12015
David F. Tyner, 72 Van Houten Dr 2161, Athens, NY 12015
Evan M. Ulscht, 2156 Sleepy Hollow Rd, Athens, NY 12015
William Valentine, 2 Shadywood Ct, Huntington, NY 11743
Charles J. Van Alphen, 5 Molly White Dr, Coxsackie, NY 12051
Sal Van Gelder, 7569 Las Couces Ct, Boynton Beach, FL 33437
Jennifer Elizabeth Van Gorden, 433 Shady Ln, Coeymans Hollow, NY 12046
Robert J. Sr Van Valkenburg, 43 Johnny Cake Ln, Coxsackie, NY 12051
Robert T. Van Wie, 102 Washington Ave, Coxsackie, NY 12051
Louis A. Jr. Van Zutphen, 7 Sleepy Ct #1009, Athens, NY 12015
Kim VanAusdle, 66 Church St, Coxsackie, NY 12051
John D. VanBuren, 12 Brom Bones Ln, Athens, NY 12015
Derek J. Vasapollo, 398B Turnpike St, S Easton, MA 02375
George Venter, 21337 39th Ave #339, Bayside, NY 11361
Kathy M. Ventura, 1452 Farm To Market Rd, Coxsackie, NY 12051
Quadalupe T. Vera, 150-29 87th Rd, Briarwood, NY 11432
Victoria Inzerillo (Trustee), 3 Molly White Dr, Coxsackie, NY 12051

Adjacent Landowners

Frank Villanova, 26 Heather Dr, Clifton Park, NY 12065	Jimmie Womack, 442 Plymouth Ave, Schnectady, NY 12308
Anthony Sr Vining, 20 Flint Mine Rd, Coxsackie, NY 12051	Roger R. Wood, 76 Ely St, Coxsackie, NY 12051
Ronald D. Vinson, 437 Pelham Rd, New Rochelle, NY 10801	Victor J. Woytowich, 9 Yost Ct #1208, Athens, NY 12015
Michelle Lee Walker, 85 Washington Ave, Coxsackie, NY 12051	Daryl J. Yost, 1667 Farm To Market Rd, Coxsackie, NY 12051
Beverly Walker, 2097 Farm To Market Rd, Coxsackie, NY 12051	Joanne H. Yost, 1667 Farm To Market Rd, Coxsackie, NY 12051
Gary A. Walkley, 745 Flats Rd, Athens, NY 12015	Joan Young, 107 Browns Crossing, Catskill, NY 12414
Barton F. Wallace, 59 Washington Ave, Coxsackie, NY 12051	Edward C. Zimmer, 142 Natures Ln, Miller Place, NY 11764
David Walsh, 1484 Sleepy Hollow Rd Unit 1039, Athens, NY 12015	Mary Zuk, 23 Cotluss Rd, Riverdale, NJ 07457
Anthony Washington, 196 Stacey Rd, Coxsackie, NY 12051	Francelene Zulme, 2 Second St, Athens, NY 12015
Barbara Weinstein, 373 Murderskill Rd, Athens, NY 12015	
Robert Welch, 134 County Rt 26, Climax, NY 12042	
William Wells, 91 Overlook Dr, Sebastian, FL 32976	
Sylvia J. Wendover, 52 Johns Jog, Athens, NY 12015	
Patrick G. West, 37 New St, Coxsackie, NY 12051	
Daniel F. Westfall, 58 Washington Ave, Coxsackie, NY 12051	
Thomas M. Wexler, 117 Massachusetts Ave, Congers, NY 10920	
Michael J. Whalen, 71 Haswell Rd, Watervliet, NY 12189	
Stanley R. Whitbeck, 84 Washington Ave, Coxsackie, NY 12051	
Bruce J. Whittaker, 173 Johnny Cake Ln, Coxsackie, NY 12051	
Richard Wilson, 169 Adams St East, East Islip, NY 11730	
Stephen Wilson, 41 Morningside Rd, Verona, NJ	
Dolores E Winslow, 8 Sunset Ct Unit 1051, Athens, NY 12015	
Charles E. Jr. Witte, 12 Sleepy Ct #2140, Athens, NY 12015	



Greene County Solar Facility

Case No. 17-F-0617

Appendix 2-B

Meeting Log

Meeting Log (as of June 30, 2019)

Greene County Solar Facility

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Greene County Industrial Development Authority	01/30/17	Greene County Industrial Development Authority 270 Mansion St Coxsackie, NY 12051	René VanSchaack, Greene County Industrial Development Authority Richard Hanse, Coxsackie Supervisor Gabe Wapner, Hecate Energy	Hecate met with town and county officials to introduce the Facility and discuss the permitting and PILOT (payment in lieu of taxes) processes.	Schedule follow-up meeting at appropriate time.	
New York State Division for Historic Preservation	08/30/17	New York State Division for Historic Preservation Peebles Island State Park Waterford, NY 12188-0189	Nancy Herter, New York State Division for Historic Preservation Philip Perazio, New York State Division for Historic Preservation Bonney Hartley, Stockbridge-Munsee Band of Mohicans Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy Rob Peltier, Tetra Tech Fred Sellars, Tetra Tech	Hecate introduced the Facility scope to the representatives of New York State Division for Historic Preservation and the Stockbridge-Munsee Band of Mohicans.	Conduct archaeology surveys on the Facility Area.	
Greene County Industrial Development Authority	10/30/17	Greene County Industrial Development Authority 270 Mansion St Coxsackie, NY 12051	René VanSchaack, Greene County Industrial Development Authority Gabe Wapner, Hecate Energy	Discuss next steps in PILOT processes.	Hecate to make a PILOT application.	
Town of Coxsackie	11/09/17	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Coxsackie Town Board Approximately 10 Town Citizens Gabe Wapner, Hecate Energy	Special public meeting to take comment on a potential solar project moratorium.		Seven meeting attendees spoke against a moratorium one meeting attendee spoke in favor of a moratorium.
Town of Coxsackie	12/12/17	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Richard Hanse, Supervisor Thomas Burke, Councilman Patrick Kennedy, Councilman Michael Veeder, Councilman Linda Wilkinson, Councilwoman Bambi Hotaling, Town Clerk Robert Kline Larry Ross Nadine Myrdycz Dawn Smith	Monthly Town Board Meeting.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
			Ernest K. Barkman Beau Dushane Tom Pucner Mary Skliba Barkman Mark Flach Gabe Wapner, Hecate Energy			
Town of Coxsackie	01/18/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Bruce Haeussler, Planning Board Chairman Rick Hanse, Town Supervisor Mike Veeder, Town Councilman Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy	Discuss with the Town leadership the Article 10 Process and their ability to participate in it.	Hecate to: -Continue discussion on local benefits -Provide an overview of how value flows to various stakeholders -Consider feasibility of working with a retail energy provider to arrange local access to energy generated	Town expressed the following: -Benefits to local community -Understanding the project structure, ownership, finances, etc. -Conversion of agricultural and hunting land -Impacts on property values and visual -Article 10 process may override Town's authority
Village of Coxsackie	01/24/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Mark Evans, Mayor Village of Coxsackie Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy	Discuss with the Village leadership the Article 10 Process and their ability to participate in it.	Hecate to: -Inquire about any Village solar ordinance -Discuss job creation benefits with the IDA	Mayor noted the following concerns: -Limited Village open space -Storm water drainage -Visual impacts to nearby residences -Public perception and benefits to locals
New York State Department of Environmental Conservation (NYSDEC)	01/25/18	Email	Gabe Wapner to Paul Novak	Requested a meeting to discuss the Facility.	Scheduled stakeholder meeting for March 14, 2018.	
Mailing/Emailing	02/12/18 – 02/17/18	US Postal Service (via AmazingMail) and Email	Sent to all identified stakeholders, host landowners, and adjacent landowners within 2 miles of the Facility Area	Notification of upcoming Open House.		
Publication	02/14/18	The Daily Mail		Notification of upcoming Open House.		
Local Resident	02/14/18	Voicemail from Tessa Partridge	Local Resident Gabe Wapner, Hecate Energy		Mr. Wapner responded to voicemail and left a voicemail on 2/15/2018	
Local Resident	02/15/18	Email Correspondence from Kris Martin 1755 Farm to Market Road Coxsackie NY 12051	Local Resident Jared Wren, Hecate Energy	Requested logistical information for Open House, 2/21/18, Mr. Wren responded with requested information.		
Local Resident	02/17/18	Email	Local Resident Jared Wren, Hecate Energy	Question regarding interconnect and the ultimate destination of power. Mr. Wren responded with preliminary information.		
Greene County	02/21/18	Greene County Administrator Office 411 Main Street, 4th Floor	Shaun S. Groden, Administrator Edward I. Kaplan, Esq. Warren Hart, Director of Economic Development	Discuss with the Greene County leadership the Article 10 Process and their ability to participate in it. Introduce Hecate and the Facility.	Hecate to: -Provide parcel .kmz (Google Earth) file to Raymond Ward - Complete -Provide PSC letter to Administrator Groden to Mr. Kaplan (Complete)	

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
		Catskill, New York 12414	Raymond T. Ward, Director of Real Property Tax Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy Jared Wren, Hecate Energy		-Keep the county updated on its PILOT process	
Local Residents	02/21/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy Jared Wren, Hecate Energy Preston Schultz, Hecate Energy Fred Sellars, Tetra Tech Joseph Fischl, Tetra Tech Jenny Potrikus, Tetra Tech Sam Laniado, Read and Laniado Tyler Wolcott, Read and Laniado 73+ Local Residents, Sign-in Sheet Attached	Open house meeting to introduce the Facility to local residents, answer their questions, and receive their feedback.	A full Facility description will be provided in the PSS. Resource concerns noted by the public will be addressed in the PSS and the Article 10 Application. Hecate will investigate the website access and address the phone number issues (phone number issue has been corrected). Hecate indicated that the open house was the first time they reached out the public to provide Facility information and request feedback. They informed the public that they would have time to provide input over the next 18 months and encouraged their input throughout the entire Application process. Hecate will visit homes of local residents who can see the Facility and superimpose panels on photographs to provide a sense of how the Facility will look	Support: -Excitement to host a large renewable energy solar project Questions: -Benefits to the town? -Where does the energy go? Concerns raised: <i>Project Description:</i> -Project location selection -Size and scale <i>Resources:</i> -Viewshed impacts -Local benefits -Property values -Wildlife -Wetlands and environmental resources -Cultural resources -Town moratorium -Zoning -Public health -Cumulative impacts with surrounding proposed solar facilities <i>General:</i> -Project website and phone number issues -Lack of adequate time for the public to conduct due diligence
Local Resident	02/21/18	Voicemail from 518-727- 2412	Gabe Wapner, Hecate Energy	Request to update documents on Facility website.	Documents were updated.	
Local Residents	02/22/18	2924 Route 385, Coxsackie, NY 12051	Local Residents Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy	See the views of the proposed Facility Area. Take feedback and comments.	Hecate to investigate alternative panel array layouts.	Both residents have their houses listed for sale. Primary concern seemed to be Facility's impact on property values.
Local Resident	02/22/18	1700 Farm to Market Rd, Coxsackie, NY 12051	Local Resident Phil Mooney, Hecate Energy	See the views of the proposed Facility Area.		
Local Resident	02/26/18	Email	Local Resident Jared Wren, Hecate Energy	Questions regarding Facility location, energy offtake, request for rendering.	Hecate provided requested information, complete.	

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
New York State Energy Research and Development Authority (NYSERDA)	02/27/18	Call	Brad Tito, Program Manager, Communities & Local Governments Gabe Wapner, Hecate Energy	Discuss the possibility of community choice aggregation for the Facility.	NYSERDA	02/27/18
Local Resident	03/03/18	Call	Local Resident Gabe Wapner, Hecate Energy	Called to request the posters from the open house be posted on the Facility website.		The posters had already been posted and Mr. Wapner directed the resident to their location on the website.
NYSERDA	03/07/18	Call	Maureen Leddy, NYSERDA Liz Hana, NYSERDA Phil Mooney, Hecate Energy Jared Wren, Hecate Energy Gabe Wapner, Hecate Energy	Brief them on the Facility.		NYSERDA has a great deal of resources to help local communities get informed about large scale renewables
Local Resident	03/09/18	Call	Local Resident Gabe Wapner, Hecate Energy	Coordinate meeting to see the resident's view of the Facility.	Visited the resident's home on 3/14/2018.	
Local Resident	03/09/18	Call	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner left a message with the resident's assistant, inquired about a time to meet and see the resident's view of the Facility.	Resident to call Mr. Wapner back.	
Local Resident	03/12/18	Email	Local Resident Jared Wren, Hecate Energy	Additional questions regarding Facility specifics. Mr. Wren provided comments re: visual impact studies, etc.		Complete
Local Resident	03/13/18	Email	Local Resident Gabe Wapner, Hecate Energy	Resident requested to know the number of panels in the project via text message, Mr. Wapner responded via email.		
Local Resident	03/13/18	Email	Local Resident Gabe Wapner, Hecate Energy	Resident inquired with several questions and concerns. Mr. Wapner provided responses.		
Local Resident	03/14/18	Call	Local Resident Gabe Wapner, Hecate Energy	Resident called with several general questions about PV solar technology and PV solar projects. Mr. Wapner provided responses.		
Local Residents	03/14/18	2211 State Route 385 Athens, NY 12015	Local Residents Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	See their view of the Facility, discuss possible mitigation, hear additional comments and concerns		Inform them if Tetra Tech would like to take a picture from their home for the visual impact assessment.
Local Residents	03/14/18	2121 Farm to Market Rd, Cossackie, NY 12051	Local Residents Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	See their view of the Facility, discuss possible mitigation, hear additional comments and concerns		Inform them if Tetra Tech would like to take a picture from their home for the visual impact assessment.
Daily Mail	03/14/18	Call	Dan Zuckerman, Reporter Gabe Wapner, Hecate Energy	Hecate answered questions for a story the Daily Mail was writing about the project		
NYSDEC and New York State Department of Agriculture and	03/14/18	625 Broadway, Albany, NY 12233-1750	Kristy Primeau, NYSDEC Michael Clark, NYSDEC Paul Novak, NYSDEC Brianna Denoncour,	Hecate met with NYSDEC and Ag & Markets representatives to introduce the project and discuss any concerns regarding natural resources, wildlife, and agriculture.	Hecate completed the wetland delineation during the 2017 growing season. Hecate indicated their willingness to	Concerns (NYSDEC): -Impacts to grassland birds -Fragmenting contiguous non-developed areas

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Markets (Ag & Markets)			NYSDEC Georgette Walters, NYSDEC Jenny Murtaugh, NYSDEC Chris Hogan, NYSDEC Steve Allinger, NYSDEC Tara Wells, New York State Department of Agriculture and Markets Jeremy Rosenthal, New York State Department of Public Service (NYSDPS) Andrew Davis, NYSDPS Fred Sellars, Tetra Tech Joseph Fischl, Tetra Tech Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy		complete longer-term monitoring of birds Hecate to: -Complete breeding bird and raptor surveys, beginning during winter 2018 -Provide an important farmlands assessment for the Facility Area -Inquire with the landowner on farm production -Explore mitigation to offset impacts to agricultural production NYSDEC to provide: -Meeting attendance sheet -GIS data for the Freshwater Wetlands located within/adjacent to the Greene County Solar project area. -Breeding Bird survey protocols and a sample data sheet for breeding grassland bird surveys). -Winter Raptor Survey Protocol	-Cumulative impacts to grassland bird habitat from other solar projects proposed for development in Greene County -Facility Area is an important winter concentration area for raptors Requests/Recommendations (NYSDEC): -Consider multiple smaller fields vs. one large field -Re-arrange some panels to avoid the most sensitive bird habitats -Consult with the organized birding groups in the community such as Hudson Mohawk birding -Consult the Greene County Grassland Management Plan -Consult with the Greene Land Trust -Typical mitigation to control and manage bird habitat on other acreage would be a 1:1 ratio -Conduct longer-term (post-development) monitoring of birds -Wetland delineated report and formal Jurisdictional -Determination will be required -Complete breeding bird surveys during late spring/early summer and winter, and raptor surveys Concerns (Ag & Markets): -Impact associated with taking active agriculture out of production Requests/Recommendations (Ag & Markets): -Assessment to differentiate important farmlands within the Facility Area -Statistics on actual farm production of the Facility Area -Explore mitigation based on value of agricultural land taken out of production
Local Resident	03/15/18	1667 Farm To Market Rd, Coxsackie, NY 12051	Local Resident Phil Mooney, Hecate Energy	See their view of the Facility, discuss possible mitigation, hear additional comments and concerns.		Inform them if Tetra Tech would like to take a picture from their home for the visual impact assessment.
Local Resident	03/15/18	1755 Farm To Market Rd, Coxsackie, NY 12051	Local Resident Phil Mooney, Hecate Energy	See their view of the Facility, discuss possible mitigation, hear additional comments and concerns.		Inform them if Tetra Tech would like to take a picture from their home for the visual impact assessment.
Town of Coxsackie	03/15/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Rick Hanse, Town Supervisor Gabe Wapner, Hecate Energy	Discuss topics raised by residents at the Town Board meeting on 3/13/18.	Connect Supervisor Hanse with NYSEDRA so he may inquire about the tools they have available.	

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
NYSDPS	03/16/18	Empire State Plaza Agency Building 3 Albany, NY 12223-1350	Andrew Davis, NYSDPS Jeremy Rosenthal, NYSDPS Heather Behnke, NYSDPS Counsel Other Members of NYSDPS Staff (sign-in list to be obtained) Sam Laniado, Read and Laniado, LLP Joseph Fischl, Tetra Tech Bill Boer, Tetra Tech Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Hecate met with the NYSDPS to discuss potential concerns and required content of the PSS.	Invite NYSDPS (Mr. Davis) to the upcoming meeting with NYSDOS regarding coastal consistency.	Concerns: -Address coastal policies as they were recently revised -Route 385 is a scenic area of statewide significance and impacts will need to be addressed in Application -Any presence of Environmental Justice Areas within the immediate vicinity requires assessment; however the assessment is solely focused on air emissions -Potential cumulative impacts with proposed adjacent solar facilities (particularly Flint Mines) including visual, wetlands, traffic (if constructed at the same time) -Public education with a focus on benefits Recommendations: -Different distances may be proposed for different study areas, clearly indicate in each PSS exhibit -Propose certificate conditions in the Application -Review the Greene County Grassland Habitat Management Plan -Contact Greene Land Trust and Hudsonia for potential mitigation ideas -Address other proposed land uses as stipulated in Exhibit 4 -Hecate may team up with other projects to propose mitigation measures -Account for setbacks from existing rail in project design
Town of Coxsackie & NYSERDA	03/16/18	Email	Rick Hanse, Coxsackie Supervisor Maureen Leddy, NYSERDA	Mr. Wapner connected Supervisor Hanse with NYSERDA so that the Town of Coxsackie representatives could be advised of the resources available to them through NYSERDA.		
Local Resident	03/17/18	Text	Local Resident Gabe Wapner, Hecate Energy	Resident reached out to inquire about the availability of construction jobs for the Facility.		
Local Resident	03/18/18	Email	Local Resident Gabe Wapner, Hecate Energy	Resident contacted Hecate to notify us of the discussion of our Facility in the local community.	Mr. Wapner requested to introduce himself.	
Westchester Power	03/19/18	Call	Dan Welsh, Program Director Gabe Wapner, Hecate Energy	Hecate is exploring how it may be able to provide energy from its projects to host communities. Hecate desired to learn more about the Consumer Choice Aggregation (CCA) program Mr. Welsh runs and whether Westchester Power or an affiliate may be interested in running CCAs for the Facility host communities.		If the host communities were interested and willing in establishing CCA programs they possibly could choose to procure energy from Hecate's projects serving NYSERDA REC contracts.
Hudsonia Ltd.	03/21/18	Call	Lea Stickle, Hudsonia Ltd. Gabe Wapner, Hecate Energy	Mr. Wapner offered to meet with the organization to discuss the Facility.	Ms. Stickle will have Mr. Kiviat call Mr. Wapner back.	

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Village of Coxsackie	03/21/18	Voicemail	Mark Evans, Mayor Gabe Wapner, Hecate Energy	Mr. Wapner left a voicemail offering to provide an update on the status of the Facility.		
Scenic Hudson	03/21/18	Voicemail	Ned Sullivan, President Gabe Wapner, Hecate Energy	Mr. Wapner left voicemail offering to meet with the organization to discuss the Facility.		
Scenic Hudson	03/21/18	Call	Anna D. Tetrault, Executive Assistant to the President (Ned Sullivan) Gabe Wapner, Hecate Energy	Ms. Tetrault confirmed President Sullivan looks forward to meeting at the Scenic Hudson/NYSERDA conference on 3/28/2018.		
Village of Coxsackie	03/21/18	Call	Mark Evans, Mayor Gabe Wapner, Hecate Energy	Update call.		Concerns coming up: -Email on website may not be working (Hecate checked and it is) -Residents want to know "What are we getting out of it locally?"
Hudsonia Ltd.	03/22/18	Call	Erik Kiviati, Hudsonia Ltd. Gabe Wapner, Hecate Energy	Mr. Wapner offered to meet with the organization to discuss the Facility.		
Scenic Hudson	03/27/18	The Henry A. Wallace Center at the FDR Presidential Library and Home 4079 Albany Post Road Hyde Park, NY 12538	Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy Ned Sullivan, President Audrey Friedrichsen, Land Use and Environmental Advocacy Attorney Seth McKee, Land Conservation Director	Solar Smart Hudson Valley: Building Clean Energy While Preserving Important Lands Description Join us for an in-depth discussion on solar project regional planning in the Hudson Valley. Through interactive panel discussions and presentations, attendees will gain knowledge about current state policy and programs, market forces driving solar energy development in the Hudson Valley, designing solar energy projects, helping communities maximize renewable energy development, and developing a regional renewable energy plan. With the tools and information provided, participants will be better prepared to take actions that will make the Valley a regional model for reaching state targets to mitigate climate change, while simultaneously preserving the natural and economic assets. For more information, visit the website below.	Hecate and Scenic Hudson to arrange in person meeting to further discuss Hecate's projects in the Hudson Valley.	
Greene Land Trust	03/27/18	The Henry A. Wallace Center at the FDR Presidential Library and Home 4079 Albany Post Road Hyde Park, NY 12538	Gabe Wapner, Hecate Energy Richard Guthrie, Greene Land Trust	Mr. Wapner introduced himself and requested to arrange a meeting with Greene Land Trust.	Hecate to arrange meeting with Greene Land Trust.	
Coxsackie & Athens: Say NO to Residential Solar Farms	03/27/18	The Henry A. Wallace Center at the FDR Presidential Library and Home 4079 Albany Post Road Hyde Park, NY 12538	Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy Kim Rose, Coxsackie & Athens: Say NO to Residential Solar Farms	Mr. Mooney and Mr. Wapner reminded Ms. Rose that they were available to answer questions or concerns she may have.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Local Resident	03/28/18	245 Mansion St, Coxsackie, NY 12051	Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy Local Resident and Solar Installer	Resident expressed interest in working on the construction of the Facility.		
Coxsackie Town Board	03/29/18	16 Reed Street, Coxsackie, NY 12051	Gabe Wapner, Hecate Energy Coxsackie Town Board	Mr. Wapner attended the Coxsackie Town Board Workshop Meeting.		
Greene Land Trust	03/30/18	Email		Greene Land Trust requested to meet with the Greene County Solar team and Hecate responded that they would welcome the opportunity to meet.		
Scenic Hudson	03/30/18	Email	Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy Ned Sullivan, President Audrey Friedrichsen, Land Use and Environmental Advocacy Attorney Seth McKee, Land Conservation Director	Hecate requested Scenic Hudson provide times in April when they could be available to meet.		
Local Resident	04/02/18	Email	Local Resident Jared Wren, Hecate Energy	Resident had additional follow up questions that will be addressed in the Facility-wide FAQ document on the Facility website.	Finalized FAQ to be posted.	
Sleepy Hollow Lake Association of Property Owners (APO)	04/02/18	Unit 1095, 92 Randy Road Athens, NY 12015	Laurel Mann, Association Manager Ken Gifford, APO Board Member Michael Pirrone, APO Board Member Joe Quagliata, APO Board Member Chris Steinke, APO Board Member George Korchowsky, APO Board Member (not present for meeting) Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Provide Facility briefing, engage to better understand priority concerns.	Email future notices to Laurel, who will try to make available to the Sleepy Hollow Lake residents. Hecate will continue to keep those residents informed.	Provided project fact sheets and map. Questions/issues raised: - watershed is very important. Solar project should improve that protection. - the assoc. underwent/ or planning a significant lake/watershed protection program. - also important is rural character of the area and viewsheds. Acknowledgement that low profile solar lends itself to be easily mitigated with effective landscaping. - Landscaping design should be well thought out. - Taxes - very important: SHL pays a significant portion of local taxes, but is self-sufficient in many ways(roads, water supply & treatment, sewer) and has fewer students in school, thus drawing less services. - suggests taking wetlands to consolidate the layout and construct replacement wetlands on perimeter. - biking/walking is important (on the SHL roads). Perhaps consider extending trails to solar site. - important to have decommissioning plan; most is recyclable.

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Greene County Industrial Development Authority	04/02/18	Greene County Industrial Development Authority 270 Mansion St Coxsackie, NY 12051	René VanSchaack, Greene County Industrial Development Authority Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Provide status update, discuss PILOT process, obtain further understanding of public concerns and interests.		
Sleepy Hollow Lake APO	04/04/18	Email	Laurel Mann, Association Manager Gabe Wapner, Hecate Energy	Provide updated response to community concerns document and intervenor funding overview document		
Coxsackie Town Board	04/04/18	Email				
Local Resident	3/15/18 - 4/5/18	Talked on phone twice and traded messages, meeting at Margaret's home on 4/5/18 at 323 Adams Rd	Local Resident Phil Mooney, Hecate Energy	Provide Facility briefing and get first hand perspective of the site from the resident's home. Obtain further understanding of the resident's priority concerns. Discuss possible screening measures.		
Attendees to Coxsackie Planning Board	04/05/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Coxsackie Planning Board and public attendees.	Hecate reps attended as observer during statements to the planning Board, and available for questions. Hecate provided the Board some project information material and offered to return for a presentation. Informal stakeholder engagement discussion occurred after the Board Mtg ended, handfuls of interested public that stayed.	Continue stakeholders engagement. Provide presentation to Board. Advance the site plan design so to present better defined plan to the public.	
Local Residents	04/05/18	323 Adams Rd Athens	Phil Mooney - Hecate Energy Local Residents (homeowners abutting the Facility Area)	Provide Facility briefing and get first hand perspective of the site from the resident's home. Obtain further understanding of the resident's priority concerns. Discuss possible screening measures.	Review site plan with the after firming up design.	They indicted panels on the eastern side may be OK if screened. More concerned with western side as their main living room looks out that direction. Likely that we won't place panels immediately west due to wetlands.
Mike Keirnan - pollinator friendly landscape expert	04/05/18	At Greene Site	Phil Mooney - Hecate Energy Mike Keirnan - Bee the Change (pollinator friendly landscape expert - solar)	Discuss strategies for implementing pollinator friendly site vegetation.	Mike to provide proposal and continue discussions.	
NYSDOS	04/06/18	99 Washington Avenue, Suite 100 Albany, NY 12231	Matt Maraglio, NYSDOS Jeff Zappieri, NYSDOS Laura McLean, NYSDOS Kari Gathen, NYSDOS Jeremy Rosenthal, NYSDPS Andrew Davis, NYSDPS Heather Behnke, NYSDPS Cassandra Partyka, NYSDPS Tyler Wolcott, Read and Laniado	Hecate provided an overview of the Greene and Coeymans Solar projects and confirmed that the Greene Solar project is partially located within the Coastal Area Boundary and the Coeymans Solar project is not.	Hecate to: -Assess any potential impacts to wetlands in Article 10 Application -Assess visual receptors within the Scenic Area of Statewide Significance associated with the Hudson River in Article 10 Application -Provide list of coastal zone policies that Hecate anticipates will be applicable to Project in the Greene Solar PSS.	Concerns: -Impacts to wetlands -Impacts to visual -Impacts to recreational aspect of the Facility Area due to bird watching - Village of Athens has a Local Waterfront Revitalization Program Requests/Recommendations: -Interested in entire project, not just the coastal area within the Facility Area -Discuss State Coastal Policy #7 on significant fish habitat and #25 on scenic

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
			Bill Boer, Tetra Tech Joe Fischl, Tetra Tech Phil Mooney, Hecate Energy			policy in the Application -Interested in total area of permanent and temporary wetland impacts -Determine visual receptors within the scenic areas of statewide significance -Interested in co-agricultural use of the Facility Area
Village of Coxsackie	04/09/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Village of Coxsackie Board Attendees of the Village Board Meeting	Hecate was present at the meeting to take questions or comments from board members or local residents.		
Local Residents	04/09/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Local Residents Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Mr. Wapner and Mr. Mooney responded to questions.		
Town of Coxsackie	04/10/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town of Coxsackie Board Attendees of the Village Board Meeting			
Hudson-Mohawk Bird Club	04/10/18	Email	Gabe Wapner, Hecate Energy Gregg Recer, President, Hudson-Mohawk Bird Club	Hecate requested to meet with the club to introduce the Facility and receive feedback.		
Good Energy	04/11/18	232 Madison Ave, New York, NY 10016, USA Third Floor	Javier Barrios, Good Energy Gabe Wapner, Hecate Energy	Investigated how energy from the solar project could be sold to local electricity consumers through a CCA program.		
Town of Coxsackie & NYSERDA	04/11/18	Email	Rick Hanse, Coxsackie Supervisor Mike Veeder, Coxsackie Councilman Maureen Leddy, NYSERDA	Mr. Wapner sent a second email to connect Supervisor Hanse with NYSERDA so that the Town of Coxsackie representatives could be advised of the resources available to them through NYSERDA.		
Email Subscribers	04/13/18	Email	Subscribers from project website and open house	Distributed a FAQ document and a Facility benefits document.		
SWCA	04/17/18	621 W Randolph St, Chicago, IL	Mickey Marcus, SWCA Gabe Wapner, Hecate Energy Patti Shorr, Hecate Energy	SWCA presented its experience deploying pollinator friendly seed mixes in solar farms in Massachusetts and Minnesota.		
Local Resident	04/23/18	Email	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner responded to questions about the site plan and vegetation management.		
Coxsackie Town Board	04/26/18	16 Reed Street, Coxsackie, NY 12051	Coxsackie Town Board Gabe Wapner, Hecate Energy	Mr. Wapner attended Coxsackie Town Board Workshop Meeting.		
Local Resident	04/30/18	Email	Local Resident Gabe Wapner, Hecate Energy	Resident inquired who was procuring energy from the project. Mr. Wapner provided a response.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Daily Mail, Press	05/02/18	35 S 3rd St Hudson, NY 12534	Daniel Zuckerman, Reporter Steve Sullivan, Power Communications Gabe Wapner, Hecate Energy	Mr. Wapner briefed Mr. Zuckerman on the Greene County Solar Facility and took his questions.		
Tom Burke, Town of Coxsackie Councilman	05/02/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Tom Burke, Town of Coxsackie Councilman Steve Sullivan, Power Communications Gabe Wapner, Hecate Energy	Mr. Wapner briefed Councilman Burke on the Greene County Solar Facility and took his questions.		
Local Residents	05/02/18	Gardner's residence	Local Residents Steve Sullivan, Power Communications Gabe Wapner, Hecate Energy	Mr. Wapner briefed the residents on the Greene County Solar Facility and took their questions.		
Scenic Hudson	05/03/18	One Civic Center Plaza, Suite 200 Poughkeepsie, NY 12601	Audrey Friedrichsen, Land Use and Environmental Advocacy Attorney Seth McKee, Land Conservation Director Nava Tabak, Director of Science, Climate and Stewardship Hayley Carlock, Environmental Advocacy Director Two additional Scenic Hudson staff members Fred Sellers, Tetra Tech, Hecate Energy Consultant Nick Bullinger, COO, Hecate Energy Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy	Hecate provided an overview of the projects it is developing in the Hudson Valley. Scenic Hudson provided an overview of its initiatives related to solar development.	Keep open dialogue.	
Coxsackie Planning Board	05/03/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Coxsackie Town Board Approximately 10 Coxsackie residents Gabe Wapner, Hecate Energy	Hecate attended the Town of Coxsackie monthly Planning Board meeting.		
Coxsackie Library	05/08/18	1 Ely St Coxsackie, NY 12051	Linda Deubert, Librarian Kim Rose, Saving Greene Tessa Partidge, Saving Greene Local Residents	Mr. Wapner briefed the group on the Greene County Solar Facility and took its questions.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Coxsackie EMS	05/08/18	218 Mansion St Coxsackie, NY 12051	Nadine Erceg-Myrdycz, Chief of EMS Gabe Wapner, Hecate Energy Steve Sullivan, Power Communications	Mr. Wapner briefed Ms. Erceg-Myrdycz on the Greene County Solar Facility and took her questions.		
Coxsackie Fire Department	05/08/18	218 Mansion St Coxsackie, NY 12051	Steven Saulluce Jr, Coxsackie Hose Company #3 Gabe Wapner, Hecate Energy Steve Sullivan, Power Communications	Mr. Wapner briefed Mr. Saulluce on the Greene County Solar Facility and took his questions.		
Coxsackie Town Board	05/08/18	16 Reed Street, Coxsackie, NY 12051	Coxsackie Town Board Coxsackie residents Gabe Wapner, Hecate Energy	Hecate attended the Town of Coxsackie monthly Town Board meeting.		
Village of Coxsackie	05/15/18	Phone	Mark Evans, Mayor Gabe Wapner, Hecate Energy	Mr. Wapner described various ways a CCA may allow community members to access solar generated electricity.		
Hudson Mohawk Bird Club	05/16/18	Email	Patricia Fuller, President Gabe Wapner, Hecate Energy	Sent overview presentation of the Facility and provided times that Hecate would be available to meet if there was interest in doing so.		
Patrick Kennedy, Town Councilman	05/16/18	Email	Patrick Kennedy, Councilman Gabe Wapner, Hecate Energy	Mr. Wapner requested an opportunity to meet with Councilman Kennedy to brief him on the project and answer his questions.		
Linda Wilkinson, Town Councilwoman	05/16/18	Email	Linda Wilkinson, Town Councilwoman Gabe Wapner, Hecate Energy	Mr. Wapner requested an opportunity to meet with Councilwoman Wilkinson to brief her on the project and answer her questions.		
Town of Coxsackie	05/18/18	16 Reed Street, Coxsackie, NY 12051	Mike Veeder, Town Councilman Gabe Wapner, Hecate Energy	Mr. Wapner showed Councilman Veeder a revised site plan that factored in the feedback Hecate has received from the community.		
Local Resident	05/18/18	Revena Coeymans High School	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner showed a revised site plan that factored in the feedback Hecate has received from the community.		
Saving Greene	05/18/18	Text	Kim Rose, Saving Greene Gabe Wapner, Hecate Energy	Mr. Wapner asked Ms. Rose if she would like to review Hecate's revised site plan. Ms. Rose responded that she did not want to review it.		
Sierra Club	05/18/18	744 Broadway, Albany, NY 12207	Roger Downs, Conservation Director Gabe Wapner, Hecate Energy	Mr. Wapner provided an overview of the Facility and took questions.		
Publication	05/19/18	The Daily Mail		Notification of Submission of the Preliminary Scoping Statement ("PSS").		
Publication	05/20/18	Times Union		Notice of Submission of the PSS.		
Publication	05/20/18	HudsonValley360		Notice of Submission of the PSS.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Mailing/Emailing	05/21/18 – 05/22/18	US Postal Service and Email	Sent to all identified Stakeholders	Notice of Submission of the PSS.		
Local Resident	05/21/18	Email	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner responded to questions regarding equipment and project design.		
Local Residents	05/21/18	Farm to Market Road	Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner showed a revised site plan that factored in the feedback Hecate has received from the community.		
Local Resident	05/21/18	Phone	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner responded to several questions about the Facility.		
Village of Coxsackie	05/21/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Mark Evans, Mayor Gabe Wapner, Hecate Energy	Mr. Wapner reviewed an updated site plan with Mayor Evans.		
Greene County Industrial Development Authority	05/21/18	Greene County Industrial Development Authority 270 Mansion St Coxsackie, NY 12051	René VanSchaack, Greene County Industrial Development Authority Gabe Wapner, Hecate Energy	Mr. Wapner reviewed an updated site plan with Mr. VanSchaack.		
Greene County Historical Society	05/23/18	Voicemail	Gabe Wapner, Hecate Energy	Left voicemail to inform the Greene County Historical Society that our email Notice of PSS submittal had twice bounced back. Left details on filing date and pointed it to DPS website.		
Good Energy	05/25/18	Phone	Javier Barrios, Good Energies Gabe Wapner, Hecate Energy	Mr. Wapner inquired about Good Energy's ability to administer CCA programs for Coxsackie.		
Publication	05/26/18	Shop N Find		Notice of Submission of the PSS.		
Mailing	05/29/18	US Postal Service	Sent to those entities identified in the regulations	Submission of the PSS.		
Flint Mine Solar	05/30/18	Pegasus Restaurant, 10885 State Route 9W, Coxsackie, NY 12051	Patrick Doyle, Flint Mine Solar Flint Mine Solar Representatives Members of the public Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Mr. Wapner and Mr. Mooney attended the Flint Mine Solar open house to learn more about the project.		
American Solar Grazing Association	05/30/18	Pegasus Restaurant, 10885 State Route 9W, Coxsackie, NY 12051	Lexie Hain, Managing Director Ivan Goodman, Vice President Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Discussed the viability of sheep grazing within the solar arrays.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Local Resident	05/30/18	Pegasus Restaurant, 10885 State Route 9W, Coxsackie, NY 12051	Local Resident Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Mr. Wapner and Mr. Mooney provided a Facility update to a resident when they saw the resident at the Flint Mine open house.		
Center for Economic Growth ("CEG")	05/30/18	39 North Pearl Street, Suite 100 Albany, NY 12207	David Rooney, Center for Economic Growth Peter Lion, Center for Economic Growth Gabe Wapner, Hecate Energy Steven Sullivan, Power Communications	Hecate provided an overview of the Facility and took questions from CEG representatives.		
Local Resident	05/31/18	Email	Local Resident Gabe Wapner, Hecate Energy	The resident requested to know the exact location of the Facility. Mr. Wapner provided him with the information he requested.		
Local Resident	05/31/18	Phone	Local Resident Gabe Wapner, Hecate Energy	The resident asked several questions about the Facility and Mr. Wapner provided responses.		
NYSERDA	06/06/18	17 Columbia Cir, Albany, NY 12203	Liz Hanna, NYSERDA Maureen Leddy, NYSERDA Gabe Wapner, Hecate Energy	Mr. Wapner provided a Facility update and took questions.		
Greene Land Trust	06/07/18	480 Route 385, Athens, NY	Bob Knighton, President Hal Brodie, Vice President Jill Knapp, Secretary Larry Federman, Member at Large Rich Guthrie, Member at Large Fred Sellers, Tetra Tech Gabe Wapner, Hecate Energy	Hecate provided an overview of its Facility and took questions from the members of Greene Land Trust.		
Planning Board	06/07/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Coxsackie Town Board Approximately 10 Coxsackie residents Gabe Wapner, Hecate Energy	Hecate attended the Town of Coxsackie monthly Planning Board meeting.		
American Solar Grazing Association	06/08/18	Harford, NY	Lexie Hain, American Solar Grazing Association Gabe Wapner, Hecate Energy	Ms. Hain provided a tour of an operating PV solar project which currently uses sheep for vegetation management.		
Saving Greene	06/10/18	Email	Kris Martin, Saving Greene Gabe Wapner, Hecate Energy	Mr. Wapner responded to several questions regarding Hecate's PIP activities.		
New York Progressive Action Network (NYPAN)	06/10/18	Albany Public Library 161 Washington Ave Albany, NY 12210	Frank Natalie, Plumbers and Steamfitters Local No. 7 Doug Bullock, Albany County Legislator and	A roundtable discussion that addressed the primary question: "As renewable energy sources become the norm and fossil fuels production is reduced and eliminated, can we ensure a 'just jobs transition' for the current workforce of fossil fuel workers?"		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Mailing	06/22/18	US Postal Service	Sent to those entities identified in the regulations	Submission of Updated Layout.		
Greene County	06/22/18	Phone	Shaun S. Groden – Administrator Warren Hart – Director, Economic Development Raymond T. Ward – Director, Real Property Tax Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy	Hecate provided a Facility status update.		
Town of Coxsackie	06/28/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Rick Hanse, Supervisor Phil Mooney, Hecate Energy	Mr. Mooney offered to provide a Facility status update to the Town Board.		
Ecolong	07/02/18	Phone	Nancy Min, ecoLong LLC Gabe Wapner, Hecate Energy	Discussed ecoLong's interest in providing services to the Facility.		
Saving Greene	07/04/18	Email	Gabe Wapner, Hecate Energy	Offered to meet and answer questions.		
PSS Notice	06/01/18	Mail, Email, Newspaper, Website		Announced the filing of the Facility's PSS on 5/29/2018.		
PSS Press Release	06/01/18	Email	Daily Mail	Announced the filing of the Facility's PSS on 5/29/2018.		
Village of Coxsackie	07/09/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Coxsackie Village Board Village Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Village Board meeting.		
Local Resident	07/09/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner introduced himself and took feedback on the Facility.		Mr. Wapner provided his contact details for any follow up.
Town of Coxsackie	07/10/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
Daily Mail	07/12/18	Phone	Daniel Zuckerman, Reporter Gabe Wapner, Hecate Energy	Clarified acreage numbers associated with the Facility Site.		
Assemblyman Chris Tague	07/18/18	45 Five Mile Woods Rd. Bldg. 2, Suite 2 Catskill, NY 12414	Chris Tague, State Assemblyman Zack Dufrense, Alliance for Clean Energy NY Steve Sullivan, Power Communications Gabe Wapner, Hecate Energy	Introduced the Facility to Assemblyman Tague.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
			Phil Mooney, Hecate Energy			
NYSDPS Procedural Conference	07/18/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Parties to the proceeding	The NYSDPS allocated intervenor funding.		
NYSERDA	07/23/18	Phone	Houtan Moaveni, NYSERDA Gabe Wapner, Hecate Energy	Discussed tools and resources NYSERDA has available for Towns where large scale renewables projects are being developed.		
State Senator George Amedore	07/25/18	1900 Western Ave., Albany, NY 12203	George Amedore, State Senator Zack Dufrense, Alliance for Clean Energy NY Steve Sullivan, Power Communications Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Introduce the Facility to Senator Amedore.		
Daily Mail	07/27/18	Phone	Daniel Zuckerman, Reporter Gabe Wapner, Hecate Energy	Provide comment on IDA board decision.		
Coxsackie-Athens Rotary	07/25/18	12005 State Route 9W, West Coxsackie, NY 12192	Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy Mark Flach, Lessor Approximately 15 Rotary Club members Rick Hanse, Coxsackie Supervisor Dianne Ringwald, Village Trustee Randy Squier, Superintendent of Schools at Coxsackie-Athens CSD Kris Martin, Saving Greene Steve Sullivan, Power Communications	Introduce the Facility to the Rotary Club members.		
Local Resident	07/30/18	Voicemail	Local Resident Gabe Wapner, Hecate Energy	Local resident left a voicemail inquiring about the project. Hecate returned the call and left a call back number.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Village of Coxsackie	08/13/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Coxsackie Village Board Village Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Village Board meeting.		
Town of Coxsackie	08/14/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
Legislator Martinez	08/15/18	38 Flintmine Rd Coxsackie, NY 12051	Charles Martinez, County Legislator Gabe Wapner, Hecate Energy	Introduced the Facility to the legislator.	Provide large map of the Facility.	
Greene County Legislature	08/15/18	411 Main St #212 Catskill, NY 12414	County Legislature Gabe Wapner, Hecate Energy	Mr. Wapner attended the Greene County Legislature meeting.		
Village of Coxsackie, Town of Coxsackie, Greene County IDA	08/19/18	Email	Rick Hanse, Coxsackie Town Supervisor Mark Evans, Coxsackie Village Mayor Rene VanSchaack, Greene County IDA Gabe Wapner, Hecate Energy	Mr. Wapner forwarded information on the NYSERDA Solar Technical Assistance and Resources for Municipalities Workshop, September 5th event.		
Local Residents	08/22/18	Email	Local Residents Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Requested to meet. Mr. Wapner and Mr. Mooney will make themselves available; the parties are coordinating a time that works.		
Saving Greene	08/29/18	Email	savinggreene@gmail.com Kim Rose, Saving Greene Gabe Wapner, Hecate Energy	Mr. Wapner submitted a request to present at Saving Greene's 9/12 meeting.		
Local Resident	08/29/18	Email	Kris Martin, Saving Greene Gabe Wapner, Hecate Energy	Inquiry about 50% renewables by 2030 goal.		
Legislator Martinez	08/30/18	38 Flintmine Rd Coxsackie, NY 12051	Charles Martinez, County Legislator Gabe Wapner, Hecate Energy	Dropped off the Facility site plan, as requested by Mr. Martinez.		
Greene County Legislature	09/04/18	Phone	Tammy Sciavillo, Greene County Staff Gabe Wapner, Hecate Energy	Mr. Wapner spoke to the Legislature's office and requested to present the Facility to the appropriate committee. Ms. Sciavillo will get back to him on which committee and what the timing should be.		
Local Resident	09/06/18	Phone and Email	Local Resident Gabe Wapner, Hecate Energy	Provided information on the proposed solar law.		
Local Resident	09/06/18	Phone and Email	Local Resident Gabe Wapner, Hecate Energy	Provided information on the proposed solar law.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Local Residents	09/06/18	Email	Local Residents Gabe Wapner, Hecate Energy	Coordinated an in-person meeting.		
Coxsackie Town Board	09/07/18	Email, letter attached	Coxsackie Town Board Gabe Wapner, Hecate Energy	Mr. Wapner sent a letter to the Town Board expressing its concerns about the Town's proposed solar law amendment.		
Local Residents	09/10/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Local Residents Gabe Wapner, Hecate Energy Phil Mooney, Hecate Energy	Mr. Wapner and Mr. Mooney provided a Facility update to local residents, as requested.		
Mike Veeder, Town Councilman	09/10/18	Phone	Mike Veeder, Town Councilman Gabe Wapner, Hecate Energy	Councilman Veeder called to clarify numbers presented in the letter Mr. Wapner sent to the Town Board on 9/7/2108		
Village of Coxsackie	09/10/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Coxsackie Village Board Village Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Village Board meeting		
Saving Greene	09/11/18	Email	Kim Rose, Saving Greene Gabe Wapner, Hecate Energy	Saving Greene requested that neither Hecate nor the Project landowner attend their public meeting to be held at the elementary school and at which Mayor Evans, Supervisor Hanse, Assemblyman Tague, and Senator Amedore would be speaking.		
Town of Coxsackie	09/11/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
ABC News 10	09/12/18	Facetime	Katya Guillame, ABC News 10 Gabe Wapner, Hecate Energy	Mr. Wapner answered the reporter's questions on the Facility.		
Daily Mail	09/13/18	Call	Dan Zuckerman, Reporter Gabe Wapner, Hecate Energy	Mr. Wapner answered questions for a story the Daily Mail was writing about the Facility.		
Local Resident	09/14/18	Call	Local Resident Gabe Wapner, Hecate Energy	A local resident inquired how to support the Facility.		
Local Resident	09/17/18	Call	Local Resident Gabe Wapner, Hecate Energy	A local resident inquired how to support the Facility.		
Local Resident	09/20/18	Call	Local Resident Gabe Wapner, Hecate Energy	A local resident inquired how to support the Facility.		
Local Residents	09/22/18	Email	Local Residents Gabe Wapner, Hecate Energy	Local residents inquired about wetlands and Mr. Wapner provided a response.		
Sleepy Hollow Lake APO	10/01/18	Email	Laurel Wolfe, Sleepy Hollow Lake APO	Hecate offered to present a Facility update to the Sleepy Hollow Lake APO.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
			Gabe Wapner, Hecate Energy			
NYSDEC	10/02/18	Facility Area	NYSDEC Phil Mooney, Hecate Energy Joseph Fischl, Tetra Tech Richard Delahunty, Tetra Tech	Review delineated features within the Facility Area.	Tetra Tech to follow up and respond to NYSDEC's questions.	
Greene County	10/05/18	Voicemail	Tammy Sciavillo, Clerk Gabe Wapner, Hecate Energy	Mr. Wapner called to request a meeting to present information on the Facility to the appropriate committee.		Left a voicemail
Local Resident	10/03/18	Phone	Local Resident Gabe Wapner, Hecate Energy	Follow-up call regarding how the resident could support solar.		
Local Resident	10/03/18	Phone	Local Resident Gabe Wapner, Hecate Energy	Follow-up call regarding how the resident could support solar.		
Local Resident	10/03/18	Phone	Local Resident Gabe Wapner, Hecate Energy	Follow-up call regarding how the resident could support solar.		
Local Resident	10/06/18	Phone	Local Resident Gabe Wapner, Hecate Energy	Discussed sources of accurate data.		
Local Resident	10/07/18	Email	Local Resident Gabe Wapner, Hecate Energy	Mr. Wapner answered question about solar panel dimensions.		
Sleepy Hollow Lake APO	10/08/18	Email	Laurel Wolfe, Sleepy Hollow Lake APO Gabe Wapner, Hecate Energy	Mr. Wapner requested a meeting with the Sleepy Hollow Lake community to provide an update on the Facility.		
Village of Coxsackie	10/09/18	Coxsackie Village Hall 119 Mansion St Coxsackie, NY 12051	Coxsackie Village Board Village Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Village Board meeting.		
Town of Coxsackie	10/09/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
Local Supporters	10/09/18	245 Mansion St Coxsackie, NY 12051	Local Residents Mark Flach, Lessor Gabe Wapner, Hecate Energy	Mr. Wapner answered questions from a group of local supporters.		
Local Resident	10/12/18	Phone	Local Resident Gabe Wapner, Hecate Energy	Local Resident requested that Mr. Wapner attend a meeting at Sleepy Hollow Lake.	Mr. Wapner will attend the Sleepy Hollow Lake community meeting on 10/14/2018.	
Sleepy Hollow Lake Residents	10/14/18	Sleepy Hollow Lake Lodge, Lisa Ln, Athens, NY 12015	Residents of the Sleepy Hollow Lake and the local community Gabe Wapner, Hecate Energy	Mr. Wapner distributed project information and informed residents about how the Facility may protect the watershed of Sleepy Hollow Lake.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Mike Veeder, Town of Coxsackie Councilman	10/18/18	Email	Mike Veeder, Town Councilman Gabe Wapner, Hecate Energy	Mr. Wapner requested a call to discuss his thoughts on feedback received at last Town Board meeting.		
Tom Burke, Town Councilman	10/18/18	Email	Tom Burke, Town Councilman Gabe Wapner, Hecate Energy	Mr. Wapner requested a call to discuss his thoughts on feedback received at last Town Board meeting.		
RiSE	10/22/18	Email	Members of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner emailed the information that Ms. Rice had requested.		
Kim Rose, Saving Greene	10/30/18	Email	Kim Rose, Saving Greene Gabe Wapner, Hecate Energy	Mr. Wapner responded to an email inquiry from Ms. Rose of Saving Greene.		
RiSE	10/31/18	Phone	Members of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner answered questions about the Article 10 process.		
Sleepy Hollow Lake APO	11/10/18	Email	Ken Gifford, Sleepy Hollow APO Gabe Wapner, Hecate Energy	Mr. Wapner requested a copy of the Princeton Hydro report.		
RiSE and Friends of Flintmine	11/11/18	Private residence	Friends of Flint Mine RiSE Phil Mooney, Hecate Energy	At the request of these local groups, Mr. Mooney attended the meeting and answered questions they had about the Facility.		
RiSE	11/12/18	Email	Members of RiSE Gabe Wapner, Hecate Energy"	Mr. Wapner provided information on the Facility.		
Town of Coxsackie	11/13/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
RiSE	12/07/18	Phone	Members of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner answered various questions about the Facility and the Article 10 process.		
Town of Coxsackie	12/11/18	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
RiSE	12/11/18	245 Mansion St, Coxsackie, NY 12051	Members of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner met with the RiSE membership to answer questions they had about the Facility and the Article 10 process.		
RiSE	12/20/18	Phone	Members of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner answered questions related to Article 10 and water quality issues.		
RiSE	12/20/18	Phone	Member of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner answered questions related to Article 10 and water quality issues.		
RiSE	12/20/18	245 Mansion St, Coxsackie, NY 12051	Member of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner provided an update on the Facility.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Local Resident	12/26/18	Email	Local Resident Gabe Wapner, Hecate Energy	Resident expressed interest in being connected to RiSE and Mr. Wapner provided contact information.		
RiSE	12/27/18	Phone	Members of RiSE Gabe Wapner, Hecate Energy"	Mr. Wapner answered questions from RiSE.		
Local Resident	12/30/18	Phone	Local Resident Gabe Wapner, Hecate Energy"	Mr. Wapner answered resident's questions about the Facility.		
Sleepy Hollow Lake APO	01/03/19	Email	Laurel Wolfe, Sleepy Hollow Lake APO Ken Gifford, Sleep Hollow Lake APO Gabe Wapner, Hecate Energy	Mr. Wapner provided water quality memo and requested a meeting.		
Town of Cossackie	01/08/19	Cossackie Town Hall 16 Reed St Cossackie, NY 12051	Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
Solar PV Safety Training	01/09/19	QWL Building	Trainer Matthew Paiss	The Cossackie Fire Department hosted a PV safety training that Hecate helped to coordinate and sponsored.		
Mothers out Front	01/16/19	Phone	Member of Mothers Out Front Gabe Wapner, Hecate Energy	Mr. Wapner answered Ms. Root's questions about the Facility.		
Sleepy Hollow Lake APO	01/24/19	Phone	Members of Sleepy Hollow Lake APO Princeton Hydro Jackie Bruce, Tetra Tech Paul Martin, Tetra Tech Phil Mooney, Hecate Energy Gabe Wapner, Hecate Energy Sam Laniado, Read & Laniado	Discussed system design process and Article 10 process.	Notify Sleepy Hollow when Stipulations are issued.	
RiSE	01/25/19	Phone	Members of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner answered questions about the Facility.		
Sleepy Hollow Lake APO	02/04/19	Sleepy Hollow Lodge	Representatives of Cypress Creek Members of the Sleepy Hollow Lake Community Phil Mooney, Hecate Energy	Mr. Mooney attended a presentation on the Cypress Creek Fallen Tree solar farm.		
Town of Cossackie	02/12/19	Cossackie Town Hall 16 Reed St Cossackie, NY 12051	Cossackie Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
RiSE	02/19/19	Phone	Member of RiSE Gabe Wapner, Hecate Energy	Mr. Wapner answer questions about the Facility.		
RiSE	03/05/19	Phone	Member of RiSE Gabe Wapner, Hecate Energy	RiSE requested Hecate to attend their public forum scheduled on 3/31.		
RiSE	03/10/19	Email	RiSE Membership Gabe Wapner, Hecate Energy	Mr. Wapner responded to an information request.		
Town of Coxsackie	03/12/19	Coxsackie Town Hall 16 Reed St Coxsackie, NY 12051	Coxsackie Town Board Local Residents Gabe Wapner, Hecate Energy	Mr. Wapner attended the Town Board meeting.		
RiSE	03/15/19 - 03/31/19	Email & Phone	Gabe Wapner, Hecate Energy	Mr. Wapner answered questions prior to their public forum scheduled on 3/31.		
RiSE, NYPAN Greene, Mothers Out Front	03/31/19	Pegasus 10885 State Route 9W Coxsackie, NY 12051	Approximately 60 Local Residents Gabe Wapner and Phil Mooney, Hecate Energy Jackie Bruce, Tetra Tech	Public forum about local proposed solar projects.		
Town of Coxsackie	04/09/19	56 Bailey Street Coxsackie, New York 12051	Town Board and citizens Gabe Wapner, Hecate Energy	Monthly Town Board Meeting.		
NYPAN Greene	05/03/19	Email	Donald Gardner Gabe Wapner, Hecate Energy	Informed Mr. Gardner how to submit comments on the Stipulations.		
Local Residents	05/14/19	Paul's Pizza	Local Residents Gabe Wapner, Hecate Energy	Answered questions about the Facility.		
Town of Coxsackie	05/14/19	56 Bailey Street Coxsackie, New York 12051	Town Board and citizens Gabe Wapner, Hecate Energy	Monthly Town Board Meeting.		
Friends of Flintmine	05/17/19	Phone	Giuseppina Agovino Gabe Wapner, Hecate Energy	Answered questions about the Facility.		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
NYPAN Greene	05/24/19	Telephone	Donald Gardner Cari Gardner Gabe Wapner, Hecate Energy	Answered questions about the Facility.		
Coxsackie Athens Central School	05/28/19	Email	Randall Squire, Coxsackie-Athens School District Gabe Wapner, Hecate Energy	Study Grant Coordination.	Present Study Grants at Senior Awards evening	
Town of Coxsackie	06/11/19	56 Bailey Street Coxsackie, New York 12051	Town Board and citizens Gabe Wapner, Hecate Energy	Monthly Town Board Meeting.		Town reheard comments on their previously approved solar law
Article 10 Process Parties	6/17/19	NYSDEC	Confidential	Discuss Draft Stipulations.	Schedule follow up call to finish discussion of Draft Stipulations.	
Article 10 Process Parties	06/24/19	Telephone	Confidential	Discuss Draft Stipulations.	Circulate Revised Draft Stipulations.	
Town of Coxsackie	7/9/19	56 Bailey St., Coxsackie, NY 12051	Gabe Wapner, Hecate Energy; Town Board; Citizens	Monthly Town Board meeting		Town Board passed their solar law. Text is the same as was passed last year.
Local Resident	7/13/19	Email	Confidential	Informed them about RiSE and offered to connect them		
NYPAN Greene	7/28/19	Phone	Gabe Wapner, Hecate Energy; Donald and Cari Gardner	Respond to questions	Send email	
Local Resident	7/28/19	Phone	Confidential	Respond to inquiry regarding Hecate Energy's interest in using sheep grazing for vegetative maintenance		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
NYPAN Greene	7/31/19	Phone	Gabe Wapner, Hecate Energy; Donald and Cari Gardner, Lexie Hain, and Mike MacDonald	Regarding sheep grazing at large solar facilities		
Town of Coxsackie	8/13/19	56 Bailey St., Coxsackie, NY 12051	Gabe Wapner, Hecate Energy; Town Board; Citizens	Attend Town Board meeting		
Dodge Data	8/22/19	Phone	Joe Kelnhofer	Inquiry regarding when project would start construction		
Mailing/Emailing	8/28/19	US Postal Service and Email	Sent to all identified Stakeholders	Notification of Submission of the Proposed Stipulations for the Greene County Solar Facility and Request for Public Comment		
Mailing	8/28/19	US Postal Service	Sent to those entities identified in the regulations	Submission of the Proposed Stipulations		
Mailing/Emailing	9/5/19	US Postal Service and Email	Sent to all identified Stakeholders	Notice Extending Due Date for Comments on Proposed Stipulations		Extended the comment period by 8 days to account for some incorrect mailings
Mailing	9/6/19	US Postal Service	Sent to all identified Stakeholders	Letter to Stakeholders Extending Proposed Stipulations Comment Period		Extended the comment period by 8 days to account for some incorrect mailings
Local Resident	9/8/19	Email	Confidential	Respond to email and indicated Hecate Energy is available to speak with them		
Village of Coxsackie	9/10/19	Coxsackie Village Hall, 119 Mansion St., Coxsackie, NY 12051	Gabe Wapner, Hecate Energy; Village Board; Citizens	Attend monthly Village Board meeting; announced public comment period on project stipulations		

Stakeholder	Date	Location	Attendees	Purpose	Follow-Up Action Items	Comments
Town of Coxsackie	9/10/19	56 Bailey St., Coxsackie, NY 12051	Gabe Wapner, Hecate Energy; Town Board; Citizens	Attend monthly Town Board meeting; announced public comment period on project stipulations		
Coxsackie-Athens Central School	9/10/19	District Offices	Gabe Wapner, Hecate Energy; Randall Squier	Provided project status update		
Local Resident	9/11/19	Email	Confidential	Submittal of latest project layout per request		
Hudson Valley 360	9/24/19	Phone	Sarah (reporter) and Gabe Wapner, Hecate Energy	Inquiry regarding article being written about the project		



Greene County Solar Facility

Case No. 17-F-0619

1001.3 Exhibit 3

Location of Facilities

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LIST OF FIGURES

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Figure 3-2. Facility Layout
Figure 3-3. Study Area
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Figure 3-5. School District Boundaries
Figure 3-6. Fire District Boundaries

EXHIBIT 3 LOCATION OF FACILITIES

This Exhibit addresses the requirements specified in Stipulation 3, and, therefore, the requirements of 16 NYCRR § 1001.3. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 3.

(a) United States Geological Survey Maps

(1) Facility Area and Alternatives

Figure 3-1 shows the location of the Greene County Solar Facility (the Facility), approximately 827 acres along Farm to Market Road (County Route 57), between United States Route 9W and New York State Route 385 (the Facility Area) relative to major roads and regional population centers. Figure 3-2 shows the Facility layout, including locations of solar panels, collection lines, electric interconnections, and access roads. As discussed in Exhibit 9, no reasonable and available alternate locations have been identified.

(2) Project Interconnections

A 10-megawatt portion of the Facility will interconnect to the existing Cocksackie substation via a 0.85-mile 13.8-kilovolt (kV) feeder line that will extend north from the Facility Area along Stacy Road. The other 40 megawatts of Facility output will interconnect to Central Hudson Gas and Electric Corporation's 69-kV transmission tap system via a 34.5 kV overhead collection line that crosses Farm to Market Road.

All other Facility interconnections, including, but not limited to, stormwater features, are proposed within the boundary of the Facility Area as shown on Figure 3-2.

(3) Study Area

All land within 2 miles of the boundaries of the Facility Area and associated interconnections is defined as the Facility's Study Area (Figure 3-3), which was selected based on the nature of the technology and setting of the Facility. As specified in Stipulation 3, this defined Study Area is utilized for most of the studies and analyses discussed in this Article 10 Application; however, some of the resources and topics discussed required a resource-specific study area. These are identified as needed in their respective exhibits and provided for in the respective Stipulations.

(b) Area Maps

Figure 3-4 shows the Facility Area in relation to county and town boundaries, and Figures 3-5 and 3-6 show the Facility Area in relation to school districts and fire districts, respectively. There are no designated neighborhoods or community districts within the Study Area.

(c) Description of Facilities Relative to Taxing Jurisdiction

The Facility Area and the off-site interconnection described in Section (a)(2) above are entirely located within the Town of Cocksackie, Greene County, the Cocksackie-Athens Central School District (Figure 3-5), and the Cocksackie Fire District (Figure 3-6).



Greene County Solar Facility

Case No. 17-F-0617

Exhibit 3 Figures

Figure 3-1 Facility Location

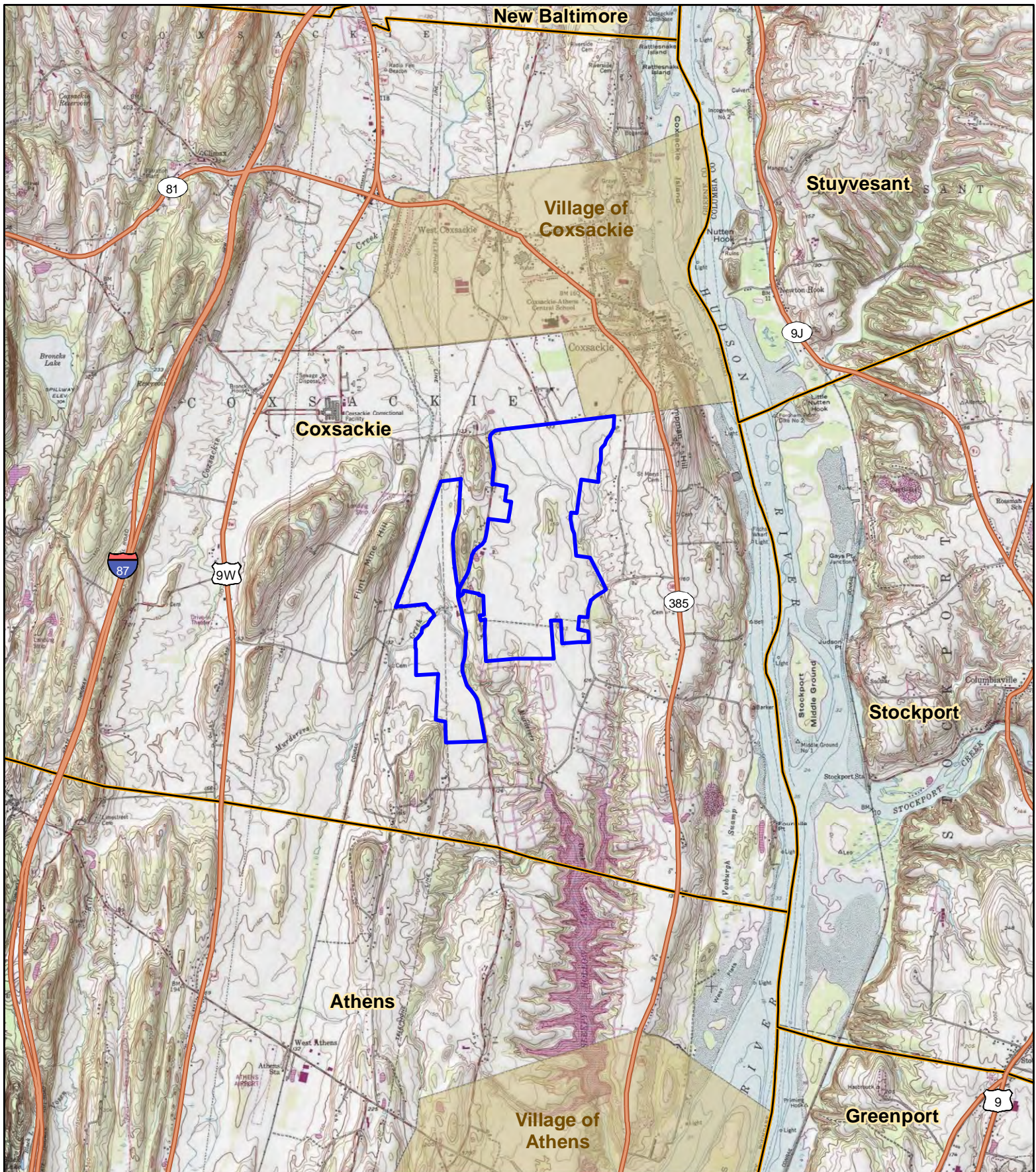
Figure 3-2 Facility Layout

Figure 3-3 Study Area

Figure 3-4 Municipal and Tax Jurisdictional Boundaries

Figure 3-5 School District Boundaries

Figure 3-6 Fire District Boundaries



Legend

- Facility Area
- City/Town Boundary
- Village

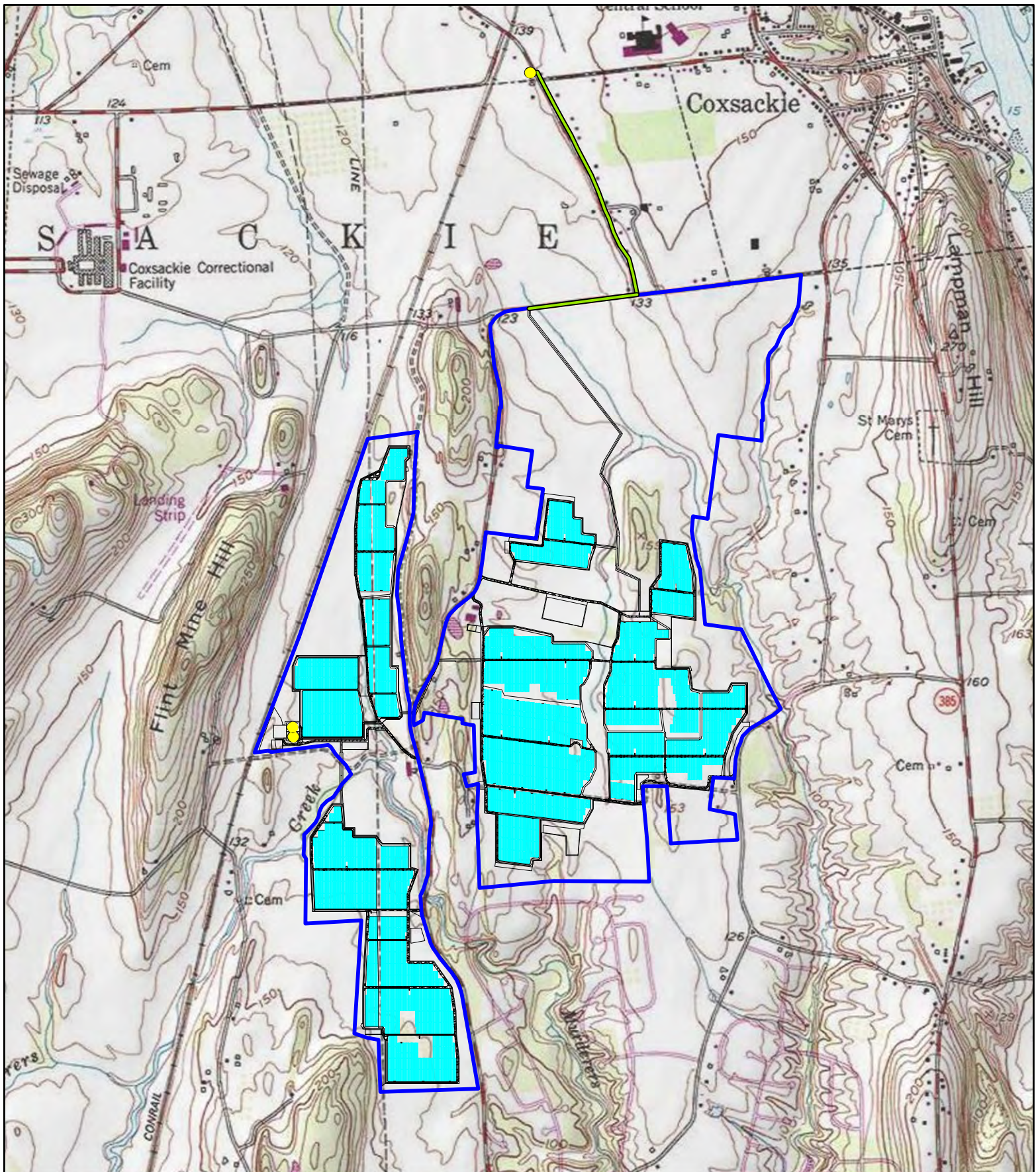
Source: ESRI (2016), NYGIS (2019), USGS (1981)



0 0.5 1
Miles

**Figure 3-1
Facility Location**

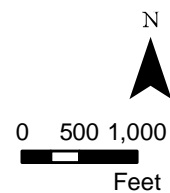
Greene County Solar Facility
Greene County, New York



Legend

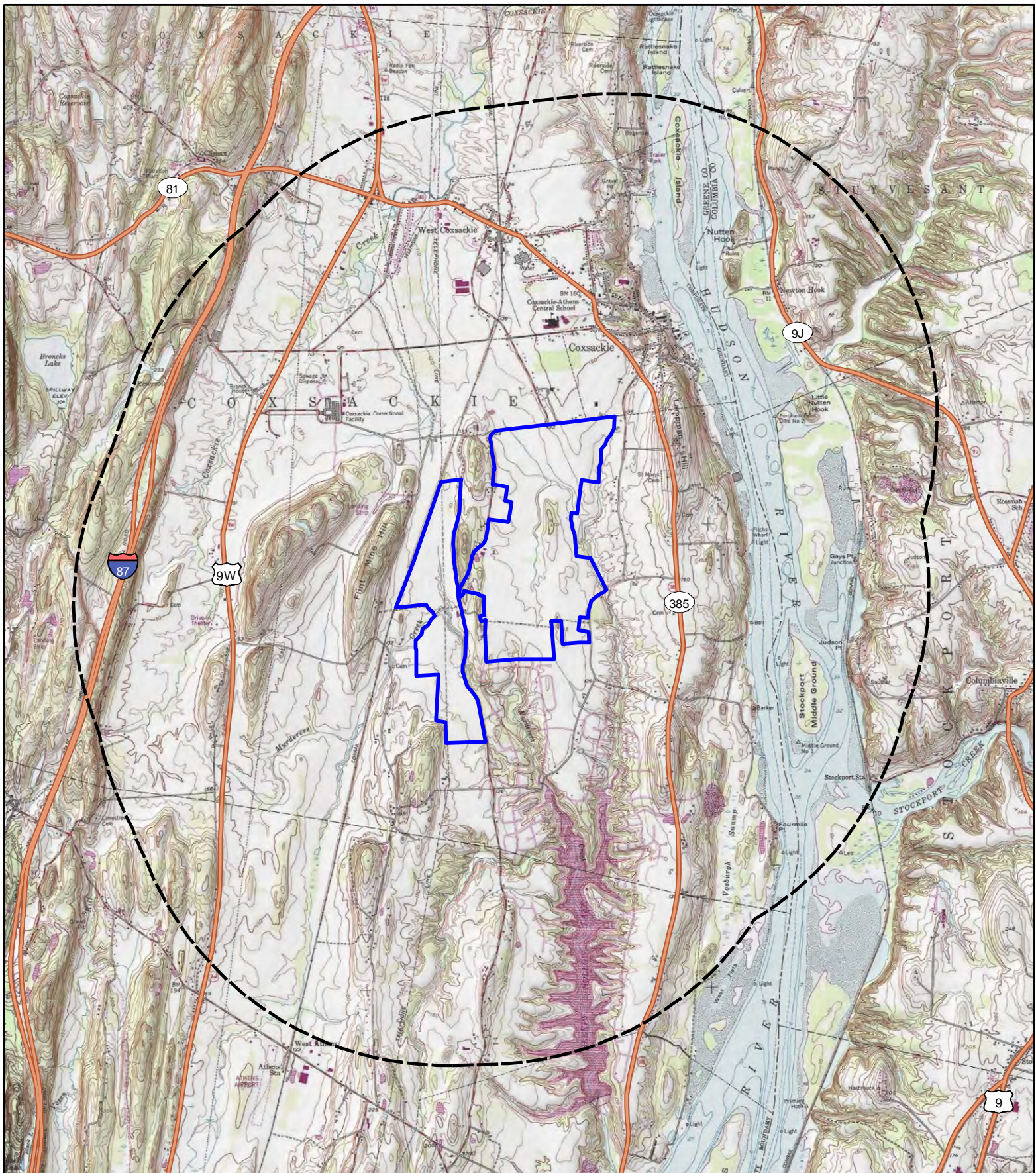
- ▬ Facility Area
- ▬ Facility Layout
- ▬ Panels
- ▬ Interconnection Route
- Point of Interconnection (POI)

Source: USGS (1981)



**Figure 3-2
Facility Layout**

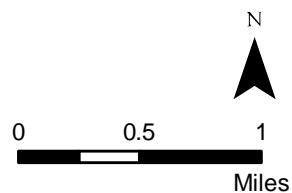
Greene County Solar Facility
Greene County, New York



Legend

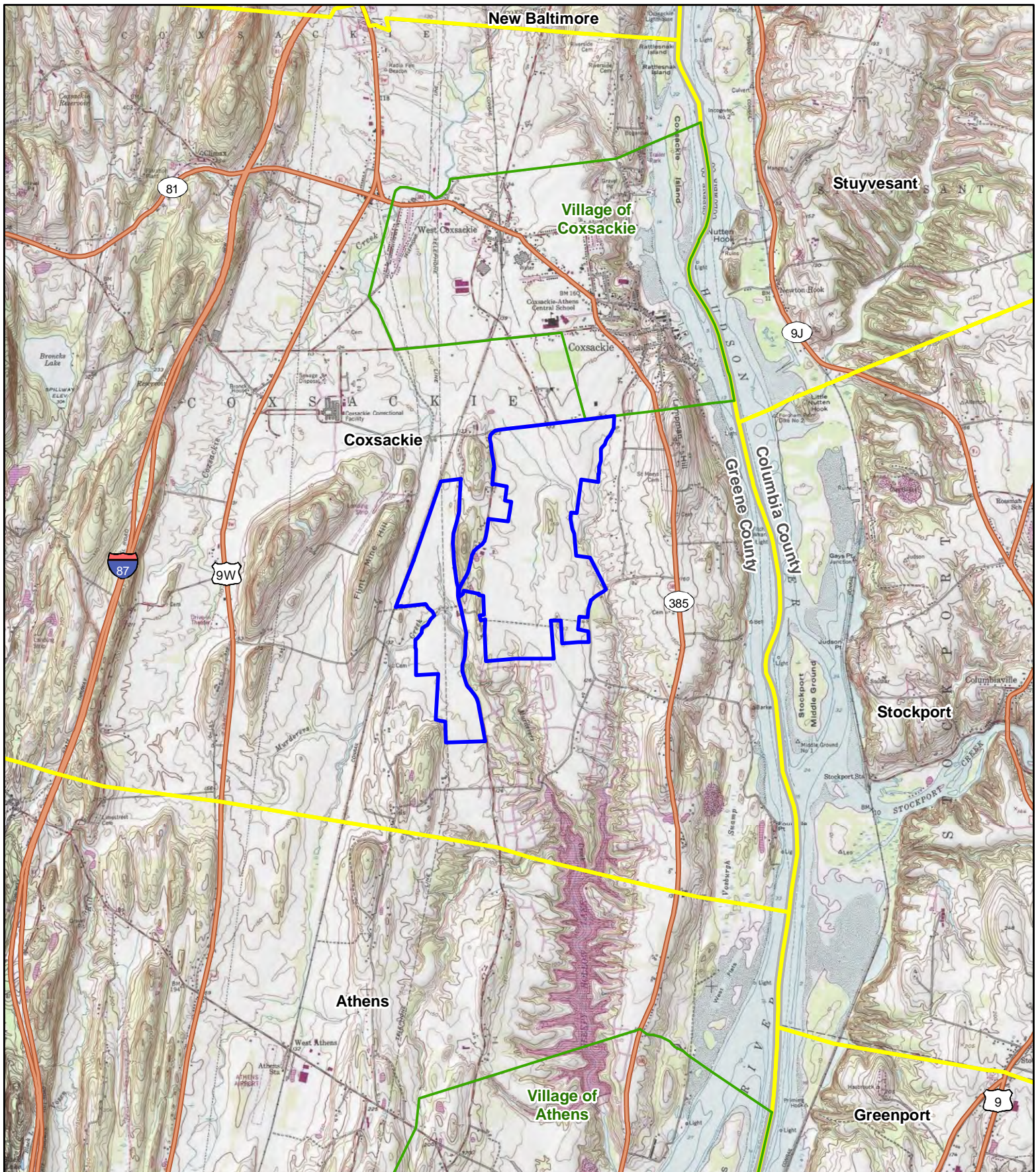
- Facility Area
- 2-mile Study Area

Source: ESRI (2016), USGS (1981)



**Figure 3-3
Study Area**

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- Village Boundary
- City/Town Municipal Boundary



County Boundary

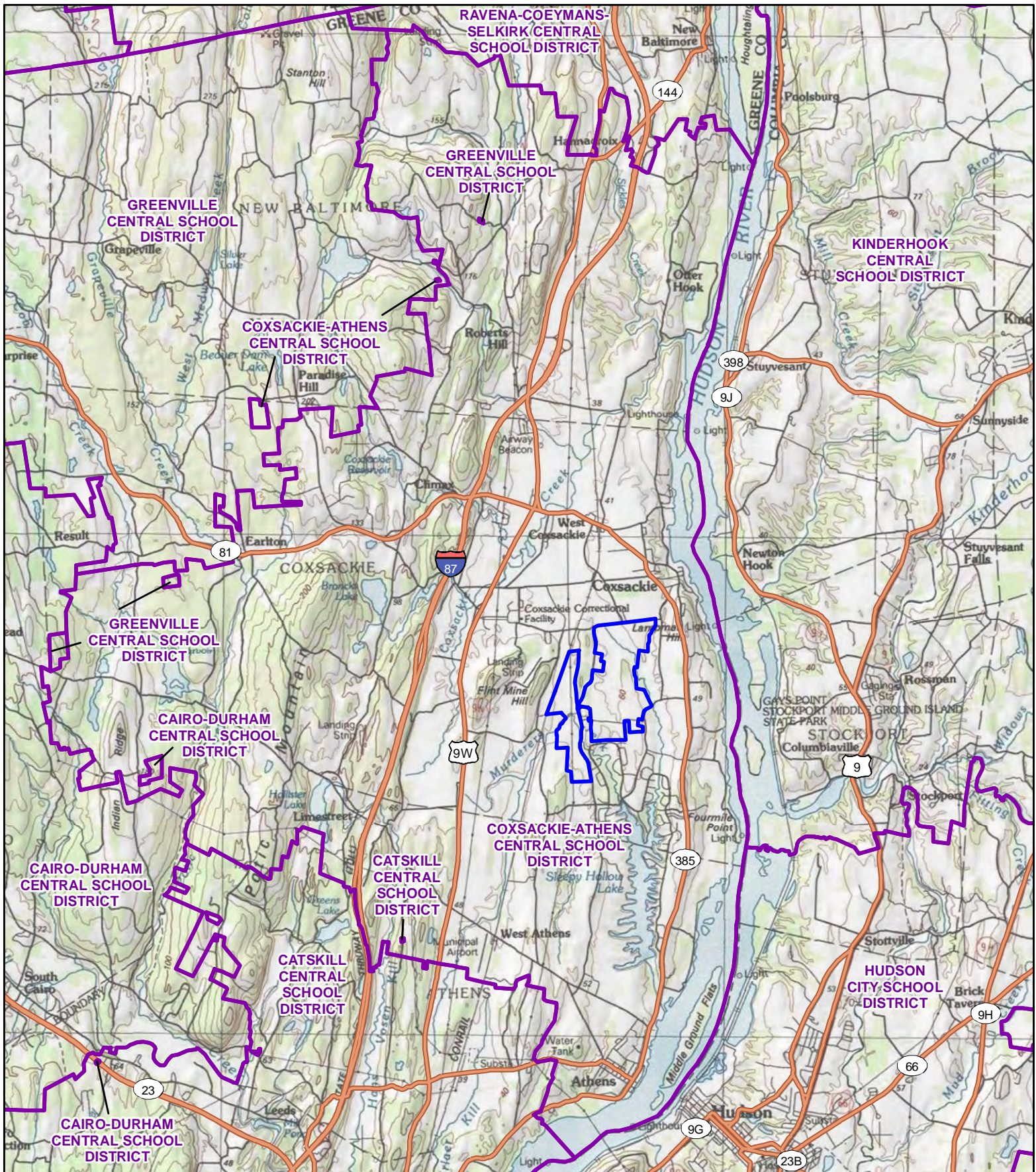


0 0.5 1
Miles

Source: ESRI (2016), NYSDEC (2019), USGS (1981)

**Figure 3-4
Municipal and Tax
Jurisdictional Boundaries**

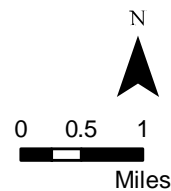
Greene County Solar Facility
Greene County, New York



Legend

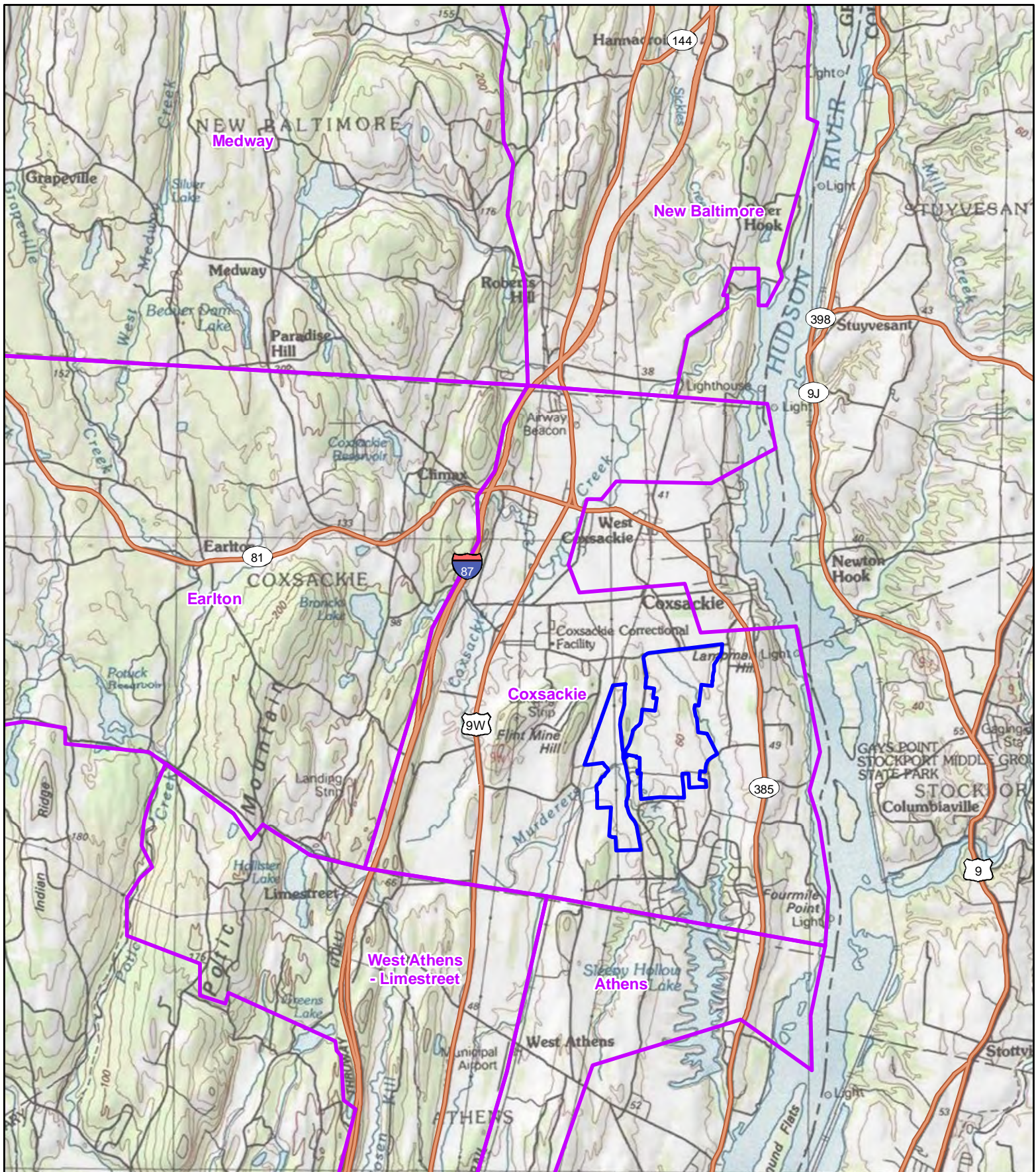
- Facility Area
- Unified School District Boundaries

Source: ESRI (2016), NYSDEC (2019), USGS (1981)



**Figure 3-5
School District Boundaries**

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- Fire District

Source: ESRI (2016), Greene GIS (2019), USGS (1981)



0 0.5 1
Miles

**Figure 3-6
Fire District Boundaries**

Greene County Solar Facility
Greene County, New York



Greene County Solar Facility

Case No. 17-F-0619

1001.4 Exhibit 4

Land Use

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EXHIBIT 4 LAND USE

This Exhibit addresses the requirements specified in Stipulation 4, and, therefore, the requirements of 16 NYCRR § 1001.4. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 4.

(a) Existing Land Use

Figure 4-1 has been prepared using Property Classification Codes from the New York State Office of Real Property Services to classify land use within the 2-mile Study Area around the Greene County Solar Facility (the Facility), which is proposed on an approximately 827-acre property along Farm to Market Road, between United States Route 9W and New York State Route (NY) 385 (the Facility Area). Property Classification Codes describe the primary use of each parcel and are consistent throughout New York State (the State).

The Property Classification Code categories, developed by the State Office of Real Property Services, that occur within the 2-mile Study Area include: Agricultural Use (100); Residential Use (200); Vacant Land (300); Commercial Use (400); Recreation & Entertainment Use (500); Community Services (600); Industrial Use (700); Public Services (800); and Wild, Forested, Conservation Lands & Parks (900). In addition, there are several areas of unidentified use also located within the 2-mile Study Area; as discussed in footnote 3, additional review based on aerial mapping review was used to characterize such areas. Each category that occurs within the 2-mile Study Area is described in Table 4-1 below and shown on Figure 4-1.

Table 4-1. Property Classification Code Categories within the 2-Mile Study Area

Code	Name	Description	Approximate Acreage ¹	Approximate Percent
100	Agricultural Use	Property used for the production of crops or livestock.	2,406	14.8
200	Residential Use	Property used for human habitation. ²	4,140	25.4
300	Vacant Land	Property that is not in use, is in temporary use, or lacks permanent improvement.	5,376	33.0
400	Commercial Use	Property used for the sale of goods and/or services.	382	2.4
500	Recreation & Entertainment Use	Property used by groups for recreation, amusement or entertainment.	114	0.7
600	Community Services	Property used for the well-being of the community. ³	943	5.8
700	Industrial Use	Property used for the production and fabrication of durable and non-durable man-made goods.	59	0.4
800	Public Services	Property used to provide services to the general public.	89	0.5
900	Wild, Forested, Conservation Lands & Parks	Reforested lands, preserves, and private hunting and fishing clubs.	279	1.7
Unidentified ⁴	Unidentified	Unidentified	237	1.5

¹ Acreage does not add up to total 2-mile Study Area because the Hudson River is a non-categorized area. Non-categorized areas, including areas such as open water or transportation corridors, which do not contain boundaries in the available parcel data.

² Living accommodations such as hotels, motels, and apartments are in the Commercial category (400).

³ The largest such area represents the nearby correctional facilities.

⁴ Parcels identified as “Unidentified Use” on the map are those that have a parcel boundary in the dataset, but the land use code is blank or zero. A visual inspection of aerial photography indicates that these areas most frequently reflect overhead electric transmission lines, with other areas reflecting trees, shoreline, and other miscellaneous uses.

(b) Existing Major Facilities

Figure 4-2 illustrates existing major facilities within the 2-mile Study Area of which the Co-Applicants are aware. As seen on this figure, a natural gas pipeline owned by Central Hudson Gas and Electric Corporation (CHGE) and the CHGE 69-kV North Catskill-Coxsackie transmission line share a right-of-way (ROW) that traverses in a southwest-to-northeast direction, located just within a small portion of the Facility Area and overlapping with the western boundary. These facilities were identified using publicly available geographic information system data, as well as through communications with local utilities and field observations associated with development of the ALTA mapping for the Facility (see Appendix 13-A).

The Coxsackie Substation, owned by CHGE, is located approximately 0.6 miles north of the Facility Area. An existing distribution line and ROW extend from just north of the Facility Area to the Coxsackie Substation, within which the offsite portion of the Facility’s feeder line is proposed for a 10-megawatt portion of the Facility (see Figures 2-2 and 3-2).

AT&T currently holds an easement through the Facility Area, within which an unused communications line is believed to be located. Active coordination with AT&T is ongoing that may result in the relocation of that easement.

(c) Facility Area and Adjacent Parcels

Figure 4-3 illustrates each of the parcels upon which any component of the Facility is proposed, as well as all adjoining parcels. Table 4-2 summarizes tax parcel Identification (ID), owner, and current land use for those parcels that make up the Facility Area. Appendix 4-A provides a map of the tax parcel ID and owner for the Facility Area and all adjoining parcels, as well as a table that includes the adjoining parcel information (Table 4-A). Current land use information for the Facility Area and surrounding 2-mile Study Area is shown on Figure 4-1. Based on a review of publicly available information and discussions with the landowner, the Co-Applicants are not aware of any proposed land uses for the parcels depicted in Figure 4-3 that are within the Facility Area, except for the Facility; the Co-Applicants are aware that adjacent parcels depicted include the proposed Champlain-Hudson Power Express underground electric transmission facility (see Exhibit 12), and Flint Mine Solar, both of which are proposed to be located west of the Facility Area. Correspondence with the Town of Coxsackie did not identify any proposed change to the existing land uses on the parcels within or adjacent to the Facility Area, other than the Facility. Parcels that are adjacent to the Facility include rural residential, agricultural lands, and an existing railroad and its associated ROW that runs north-south just outside of the western boundary of the Facility Area.

Table 4-2. Facility Area Parcel Information

Location	Tax Parcel ID	Parcel Owner	Land Use Code
Facility Area	71.00-2-1.11	Flach Family Trust	120
Facility Area	71.00-4-3.1	Flach Family Trust	322
Facility Area	71.00-4-13	Cedar Shade Farm LLC	105
Facility Area	71.00-4-6.2	Flach Family Trust	112
Facility Area	71.00-3-47	Flach Family Trust	120
Facility Area	71.00-3-48	Flach Family Trust	311
Facility Area	88.00-1-40	Flach Family Trust	312
Facility Area	88.00-1-5.112	Flach Family Trust	322
Facility Area	71.00-4-11	Flach, John P.	312
Facility Area	71.00-4-10	Flach, John P.	312
Facility Area	88.00-1-38	Flach, John P.	312
Facility Area	88.00-1-6	Flach, John P.	312

(d) Zoning Districts

There are five municipalities located within the 2-mile Study Area: the Town of Cossackie, Village of Cossackie, Town of Athens, Town of Stockport, and Town of Stuyvesant (Appendix 4-B). A very minor portion of the Village of Athens is included within the 2-mile Study Area; however, a zoning map of this area is not included in Appendix 4-B as the area is limited to open water associated with Sleepy Hollow Lake. Appendix 4-B summarizes the existing zoning districts for each of these municipalities. Accompanying the zoning maps are tables that provide a description of each zoning district and summarize the permitted and prohibited uses within each zoning district. According to the Town of Cossackie's Zoning Code, and as shown in Appendix 4-B, the entire Facility Area lies within the Rural Residential District. The northern extent of the Facility Area also lies within the Residential Density Overlay.

(e) Municipality Comprehensive Plan

The Town and Village of Cossackie have adopted a comprehensive plan, known as the Town and Village of Cossackie Community Plan (2008). Greene County has adopted the Greene County Open Space and Recreation Plan (Greene County Planning Department 2002), the Greene County Agricultural Development and Farmland Protection Plan (Greene County Agricultural and Farmland Protection Board, Cornell Cooperative Extension – Greene County, Greene County Planning Department, Greene County Real Property Tax Services Department, and Shepstone Management Company 2002), and the Greene County Comprehensive Economic Development Plan (Greene County 2017). While the Greene County Open Space and Recreation Plan and Greene County Agricultural Development and Farmland Protection Plan do not specifically address energy facility development or renewable energy systems, the Town and Village of Cossackie Community Plan and Greene County Comprehensive Economic Development Plan identify recommendations on increasing renewable energy in their respective coverage areas.

Chapter 4 (Utilities and Energy) of the Town and Village of Cossackie Community Plan identifies the importance of access to natural gas, electrical service, and telecommunications, and recommends working cooperatively with Greene County Industrial Development Authority, Greene County Soil and Water Conservation District, Cornell Cooperative Extension and others to evaluate and promote alternative energy sources at larger development projects, including consideration of creation of incentives for developers to increase use of solar, wind, geothermal and other energy resources within the county (Town and Village of Cossackie 2008). The Greene County Comprehensive Economic Development Plan identifies two key

areas of technology in the State of New York to pursue, including renewable energy technology and the need to make New York energy self-sufficient (Greene County 2017). Development of the Facility would contribute to the County's desire to attract emerging technology industries, such as renewable energy. The land use and economic planning objectives of these plans support the goals and objectives of development of the Facility: to deliver clean, renewable energy to New York residents. Solar energy generators are efficient, clean energy generation facilities, similar to wind farms or hydropower stations. In addition, solar energy generating facilities generate less noise and have a lower visual profile than wind farms.

The planning documents also speak to the value of community character and maintaining a delicate balance of encouraging economic development that also preserve's the regions natural beauty and rural character and preserve agricultural lands. The Facility will allow agricultural land to be preserved for future use, allow some agriculture to continue within the Facility Area while providing for important renewable energy resources. According to article published in the Hudson Valley 360 authored by the participating landowner, "My View: Solar Saves Farms", dated July 31, 2018, the lease payments from the Facility "...will sustain our family farm for future generations while cultivating growth of green power in Greene County" (Appendix 4-E). It also is stated that farmers are compelled to seek alternative sources of revenues such as selling farmland to developers of subdivisions, golf courses and other non-agricultural uses. While, during the Facility life, the character of the property will change from open fields to a solar energy facility, a detailed assessment of potential visual effects has been conducted (as presented in Exhibit 24), and appropriate mitigation will be employed to minimize the potential for visual effect to the maximum extent practicable. The Facility, therefore, strikes an excellent balance between preserving community character and agriculture and promoting renewable energy.

The Town of Coxsackie also adopted a local solar law in 2016 and amended it in late 2018. This law provides specific guidelines and limitations regarding solar energy development within the Town of Coxsackie. The Facility's compliance with the local solar law is discussed in detail in Exhibit 31.

(f) Proposed Land Uses

The Town of Coxsackie has not identified any proposed changes to land uses within the 2-mile Study Area. The Village of Coxsackie was contacted on December 3, 2019 to inquire about any potential changes to proposed land uses; however, it has not responded to the request for this information. The Co-Applicants are not aware of any other proposed land uses for the parcels within the 2-mile Study Area. A review of publicly available information; correspondence with state and local officials; and the ongoing Public Involvement Program has not identified any other proposed change to the existing land uses within the 2-mile Study Area.

(g) Coastal Areas, Agricultural Districts and Other Protected Areas

Figures 4-4 through 4-6 show special designation areas such as agricultural districts, water resource areas, critical environmental areas, and flood-prone zones. These figures were prepared using the New York State Department of Agriculture and Markets (NYSDAM) Agricultural Districts Mapping for Albany County (NYSDAM 2018), NYSDEC public data sets (NYSDEC 2019), and data from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) (FEMA 2019).

As shown on Figure 4-4, the entire Facility Area is located within the Green County Agricultural District 124, which is certified by the NYSDAM. Farmland within the Facility Area currently consists of a combination of row crops and hay fields. These lands are used for production of hay and row crops, and are not currently used as pasture land for livestock. While the Facility will disturb and displace agricultural uses within the Facility Area throughout the operational life of the Facility, the Facility Area will be substantially restored to pre-construction conditions so that agricultural uses may resume following Facility decommissioning. See

Exhibit 29 for a discussion of the Facility's preliminary Decommissioning Plan. Further, the land hosting Facility components will be able to recuperate over the life of the Facility, improving it for potential future agricultural uses. Mitigation measures employed during Facility construction and operation, such as pile-driven panel racking, stormwater control measures, and native ground cover will be used to facilitate decommissioning and land restoration following conclusion of Facility operation.

As shown on Figure 4-5, there are no NYSDEC Critical Environmental Areas, mapped primary aquifers or mapped Waterfront Revitalization Program Areas located within the 2-mile Study Area. The NYSDEC Hudson River Coastal Boundary likely does not extend onto the Facility Area; however, there is a narrow strip of land along the northern-most Facility Area boundary that, if not a mapping error, could be located within the Hudson River Coastal Boundary (Figure 4-5) (NYSDEC 2019). In this portion of the Facility Area, no development is proposed, therefore, even if a small segment of the Hudson River Coastal Boundary occurs on the Facility Area, it will not be impacted by the Facility. The portion of the electrical feeder line that extends offsite along Stacy Road to be constructed and maintained by CHGE does contain a small segment near the Cocksackie Substation, 245 feet, that is within the Hudson River Coastal Boundary. However, the offsite portion of this line will be located by CHGE within its existing ROW and the feeder line upgrade by CHGE will not adversely impact the Hudson River Coastal Zone.

The location of a mid-yield principal aquifer identified by NYSDEC lies along the northwestern, northern, and eastern periphery of the Facility Area. Principal aquifers are not heavily utilized as a groundwater resource within New York State to the same extent as primary aquifers. Because the Facility will not use groundwater and best practices will be implemented to prevent and prepare for response in the event of accidental spills, no impacts to aquifers are anticipated from development or operations of the Facility (Appendix 21-A).

As shown on Figure 4-6, there are FEMA-designated Flood Hazard Areas and a Regulatory Floodway located with the boundaries of the Facility Area on the western portion of the Facility Area following Murderers Creek (FEMA 2019). Flood Hazard Areas include 0.2 percent and 1.0 percent Annual Chance Flood Hazard Areas. These Flood Hazard Areas and Regulatory Floodway extend south of the Facility off-site and into the Sleepy Hollow Lake, which is mapped in its entirety as a 1.0 percent chance Flood Hazard Area. To the east is the Hudson River and its associated floodplain, which also is mapped as a 1.0 percent chance Flood Hazard Area, with areas of having a 0.2 percent chance Flood Hazard Area mapped along its periphery. Facility components have been sited outside of these areas, and Facility stormwater design has accounted for these conditions. The Facility design (Appendix 11-A) and best management practices to be employed during construction and operations for handling stormwater on the site (Appendix 23-B) will control peak rates of runoff. Given the design of stormwater management practices and the maintained vegetation planned throughout the developed portions of the Facility Area, no FEMA Flood Hazard Areas are anticipated to be impacted by the development or operation of the Facility.

(h) Cultural and Recreational Resources Potentially Affected by the Facility

Figure 4-7 shows the location of cultural resources, NYSDEC land, public parks, and community sports fields. This figure was prepared using the New York State Cultural Resource Information System, NYSDEC public data sets, and aerial photographs. There are no mapped cultural or public recreational resources within the Facility Area. There are several recreational and cultural resources located within the 2-mile Study Area, including Sleepy Hollow Lake. In addition to these recreational and cultural sites, research conducted for the Facility's Historic Resources study identified 35 State/NRHP-eligible or listed properties within a 1-mile radius of the Facility, the closest of which is an NRHP-eligible property approximately 0.4 miles southwest of the Facility. Exhibit 20 provides additional details on the archaeological and historic resources located within the 2-mile Study Area. Due to rolling topography and abundant surrounding vegetation, there are no potential views of the Facility from the Village of Cocksackie or the hamlet of West

Coxsackie, and the Facility is not expected to have any effect on the visual setting associated with historic resources in these locations. Based on the distance to known cultural and recreational resources, the development and operation of the Facility will not affect the use of the surrounding properties.

Visual and acoustical surveys were conducted to investigate the potential indirect effects of the Facility on surrounding properties. Additional detail on these surveys and analyses are provided in the Visual Impact Assessment, included as Appendix 24-A, and the Acoustical Impact Assessment, included as Appendix 19-A. No significant adverse acoustic effects are expected from the Facility. In addition, no foul odors will be generated during Facility operation; any potential odors generated during Facility construction will be minor, temporary in nature and typical of major construction sites. The Facility will have varying degrees of visibility to some adjacent landowners (as further detailed in Exhibit 24); however, the Co-Applicants have incorporated vegetative screening in key areas where nearby maximum visibility is expected. The Complaint Resolution Plan, provided as Appendix 12-B, outlines the procedures in place to address any identified concerns related to the Facility.

(i) Compatibility of the Facility with Existing and Proposed Land Uses and Land Use Plans

The Facility is anticipated to create minimal noise, visual, and transportation effects to the surrounding area. There will be no air emissions nor water discharges during Facility operation. Nor will facility operation result in any odor effects to the surrounding area. As summarized in Exhibit 4(f), correspondence with State and local officials and the ongoing Public Involvement Program has not identified any proposed change to the existing land uses within the 2-mile Study Area, other than the Facility and the proposed Champlain-Hudson Power Express underground electric transmission facility (see Exhibit 12), and several other solar energy facilities, most notably, Flint Mine Solar, which is proposed to be located west of the Facility Area. The Co-Applicants are not aware of any proposed land uses within the 2-mile Study Area that Facility construction and/or operation may negatively impact.

The Facility Area currently consists of active agricultural land, undeveloped lands, and utility easements. The Facility will connect to an existing electrical transmission line, owned by CHGE, which is located adjacent to the west of the Facility Area, and the Coxsackie Substation, located approximately 0.6 mile to the north.

As described in Exhibit 4(e), the Facility is consistent with the draft Town and Village of Coxsackie Community Plan as it is a clean, efficient source of renewable energy and supports the Plan's objective to promote alternative energy sources at larger development projects. As described in Exhibit 31, the Facility also has been designed to comply with most of the applicable substantive requirements contained in the regulations of the Town of Coxsackie Municipal Code.

For a descriptive summary on the potential impacts of noise, visual, and transportation effects to the surrounding areas, please see Exhibits 19, 24, and 25, respectively.

(j) Compatibility of the Overhead Interconnections with Existing and Proposed Land Uses

The Facility's three aboveground interconnections, two of which occur completely within the Facility Area (with the exception of the Farm to Market Road crossing), and related facilities are compatible with existing, potential, and proposed land uses. The interconnections to the existing 69-kV CHGE ROW not only occur within the Facility Area, but are located proximate to the existing overhead lines. The 13.8-kV collection line will result in a new overhead collection line within the Facility Area, but as it extends to the north of the Facility Area, will join an existing CHGE distribution ROW and likely use the existing structures. ROWs (see Exhibit 5 for description of each line). The Co-Applicants have been working in close coordination with the

utility corridor owner, CHGE, during the interconnection process. The Co-Applicants are not aware of additional proposed or potential land uses within these areas.

(k) Compatibility of the Underground Interconnections with Existing and Proposed Land Uses

The Facility's underground components, including the collection lines, are compatible with the existing land uses within 300 feet. As shown in Appendix 11-A, the Facility's underground electrical trenches will be limited to within the boundaries of the Facility Area. The Facility's underground collection system, proposed throughout the Facility Area, will transition to overhead lines prior to the Facility's three interconnections.

As outlined previously in Figure 4-2, existing utility lines located within the Facility Area include CHGE overhead transmission and gas lines, located along the western boundary of the Facility Area, and the AT&T easement that extends north-south through the western portion of the Facility Area. No Facility-related underground components will be located in proximity to the CHGE ROW, and the Co-Applicants are actively coordinating with AT&T to ensure that no adverse effect to its corridor will result from the Facility. No Facility-related underground components will impact off-site existing or proposed land uses.

(l) Conformance with Coastal Zone Management Act

As shown on Figure 4-5, a portion of the 2-mile Study Area is located in a Designated Coastal Area; however, the Facility Area is not located in a Designated Inland Waterway or Significant Coastal Fish and Wildlife Designated Habitat. Therefore, conformance with relevant provisions of the Coastal Zone Management Act and proposed or adopted plans for inland waterways and local waterfront revitalization areas, is not required for the Facility, as none of the Facility Area or related facilities are located within the Coastal Zone.

(m) Aerial Photographs

Figure 4-8 is an aerial photograph showing the Facility Area in relation to all properties within the 2-mile Study Area. The aerial imagery was sourced from the United States Department of Agriculture (USDA) National Agriculture Imagery Program Imagery, New York dated 2017.

(n) Overlays on Aerial Photographs

Appendix 4-C includes an overlay of the Facility Area on aerial photographs, clearly identifying the Facility, proposed interconnections, and the location of access corridors in relation to existing structures and vegetation cover types. Appendix 11-A illustrates the limits of proposed clearing, grading, and other changes within the Facility Area.

(o) Existing Conditions

The aerial photographs included in Appendix 4-C were published in 2016, 2017, and 2018. Based upon the Co-Applicants' field review, no substantive changes to vegetation or land uses occurred in the Facility Area between the time the latest aerial photographs were taken and the date of this Application. Specific crop rotations between use for hay versus other agricultural crops changes within the Facility Area on a regular basis, although the vintage of the aerial images generally reflect current uses.

(p) Community Character

The Facility is proposed within the Town of Coxsackie, which includes a mix of industrial, agricultural, rural residential, and sparsely forested areas between NY 385 and US Route 9 West. The Facility Area, located approximately one mile from the western bank of the Hudson River and approximately 0.5 mile from Sleepy Hollow Lake, is characterized by gently rolling topography containing row crop, hay, and fallow agricultural fields and undeveloped forested areas. The most dominant developments in the surrounding area are the Greene Correctional Facility (approximately 0.25 mile to the northwest) and Coxsackie Correctional Facility (approximately 0.7 mile to the northwest). As explained more fully in other Exhibits, Facility operation will not negatively impact the current community character of nearby properties because it is quiet, has no air emissions, or odors, its profile is relatively low (the solar panels at their maximum height are approximately the same height as field corn), there will be no heavy traffic for operation and maintenance, it will demand few if any local services and it will be effectively screened, by proposed and existing natural vegetative buffers. Exhibit 24 addresses potential visibility and proposed mitigation and Exhibit 19 contains the acoustical analysis and compliance with sound design goals and applicable substantive standards.

The 2-mile Study Area also contains several neighborhood parks, boat launches, the Hudson River Islands, and the Vosburgh Swamp Natural Area; however, none of these public use land areas are within the Facility Area or be adversely affected by the Facility. Although the Facility Area is used for hunting, only a few hunters, given access by the landowner, use the area for this purpose. Upon construction and operation of the Facility, hunting will no longer occur within the Facility Area.

As discussed above in subsection (e), the Facility strikes an excellent balance between preserving community character and promoting renewable energy.

(q) Active Agricultural Land

The majority of Facility Area is currently in active agricultural use by the participating landowner, with fields cultivated annually with row crops or hay. The active fields, occupying the flat terrain within the Facility Area, are surrounded by forested areas occupying the acres less suited for cultivation. Each year, some fields may be left fallow as the farmers employ the practice of crop rotation to reduce soil erosion and allow for the increase in soil fertility and crop yield. Row crop agricultural use is not anticipated to resume within the Facility Area prior to Facility decommissioning.

The Facility Area represents a portion of a larger agricultural operation. The Facility will occupy approximately 827 acres, with approximately 219 acres remaining in landowner control for potential continued agricultural use. According to an article written by the landowner (Appendix 4-E), the revenue received from the Facility will provide a stable income and allow him to continue farming. The landowner farms approximately additional 70 leased acres of adjoining parcels located near the boundary of the Town of Athens to the south of the Facility, owns and farms additional adjoining parcels totaling approximately 105 acres in the towns of Coxsackie and Athens, and owns and farms approximately 134 additional acres of land that is not adjoining the Facility Area.

It is important to note that the highest projection from the New York State Public Service Commission (NYSPSC) for the amount of utility-scale solar to be installed to help reach the original 50% renewables mandate was approximately 6,900 MW (Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Appendices to Order Adopting a Clean Energy Standard (Aug. 1, 2016), Appendix G at 19). The NYSPSC noted that even if 100% of those projects were sited on agricultural lands in New York State, only about 0.16% of such lands would be converted to utility-scale solar (*id.*, Appendix G at 20).

(r) Agricultural District

The entire Facility Area is enrolled in the Agricultural District program. According to the landowner, the parcels have been in Agricultural District status since at least the 1980s, when the family obtained ownership of the Facility parcels. This designation is renewed annually, no later than March 1st each year. All of the Facility parcels identified in Table 2 are enrolled in the Agricultural District program until February 29, 2020, at which time they will be renewed for a period of 1 year.

(s) Measures to Avoid, Minimize, and Mitigate Effects to Agricultural Land

The Facility will displace approximately 379 acres of agricultural land for the operational life of the Facility; however, upon decommissioning of the Facility such uses could be restored. As noted above, according to the landowners, the lease payments, to be made by the Co-Applicants to the landowner, will provide a stable income and allow for continued agricultural production on nearby fields. Although opportunities for shared uses, such as livestock grazing, will continue to be explored, it is not being proposed at this time as the potential for this type of co-use during operation would depend on the economic feasibility and other logistical factors. The approximately 219 acres of the Facility Area that will remain undeveloped may continue to be used for agricultural purposes.

Within the Facility Area, the Facility's racking system will be pile-driven to minimize subsurface ground disturbance. Once the Facility is constructed, a native seed mixture will be used as ground cover to enable soil recovery, replenish soil nutrients and mitigate soil erosion. The Facility will avoid using pesticides and herbicides, to the extent practicable¹, and surface grading will be limited to approximately 13 acres. At the conclusion of operation, the Facility Area can be returned to its current state for future agricultural uses, as further discussed in the Decommissioning Plan, provided as Appendix 29-A and discussed in Exhibit 29.

(t) Consistency of Facility Construction with NYSDAM Guidelines

As explained in Appendix 4-D, the Facility will be consistent with the applicable NYSDAM 2019 guidelines, to the maximum extent practicable. Although the Facility is proposed on land that is currently in agricultural use, the Facility has been designed within a consolidated, contained area and no crops will be farmed amongst or between the operational photovoltaic solar arrays. Given this design, it is not practicable to apply some of the NYSDAM guidelines to the Facility during operation; rather, the Co-Applicants will commit to following the NYSDAM guidelines, to the maximum extent practicable, during decommissioning and site restoration.

(u) Potential Effects on Agricultural Viability

The Facility will displace approximately 379 acres of agricultural land for the operational life of the Facility. This duration will give the soils the opportunity to recuperate from its historical use as active agricultural land. The Facility is anticipated to be operable for a period of approximately 35–40 years. A native seed mixture will be used as new ground cover to mitigate soil erosion and replenish soil nutrients. At the conclusion of operation, the Facility Area can be returned to agricultural production, as further discussed in the Decommissioning Plan, provided as Appendix 29-A to this Article 10 Application.

¹ Selective, spot treatment using herbicides may be necessary to address the presence of invasive species, as further discussed in Exhibit 22. Aerial or broadcast spraying is not proposed.

(v) Potential Effects to Agricultural Support Businesses and Services

Currently the Facility Area is used to grow row crops and hay (Figure 4-9). In 2019, the Facility Area supported approximately 64 acres of corn, 128 acres of hay, and 434 acres of soybeans. These are the typical crops grown at the Facility with locations rotated and acreages varying on an annual basis. The Facility will displace approximately 379 acres of agricultural land for the operational life of the Facility. Greene County has approximately 34,979 acres of agricultural land (Greene County Agricultural Farmland Protection Board 2019); thus, the Facility is only displacing approximately 1% of the County's agricultural land. The use of this land for renewable energy generation has other, positive economic effects, as further described in Exhibit 27. In addition, according an article written by the landowner (Appendix 4-E), the lease payments will provide a stable income and allow for continued agricultural production on nearby fields. No adverse effects to the landowner's current agricultural operations on the agricultural lands under their ownership or that are leased in the Facility area are anticipated. Therefore, on balance, no adverse impact to local agricultural support businesses and services is anticipated to occur as a result of the Facility.

REFERENCES

- FEMA 2019. Federal Emergency Management Agency National Flood Hazard Layer (NFHL). Available at <https://www.fema.gov/national-flood-hazard-layer-nfhl>. Accessed July 15, 2019.
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- Greene County. 2017. Comprehensive Economic Development Plan. Available at: <https://www.greengovernment.com/departments/planning-and-economic-development/studies-plans-and-data>. Accessed December 8, 2019.
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- NYS DEC 2019. Map Collection and Interactive Maps. Available at <http://www.dec.ny.gov/pubs/212.html>. Accessed February 1, 2019.
- Town and Village of Coxsackie. 2008. Town and Village of Coxsackie Community Plan. June 2008. 190 pp.



Greene County Solar Facility

Case No. 17-F-0617

Exhibit 4 Figures

Figure 4-1 Land Use

Figure 4-2 Existing Major Utilities

Figure 4-3 Facility Land Use

Figure 4-4 Agricultural Districts

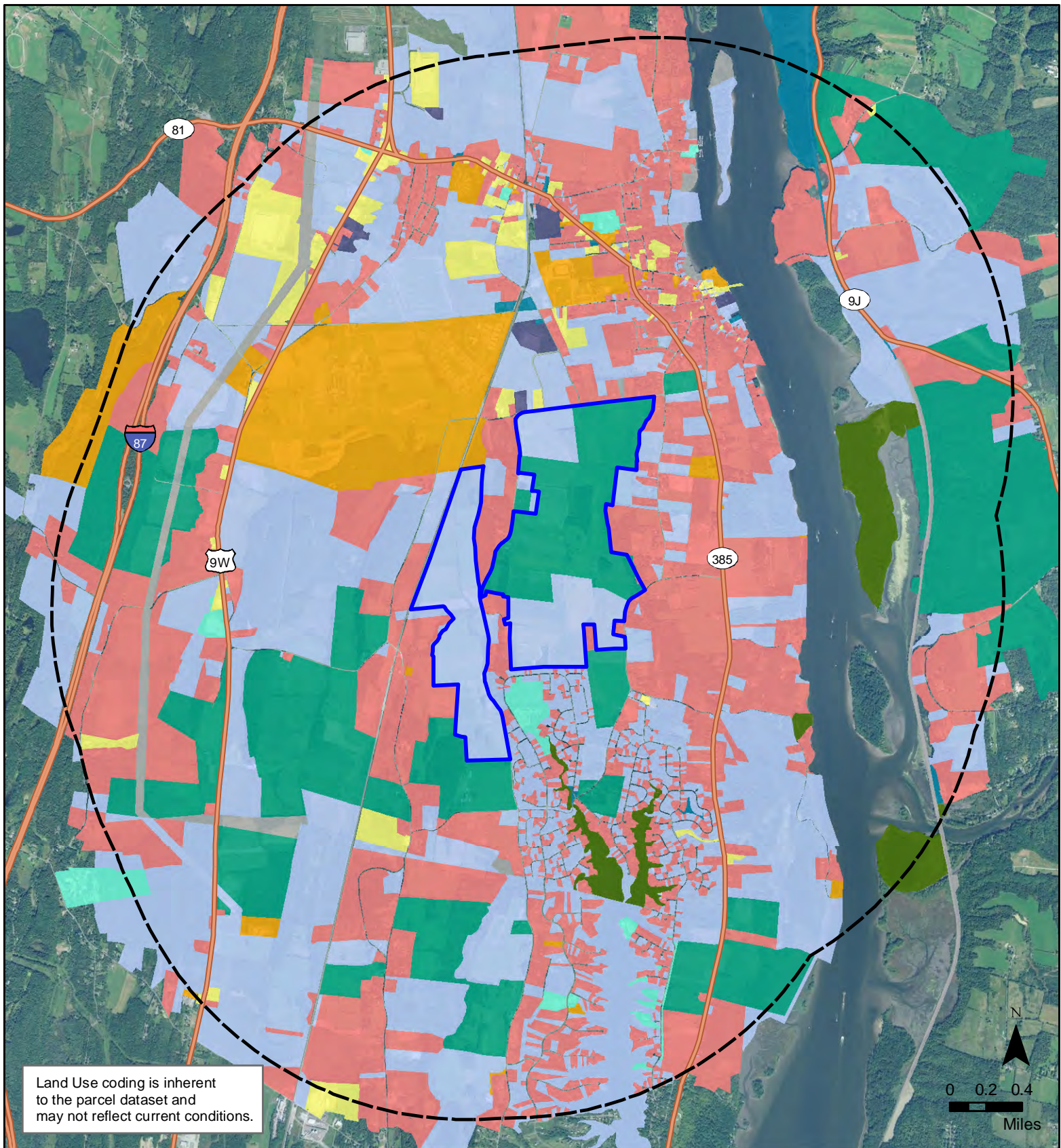
Figure 4-5 Water Resources

Figure 4-6 Flood Zones

Figure 4-7 Cultural Resources and Recreation

Figure 4-8 2-Mile Study Area

Figure 4-9 Agricultural Crops



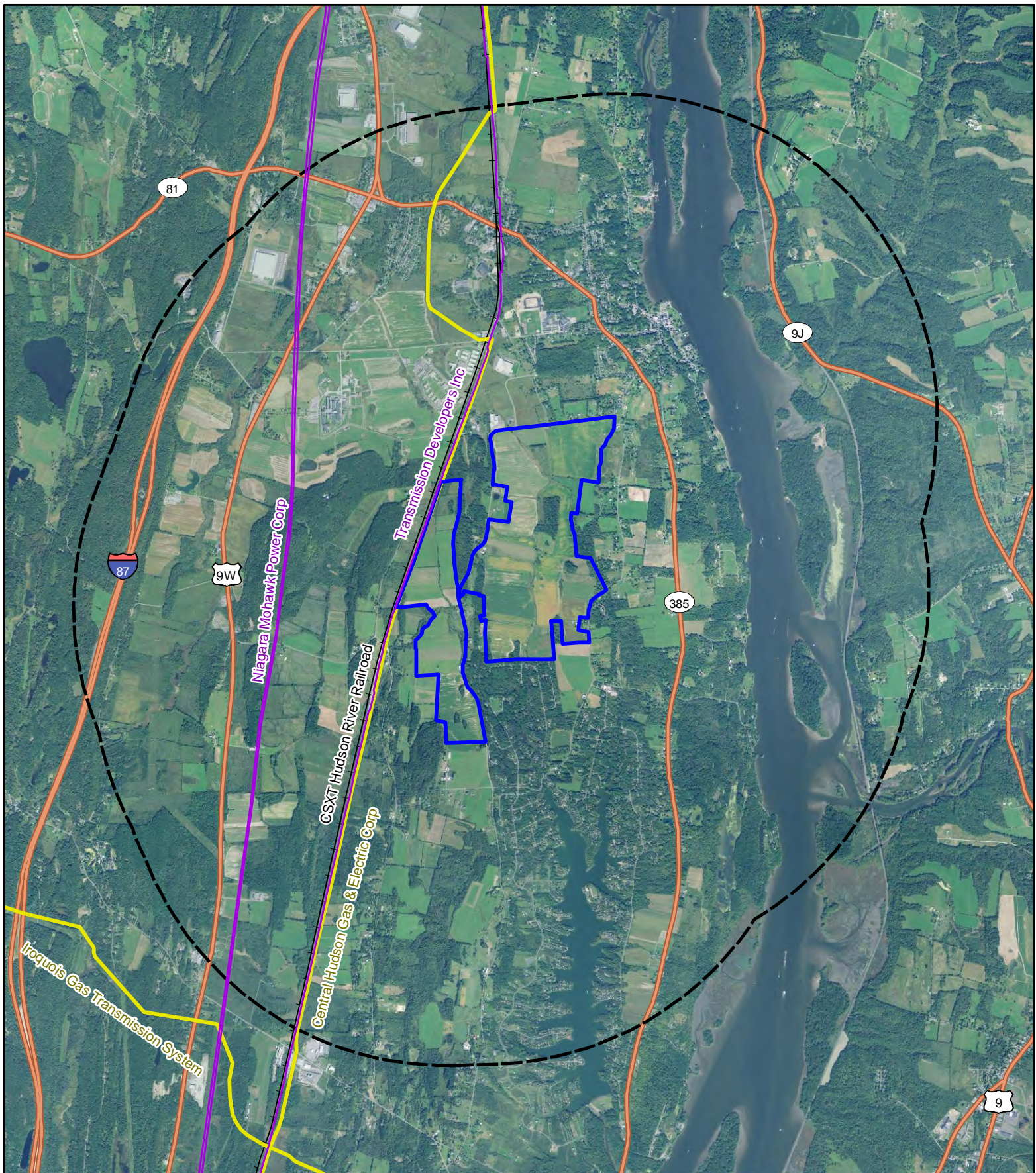
Legend

Facility Area	Recreation & Entertainment Use (500)
2-mile Study Area	Community Services (600)
Agricultural Use (100)	Industrial Use (700)
Residential Use (200)	Public Services (800)
Vacant Land (300)	Wild, Forested, Conservation Lands & Parks (900)
Commercial Use (400)	Unidentified Use

Source: ESRI (2016), Columbia GIS (2019), Greene GIS (2019), USGD NAIP (2017)

**Figure 4.1
Existing Land Use**

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- 2-mile Study Area
- Existing Transmission Line
- Natural Gas Pipeline

—+— Railroad

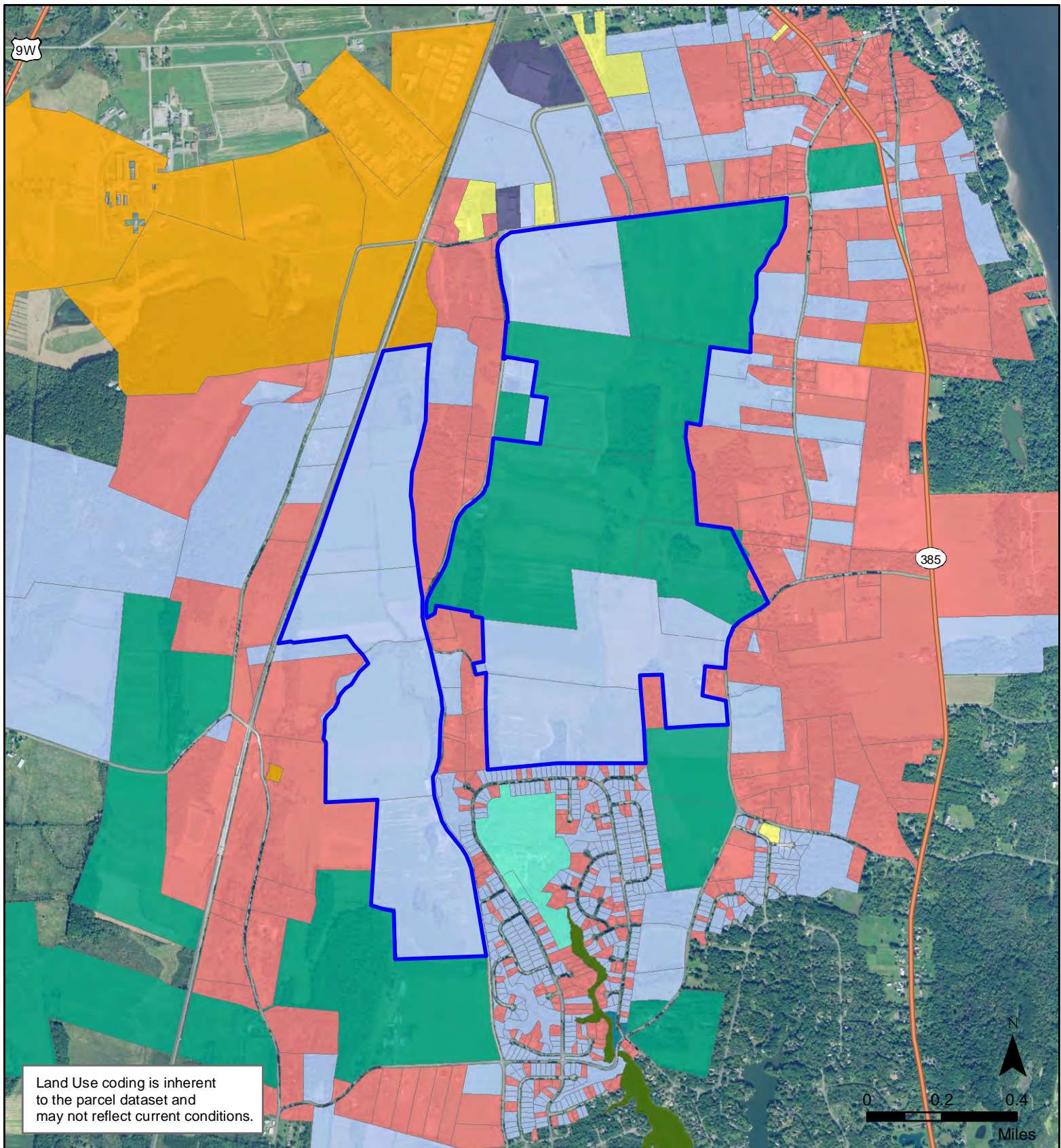
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**Figure 4-2
Major Utilities**

Greene County Solar Facility
Greene County, New York

Source: ESRI (2016), Ventyx (2019), USDA NAIP (2017)



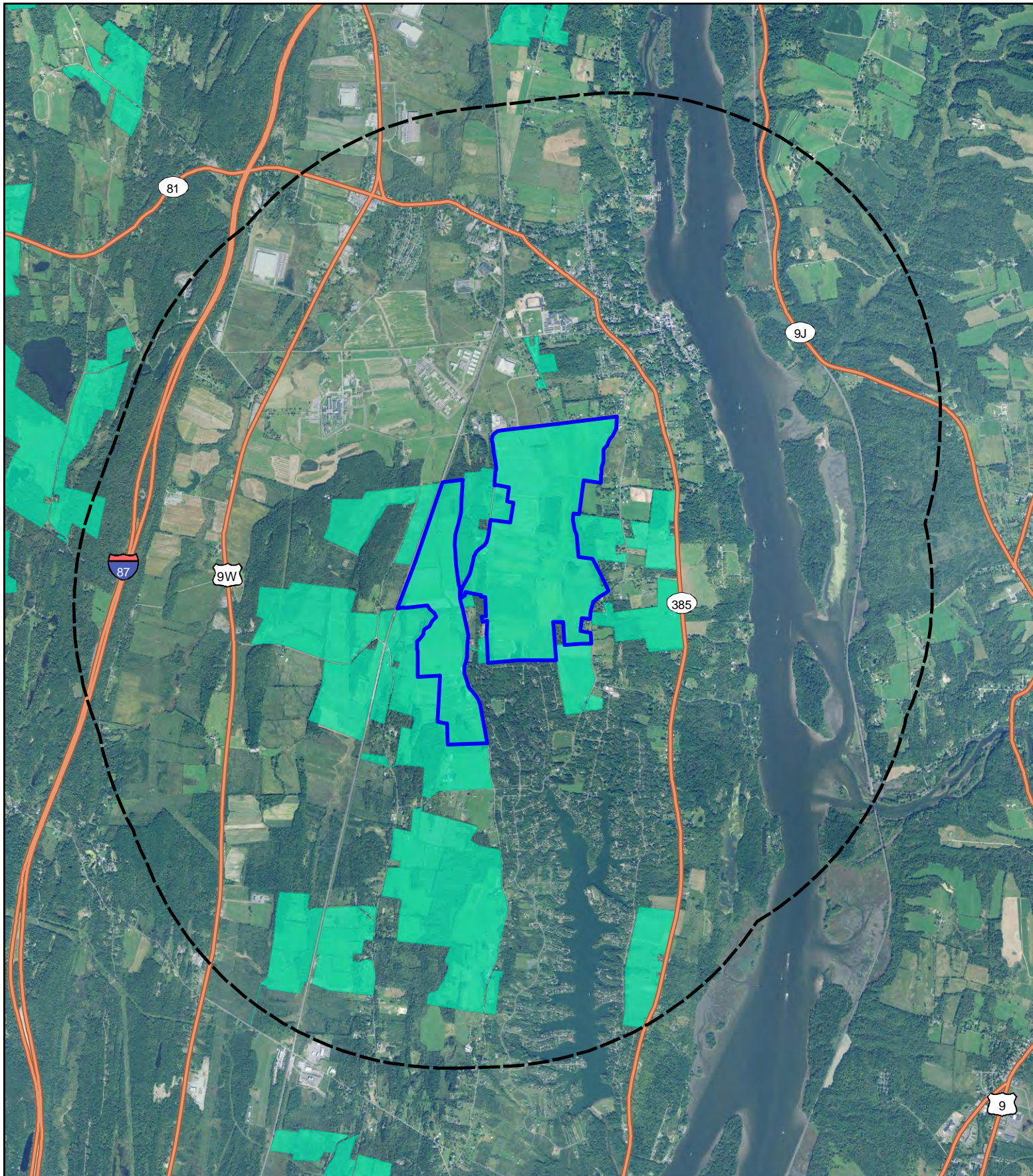
Legend

- | | |
|--|--|
| Facility Area | Recreation & Entertainment Use (500) |
| Agricultural Use (100) | Community Services (600) |
| Residential Use (200) | Industrial Use (700) |
| Vacant Land (300) | Public Services (800) |
| Commercial Use (400) | Wild, Forested, Conservation Lands & Parks (900) |
| | Unidentified Use |

Figure 4.3
Facility Area and
Adjacent Properties

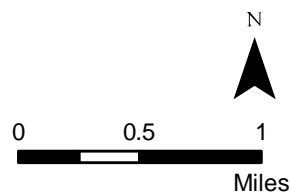
Greene County Solar Facility
Greene County, New York

Source: ESRI (2016), Greene GIS (2019), USGD NAIP (2017)



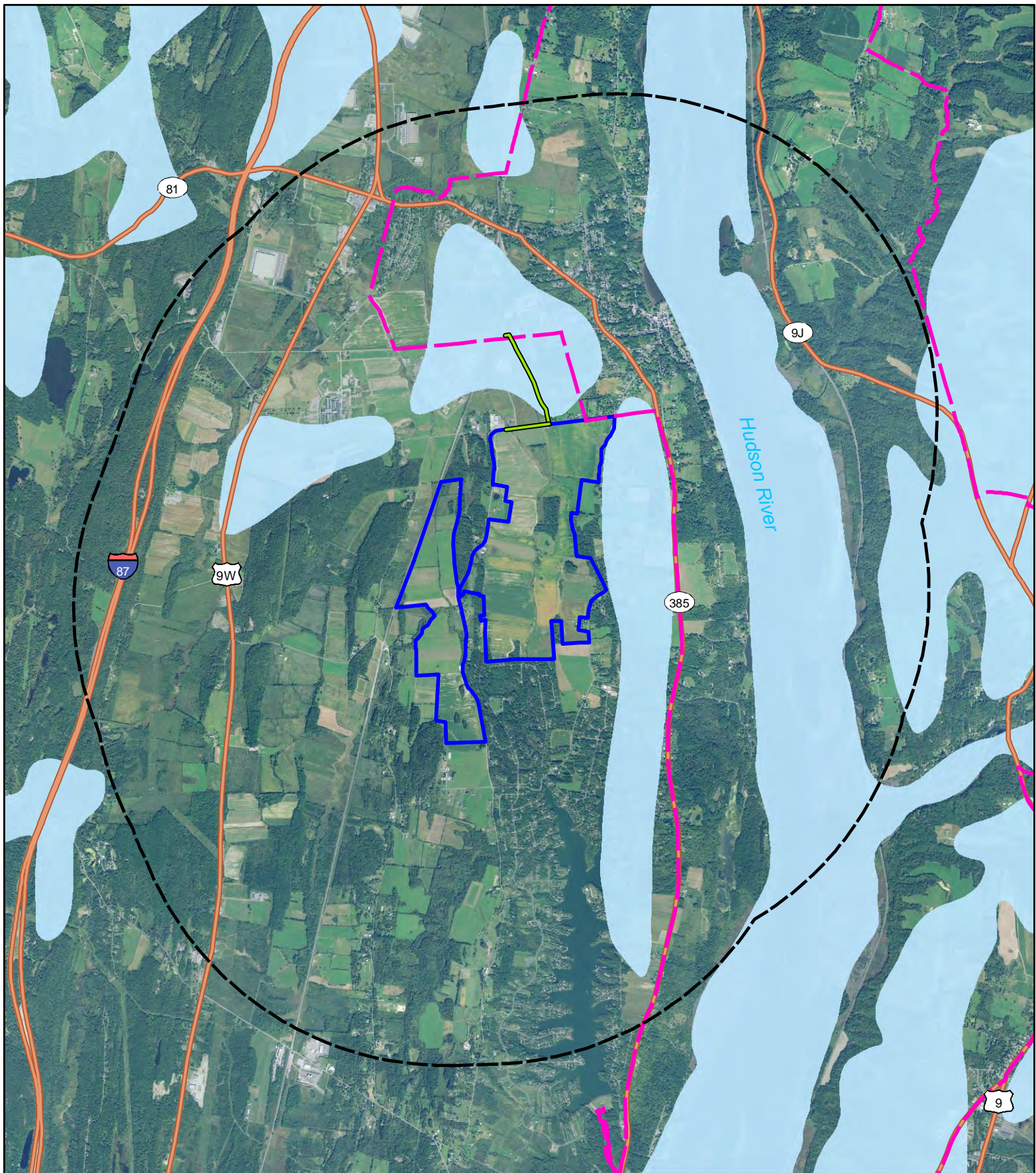
- Legend**
- Facility Area
 - 2-mile Study Area
 - Agricultural Districts

Source: ESRI (2016), USDA NAIP (2017)



**Figure 4-4
Agricultural Districts**

Greene County Solar Facility
Greene County, New York



- Facility Area
- 2-mile Study Area
- Related Facility
- Hudson River Coastal Boundary

Unconsolidated Aquifers (Principal Aquifers)

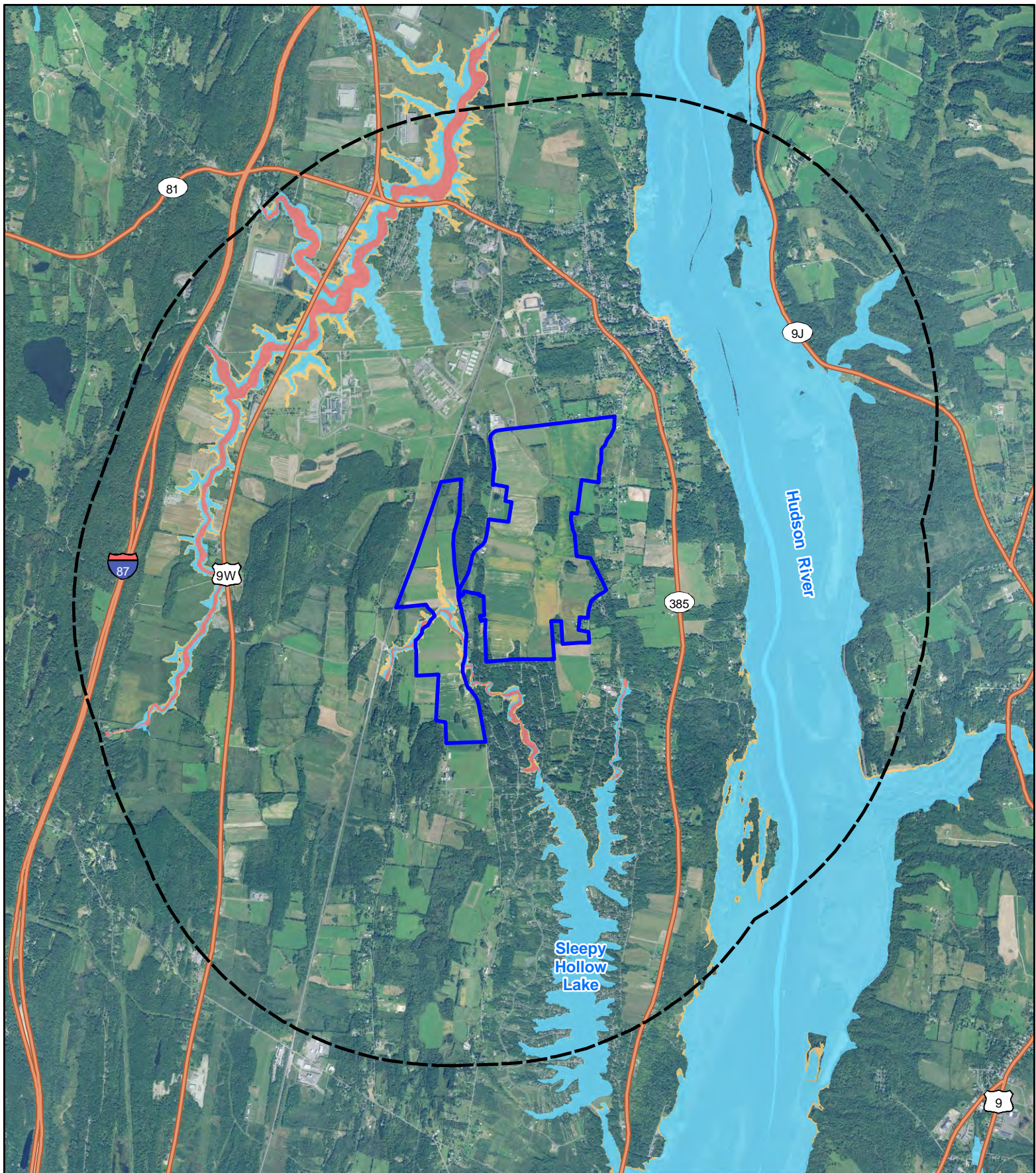


0 0.5 1
Miles

**Figure 4-5
Water Resource Areas**

Greene County Solar Facility
Greene County, New York

Source: ESRI (2016), NYSDEC (2019), USDA NAIP (2017)



Legend

 Facility

 2-mile Study

1% Annual Chance
Flood Hazard Area

Regulatory Floodway

0.2% Annual Chance
Flood Hazard Area





0 0.5 1
Miles



Source: ESRI (2016), FEMA (2019), USDA NAIP (2017)


**Figure 4-6
Flood Hazard Areas**

Greene County Solar Facility
Greene County, New York

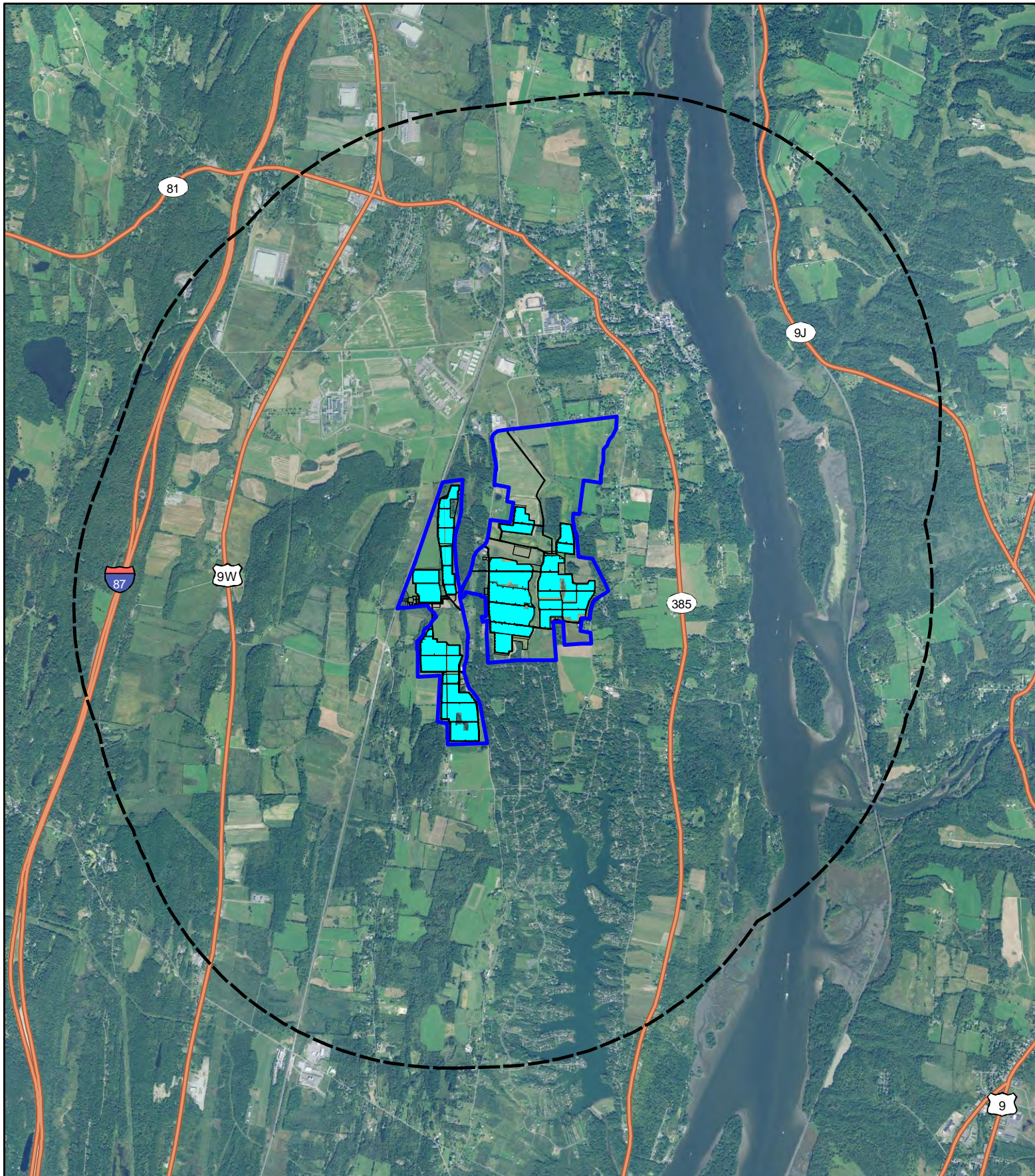


 Facility Area
  Cocksackie Boat Launch

 2-mile Study Area
  Hudson River Islands State Park

 NRHP Designation

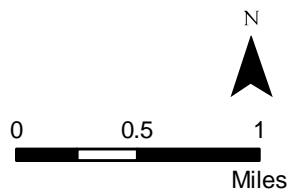
Greene County Solar Facility
Greene County, New York



Legend

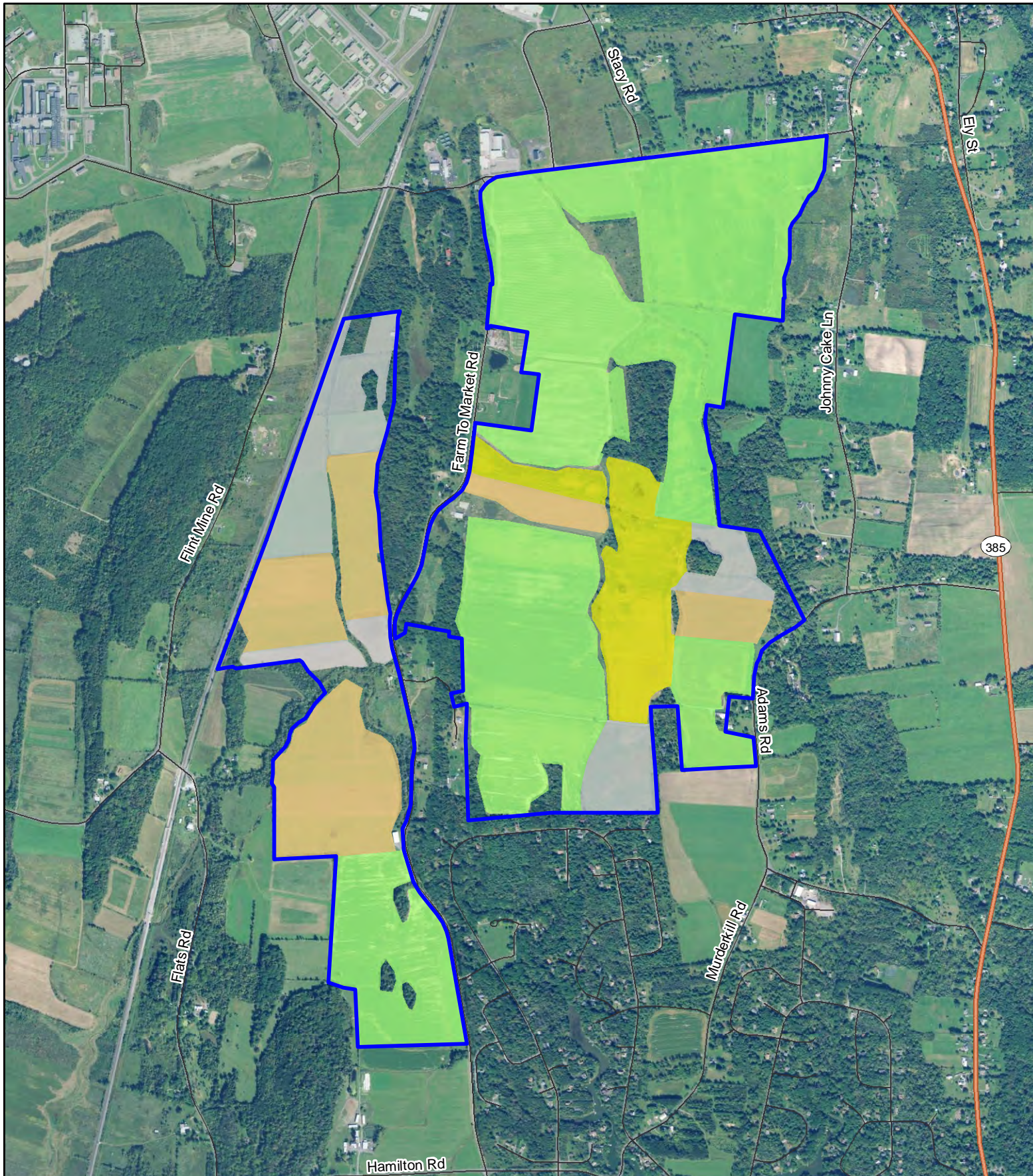
- Facility Area
- 2-mile Study Area

Source: ESRI (2016), USDA NAIP (2017)



**Figure 4-8
2-Mile Study Area**

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- Corn
- Hay

- Soybeans
- Fallow

Note: Crop types and locations are rotated on an annual basis.

Source: USDA NAIP (2017)

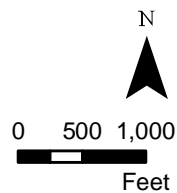


Figure 4-9
2019 Agricultural Crops

Greene County Solar Facility
Greene County, New York



Greene County Solar Facility

Case No. 17-F-0617

Appendix 4-A

Adjacent Parcels Information

Tax Parcel ID	Parcel Owner	Land Use Code
70.00-4-8	Robert Bedford	240
71.00-1-11.1	Michael J. Tighe	210
71.00-1-11.2	Michael Tighe	311
71.00-1-12	Beverly Walker	210
71.00-1-19.1	Clarence C. Smith	270
71.00-1-19.2	Gustave C. Schoenborn, Jr	270
71.00-1-20	Marsan Properties, Inc.,	710
71.00-1-26	Upper Hudson & Catskills, Natural Resource	340
71.00-1-3.112	Marsan Properties, Inc.	340
71.00-1-3.22	Anthony Vining, Sr	210
71.00-1-31	James K. Meade	271
71.00-1-32	Mansion Street Dev LLC	449
71.00-2-1.12	Mizrachi Family Inv LLC	322
71.00-2-1.2	Mizrachi Family Inv LLC	240
71.00-2-34	June Gambacorta	210
71.00-3-16	Vernea T. Diehl	210
71.00-3-21.2	Robert J. Van Valkenburg, Sr	210
71.00-3-27	Thomas J. Grunstra	311
71.00-3-33	Carol Serazio	270
71.00-3-35	Ronald F. Hotaling	270
71.00-3-41	Edward Fedoryszyn	312
71.00-3-45	Steven R. Muller	210
71.00-3-49.1	John E. Sickles	210
71.00-3-49.2	Dawn Marie Smith	240
71.00-4-1	State Of New York	670
71.00-4-1	State Of New York	670
71.00-4-1	State Of New York	670
71.00-4-12	VVL Property Management, INC	331
71.00-4-17	Daniel Meier	311
71.00-4-18	Garry J. Palmer	312
71.00-4-19	Michelle A. Santos	312
71.00-4-2	Linda J. Nacey	210
71.00-4-20	Brian A. Jack	311
71.00-4-21	Donald F. Quinlivan, Jr	270
71.00-4-3.2	Charles A. Martinez	210
71.00-4-4.112	Kristyne S V S Martin	240
71.00-4-4.12	Tessa Partridge	311
71.00-4-4.2	Tessa Partridge	117
71.00-4-6.1	Joanne Yost	210
71.00-4-7	Daryl J. Yost	210
71.00-4-8.1	Joanne H. Yost	270
71.00-4-8.2	Charles A. Martinez	322

Tax Parcel ID	Parcel Owner	Land Use Code
71.00-4-9	Joseph M. Anderson	210
71.07-1-11	Robert Eskinazi	210
71.07-1-12	Richard L. Gibbs	210
71.07-1-13	Michael J. Tighe	210
71.07-1-14	Not identified*	210*
71.07-1-31.1	Christopher Chimento	210
71.07-1-33	Randall W. Squier	210
88.00-1-1	Philip A. Chiarella	311
88.00-1-1	Philip A. Chiarella	311
88.00-1-2	Philip A. Chiarella	240
88.00-1-21	David Teator	210
88.00-1-22	Joyce McCampbell	210
88.00-1-33	Margaret M. Jones	210
88.00-1-34	Kathy M. Ventura	210
88.00-1-35	Gregg R. Minshell	210
88.00-1-36	Gregg Minshell	311
88.00-1-37	Gregg Minshell	311
88.00-1-39	Scott Barbeau	220
88.00-1-4.1	Jonathan Snowden	210
88.00-1-41	Stephen Ritter	240
88.00-1-41	Stephen Ritter	240
88.00-1-42	John P. Flach	112
88.00-1-5.111	Conor D. McGivney	210
88.00-2-1	Ronald Hotaling	210
88.00-2-23	Coxsackie-Athens Central School District	311
88.00-2-38	Cedar Shade Farm LLC	140
88.00-2-40	Ronald Hotaling	322
88.06-1-1	County of Greene	311
88.06-1-10	County of Greene	311
88.06-1-11	County of Greene	311
88.06-1-12	County of Greene	311
88.06-1-13	Association of Property Owners - Sleepy Hollow Lake	311
88.06-1-14	Association of Property Owners - Sleepy Hollow Lake	311
88.06-1-15	Association of Property Owners - Sleepy Hollow Lake	311
88.06-1-16	County of Greene	311
88.06-1-17	County of Greene	311
88.06-1-2	County of Greene	311
88.06-1-20	Association of Property Owners - Sleepy Hollow Lake	311
88.06-1-21	Association of Property Owners - Sleepy Hollow Lake	311
88.06-1-22	Sandra M. Petralia	210
88.06-1-23	County of Greene	311
88.06-1-24	Cologero Migliara	311

Tax Parcel ID	Parcel Owner	Land Use Code
88.06-1-25	Joseph G. Limbach	210
88.06-1-26	Frank Villanova	311
88.06-1-27	County of Greene	311
88.06-1-28	John Flanagan	210
88.06-1-3	Antonio C. Nepomuceno	311
88.06-1-30	George Anderson	210
88.06-1-31	William P. Mckee	210
88.06-1-4	County of Greene	311
88.06-1-5	Stephen E. Daniel	311
88.06-1-8	Marie-France Page	210
88.06-1-9	Greene County	311
88.09-1-1	Association of Property Owners - Sleepy Hollow Lake	311
88.09-1-12	Association of Property Owners - Sleepy Hollow Lake	311
88.09-1-13	Karlsen Contracting LLC	210
88.09-1-14	Melody Larocca	311
88.09-1-15	Jon Tower	311
88.10-1-3	Jon P. Rondeau	311
88.10-1-4	George Venter	311
88.10-3-1	Association of Property Owners - Sleepy Hollow Lake	311
88.10-6-1	County of Greene	311
88.10-6-2	Thomas Sterritt	210
88.10-6-22	County of Greene	311
88.10-6-27	Timothy J. Tergeoglou	210
88.10-6-29	County of Greene	311
88.10-6-3	Sean J. McCarthy	210
88.10-6-30	Bryan Francett	210
88.14-1-2	James Grundman	311
88.14-1-39	Eulalia Gonzales	311
88.14-1-40	Association of Property Owners - Sleepy Hollow Lake	311
88.14-1-44	County of Greene	311
88.14-1-45	Glisobel M. Gonzalez	311
88.14-5-1	Association of Property Owners - Sleepy Hollow Lake	311
<p>* No information regarding this parcel was defined by the Greene County GIS website (http://gis.greenegovernment.com/giswebmap/). The aerial and land use map were therefore consulted to define the land code for the site from adjacent parcels.</p>		

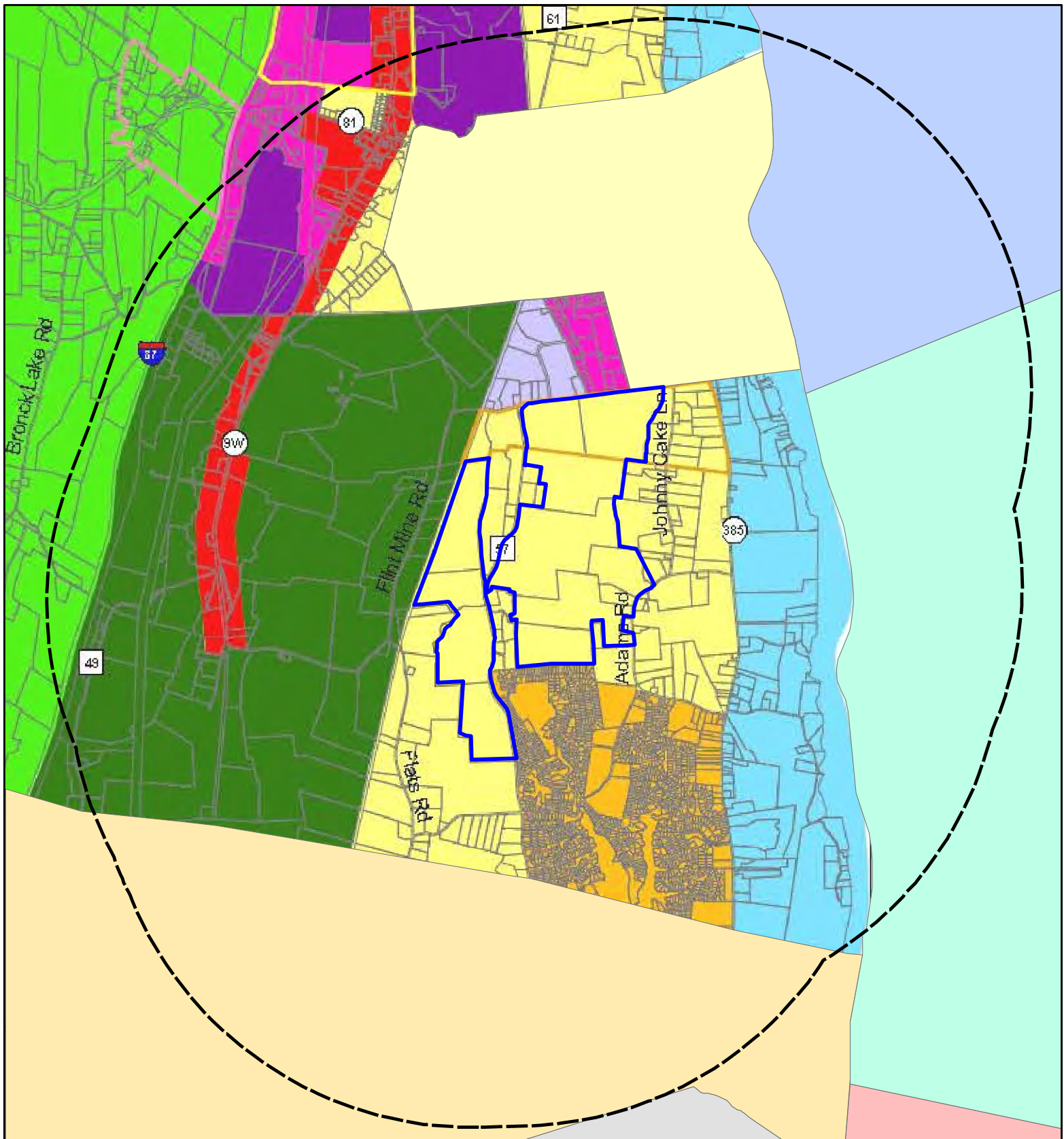


Greene County Solar Facility

Case No. 17-F-0617

Appendix 4-B

Existing Zoning Districts within the 2-mile Study Area



- | | | |
|---|---|---|
| Facility Area | Hamlet Overlay | Mixed Use |
| 2-mile Study Area | Residential Density Overlay | Commercial |
| Town of Athens | Residential Over Commercial Overlay | Corridor Industrial |
| Town of Greenport | Waterfront | Industrial |
| Town of Stockport | Residential Agriculture - 1 | |
| Town of Stuyvesant | Residential Agriculture - 2 | |
| Village of Athens | Rural Residential | |
| Village of Cossackie | High Density Residential - 2 | |

0 0.5 1
Miles

N

**Figure 4-B-1
Town of Cossackie
Zoning**

Greene County Solar Facility
Greene County, New York

ZONING

201 Attachment 1

Town of Coxsackie

Schedule A

Use Regulations for Residential Districts

[Amended 4-14-2015 by L.L. No. 1-2015; 11-13-2018 by L.L. No. 2-2018]

Principal Uses	Zoning Districts					
	WR	RA-1	RA-2	RR	HDR-1	HDR-2
Agriculture	P	P	P	P	P	P
Boat dock, slip, pier, and wharves for yachts/pleasure boats	P	P	P	P	P	P
Bed-and-breakfasts	SP	SP	NP	SP	NP	NP
Campgrounds	SP	SP	SP	SP	NP	NP
Cemeteries	NP	SP	SP	SP	NP	NP
Commercial event venue	SP	SP	SP	SP	NP	NP
Community centers	SP	SP	SP	SP	NP	NP
Dwelling, multifamily	NP	NP	NP	NP	P	NP
Dwelling, single-family	P	P	P	P	P	P
Dwelling, single-family attached	NP	NP	NP	NP	P	SP
Dwelling, single-family semidetached	NP	NP	NP	NP	P	P
Dwelling, two-family	NP	P	SP	SP	P	P
Funeral homes	NP	SP	SP	NP	NP	NP
Gas stations	NP	SP	NP	NP	NP	NP
Greenhouses and nurseries, commercial	P	SP	SP	SP	SP	SP
Group residences	NP	NP	NP	NP	SP	NP
Health spas	SP	SP	SP	NP	NP	NP
Home occupations	SP	P	P	P	SP	P
House manufacturing less than 10,000 square feet	NP	SP	NP	NP	NP	NP
Kennels	NP	SP	SP	NP	NP	NP
Manufactured home	P	P	P	P	P	P
Manufactured home park	NP	NP	NP	NP	SP	NP
Motor vehicle sales, maximum 6 vehicles on the lot	NP	SP	NP	NP	NP	NP
Nursery schools and child day-care facilities	NP	SP	SP	SP	SP	NP
Offices less than 10,000 square feet	NP	SP	SP	NP	NP	NP
Parks and recreation, public	P	P	P	P	P	P
Public utility installations	NP	NP	NP	SP	NP	NP
Recreational facilities, commercial	SP	SP	SP	SP	NP	NP
Religious institutions	SP	SP	SP	SP	P	NP

COXSACKIE CODE

Principal Uses	Zoning Districts					
	WR	RA-1	RA-2	RR	HDR-1	HDR-2
Repair shops (building less than 10,000 square feet, lot area less than 5,000 square feet; cars can be no more than 30 days on the lot)	NP	SP	NP	NP	NP	NP
Resorts	SP	SP	SP	NP	NP	NP
Restaurants and bars	NP	SP	NP	NP	NP	NP
Retail sales and service less than 10,000 square feet	NP	SP	NP	NP	NP	NP
Sawmills	NP	SP	NP	NP	NP	NP
Shale, gravel, rock and sand mining	NP	SP	NP	NP	NP	NP
Small engine and farm equipment repair	NP	SP	SP	NP	NP	NP
Small-scale solar energy collector systems/ground-mounted and freestanding with a rated capacity of no greater than 25 kW	SP	SP	SP	SP	NP	NP
Small-scale solar energy collector systems/ground-mounted and freestanding with a rated capacity of greater than 25 kW	NP	SP	SP	SP	NP	NP
Small-scale solar energy collector systems/roof-mounted or flush-mounted	P	P	P	P	P	P
Stables	NP	P	P	SP	NP	NP
Theaters, indoors	NP	SP	NP	NP	NP	NP
Yacht clubs, marinas	SP	NP	NP	NP	NP	NP

NOTES:

NP = Not permitted in the district
P = Permitted as of right in district
SP = Requires a special use permit

ZONING

201 Attachment 2

Town of Coxsackie

Schedule B

Use Regulations for Nonresidential/Mixed Use Districts

[Amended 11-12-2013 by L.L. No. 3-2013; 4-14-2015 by L.L. No. 1-2015; 11-13-2018 by L.L. No. 2-2018]

Principal Uses	Zoning Districts			
	MU	C	CI	I
Adult entertainment	NP	NP	SP	NP
Agriculture, excluding livestock	P	NP	NP	NP
Art and antique galleries, artist studios	P	P	NP	NP
Assembly places, stadiums, arenas	NP	SP	NP	SP
Automotive repair service facilities	NP	SP	SP	P
Banks and other financial institutions	NP	P	NP	NP
Bars, taverns, cocktail lounges	NP	SP	NP	NP
Bed-and-breakfasts	P	NP	NP	NP
Boat rental, sales, storage, supplies and repair	NP	P	NP	P
Broadcasting studio without transmitter tower	NP	P	P	P
Bulk fuel and chemical storage	NP	NP	NP	SP
Business and professional offices	P	P	P	P
Car wash	NP	SP	NP	P
Commercial event venue	SP	SP	SP	NP
Cultural uses, including libraries and museums	P	SP	NP	NP
Day care, adult	NP	SP	NP	NP
Dwellings, multifamily	P	NP	NP	NP
Dwellings, single-family	P	NP	NP	NP
Dwellings, single-family attached	P	NP	NP	NP
Dwellings, single-family semidetached	P	NP	NP	NP
Dwellings, two-family	P	NP	NP	NP
Entertainment and recreation, commercial	SP	SP	SP	NP
Funeral homes	P	P	NP	NP
Gasoline stations (service station/convenience store)	NP	SP	NP	SP
Governmental offices	P	P	SP	P
Home occupations	P	SP	NP	NP
Hotel, inns	SP	P	NP	NP
Junkyards	NP	NP	SP	NP
Kennels	NP	P	NP	NP
Laboratories, biological	NP	NP	SP	SP
Lumberyards and building supply places	NP	P	NP	P
Manufacturing and industry	NP	NP	SP	SP
Manufacturing and industry, light	NP	SP	P	P
Medical clinics and laboratories, dental clinics	NP	P	NP	NP
Medical clinics and laboratories, dental clinics less than 10,000 square feet	P	NP	NP	NP

COXSACKIE CODE

Principal Uses	Zoning Districts			
	MU	C	CI	I
Motel	P	P	NP	NP
Motor vehicle sales agency, new and used, with outdoor sales, display and storage	NP	P	NP	P
Nursery school/day-care center (child-care facilities)	P	P	NP	NP
Nursing care, assisted living	SP	SP	NP	NP
Outdoor dining	P	P	NP	NP
Outdoor storage	SP	SP	SP	P
Personal service shops	NP	P	NP	NP
Printing and publishing	P	P	P	P
Public utility installations and substations	NP	NP	SP	SP
Parks, open space and recreational facilities, public	P	P	P	SP
Religious institutions	P	P	NP	NP
Research and development facilities	NP	P	P	P
Restaurants, excluding drive-through	P	P	NP	NP
Restaurants, including drive-through	NP	SP	NP	NP
Retail businesses less than 25,000 square feet	P	P	NP	NP
Retail businesses larger than 25,000 square feet	NP	SP	NP	NP
Retail sales and services except as otherwise mentioned	NP	P	NP	NP
Schools, elementary and secondary, public or private	P	SP	NP	NP
Self-storage units	NP	SP	SP	P
Shopping centers	NP	SP	NP	NP
Theaters	NP	SP	NP	NP
Transportation services, public or private	NP	SP	NP	NP
Truck terminals	NP	NP	SP	NP
Utility-scale solar collector systems	NP	SP	NP	SP
Veterinary hospitals and offices	NP	SP	NP	NP
Vocational or business schools	NP	SP	SP	SP
Warehousing, distribution and storage	NP	NP	SP	SP
Wholesale and distribution establishments, except bulk fuel	NP	NP	SP	P
Wholesale establishments, permitted retail use	NP	SP	NP	NP

NOTES:

P = Permitted Use
 SP = Requires a Special Use Permit
 NP = Not Permitted

ZONING

201 Attachment 3

Town of Coxsackie

Schedule C Dimensional Standards, Zoning Districts

District	Minimum Lot Area (acres)	Lot Density	Minimum Lot Width (feet)	Minimum Front Yard Setback	Minimum Side Yard Setback (feet)	Minimum Rear Yard Setback (feet)	Maximum Height (stories; feet)	Maximum Impervious Surface
Waterfront Residential	5	N/A	200	150 feet from high water line ¹	20	20	2 1/2; 35	70%
Residential Agricultural - 1	3	N/A	200	100 feet from center line on state roads; 75 feet from center line of other roads	20	20	2 1/2; 35	Total lot 30%; Principal Building - 20%; Accessory Uses - 10%
Residential Agricultural - 2	5	N/A	200	100 feet from center line on state roads; 75 feet from center line of other roads	25	20	2 1/2; 35	Total lot 30%; Principal Building - 20%; Accessory Uses - 10%
Rural Residential	2	N/A	200	100 feet from center line on state roads; 75 feet from center line of other roads	20	20	2 1/2; 35	Total lot 30%; Principal Building - 20%; Accessory Uses - 10%
High Density Residential - 1	0.5 (with public water and sewer); 2 without	Multifamily; 2,200 square feet; Single-family semidetached, Single-family attached, Two-family: 2,500 square feet	75; 200	0 to 25 feet, 100 feet from center line on state roads; 75 feet from center line on other roads	15; 20	15; 20	1 1/2; 35	Total lot 50%; Accessory Uses - 10%
High Density Residential - 2	0.25 (with public water and	Multifamily: 2,200 square feet; Single-family semidetached,	75; 200	0 to 25 feet, 100 feet from center line on state roads, 75 feet from center line on other	15 20	15 20	2 1/2; 35	Total lot 50%; Principal Building - 25%;

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District	Minimum Lot Area (acres)	Lot Density	Minimum Lot Width (feet)	Minimum Front Yard Setback	Minimum Side Yard Setback (feet)	Minimum Rear Yard Setback (feet)	Maximum Height (stories; feet)	Maximum Impervious Surface
	sewer); 2 without	Two-family: 2,500 square feet		roads				Accessory Uses – 10%
Mixed Use	0.5 (with public water and sewer); 2 without	Multifamily: 2,200 square feet; Single-family semidetached, Single-family semidetached, Single-family attached, Two-family: 2,500 square feet; Nursing care, assisted living: 5 acres	75	0 to 25 feet	15	15	2 1/2; 35	70% total; up to an additional 10% with a Special Permit ¹
Commercial	1	N/A	150	100 feet from center line on state roads; 75 feet from center line of other roads ²	10	25	2 1/2; 35	70% total total; up to an additional 10% with a special permit ²
Corridor Industrial	1	N/A	150	100 feet from center line on state roads; 75 feet from center line of other roads ²	30	50	3; 50	70% total total; up to an additional 10% with a Special Permit ³
Industrial	2	N/A	200	100 feet from center line on state roads; 75 feet from center line of other roads ²	30	50	2 1/2; 35	70% total, up to an additional 10% with a special permit ³

NOTES:

¹ The minimum setback from the high water mark of the river shall be measured 150 feet horizontally away from and paralleling the river.

² Exception on a more than two-lane road, the front setback shall be from the center of the two closest lanes.

³ A special permit may be approved by Planning Board if evidence of proper stormwater management.

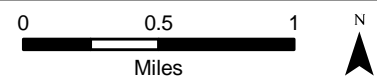
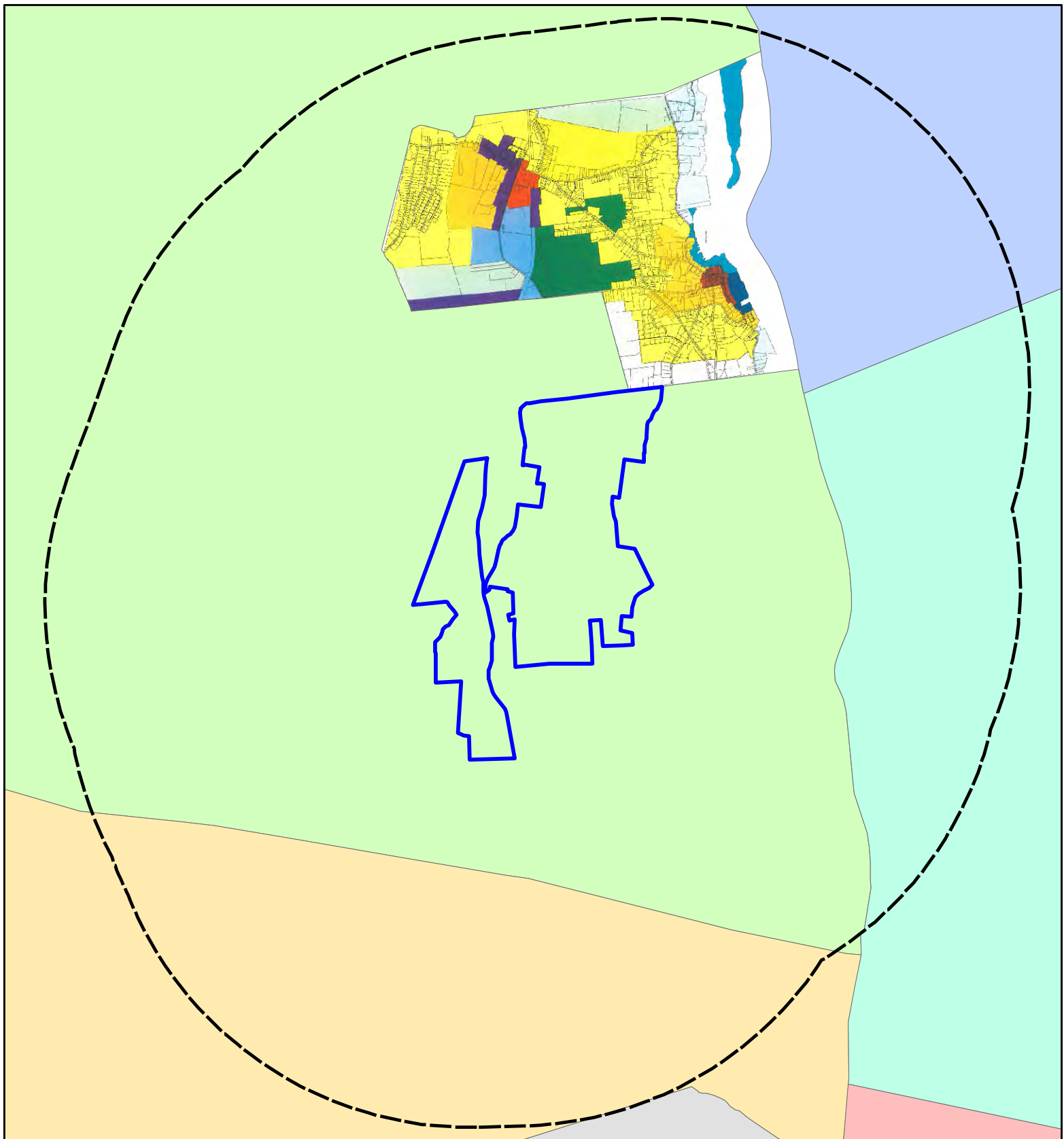


Figure 4-B-2
Village of Coxsackie
Zoning

Greene County Solar Facility
Greene County, New York

ZONING

155 Attachment 1

Schedule A Village of Cossackie Use Regulations for Residential Districts [Amended 1-11-2018 by L.L. No. 2-2018]

KEY:

- NP = Not permitted in the district
P = Permitted as of right in district
SP = Requires a special use permit

Principal Uses	Zoning Districts					
	WR	RRA	MDR-1	MDR-2	MDR-3	MR
Agriculture	NP	SP	NP	NP	NP	NP
Boat dock, slip, pier and wharves for yachts/pleasure boats	P	NP	NP	NP	NP	NP
Bed-and-breakfasts	SP	SP	SP	SP	SP	P
Cemeteries	NP	SP	NP	NP	NP	NP
Community centers	SP	NP	NP	NP	SP	SP
Day care, adult	NP	SP	SP	SP	SP	SP
Dwelling, multifamily	SP	NP	NP	SP	NP	P
Dwelling, single-family	P	P	P	P	P	P
Dwelling, single-family attached	SP	NP	SP	SP	SP	P
Dwelling, single-family semidetached	NP	NP	SP	SP	SP	P
Dwelling, two-family	SP	NP	P	P	P	P
Extracting operations and soil mining	NP	SP	NP	NP	NP	NP
Funeral homes	NP	NP	NP	NP	NP	SP
Greenhouses and nurseries, commercial	NP	SP	NP	NP	NP	NP
Group residences	NP	NP	NP	NP	NP	SP
Home occupations	SP	SP	SP	SP	SP	SP
Kennels	NP	SP	NP	NP	NP	NP
Mobile home park	NP	NP	NP	NP	P	NP
Nursery schools and child day-care facilities	NP	SP	SP	SP	SP	SP
Nursing care, assisted living	NP	NP	NP	NP	NP	SP
Parks and recreation, public	P	P	P	P	P	P
Professional and business offices, minor	NP	NP	NP	NP	NP	SP
Religious institutions	P	P	P	P	P	P
Schools, elementary and secondary, private and public	NP	SP	SP	SP	SP	SP
Stables	NP	SP	NP	NP	NP	NP
Theaters, drive-in	NP	SP	NP	NP	NP	NP
Yacht clubs, marinas	P	NP	NP	NP	NP	NP

ZONING

155 Attachment 2

Schedule B Village of Cossackie Use Regulations for Nonresidential/Mixed-Use Districts

KEY:

P = Permitted use
SP = Requires a special use permit
NP = Not permitted

Principal Uses	Zoning Districts						
	WRC	VC	WD	NC	CC	CSR	I
Adult entertainment	NP	NP	NP	NP	NP	NP	SP
Art and antique galleries, artist studios	NP	P	P	P	P	SP	NP
Assembly places, stadiums, arenas	NP	SP	NP	SP	SP	SP	NP
Automotive repair service facilities	NP	NP	NP	NP	SP	NP	NP
Banks and other financial institutions	NP	P	NP	P	P	NP	NP
Bars, taverns, cocktail lounges	NP	P	SP	SP	SP	NP	P
Bed-and-breakfasts	NP	P	P	P	P	NP	NP
Boat dock, slip, pier and wharves for yachts/pleasure boats	P	NP	P	NP	NP	NP	NP
Boat rental, sales, storage, supplies and repair	P	NP	P	NP	P	NP	P
Broadcasting studio without transmitter tower	NP	NP	NP	NP	P	NP	P
Bulk fuel and chemical storage	NP	NP	NP	NP	NP	NP	SP
Business and professional offices	NP	P	SP	P	P	P	NP
Car wash	NP	NP	NP	NP	SP	NP	SP
Charter boats, tour boats	NP	NP	SP	NP	NP	NP	NP
Cultural uses, including libraries and museums	NP	P	SP	P	P	P	NP
Day care, adult	NP	NP	NP	SP	NP	NP	NP
Dwellings, multifamily	NP	P	NP	SP	P	NP	NP
Dwellings, single-family	NP	NP	NP	P	P	NP	NP
Dwellings, two-family	NP	NP	NP	P	P	NP	NP
Entertainment and recreation, indoor, commercial	NP	P	NP	P	P	NP	P
Funeral homes	NP	NP	NP	P	P	NP	NP
Gasoline stations (service station/convenience store)	NP	NP	NP	NP	SP	NP	NP
Greenhouses and nurseries, commercial	NP	NP	NP	NP	NP	NP	P
Governmental offices	NP	P	NP	P	P	P	NP
Home occupations	NP	P	P	P	P	NP	NP
Hotels, inns	NP	P	SP	SP	P	NP	NP
Laboratories, biological	NP	NP	NP	NP	NP	NP	SP
Lumberyards	NP	NP	NP	NP	NP	NP	SP
Manufacturing and industry	NP	NP	NP	NP	NP	NP	P

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Principal Uses	Zoning Districts						
	WRC	VC	WD	NC	CC	CSR	I
Manufacturing and industry, light	NP	NP	NP	NP	NP	NP	P
Medical clinics and laboratories, dental clinics	NP	P	NP	P	P	NP	NP
Membership clubs	NP	P	NP	P	P	P	NP
Motels	NP	NP	NP	NP	SP	NP	NP
Motor vehicle sales agencies, new and used, with outdoor sales, display and storage	NP	NP	NP	NP	P	NP	NP
Motor vehicle sales agencies, new and used, including service and repair indoors, with outdoor sales, display and storage	NP	NP	NP	NP	NP	NP	P
Outdoor dining	NP	P	P	P	P	NP	NP
Parking lots or structures as separate, principal uses	NP	SP	NP	P	NP	NP	SP
Parks, open space and recreational facilities, public	P	P	P	P	P	P	NP
Printing and publishing	NP	NP	NP	NP	P	NP	P
Public utility installations and substations	NP	NP	NP	NP	NP	NP	SP
Recreational facilities, indoor, public	NP	P	NP	P	P	P	P
Religious institutions	NP	SP	NP	SP	SP	P	NP
Research and development facilities	NP	NP	NP	NP	NP	NP	P
Residential above commercial	NP	P	P	P	P	NP	NP
Restaurants, excluding drive-throughs	NP	P	P	P	P	NP	NP
Restaurants, including drive-throughs	NP	NP	NP	SP	SP	NP	SP
Retail businesses and services less than 25,000 square feet	NP	P	P	P	P	NP	NP
Schools, elementary and secondary, public or private	NP	NP	NP	NP	NP	P	NP
Self-storage units	NP	NP	NP	NP	NP	NP	SP
Theaters	NP	P	NP	P	P	SP	NP
Veterinary hospitals and offices	NP	NP	NP	NP	SP	NP	NP
Vocational or business schools	NP	NP	NP	NP	NP	P	NP
Warehousing, distribution and storage	NP	NP	NP	NP	P	NP	P
Wholesale and distribution establishments, except bulk fuel	NP	NP	NP	NP	NP	NP	P
Yacht clubs, marinas	P	NP	P	NP	NP	NP	NP

ZONING

155 Attachment 3

Schedule C Village of Coxsackie Dimensional Standards

District	Minimum Lot Area (square feet)	Lot Density	Minimum Lot Width (feet)	Minimum Front Yard Setback	Minimum Side Yard Setback	Minimum Rear Yard Setback	Maximum Height	Maximum Impervious Surface
Waterfront Recreation	43,560	N/A	40	50 feet from the high water line ² or 10 feet from the street	20 feet	50 feet from the high water line ²	2 1/2 stories; 35 feet	25%
Rural Residential Agriculture	43,560	1 dwelling unit per acre	150	25 feet	10, 25 feet aggregate	50 feet	2 1/2 stories; 35 feet	Total lot 30%: principal building – 20%; accessory uses – 10%
Waterfront Residential	43,560	Multifamily; 2,200 square feet; single-family attached, two-family: 2,500 square feet	150	25 feet	25 feet	50 feet from the high water line ¹	2 1/2 stories; 35 feet	70%
Medium Density-1	20,000	N/A	75	Built to sidewalk or the average of the front yard setbacks on the block on the same side of the street or a maximum of 10 feet	5, 10 feet aggregate	25 feet	3 1/2 stories; 45 feet	Total lot 50%: principal building – 25%; accessory uses – 10%
Medium Density-2	10,000	N/A	75	Built to sidewalk or the average of the front yard setbacks on the block on the same side of the street or a maximum of 10 feet	5, 10 feet aggregate	25 feet	3 1/2 stories; 45 feet	Total lot 50%: principal building – 25%; accessory uses – 10%
Medium Density-3	10,000	N/A	75	Built to the sidewalk or the average of the front yard setbacks on the block on the same side of the street or a maximum of 10 feet	5, 10 feet aggregate	25 feet	2 1/2 stories; 45 feet	Total lot 50%: principal building – 25%; accessory uses – 10%
Mixed Residential	7,500	Multifamily: 1,500 square feet; single-family semidetached, single-family	100	Built to the sidewalk or the average of the front yard setbacks on the block on the same side of the street or a	5, 10 feet aggregate	25 feet	3 1/2 stories; 45 feet	Total lot 60%: principal building – 35%; accessory uses – 10%

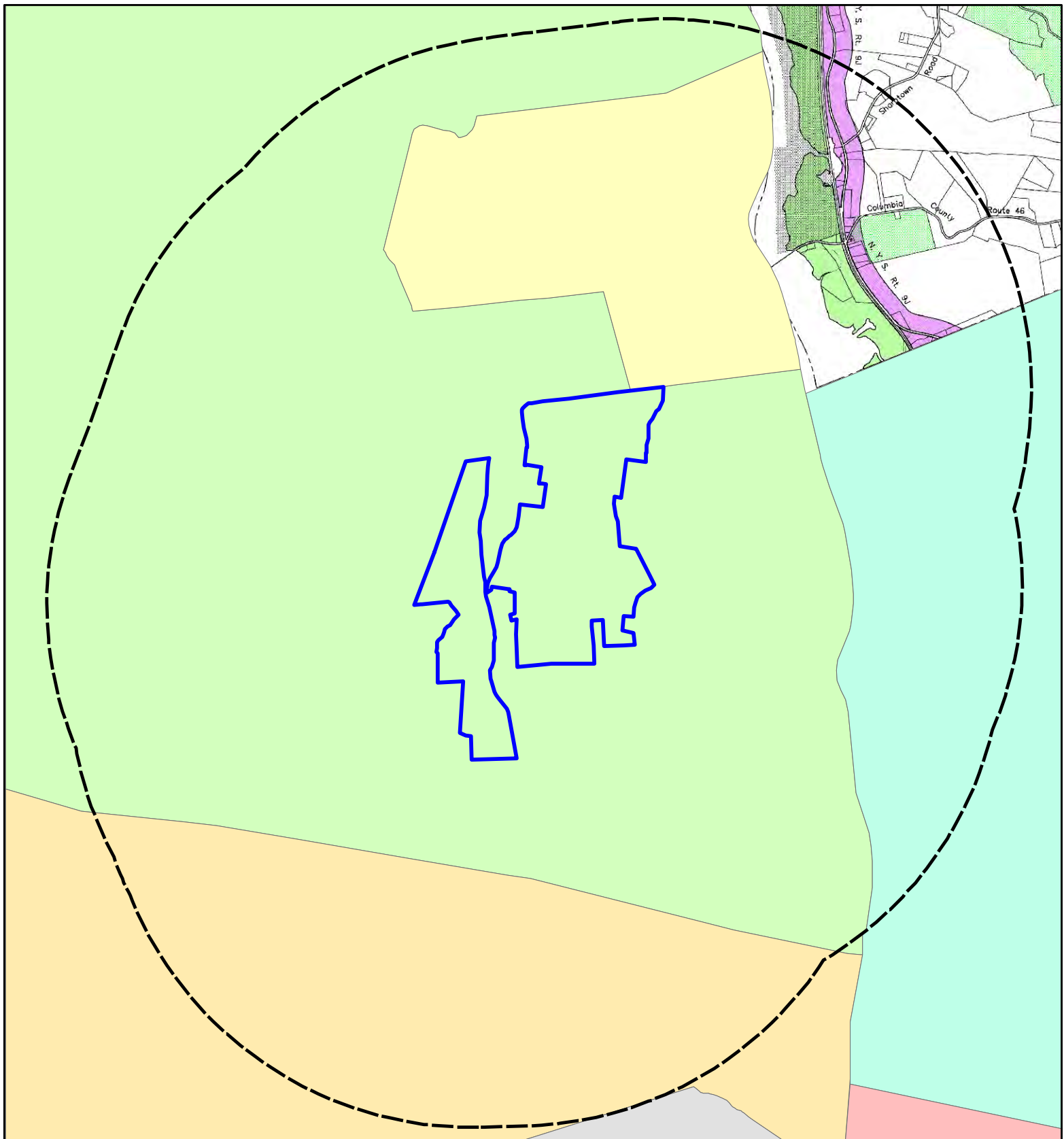
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District	Minimum Lot Area (square feet)	Lot Density	Minimum Lot Width (feet)	Minimum Front Yard Setback	Minimum Side Yard Setback	Minimum Rear Yard Setback	Maximum Height	Maximum Impervious Surface
		attached, two-family: 2,000 square feet		maximum of 10 feet				
Community Services and Recreation	10,000	N/A	75	10 feet	25 feet	12 feet	45 feet	70%
Village Center	2,500	N/A	40	Built to the sidewalk or the average of the front yard setbacks on the block on the same side of the street or a maximum of 10 feet	0 feet for buildings that share a party wall; 5 feet	10 feet	50 feet	95%
Waterfront Development	3,000	N/A	40	50 feet from the high water line ² or 10 feet from the street	0 feet for buildings that share a party wall; 5 feet	50 feet from the high water line ²	2 1/2 stories; 35 feet	90%
Neighborhood Commercial	5,000	N/A	40	Built to the sidewalk or the average of the front yard setbacks on the block on the same side of the street or a maximum of 10 feet	10 feet	12 feet	3 1/2 stories; 45 feet	70% total; up to an additional 10% may be appropriate with a special permit with proper stormwater management
Community Commercial	5,000	N/A	40	Built to the sidewalk or the average of the front yard setbacks on the block on the same side of the street or a maximum of 10 feet	10 feet	12 feet	45 feet	70% total; up to an additional 10% may be appropriate with a special permit with proper stormwater management
Industrial	20,000	N/A	100	40 feet	25 feet	50 feet	45 feet	70% total; up to an additional 10% may be appropriate with a special permit with proper stormwater management

NOTES:

¹ The minimum setback from the high water mark of the river shall be measured 50 feet horizontally away from and paralleling the river.

² Setbacks can be closer to the high water line with a special use permit.



- | | |
|---|---|
|  Facility Area |  A - Agriculture |
|  2-mile Study Area |  H-Ext - Hamlet Extension |
|  Town of Athens |  SL - Shoreline |
|  Town of Coxsackie |  Conservation Easement Overlay |
|  Town of Greenport |  Other Protected Land Overlay |
|  Town of Stockport | |
|  Village of Athens | |
|  Village of Coxsackie | |

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**Figure 4-B-3
Town of Stuyvesant
Zoning**

Greene County Solar Facility
Greene County, New York

TOWN OF STUYVESANT ZONING USE REGULATION AND DENSITY CONTROL SCHEDULE

Section 4 – Use Regulations

Residential Uses	Zoning Districts				
	H-1	H-2	A	H-EXT	C/LI
Single Family Residences	P	P	P	P	X
Two Family Residences	P	P	P	P	X
Multi-Family Residences	PR*	PR*	PR*	PR*	X
Mobile Homes – Individual **	X	X	PR*	X	X
Mobile Home Parks **	X	X	P*	X	X
Accessory Apartment with Existing Structures	PR*	PR*	PR*	PR*	P*
2 nd Floor Residence over 1 st Floor Non-residential Use	PR*	PR*	PR*	PR*	X
Temporary Residence – Health or Age-Related	PR*	PR*	PR*	PR*	P*
Farm Labor Housing	P	P	P	P	X
Customary Accessory Uses	P	P	P	P	P*

** See Town of Stuyvesant Mobile Home Law (2006)

Business Uses	Zoning Districts				
	H-1	H-2	A	H-EXT	C/LI
Retail Stores & Shops	P	P	X	P*	P*
Professional Offices	P	P	X	P*	P*
Service Business	P*	P*	P*	P*	P*
Commercial Facilities < 1,500 sq. ft. without gas sales	P	P	X	P*	P*
Commercial Facilities > 1,500 sq. ft. without gas sales	X	X	X	X	P*
Commercial Facilities < 1,500 sq. feet with gas sales	P*	X	X	X	P*
Commercial Facilities > 1,500 sq. ft. with gas sales	P*	X	X	X	P*
Bed & Breakfast Facility	P*	X	X	X	P*
Day Care Centers – Juvenile	P*	P*	P*	P*	X
Auto Service Facility	P*	P*	X	X	X
Antique Shops without Auctions	P	P	P	P	X
Eating Establishments					
Eating Establishments including Drive-Ins	P*	P*	X	P*	P*
Medical Offices & Clinics	P*	P*	X	P*	P*
Laundromats	X	X	X	X	P*
Veterinary Clinics	X	X	P*	X	P*

Summer Camps & Retreats	PR*	PR*	PR*	PR*	X
Marinas/Boat Liveries	P*	X	X	X	X
Home Occupations – Class 1	PR	PR	PR	PR	X
Home Occupations – Class 2	PR*	PR*	PR*	PR*	X
Home Occupations – Class 3	PR*	PR*	PR*	PR*	X
Farm Stands – Class 1	P*	P*	P*	P*	X
Farm Stands – Class 2	P*	P*	P*	P*	X
Farm Stands – Class 3	X	X	P*	P*	P*

Community Facilities	Zoning Districts				
	H-1	H-2	A	H-EXT	C/LI
Library	P*	P*	X	P*	X
Museums	P*	P*	X	P*	X
Tourism Information Facility	P	P	P	P	X
Government Building & Uses	P*	P*	P*	P*	X
Places of Worship	P*	P*	X	P*	X
Cemeteries	X	X	X	P*	X
Non-Profit Membership Clubs	P*	P*	X	P*	X
Membership Clubs including firearms	X	X	P*	X	X
Essential Services & Buildings	P*	P*	P*	P*	P*
Municipal Parks & Playgrounds	P*	P*	X	P*	X
Schools	X	X	X	P*	X

Commercial/Industrial Uses	Zoning Districts				
	H-1	H-2	A	H-EXT	C/LI
Agriculture	P	P	P	P	X
Agriculture including animal husbandry	PR*	PR*	P	PR*	X
Commercial Light Industrial Project	PR*	PR*	PR*	PR*	P*
Non-nuisance Industry – New Building	X	X	X	X	PR*
Assembly Facility	X	X	X	X	P*
Custom Shops with retail sales	X	X	X	X	P*
Agricultural Products Processing Facilities	X	X	P*		X

Farm Equipment Sales & Service	X	X	P*		P*
Nurseries/Greenhouses > 1,500 square feet	X	X	P*	P8	X
Temporary Sawmills	X	X	P	PR*	X
Utility Solar	PR*	PR*	PR*	PR*	PR*
Forestry	X	X	P	P	X
Extractive Operation – Class 1	P*	P*	P	P*	X
Extractive Operation – Class 2	X	X	P*	X	X
Extractive Operation – Class 3	X	X	PR*	X	X
Communication Facility – including Cellular Towers	X	X	PR*	PR*	X
Junkyards	X	X	X	X	X

P = Permitted Use

PR = Permitted with supplemental requirements

X = Prohibited Use

*= Requires Site Plan Review

Any use not specifically allowed as of right or as special use as set forth above is not permitted.

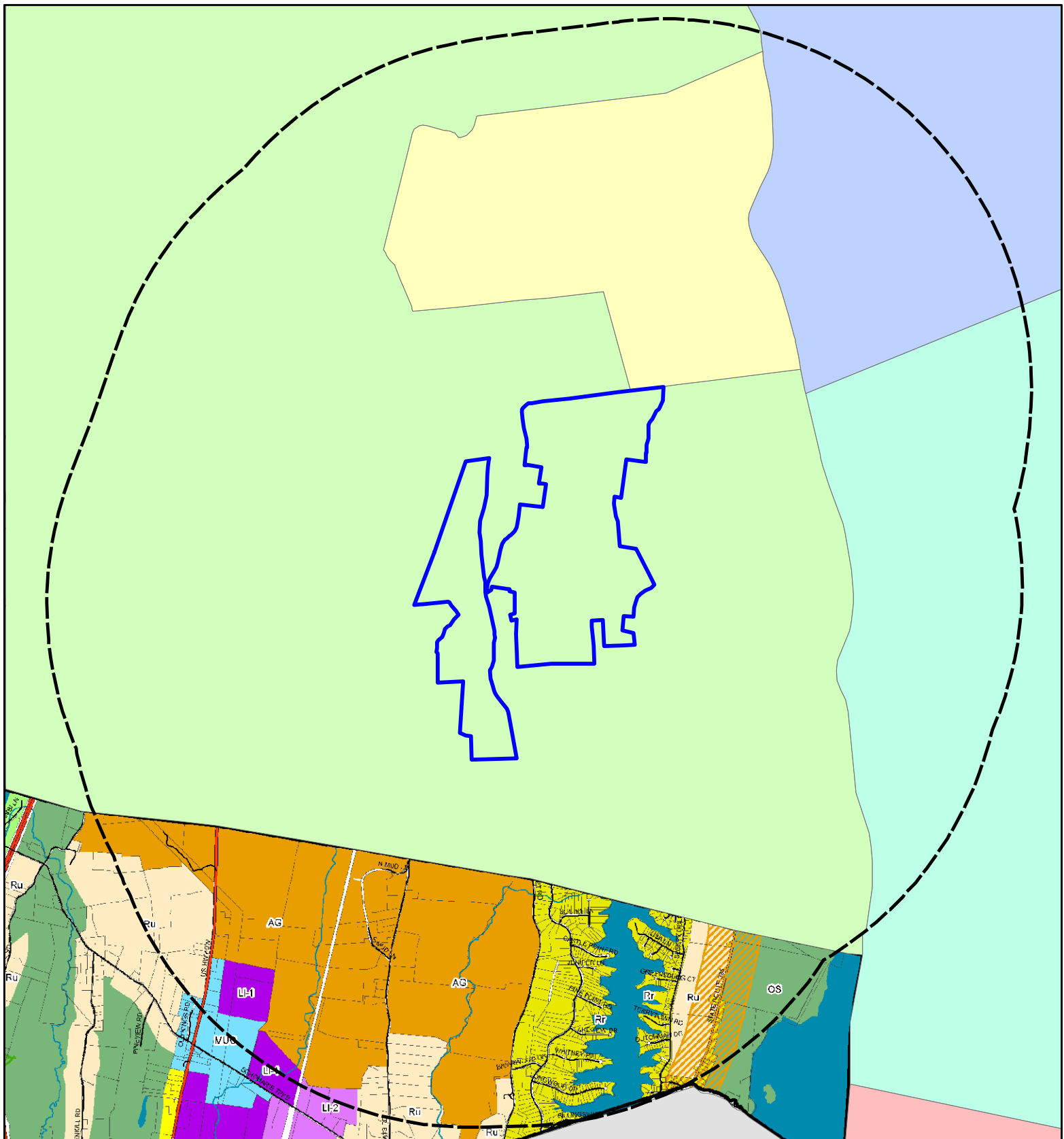
Section 5 – Density Control Schedule

Dimensional Requirements	Zoning Districts				
	H-1	H-2	A	H-EXT	C/LI
Minimum Lot Size per use in acres	*	*	5**	1**	***
Frontyard Setback – Principal Use	40'	40'	40'	40'	***
Frontyard Setback – Accessory Use	40'	40'	40'	40'	***
Rearyard Setback – Principal Use	50'	50'	50'	50'	***
Rearyard Setback – Accessory Use – Residential Use	10'	10'	10'	10'	***
Rearyard Setback – Accessory Use – Agricultural Use	25'	25'	25'	25'	***
Sideway Setback – Principal Use	25'	25'	25'	25'	***
Sideway Setback – Accessory Use – Residential Use	10'	10'	10'	10'	***
Sideway Setback – Accessory Use – Agricultural Use	25'	25'	25'	25'	***
Minimum With @ Required Frontyard Setback					
- Conventional Sub-division	150'	150'	300'	150'	***
- Clustered Sub-division	150'	150'	150'	150'	***
Minimum Lot Frontage	60'	60'	60'	60'	60'
Maximum Lot Coverage	25%	25%	25%	25%	75%
Maximum Height	35'	35'	35'	35'	35'
Density Average per use in acres	N/A	N/A	5**	1**	N/A

*To be determined by the Columbia County Health Department. In the “H-1” and “H-2” zones the minimum lot size including a 30’ x 50’ residence, would be 150’ wide x 120’ deep or .41 acres.

**Density Average is determined by dividing the total developable area of a parcel by the acres required per use. Minimum lot size is determined by applying the Health Department standards for the on-lot well & septic system to the parcel and then adding the minimum required setbacks.

***Dimensional requirements will be determined on a case-by-case basis via the State Site Plan Review Process.



- | | | |
|----------------------|------------------------------|-----------------------------|
| Facility Area | AG - Agriculture | Ru-1 - Rural Residential-1 |
| 2-mile Study Area | MUC - Mixed Use Commercial | Ru-335 - Route 385 Corridor |
| Town of Coxsackie | LI-1 - Light Industrial-1 | |
| Town of Greenport | LI-2 - Light Industrial-2 | |
| Town of Stockport | OS - Open Space/Conservation | |
| Town of Stuyvesant | H - Hamlet | |
| Village of Athens | Rr - Recreation Residential | |
| Village of Coxsackie | Ru - Rural Residential | |

0 0.5 1
Miles



**Figure 4-B-4
Town of Athens
Zoning**

Greene County Solar Facility
Greene County, New York

ZONING

180 Attachment 1

Town of Athens

Table 1
Permitted Uses
[Amended 11-20-2017 by L.L. No. 3-2017]

KEY:

- P = Permitted with no Planning Board or ZBA review
SP = Site plan approval by Planning Board required
SUP = Special use permit by Planning Board required

	District*									
Use	Rr	Ru	Ru-1	MUC	LI-1	LI-2	Ag	OS	H	Ru-385
Residential Uses										
Accessory apartment not in principal building	SUP	SUP	SUP	SP/SUP			SUP	SUP	SUP	SUP
Accessory apartment in principal building	P	P	P	SP/SUP			P	P	P	P
Customary residential accessory	P	P	P	P	P	P	P	P	P	P
Dwelling, multifamily	SP/SUP		SP/SUP						SP/SUP	
Dwelling, single-family	P	P	P	SP/SUP			P	P	P	P
Dwelling, two-family	P	P	P				P	P	P	SP/SUP
Manufactured home	P	P	P				P	P	P	P
Senior citizen housing	SP/SUP	SP/SUP	SP/SUP						SP/SUP	SP/SUP
Solar energy system, roof-mounted or ground-mounted	P	P	P	P	P	P	P	P	P	P
Townhouse	SP/SUP		SP/SUP						SP/SUP	
Business Uses										

ATHENS CODE

	District*									
Use	Rr	Ru	Ru-1	MUC	LI-1	LI-2	Ag	OS	H	Ru-385
Agriculture, forestry, or other natural resource use, not including mine or excavation	P	P			P	P	P	P		P
Adult establishment					SP/SUP	SP/SUP				
Agri-business	P	P	SP/SUP	SUP	SUP	SUP	P	P	P	P
Auto, boat, mobile home, trailer or RV sales/rental				SP/SUP	SP/SUP	SP/SUP				
Autobody or major repair shop				SP/SUP	SP/SUP	SP/SUP			SP/SUP	
Bank				SP/SUP					SP/SUP	
Bed-and-breakfast inn	SP/SUP	SP/SUP	SP				SP/SUP	SP/SUP	SP/SUP	SP/SUP
Camp/campground	SP/SUP	SP/SUP						SP/SUP		
Car wash				SP/SUP	SP/SUP	SP/SUP				
Cell tower	SP/SUP	SP/SUP			SP/SUP	SP/SUP	SP/SUP	SP/SUP		SP/SUP
Customary business accessory		P	SP	P	P	P	P		P	P
Day care, home, family	P	P	P				P	P	P	P
Day care, group	SP/SUP	SP/SUP	SP	SP					SP/SUP	SP/SUP
Eating or drinking establishment				SP/SUP					SP/SUP	
Educational facility		SP	SP/SUP	SP/SUP					SP/SUP	
Equipment or material storage					SP/SUP	SP/SUP				
Excavation and mining, see § 180-41		SP/SUP					SP/SUP	SP/SUP		
Fueling station				SP/SUP	SP/SUP	SP/SUP			SP/SUP	
Golf course		SP/SUP								
Home occupation, major	SP/SUP	SP/SUP	SP	SP	SP/SUP	SP/SUP	SP/SUP	SP/SUP	SP/SUP	SP/SUP

ZONING

	District*									
Use	Rr	Ru	Ru-1	MUC	LI-1	LI-2	Ag	OS	H	Ru-385
Home occupation, low-impact	P	P	P	P	P	P	P	P	P	P
Hotel/motel			SP/SUP	SP/SUP					SP/SUP	
Horse boarding operation		P					P	P		P
Junkyard, see § 180-44					SP/SUP	SP/SUP				
Kennel			SP/SUP	SP/SUP			SP/SUP	SP/SUP		SP/SUP
Laundromat, dry cleaning, laundry pickup				SP						
Light industrial					SP	SP				
Medical clinic or office			SP	SP					SP/SUP	
Motor vehicle or scrap junkyard					SP/SUP	SP/SUP				
Nature interpretive centers	P	P	P	P	P	P	P	P	P	P
Personal service establishment			SP	SP					SP	
Professional, government, business office			SP	SP					SP/SUP	
Recreational use, indoor	SP/SUP	SP/SUP		SP/SUP				SP/SUP ***		
Recreational use, outdoor	SP/SUP	SP/SUP		SP/SUP				SP/SUP ***		
Religious facility			SP	SP					SP	
Resort		SP/SUP(1)								
Retail sales			SP	SP	SP/SUP	SP/SUP			SP	
Riding stable	SUP	P					P	P		P
Roadside stand	P	P	SP	P			P	P	P	P
Sign	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Sit-down eating or			SP	SP					SP	

ATHENS CODE

	District*									
Use	Rr	Ru	Ru-1	MUC	LI-1	LI-2	Ag	OS	H	Ru-385
drinking establishment										
Solar energy system, large-scale				SP	SP	SP				
Solar energy system, roof-mounted or ground-mounted	P	P	P	P	P	P	P	P	P	P
Storage or deposition of soil, waste material, see § 180-41					SP/SUP	SP/SUP				
Swimming pool	P	P	P	P	P	P	P	P	P	P
Trailer rental/sales				SP/SUP	SP/SUP	SP/SUP				
Warehouse					SP/SUP	SP/SUP				
Water recreation	SP/SUP	SP/SUP					SP/SUP	SP/SUP		SP/SUP
Water storage facility	SP/SUP	SP/SUP		SP/SUP	SP/SUP	SP/SUP	SP/SUP	SP/SUP	SP/SUP	SP/SUP
Wind energy conversion system	SP/SUP	SP/SUP			SP/SUP	SP/SUP	SP/SUP	SP/SUP		SP/SUP

NOTES:

- (1) Resorts in the Ru District allowed only as per § 180-59 (Planned Unit Development).
- * Allowed uses for any of the watershed overlay districts shall be the same as the base district, except where noted in § 180-30.
- *** Recreation use allowed only as defined as “passive recreation.”

ZONING
180 Attachment 2

Town of Athens

Table 2
Density and Dimensions

Use	Utility Class	Residential Density (number of acres or square feet per dwelling required)*	Lot Area Required Per Nonresidential Use	Minimum Lot Width (feet)	Minimum Front Yard Setback (feet)	Maximum Front Yard Setback (feet)	Minimum Lot Depth (feet)	Minimum Each Side Yard (feet)	Minimum Rear Yard (feet)	Maximum Building Height (feet)	Maximum Percent Parcel Coverage (all lots)
Rr	Class 1	15,100 square feet	20,000 square feet	100	25	N/A	100	15	25	35	30
	Class 2	30,000 square feet	20,000 square feet	125	25	N/A	100	40	25	35	30
	Class 3	65,000 square feet	1 acre	150	25	N/A	100	40	25	35	30
Ru	Class 1	1 DU per 3 acres	20,000 square feet	100	50	N/A	120	30	50	35	30
	Class 2	1 DU per 3 acres	20,000 square feet	100	50	N/A	120	30	50	35	30
	Class 3	1 DU per 3 acres	1 acre	100	50	N/A	120	30	50	35	30
Ru-1	Any class	1 DU per 1 acre	1 acre	75	25	N/A	100	30	50	35	30
MUC	Class 3	130,000 square feet**	1 acre	200	40	N/A	150	25	50	35	60
LI-1	Any class	No residential uses allowed	2 acres	50	100	N/A	200	50	50	45	50
LI-2	Any class	No residential uses allowed	2 acres	50	100	N/A	200	50	50	45	50
Ag	Class 3	1 DU per 10 acres	1 acre	200	75	N/A	150	50	50	35	25
OS	Class 3	1 DU per 5 acres	1 acre	250	75	N/A	175	50	50	35	25

ATHENS CODE

Use	Utility Class	Residential Density (number of acres or square feet per dwelling required)*	Lot Area Required Per Nonresidential Use	Minimum Lot Width (feet)	Minimum Front Yard Setback (feet)	Maximum Front Yard Setback (feet)	Minimum Lot Depth (feet)	Minimum Each Side Yard (feet)	Minimum Rear Yard (feet)	Maximum Building Height (feet)	Maximum Percent Parcel Coverage (all lots)
H	Class 1	10,000 square feet	20,000 square feet	80	25	35	80	20	25	25	40
	Class 2	20,000 square feet	20,000 square feet	80	25	35	80	20	25	25	40
	Class 3	31,500 square feet	1 acre	80	25	35	80	20	25	25	40
Ru-385	Class 1	1 DU per 3 acres	20,000 square feet	100	75	N/A	100	50	50	35	30
	Class 2	1 DU per 3 acres	20,000 square feet	100	75	N/A	100	50	50	35	30
	Class 3	1 DU per 3 acres	1 acre	100	75	N/A	100	50	50	35	30
HLW	Class 3	1 DU per 5 acres	2 acres	200	75	N/A	120	50	50	35	15
GLW	Class 3	1 DU per 5 acres	2 acres	200	75	N/A	120	50	50	35	15
BLW	Class 3	1 DU per 5 acres	2 acres	200	75	N/A	120	50	50	35	15

NOTES:

* Unless the Planning Board allows for application of an average lot size as per § 180-12C, this shall be the minimum lot size.

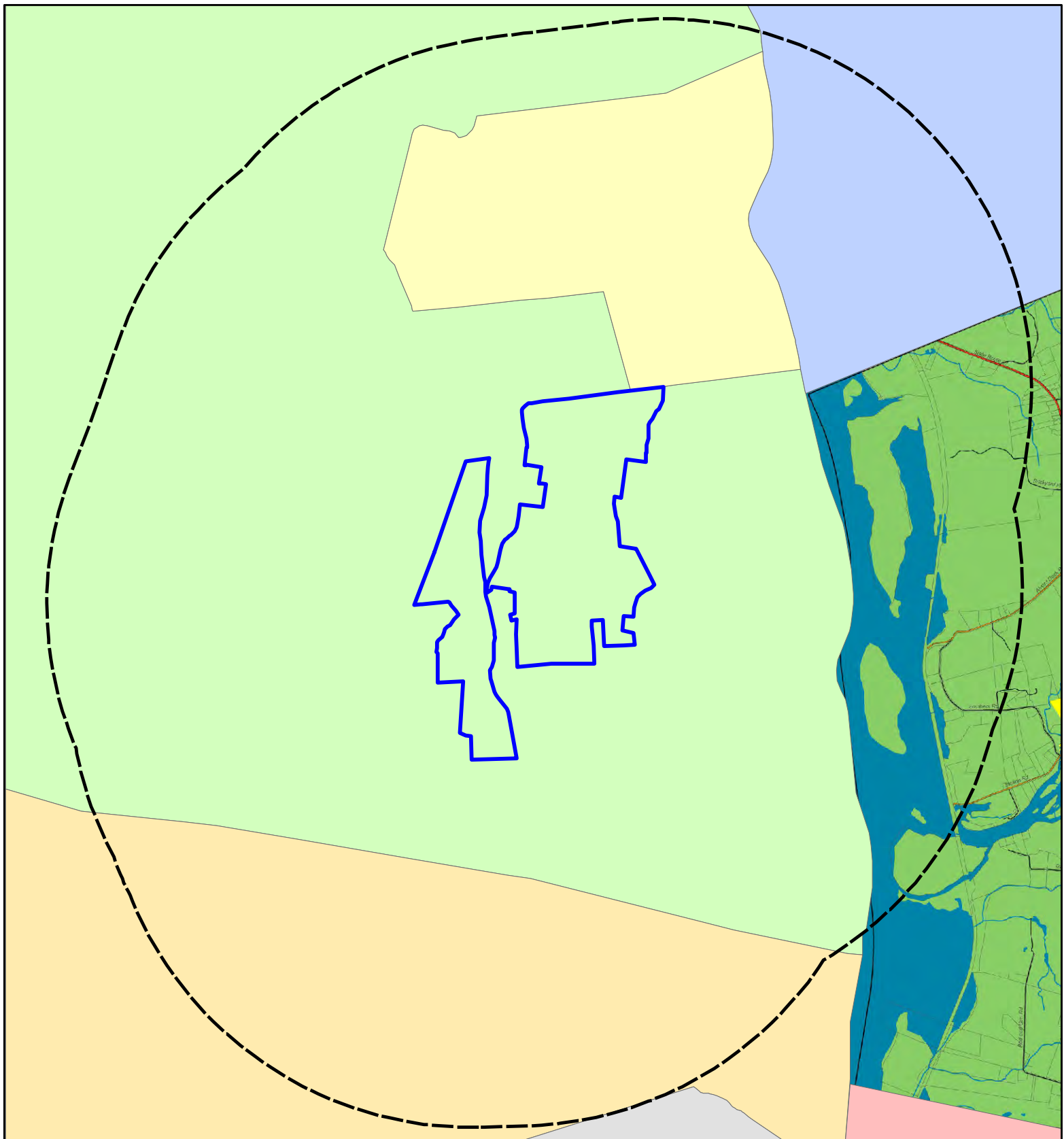
** Residential uses are allowed as per Table 2, but not encouraged in the Highway Commercial District.











Class 1 = Public utility provided, water and sewer

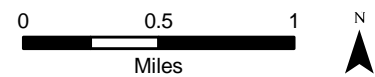
Class 2 = Either public water or sewer

Class 3 = On-lot water and sewage disposal

N/A = Not applicable



- | | |
|---|---|
|  Facility Area |  Residential |
|  2-mile Study Area |  Rural Residential |
|  Town of Athens | |
|  Town of Coxsackie | |
|  Town of Greenport | |
|  Town of Stuyvesant | |
|  Village of Athens | |
|  Village of Coxsackie | |



**Figure 4-B-5
Town of Stockport
Zoning**

Greene County Solar Facility
Greene County, New York

ZONING

120 Attachment 1

Town of Stockport

Schedule of Use Regulations

KEY:

P = Permitted use

P* = Permitted use subject to site plan review

SP* = Special use permit required, and subject to site plan review

X = Prohibited use

For the specific uses allowed in the AS and CS Districts, please refer to their respective sections of this chapter. AS: § 120-20.7, and CS: § 120-20.8.

For the specific uses allowed in the SC and AE Overlay Districts, please refer to their respective sections of this chapter. SC: § 120-20.10, and AE: § 120-20.11.

Type of Use	District						
	H	R	RR	CLI	C	A	FF-O
Residential Uses							
One-family dwelling	P	P	P	X	P* ¹	P	X
Two-family dwelling	P	P	P	X	X	P	X
Multifamily dwelling	SP*	X	SP*	X	X	X	X
Individual mobile home	X	SP*	SP*	X	X	SP*	X
Mobile home park (whether new park or expansion of existing park)	X	X	X	X	X	X	X
Boarding, lodging, or rooming house	SP*	X	SP*	X	X	X	X
Community residence	SP*	SP*	SP*	X	X	SP*	X
Seasonal cottage or cabin	X	X	SP*	X	X	SP*	X
Senior citizen housing (see § 120-20.10)	Allowed in the SCO District						
General Uses							
Agricultural or farm operation	SP*	SP*	P	P	P	P	P
Agricultural processing facility	X	X	SP*	SP*	X	SP*	X
Agri-tourism	SP*	SP*	SP*	SP*	X	P	SP*
Airport	X	X	SP*	X	X	SP*	X
Campground	X	X	SP*	X	X	SP*	X
Cemetery	X	SP*	SP*	X	X	SP*	X
Church or other place of worship	SP*	SP*	SP*	X	X	SP*	X
Composting facility	X	X	SP*	X	X	SP*	X
Country club or golf course	X	X	SP*	X	X	SP*	X
Cultural facility	SP*	SP*	SP*	X	X	X	X
Day camp	P*	P*	SP*	X	X	SP*	X
Day-care center, nursery school, or preschool	P*	P*	SP*	X	X	SP*	X

STOCKPORT CODE

Type of Use	District						
	H	R	RR	CLI	C	A	FF-O
Forestry and conservation uses	P	P	P	P	P	P	P
Horse boarding operation	SP*	SP*	P	P	P	P	P
Hospital or nursing home	SP*	SP*	SP*	X	X	X	X
Manufacturing facility	X	X	X	P*	X	X	X
Marina or boat basin	X	X	SP*	X	SP*	X	X
Medical clinic	P*	P*	SP*	X	X	X	X
Municipal buildings	P	P	P	P	X	P	X
Not-for-profit membership club, not including an outdoor recreational use	SP*	SP*	SP*	X	X	X	X
Not-for-profit or other noncommercial recreational use or facility	SP*	SP*	SP*	X	X	SP*	X
Parks and recreation areas	P	P	P	X	P	P	P
Philanthropic institution	SP*	SP*	SP*	X	X	X	X
Private academic, parochial, charter, or technical school	SP*	SP*	SP*	X	X	SP*	X
Private airstrip or other private transportation facility	X	X	SP*	X	X	SP*	X
Sawmill	X	X	SP*	X	X	SP*	X
Use of mobile homes on farms to house tenant and migrant farm laborers	X	SP*	SP*	X	X	P*	X
Accessory Uses							
Accessory apartment	SP*	SP*	SP*	X	X	SP*	X
Building on any lot for the use of an attendant, watchman or caretaker employed in connection with any permitted or special permit use on said lot	P	P	P	P	X	P	X
Customary accessory use or structure incidental to the permitted or special permit use, located on the same lot	P	P	P	P	X	P	X
Garages, private, and utility structures	P	P	P	SP*	X	P	SP*
Garden houses, tool houses, playhouses, wading pools or swimming pools incidental to the use of the premises and not operated for gain	P	P	P	P	X	P	SP*
Guest house	P*	P*	P*	X	X	P*	X
Home occupation, low-impact	P	P	P	X	X	P	X
Home occupation, major	SP*	SP*	SP*	X	X	SP*	X
Keeping domestic animals including the private stabling of horses	X	P	P	X	X	P	X

ZONING

Type of Use	District						
	H	R	RR	CLI	C	A	FF-O
Keeping, breeding and raising of fur-bearing animals, fish, and lab animals	X	X	SP*	SP*	X	SP*	X
One-family dwelling, accessory to business or institutional use	P	P	SP*	SP*	X	SP*	X
Outdoor storage of materials, equipment or vehicles associated with a major home occupation, or business use.	SP*	SP*	SP*	SP*	X	SP*	SP*
Restaurants, eating and drinking places, and recreational facilities for the use of tenants, boarders, roomers or guests, including athletic fields, tennis and handball courts, rental of boats, swimming pools, bath houses, locker rooms, and indoor facilities, such as dance and recreation halls	SP*	SP*	SP*	X	X	X	X
Roadside stand	P*	P*	P*	X	X	P	X
Business Uses (in addition to home occupations)							
Adult entertainment use (see AEO District § 120-20.11)	Allowed in the AEO District						
Amusement establishment, indoor	SP*	SP*	X	SP*	X	X	X
Amusement establishment, outdoor	X	X	SP*	X	X	SP*	SP*
Animal hospital	SP*	SP*	SP*	SP*	X	X	X
Automobile service facility	SP*	SP*	X	SP*	X	X	X
Bank	SP*	SP*	X	P*	X	X	X
Bed-and-breakfast establishment	SP*	SP*	SP*	X	X	SP*	X
Convenience food store	SP*	SP*	X	SP*	X	X	X
Drive-through window as part of another business use	SP*	SP*	SP*	X	X	X	X
Energy production involving solar, biomass, hydropower, or other alternative non-fossil fuel source	X	X	SP*	SP*	SP*	SP*	SP*
Energy production involving wind	X	X	SP*	X	X	SP*	X
Farmstand	SP*	SP*	SP*	SP*	X	SP*	X
Food processing facility - associated with a farm operation	X	X	SP*	SP*	X	SP*	X
Food processing facility - small scale	SP*	SP*	SP*	SP*	X	SP*	X
Funeral home	SP*	SP*	SP*	X	X	X	X
Garage, public	SP*	SP*	SP*	SP*	X	SP*	X
Gasoline station	SP*	SP*	X	SP*	X	X	X
General or professional office	P*	P*	SP*	P*	X	X	X
Greenhouse	SP*	SP*	SP*	SP*	X	P	X

STOCKPORT CODE

Type of Use	District						
	H	R	RR	CLI	C	A	FF-O
Hotel or motel	SP*	SP*	X	X	X	X	X
Junkyard	X	X	X	SP*	X	X	X
Kennel, boarding or breeding	X	X	SP*	X	X	SP*	X
Launderette	SP*	SP*	X	X	X	X	X
Lumberyard	X	SP*	X	SP*	X	X	X
Motor vehicle repair shop, small and large equipment repair	SP*	SP*	X	SP*	X	X	X
Nursery	SP*	SP*	SP*	SP*	X	P	SP*
Personal service establishment	P*	P*	SP*	X	X	X	X
Printing or copy shop	SP*	SP*	X	X	X	X	X
Restaurant with no drive-through	P*	P*	X	X	X	X	X
Riding academy	SP*	SP*	SP*	X	X	SP*	X
School conducted for profit	SP*	SP*	SP*	X	X	X	X
Self-storage warehouse	SP*	SP*	X	SP*	X	X	X
Shopping center	SP*	SP*	X	X	X	X	X
Tavern, bar or nightclub	X	X	X	X	X	X	X
Light Industrial Uses							
Auto or nonagricultural equipment rental or sales	SP*	SP*	X	P*	X	X	X
Automobile junkyard	X	X	X	SP*	X	X	X
Automobile salvage and parts recycling	See the AS District regulations, § 120-20.7						
Bulk storage including: oil, gasoline and gas storage	X	X	X	SP*	X	X	X
Communications receiving and transmitting antennas (franchise facilities)	(See Chapter 122, Telecommunications Towers)						
Contractor's yard	SP*	SP*	SP*	P*	X	SP*	X
Extractive operations and mines	X	X	SP*	X	X	SP*	X
Landfill	X	X	X	X	X	X	X
Public utility station or structure	SP*	SP*	SP*	SP*	X	SP*	X
Research laboratory	X	X	X	P*	X	X	X
Warehouse, light manufacturing or light processing	X	X	X	P*	X	X	X

NOTES:

¹ See § 120-20.5 for the circumstances under which one-family dwellings are allowed in the C District.

ZONING

120 Attachment 2

Town of Stockport

Schedule of Area and Bulk Regulations

District	Density (number of dwellings per acre)	Minimum Lot Area Per Dwelling Unit (acres)	Minimum Lot Area per Principal Building for Nonresidential Uses	Maximum Structure Coverage ¹	Minimum Open Space	Maximum Structure Height (feet)	Minimum Lot Width (feet)	Minimum Yard Requirements (feet)		
								Front	Side	Rear
Hamlet (H)										
With central water and common sewer	1 DU/0.5 acre	1/3 acre	1 principal building per 0.5 acre	25%	40%	35	50	20	10	30
With central water only	1 DU/1 acre	1.0 acre	1 principal building per 1 acre	25%	40%	35	50	20	10	30
Residential (R)										
With central water	1 DU/1 acre	1 acre	1 principal building per 1.5 acres	25%	60%	35	100	25	20	50
Without central water	1 DU/1.5 acre	1 acre	1 principal building per 1.5 acres	25%	60%	35	100	25	20	50
Rural Residential (RR)	1 DU/3 acres	1.0 acre	1 principal building per 3 acres	10%	70%	35	100	40 ²	25	50
Commercial/Light Industrial (CLI)	—	—	1/2 acre per structure	20%	40%	35	200	100	50	100

STOCKPORT CODE

District	Density (number of dwellings per acre)	Minimum Lot Area Per Dwelling Unit (acres)	Minimum Lot Area per Principal Building for Nonresidential Uses	Maximum Structure Coverage ¹	Minimum Open Space	Maximum Structure Height (feet)	Minimum Lot Width (feet)	Minimum Yard Requirements (feet)		
								Front	Side	Rear
Conservation Overlay (C)	See § 120-20.5 No building allowed unless entire existing lot is within the Conservation Overlay District, or it is not possible to locate all development outside of the C District			1,500 square feet	100%, except for 1,500 square feet that may be allowed for parcels wholly within the conservation overlay	35	Same as base district	Same as base district		
Automobile Salvage (AS)	Area and bulk requirements established on a project-specific basis in accordance with § 120-20.7									
Columbia Springs (CS)	Area and bulk requirements established on a project-specific basis in accordance with § 120-20.8									
Agriculture Overlay (A)	Same as base district with density adjustment for farmland soils as per § 120-20.6B									
Senior Citizens Overlay (SC)	See § 120-20.10									
Flood Fringe Overlay (FF-O)	See § 120.20.9									

NOTES:

¹ No commercial retail structures shall be allowed greater than 10,000 square foot building footprint.

² This shall be the minimum front setback from the right-of-way of new subdivision streets, or common driveways (where applicable). For development along existing town, county or state roads, the setback shall be a minimum of 150 feet. The builder or developer is urged to consider variations in the principal building position and orientation when more than one dwelling is proposed.



Greene County Solar Facility

Case No. 17-F-0617

Appendix 4-C

Aerial Photographs of the Facility Area

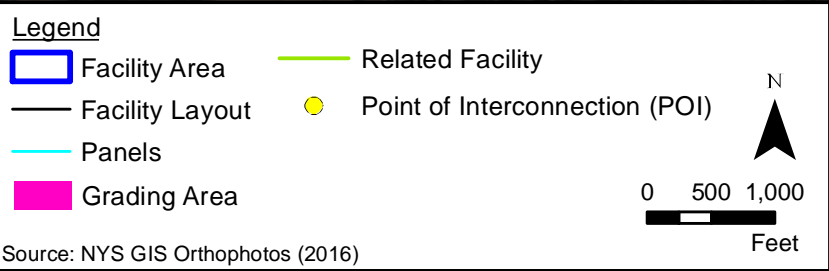
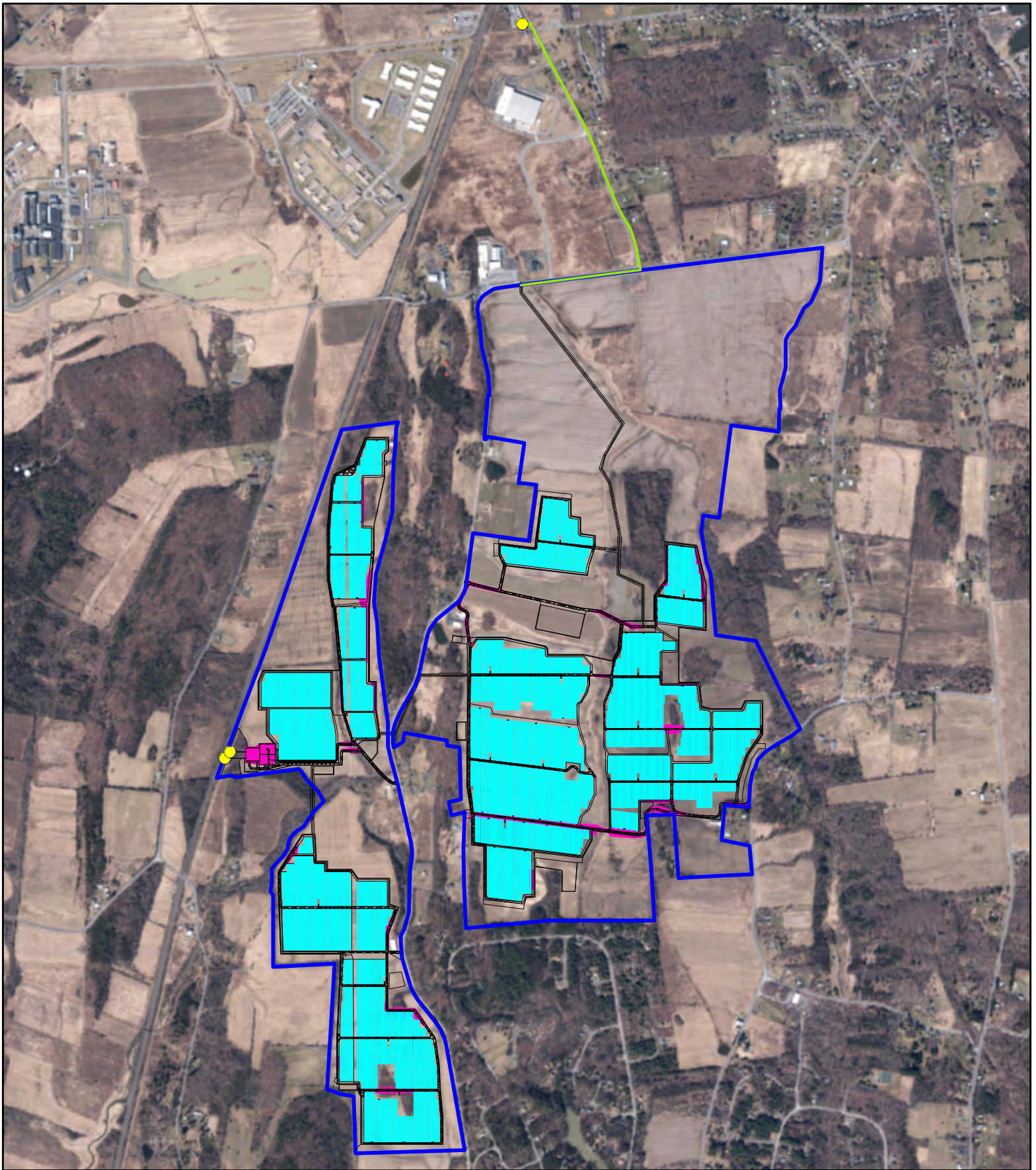


Figure 4-C
2016 Aerial Photograph

Greene County Solar Facility
 Greene County, New York

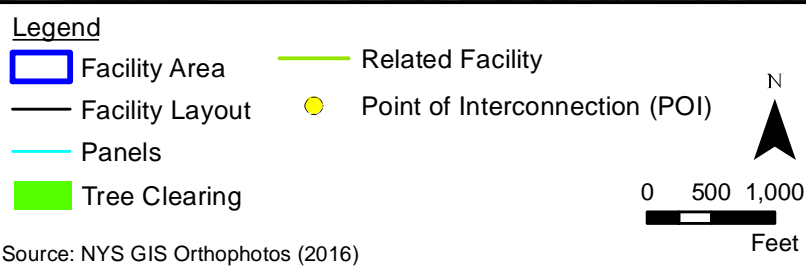
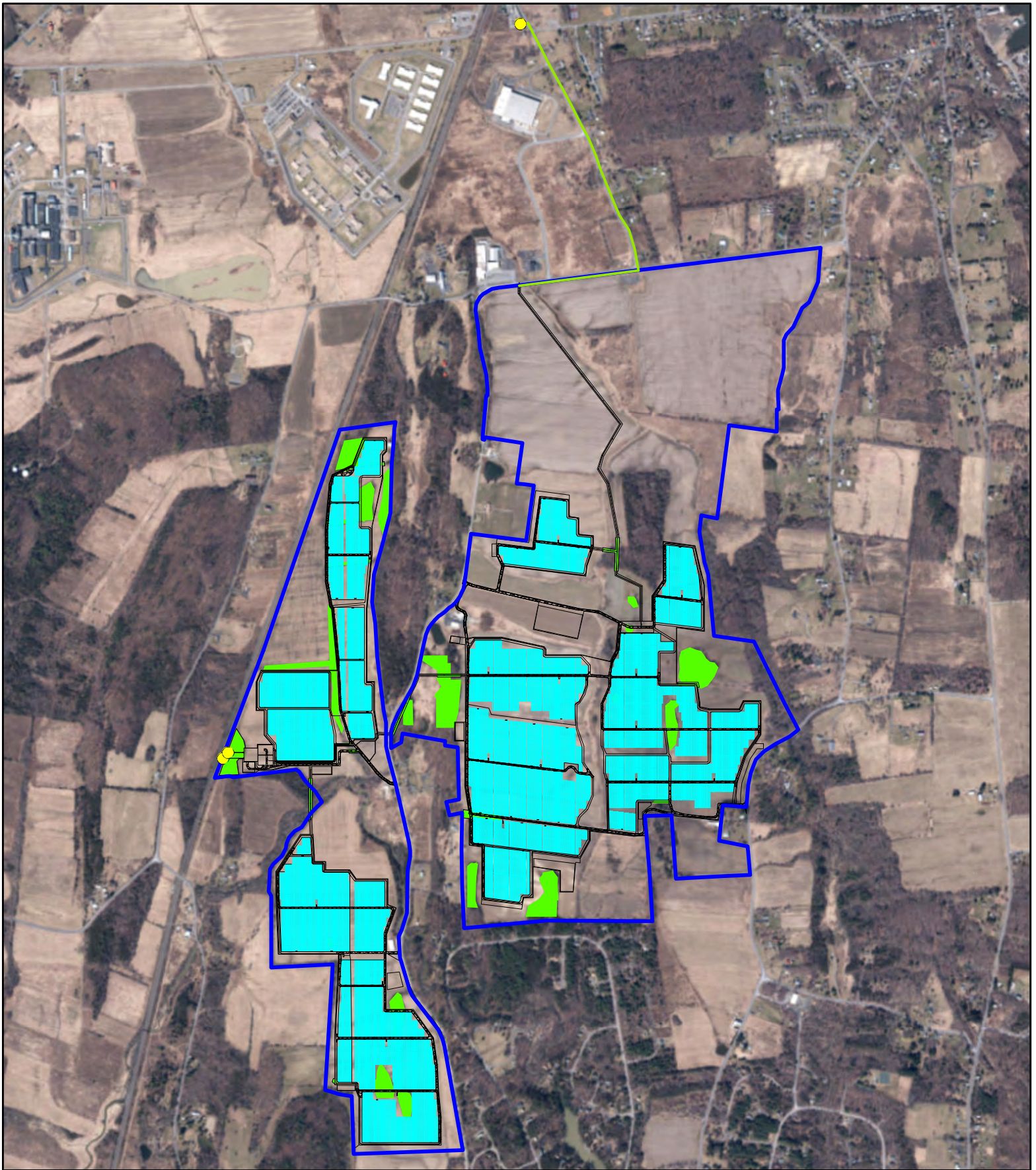
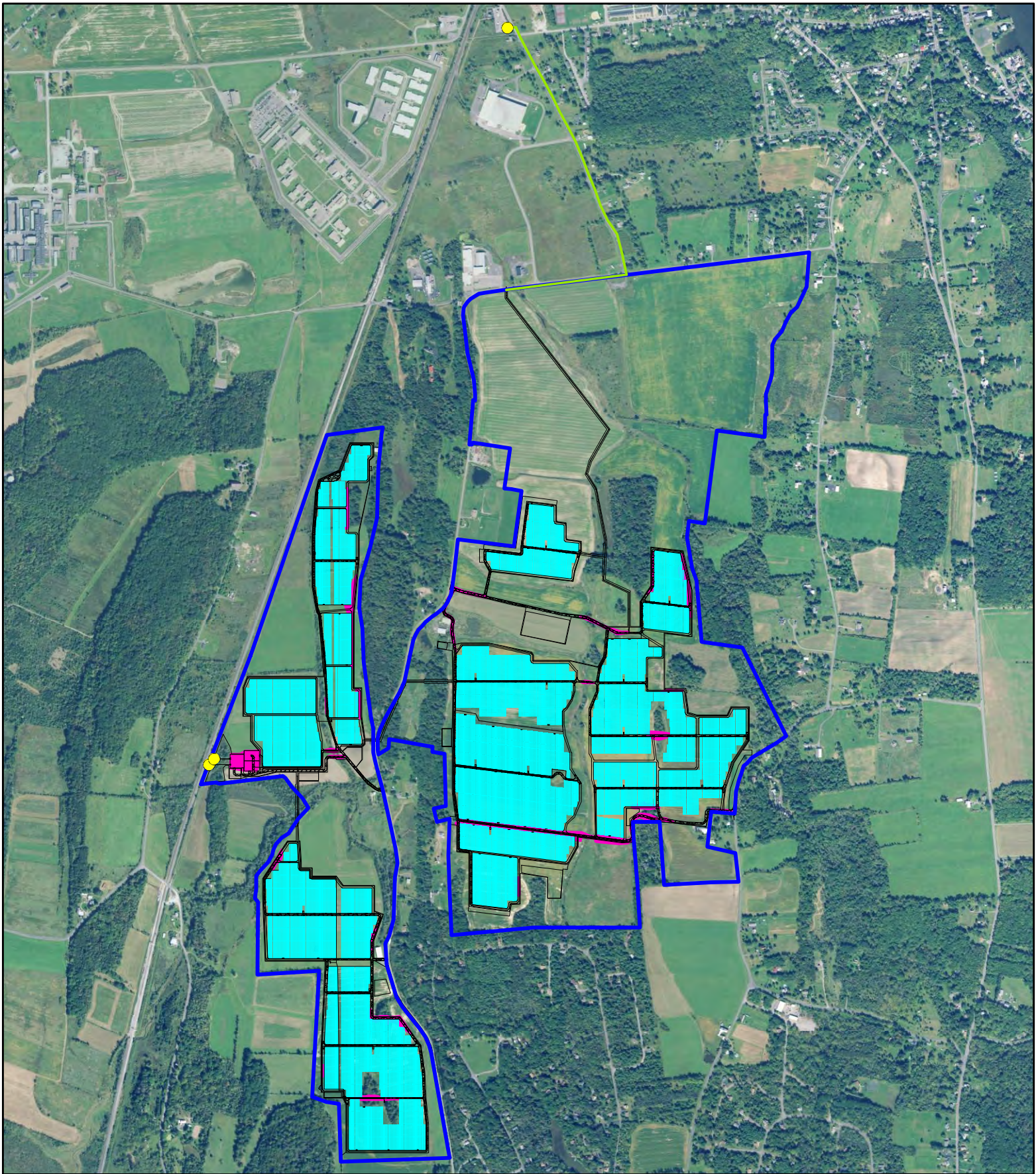


Figure 4-C
2016 Aerial Photograph

Greene County Solar Facility
 Greene County, New York



Legend

 Facility Area

Facility Layout

Panels

Grading Area

Related Facility

● Point of Interconnection (POI)

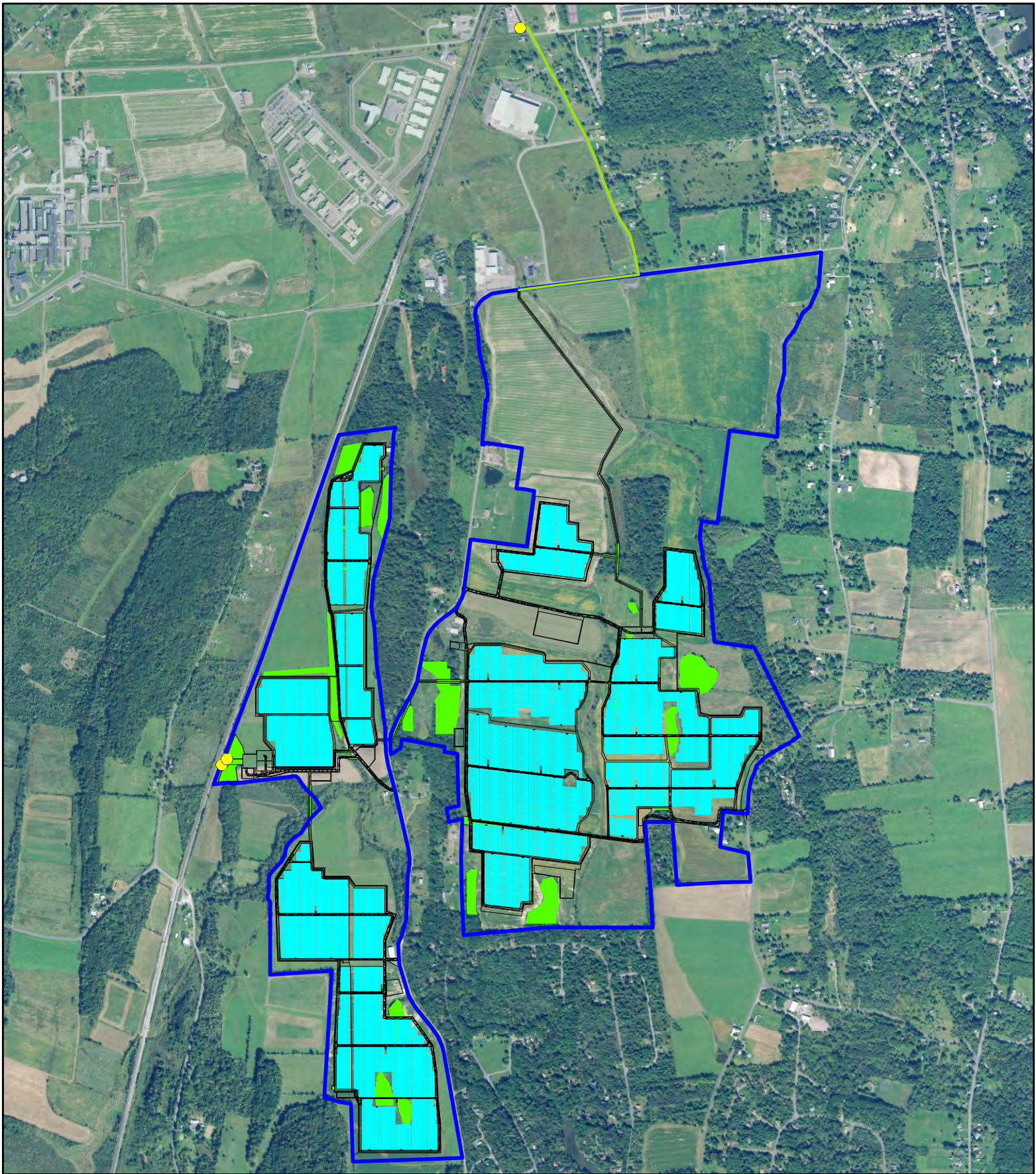


0 500 1,000
Feet

Source: USDA NAIP Imagery (2017)

Figure 4-C
2017 Aerial Photograph

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- Facility Layout
- Panels
- Tree Clearing

Source: USDA NAIP (2017)

Related Facility

● Point of Interconnection (POI)

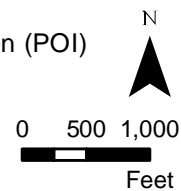
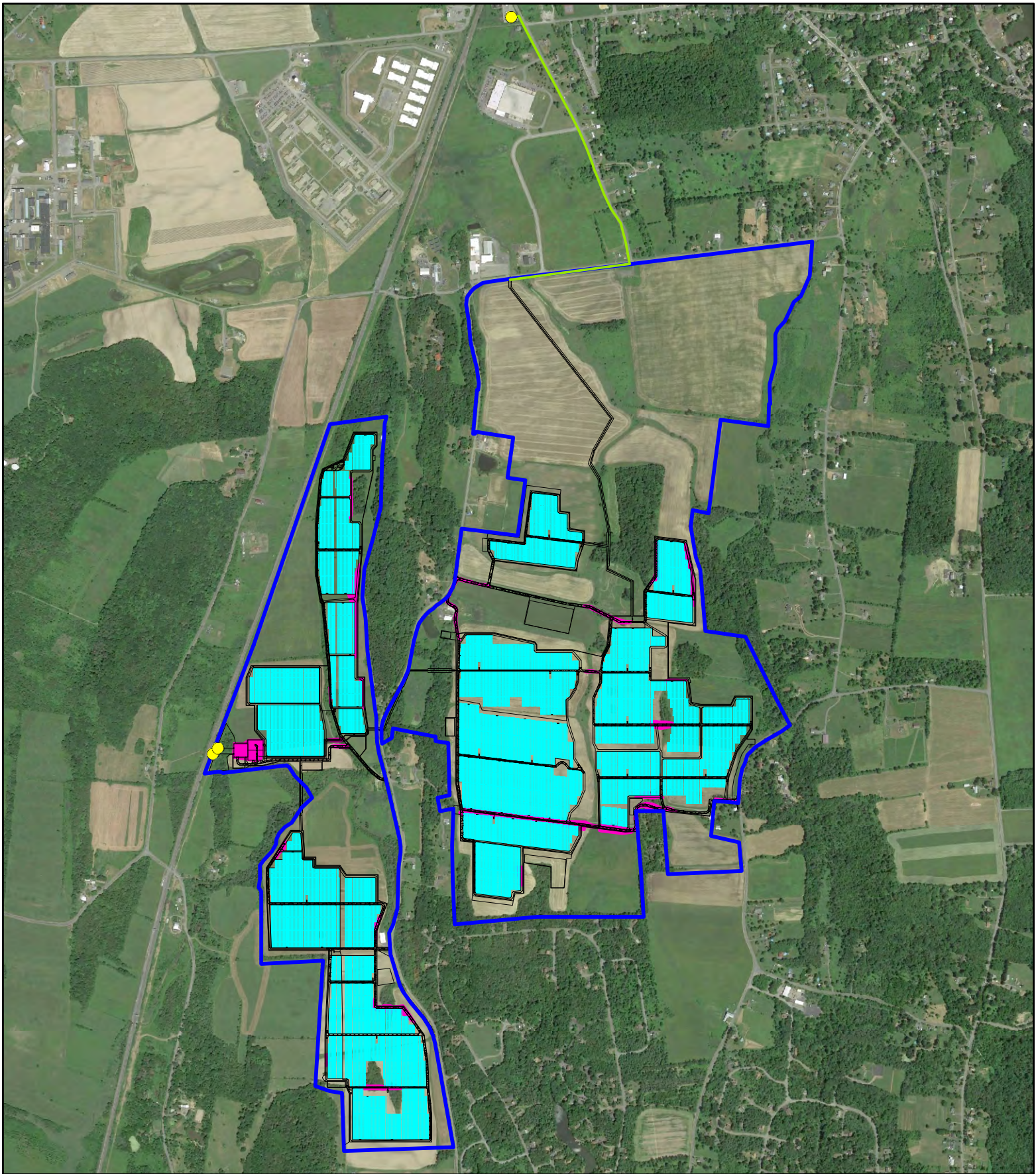


Figure 4-C
2017 Aerial Photograph

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- Facility Layout
- Panels
- Grading Area

Related Facility

● Point of Interconnection (POI)

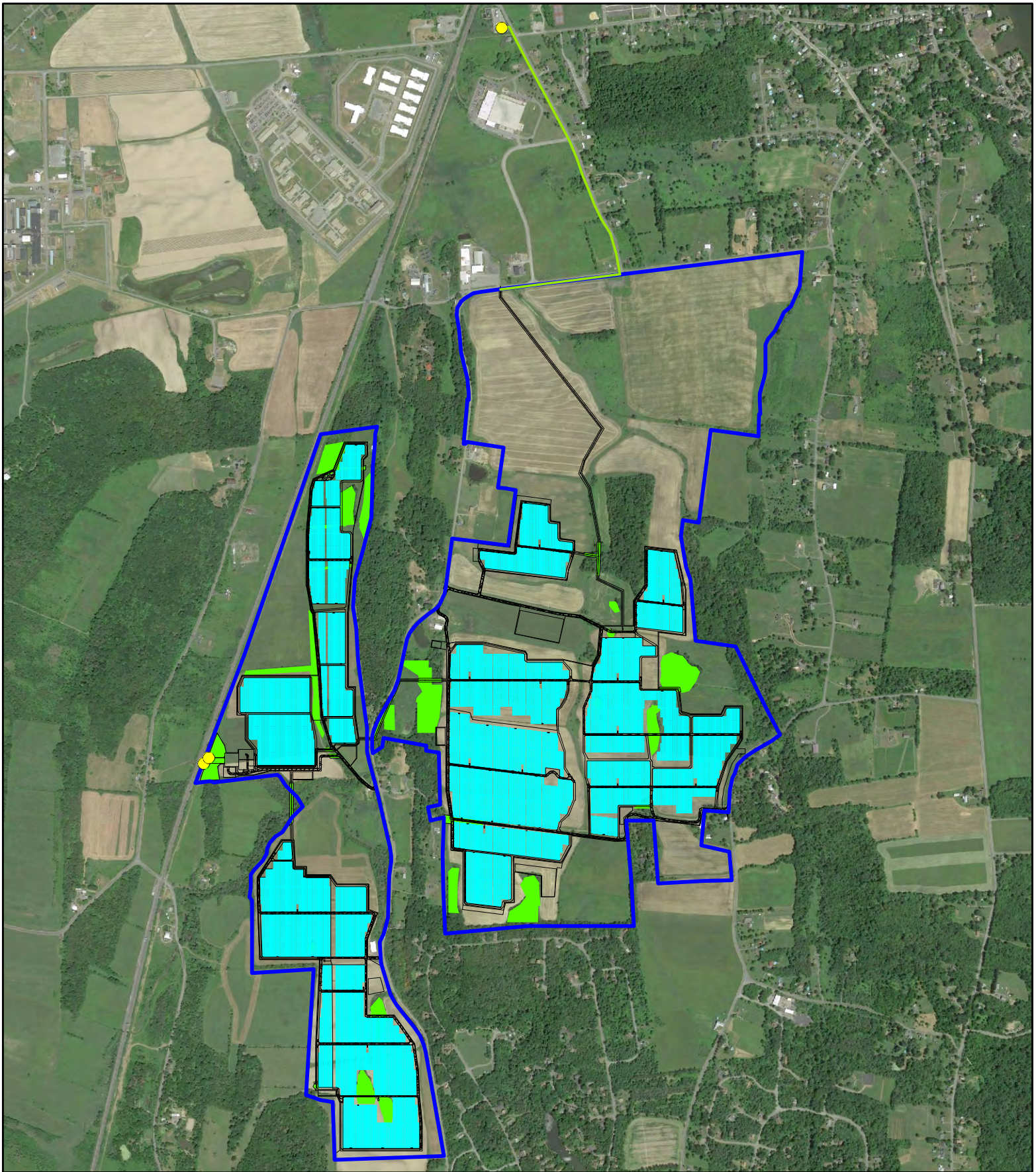


0 500 1,000
Feet

Source: GoogleEarth (2018)

Figure 4-C
2018 Aerial Photograph

Greene County Solar Facility
Greene County, New York



Legend

- Facility Area
- Facility Layout
- Panels
- Tree Clearing

- Related Facility
- Point of Interconnection (POI)

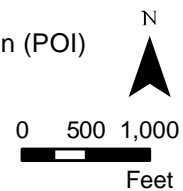


Figure 4-C
2018 Aerial Photograph

Greene County Solar Facility
Greene County, New York

Source: GoogleEarth (2018)



Greene County Solar Facility

Case No. 17-F-0617

Appendix 4-D

Consistency with NYSDAM Guidelines

Consistency with the New York State Department of Agriculture and Markets Guidelines

For the Greene County Solar Facility (the Facility), Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (the Co-Applicants) have committed to comply with the New York State Department of Agriculture and Markets (NYSDAM) *Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands* (Revision October 18, 2019) (the Solar Energy Guidelines), to the maximum extent practicable. Although the Facility is proposed on land that is currently in agricultural use, it has been designed within a compact, contained area and no crop farming will occur amongst or between the operational photovoltaic solar arrays during the life of the Facility or anywhere within the Facility fence line.

In addition to the Solar Energy Project guidelines, NYSDAM has requested that consistency with the range of other potentially applicable guidelines also be considered (as appropriate to specific elements of the Facility). The following additional NYSDAM guidelines also have been reviewed and considered:

- Fertilizing, Lime, and Seeding Recommendations for Restoration of Farmland in New York State (dated 9/25/12);
- Pipeline Right-of-Way Construction Projects (dated 2/11); and
- Guidelines for Electric Transmission Right-of-Way Projects (dated 4/27/11).

The following narrative provides an overview of the NYSDAM Guidelines and the Co-Applicants' proposed consistency with them. If applicable guidelines from the NYSDAM Guidelines cannot be met, the Co-Applicants will contact NYSDAM to discuss acceptable alternatives.

Facility Consistency with NYSDAM Solar Energy Project Guidelines

The following sections divide the NYSDAM Guidelines applicable to solar energy projects into project phases and summarize the Facility's proposed consistency. As stated above, the Facility is proposed within fenced portions of a consolidated approximately 827-acre area (the Facility Area). All Facility-related impacts will be contained within an approximately 379-acre portion of the Facility area except for the re-build of an existing overhead electric distribution line. That will be performed by the local utility in their existing right-of-way (ROW) and will not occur on agricultural lands. As the Co-Applicants are proposing to take the portions of the Facility Area used for the Facility and potential associated mitigation out of agricultural production for the operational life of the Facility, the timing and practicability of applying NYSDAM Guidelines varies. Approximately 219 acres of agricultural land, which is within the Facility Area but outside the Facility's fence, is expected to continue to be available to the landowner for agricultural use or conservation use.

Environmental Monitor

The Solar Energy Guidelines require the hiring of an Environmental Monitor (EM) to oversee construction, restoration, and follow-up monitoring. For projects involving 50 acres or more of agricultural land, the EM must be on-site whenever construction or restoration work is occurring on agricultural land.

The Co-Applicants will require that the construction contractor assign a Health, Safety, and Environmental (HSE) Manager with appropriate qualifications to act as the Facility's EM, and will provide NYSDAM the opportunity to review the qualifications or capacities of the proposed HSE Manager. The HSE Manager selected will be required to have an understanding of normal agriculture practices and be able to identify how the Facility may affect the site and applicable agricultural practices, and will be required to have experience with or understanding of the use of a soil penetrometer for compaction testing and record duties. They will be available to provide site-specific agricultural information as necessary for Facility development through field review and direct contact with both the affected farm operators and NYSDAM.

The HSE Manager will oversee construction in general accordance with the applicable NYSDAM Guidelines, as discussed herein. Although the Facility's limits of disturbance involves more than 50 acres of agricultural land, it is not expected that construction will occur in all areas concurrently; however, the HSE Manager will be on site

whenever construction or restoration work requiring or involving ground disturbance is occurring on agricultural land. The HSE Manager also will be conducting regular inspections per the Stormwater Pollution Prevention Plan (SWPPP), and will thus be present even if work is not occurring on agricultural land. The HSE Manager will notify NYSDAM of the status of Facility activity on a regular basis, and will coordinate with the NYSDAM regarding any site inspections.

The majority of restoration, monitoring, and remediation activities will not occur until Facility decommissioning, at which point the Facility Area will be substantially restored to pre-construction conditions, in consultation with the landowner. The HSE Manager selected at that time will monitor and guide on-site restoration and decommissioning activities to maintain compliance with the NYSDAM Guidelines to the maximum extent practicable.

Construction Requirements

The following table outlines the Solar Energy Guidelines pertaining to construction. All permanent and temporary impacts from the Facility will be contained within the Facility Area, except for the feeder line extension that will extend northerly to reach the existing Cocksackie Substation. Off-site feeder line activities will occur within the existing distribution line ROW, and is not expected to involve disruption to agricultural land. The Facility footprint will occupy 379 acres within the total 827-acre Facility Area. It is expected that approximately 219 acres of the Facility Area will continue to be available for agricultural use.

Table 1. Construction Requirements

Guideline	Facility Consistency
Before any topsoil is stripped, representative soil samples should be obtained from the areas to be disturbed. The soil sampling should be consistent with Cornell University's soil testing guidelines, and samples should be submitted to a laboratory for testing PH, percent organic material, cation exchange capacity, Phosphorus/Phosphate (P), and Potassium/Potash (K). The results are to establish a benchmark that the soil's PH, Nitrogen (N), Phosphorus/Phosphate (P), and Potassium/Potash (K) are to be measured against upon restoration. If soil sampling is not performed, fertilizer and lime application recommendations for disturbed areas can be found at the citation below. ^a	The portions of the Facility Area within the Facility's fence to be developed will not be immediately returned to agricultural use and, therefore, soil sampling is not proposed during Facility construction. When decommissioning is planned, a determination with the landowner will be made as to the planned agricultural use of the developed portion of the land, and the appropriate fertilizer and lime application recommendations will be implemented.
Stripped topsoil should be stockpiled from work areas (e.g., parking areas, electric conductor trenches, along access roads, equipment pads) and kept separate from other excavated material (rock and/or sub-soil) until the completion of the facility for final restoration. For proper topsoil segregation, at least 25 feet of additional temporary workspace (ATWS) may be needed along "open-cut" underground utility trenches. All topsoil will be stockpiled as close as reasonably practical to the area where stripped/removed and shall be used for restoration on that particular area.	Any stripped topsoil will be segregated for use in restoring temporary disturbance areas outside the Facility fence. Adequate work area will be established to allow for stockpiling topsoil in upland areas that are in relative proximity to their source. Underground trenching will only occur within the Facility's fence and thus on areas that will not be immediately returned to agricultural use. As such topsoil stripping for underground trenches within the Facility fence is not proposed. Topsoil stripping is only proposed for surfaced roads where sub-surface grading is required. Where grading is not required, surfaced roads will be

Guideline	Facility Consistency
	<p>installed atop uncompacted native soil without disturbing the topsoil.</p> <p>Topsoil will be stripped from areas for the electric substations and any concrete foundations prior to compaction, as well temporary parking and laydown areas.</p>
<p>Any topsoil removed from permanently converted agricultural areas (e.g. permanent roads, etc.) should be temporarily stockpiled and eventually spread evenly in adjacent agricultural areas within the project Limits of Disturbance (LOD); however not to significantly alter the hydrology of the area. Clearly designate topsoil stockpile areas and topsoil disposal areas in the field and on construction drawings; changes or additions to the designated stockpile areas may be needed based on field conditions in consultation with the EM. Sufficient LOD (as designated on the site plan or by the EM) area should be allotted to allow adequate access to the stockpile for topsoil replacement during restoration.</p>	<p>Permanently converted agricultural areas will be limited to the substations, and topsoil from those areas will be stockpiled for use as topsoil within the Facility Area upon completion of construction. Stockpile areas will be identified and appropriately managed, and adequate work space will be accounted for to allow for use of the stockpiled topsoil in an appropriate manner. Surfaced access roads will be designed as New York State Department of Environmental Conservation (NYSDEC) Pervious Haul Roads which are designed to be installed atop uncompacted native soil without disturbing the topsoil.</p>
<p>Topsoil stockpiles on agricultural areas left in place prior to October 31st should be seeded with Aroostook Winter Rye or equivalent at an application rate of three bushels (168 lbs.) per acre and mulched with straw mulch at rate of two to three bales per 1000 square feet. Topsoil stockpiles left in place between October 31st and May 31st should be mulched with straw at a rate of two to three bales per 1000 square feet to prevent soil loss.</p>	<p>Appropriate seeding or mulching stabilization methods will be used for long-term stockpiles.</p>
<p>The surface of access roads located outside of the generation facility's security fence and constructed through agricultural fields shall be level with the adjacent field surface. If a level road design is not feasible, all access roads should be constructed to allow a farm crossing (for specific equipment and livestock) and to restore/ maintain original surface drainage patterns.</p>	<p>All surfaced access roads will be designed as NYSDC Pervious Haul Roads which maintain the original surface drainage patterns. Farm crossing is expected to be accommodated on all roads outside of the Facility security fencing.</p>
<p>Install culverts and/or waterbars to maintain or improve site specific natural drainage patterns.</p>	<p>Very limited grading is proposed in association with the Facility; the existing drainage patterns will generally be maintained.</p> <p>All surfaced access roads will be designed as NYSDC-approved Pervious Haul Roads to maintain existing drainage patterns. If required, culverts and waterbars will be installed to maintain natural drainage patterns. Culverts will be installed at ditch crossings.</p>

Guideline	Facility Consistency
Do not allow vehicles or equipment outside the planned LOD without the EM seeking prior approval from the landowner (and/or agricultural producer), and associated permit amendments as necessary. Limit all vehicle and equipment traffic, parking, and material storage to the access road and/or designated work areas, such as laydown areas, with the exception of the use of low ground pressure equipment. Where repeated temporary access is necessary across portions of agricultural areas outside of the security fence, preparation for such access should consist of either stripping/ stockpiling all topsoil linearly along the access road, or the use of timber matting.	While construction vehicles will be required to travel throughout the planned LOD, should other areas require access, appropriate measures will be implemented to minimize disruption and/or compaction.
Proposed permanent access should be established as soon as possible by removing topsoil according to the depth of topsoil as directed by the EM. Any extra topsoil removed from permanently converted areas (e.g. permanent roads, equipment pads, etc.) should be temporarily stockpiled and eventually spread evenly in adjacent agricultural areas within the project Limits of Disturbance (LOD); however not to significantly alter the hydrology of the area.	As noted above, where topsoil is stripped for permanent access roads, it will be separately stockpiled separate from other excavated material, for each particular work area, and subsequently returned to the ground surface for restoration. Surfaced access roads will be designed as NYSDEC Pervious Haul Roads which are designed to be installed atop uncompacted native soil without disturbing the topsoil.
When open-cut trenching is proposed, topsoil stripping is required from the work area adjacent to the trench (including segregated stockpile areas and equipment access). Trencher or road saw like equipment are not allowed for trench excavation in agricultural areas, as the equipment does not segregate topsoil from subsoil. Horizontal Directional Drilling (HDD) or equivalent installation that does not disrupt the soil profile, may limit agricultural ground disturbances. Any HDD drilling fluid inadvertently discharged must be removed from agricultural areas. Narrow open trenches less than 25 feet long involving a single directly buried conductor or conduit (as required) to connect short rows within the array, are exempt from topsoil segregation.	<p>Most of the planned trenches are anticipated to be relatively narrow (2-3 feet wide) and will typically be excavated using a narrow trenching machine or narrow backhoe. Stripping topsoil from these narrow areas will be impractical and cause additional, unnecessary disturbance and therefore it is not planned. In such areas, no significant surrounding work area would result that would also require consideration with regard to potential disturbance.</p> <p>However, for any open trenches wider than 6 feet, the topsoil will be stripped and stockpiled within the appropriate work area for replacing after closing the open trench.</p>
Electric collection, communication and transmission lines installed above ground can create long term interference with mechanized farming on agricultural land. Thus, interconnect conductors outside of the security fence must be buried in agricultural fields wherever practicable. Where overhead utility lines are required (including Points(s) of Interconnect) installation must be located outside field boundaries or along permanent access road(s) where ever possible. When overhead utilities must cross farmland, minimize	Facility electric interconnection cables will be installed underground to the maximum extent practicable. Only three aboveground lines across agricultural land are required and have been sited along the edge of existing fields and hedgerows to minimize encroachment into agricultural fields. Where not sited along edges, routing was developed to prevent disturbance of wetlands and streams.

Guideline	Facility Consistency
agricultural impacts by using taller structures that provide longer spanning distances and locate poles on field edges to the greatest extent practicable.	
All buried utilities located within the generation facility's security fence must have a minimum depth of 18-inches of cover if buried in a conduit and a minimum depth of 24 inches of cover if directly buried (e.g. not routed in conduit).	Facility construction will comply with this requirement. Low-voltage cables will be installed at a depth of 36 inches, while medium-voltage collector cables will be installed at a depth of 48 inches or more.
<p>The following requirements apply to all buried utilities located outside of the generation facility security fence:</p> <ul style="list-style-type: none"> • In cropland, hayland and improved pasture buried electric conductors must have a minimum depth of 48-inches of cover. In areas where the depth of soil over bedrock is less than 48-inches, the electric conductors must be buried below the surface of the bedrock if friable/rippable, or as near as possible to the surface of the bedrock. • In unimproved grazing areas or on land permanently devoted to pasture, the minimum depth of cover must be 36 inches. • Where electrical conductors are buried directly below the generation facility's access road or immediately adjacent (at road edge) to the access road, the minimum depth of cover must be 24-inches. Conductors must be close enough to the road edge as to be not subject to agricultural cultivation / sub-soiling. 	The only Facility-related utility connections located outside of the security fencing will be above-ground.
When buried utilities alter the natural stratification of soil horizons and natural soil drainage patterns, rectify the effects with measures such as subsurface intercept drain lines. Consult the local Soil and Water Conservation District concerning the type of intercept drain lines to install to prevent surface seeps and the seasonally prolonged saturation of the cable installation zone and adjacent areas. Install and/or repair all drain lines according to Natural Resources Conservation Service conservation practice standards and specifications. Drain tile must meet or exceed the American Association of State Highway and Transportation Officials (AASHTO) M-252 specifications. Repair of subsurface drains tiles should be consistent with the NYSDAM's details for " <i>Repair of Severed Tile Line</i> " found in the pipeline drawing A-5. ^b	Buried electric cables are not anticipated to alter the natural stratification of soil horizons and natural soil drainage patterns; therefore, measures such as subsurface intercept drain lines should not be required. Repair of subsurface drain tiles that were functioning prior to construction that are damaged by Facility construction will be consistent with this guideline subject to the civil engineered drainage plan.

Guideline	Facility Consistency
In pasture areas, it may be necessary to construct temporary fencing (in addition to the Project's permanent security fences) around work areas to prevent livestock access to active construction areas and areas undergoing restoration. For areas returning to pasture, temporary fencing will be required to delay the pasturing of livestock within the restored portion of the LOD until pasture areas are appropriately revegetated. Temporary fencing including the project's required temporary access for the associated fence installations should be included within the LOD as well as noted on the construction drawings. The Project Company will be responsible for maintaining the temporary fencing until the EM determines that the vegetation in the restored area is established and able to accommodate grazing. At such time, the Project Company should be responsible for removal of the temporary fences.	There are no active pasture areas located within the Facility Area. Therefore, this guideline is not applicable.

^ahttp://www.agriculture.ny.gov/ap/agsservices/Fertilizer_Lime_and_Seeding_Recommendations.pdf.

^b<http://www.agriculture.ny.gov/ap/agsservices/Pipeline-Drawings.pdf>.

Post-Construction Restoration Requirements

The following table outlines the Solar Energy Guidelines pertaining to post-construction restoration applicable to continued use agricultural areas that suffered ground disturbance due to construction activities, which NYSDAM points out are typically lands outside of the developed project's security fence. No work is anticipated outside of the proposed LOD, however, the Co-Applicants will adhere to these guidelines as appropriate.

Table 2. Restoration Requirements

Guideline	Consistency
All construction debris in active agricultural areas including pieces of wire, bolts, and other unused metal objects will need to be removed and properly disposed of as soon as practical to prevent mixing with any topsoil.	Facility personnel will follow appropriate work practices, which include collecting and properly disposing of wires, bolts, and other unused metal objects that may be encountered in the field.
Excess concrete will not be buried or left on the surface in active agricultural areas. Concrete trucks will be washed outside of active agricultural areas. Remove all excess subsoil and rock unearthed from construction related activities occurring in areas intended to return to agricultural use. On-site disposal of such materials is not permissible in active agricultural lands. Designated spoil disposal locations should be specified in the associated construction plans. If landowner agreements, LOD boundary, or Project's land use approvals do not allow for on-site disposal, material must be removed from the site.	Concrete trucks will be washed inside designated and controlled areas, as specified in the SWPPP. No excess materials will be left within land returning to active agricultural use.

Guideline	Consistency
Excess stripped topsoil shall not be utilized for fill within the project area. Any extra topsoil removed from permanently impacted areas (e.g. roads, equipment pads, etc.) should be evenly spread in adjacent agricultural areas, however not to significantly alter the hydrology of the area.	The Co-Applicants will follow this restoration requirement.
Regrade all access roads outside of the security fencing (as determined necessary by the EM), to allow for farm equipment crossing and restore original surface drainage patterns, or other drainage pattern incorporated into the design.	The Co-Applicants will follow this restoration requirement to the maximum extent practicable after consultation with the landowner. All surfaced access roads will be designed as NYSDEC Pervious Haul Roads which maintain the original surface drainage patterns.
Repair all surface or subsurface drainage structures damaged during construction as close to preconstruction conditions as possible, unless said structures are to be removed as part of the project design. Correct any surface or subsurface drainage problems resulting from construction of the solar energy project with the appropriate mitigation as determined by the EM, Soil and Water Conservation District and the Landowner.	Care will be taken to avoid disruption of any existing drainage features, and Facility stormwater management has been designed to avoid downstream impacts. Consideration for the need for corrected measures will occur as part of decommissioning or as identified through the complaint process.
On agricultural land needing restoration because of ground disturbance, postpone any restoration practices until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration must not be conducted while soils are in a wet or plastic state of consistency. Stockpiled topsoil must not be regraded and subsoil must not be decompacted until plasticity, as determined by the Atterberg field test, is adequately reduced. No permanent project restoration activities shall occur in agricultural areas between the months of October through May unless favorable soil moisture conditions exist.	Restoration activities will only occur during favorable conditions, to the maximum extent practicable.
In all continued use agricultural land where the topsoil was stripped, subsoil decompaction shall be conducted prior to topsoil replacement. Following construction, all such areas will be decompacted to a depth of 18 inches with a tractor mounted deep ripper or heavy-duty chisel plow. Soil compaction results shall be no more than 250 pounds per square inch (PSI) throughout the decompacted 18 inches as measured with a soil penetrometer. Following decompaction, all rocks 4 inches and larger in size unearthed from decompaction will be removed from the surface of the subsoil prior to replacement of the topsoil. The topsoil will be replaced to original depth and the original contours will be reestablished where possible. All rocks 4 inches and larger from topsoil shall be removed from the surface of the topsoil.	As noted herein, no areas within the LOD identified for the Facility Area (approximately 379 acres, which are all within the Facility's security fence) are intended to return to agricultural use prior to decommissioning. Land, including agricultural lands, not included within the LOD will not be disturbed; such land includes the approximately 219 acres outside the Facility's security fence that will be available for continued agricultural use.

Guideline	Consistency
<p>Subsoil decompaction and topsoil replacement must be avoided after October 1, unless approved on a site-specific basis by the landowner in consultation with NYSDAM. All parties involved must be cognizant that areas restored after October 1st may not obtain sufficient growth for stabilization to prevent erosion over the winter months. If areas are to be restored after October 1st, necessary provision must be made to prevent potential springtime erosion, as well as restore any eroded areas in the springtime, to establish proper growth. Excess stripped topsoil shall be evenly spread in an adjacent project areas, or adjacent agricultural areas (within the LOD), however, not to significantly alter the hydrology of the area.</p>	<p>Topsoil material removed from the temporary parking and laydown areas not planned for Facility components will be replaced during restoration activities. If restoration activities must occur under inclement conditions, additional provisions will be undertaken to prevent erosion, consistent with the Facility SWPPP.</p>
<p>In all continued use agricultural areas where the topsoil was not stripped, including timber matted areas, the EM shall determine appropriate activities to return the area to agricultural use. These activities may include decompaction, rock removal, and revegetation. Soil compaction should be tested in the affected areas and the affected area's adjacent undisturbed areas using an appropriate soil penetrometer or other soil compaction measuring device as soon as soils achieve moisture equilibrium with adjacent unaffected areas. Compaction tests will be made at regular intervals of distance throughout the affected areas, including each soil type identified within the affected areas. Soil compaction results shall be measured with a soil penetrometer not exceeding more than 250 pounds per square inch (PSI), by comparing probing depths of both the affected and unaffected areas. Where representative soil density of the affected area's collective depth measurements present compaction restrictions exceeding an acceptable deviation of no more than 20% from the adjacent undisturbed area's mean soil density, additional decompaction may be required to a depth of 18-inches with a tractor mounted deep ripper or heavy-duty chisel plow. Following decompaction, remove all rocks unearthed from decompaction activities 4 inches and larger in size from the surface. Revegetation shall be performed in accordance with the instructions below.</p>	<p>Approximately 379 acres within the Facility Area is not planned for a return to agricultural use until decommissioning. Activities to prepare the land for return to agricultural use will be determined using best practices available at the time decommissioning commences. All agricultural areas outside of this area will not be disturbed and available for continued agricultural use.</p>
<p>Seed all agricultural areas from which the vegetation was removed or destroyed with the seed mix specified by the landowner/agricultural producer or as otherwise recommended in the NYSDAM's fertilizer, lime and seeding guideline. ^a</p>	<p>Vegetation is not anticipated to be removed outside of the Facility LOD.</p>
<p>Soil amendments should be applied as necessary so that restored agricultural areas' soil properties, at minimum, reasonably reflect the pre-construction soil test results or as otherwise agreed to by the involved parties to ensure continued agricultural use. All parties must be cognizant that areas</p>	<p>Revegetation is not anticipated to be necessary in areas outside of the Facility LOD.</p>

Guideline	Consistency
restored after October 1 st may not obtain sufficient growth to prevent erosion over the winter months. If areas are to be restored after October 1 st , necessary provisions must be made to restore and/or re-seed any eroded or poorly germinated areas in the springtime, to establish proper growth.	

Monitoring and Remediation Requirements

The following table outlines the Solar Energy Guidelines pertaining to monitoring and remediation. These requirements apply after desired crops are planted. Because it is anticipated that 219 acres may continue to be available for agricultural purposes, these guidelines would have the potential to apply to such areas. For the LOD within the fence, these requirements would not apply until after Facility decommissioning.

Table 3. Monitoring and Remediation Requirements

Guideline	Consistency
<p>Project Companies shall provide a monitoring and remediation period of one complete growing season following the date upon which the desired crop is planted. All projects subject to NYS Public Service Law Article 10 will provide a monitoring period of two complete growing seasons following the date upon which the project achieves the establishment of the desired crop.</p> <p>On site monitoring shall be conducted seasonally at least three times during the growing season (Spring, Summer, Fall). Monitoring is required to identify any remaining impacts directly associate with the construction of the project on agricultural lands proposed to remain or resume agriculture production, including the effects of climatic cycles such as frost action, precipitation and growing seasons to occur, from which various monitoring observations can be made. NYSDAM expects the Project Company (or its contractor) to retain the EM for follow-up monitoring and remediation (as needed) in agricultural areas. Monitoring is limited to the restored agricultural area. Non-project related impacts affecting the restored project area will be discussed with NYSDAM staff and considered for omission from future monitoring and remediation. The EM is expected to record the following observations from onsite inspection.</p>	<p>The Co-Applicants will coordinate with the landowner to monitor the agricultural fields in the Facility Area that may be returning to agricultural production for two complete growing seasons in accordance with this guideline.</p>
<p>General conditions to be monitored are topsoil thickness and trench settling, excessive rock, soil compaction, drainage, and agriculture fencing and gates.</p>	<p>Following Facility decommissioning, the Co-Applicants will monitor the Facility Area for the two complete growing seasons in accordance with this guideline.</p>
<p>Topsoil Thickness and Trench Settling – The EM observations may require small hand dug holes to observe the percentage of settled topsoil in areas where the topsoil was stripped, or trenching was performed without stripping topsoil. Observations</p>	<p>The Co-Applicants will work with the landowner to mitigate topsoil deficiency in restoration areas.</p>

Guideline	Consistency
<p>concerning depth of topsoil deficiencies shall require further remediation by re-appropriating additional topsoil. Acceptable materials for remediation are: known areas of native excess topsoil (according to records of project specific excess topsoil disposal spread within the original LOD) or imported topsoil free of invasive species that is consistent with the quality of topsoil on the affected site.</p>	
<p>Excessive Rock (>4-inches) - Determined by a visual inspection of disturbed areas as compared to unaffected portions of the same field located outside the construction area. Observations concerning excess stone material in comparison to off-site conditions shall require further remediation including removal and disposal of all excess rocks and large stones.</p>	<p>If visual inspections observe that disturbed areas contain excess stone material in comparison to off-site conditions, excess rocks and large stones will be removed to the maximum extent practicable.</p>
<p>Soil Compaction - Project affected agricultural soils should be tested using an appropriate soil penetrometer or other soil compaction measuring device. Compaction tests will be made at regular intervals of distance throughout the access or work areas, including each soil type identified on the affected agricultural areas. Where representative soil density of the affected area exceeds the representative soil density of the unaffected areas, additional decompaction may be required. Consultation with NYSDAM staff and the agricultural producer(s) should be conducted prior to scheduling additional decompaction. If warranted, decompaction to a depth of 18-inches with a tractor mounted deep ripper or heavy-duty chisel plow. Restoration of displaced topsoil to original depth and re-establish original contours where possible. Decompaction deep shattering will be applied during periods of relatively low soil moisture to ensure the desired mitigation and to prevent additional soil compaction. Oversized stone/rock (Four-inches) material that is uplifted/unearthed to the surface as a result of the deep shattering will be removed.</p>	<p>In restored agricultural areas outside of the Facility LOD, the Co-Applicants will work with the landowner to determine the need for decompaction and implement best practices at the time decommissioning commences.</p>
<p>Drainage – The EM shall visually inspect the restored agricultural areas in search of pervasive stunted crop growth due to seasonal saturation, not previously experienced at the site and not resulting from the agricultural producer's irrigation management or due to excessive rainfall. Identified areas of stunted crop growth shall be compared to the nearest undisturbed adjacent areas under a substantially equivalent terrain and crop management plan. Drainage observations should be evaluated to determine if the project affected surface or sub-surface drainage during construction or restoration. Project caused drainage issues affecting or likely to reduce crop productivity of the adjacent areas will have to be</p>	<p>The Co-Applicants will mitigate Facility-caused drainage issues affecting or likely to reduce crop productivity in areas outside of the Facility LOD. The Facility design is intended to maintain existing drainage patterns and will reduce overall drainage as outlined in the SWPPP.</p>

Guideline	Consistency
remediated via a positive surface drainage, sub-surface drainage repair or an equivalent.	
Agriculture Fencing and Gates – The EM shall inspect Project associated fencing and gates (installed, altered or repaired) within the Project's LOD associated with agricultural activities for function and longevity. The Project Company is responsible during the Monitoring and Remediation Phase for maintaining the integrity of Project associated fencing and gates.	No existing agricultural fencing or gates that would later remain in use are anticipated to be altered as a result of the Facility.
<p>The Project Company (or its contractor) shall consolidate each applicable growing season's observations into an annual report during the monitoring period and shall be provided upon request to NYSDAM. Annual reports should include date stamped photographs illustrating crop growth in comparison with unaffected portions of the agriculture areas. The EM shall record observations of the establishment of the desired crop and subsequent crop productivity within restored agricultural areas and shall be evaluated by comparing its productivity to that of the nearest adjacent undisturbed agricultural land of similar crop type within the same field. If a decline in crop productivity is apparent the Project Company as well as other appropriate parties must determine whether the decline is due to project activities. If project activities are determined to be the primary detrimental factor, the project EM will notify NYSDAM concerning unsuccessful restoration and to potentially schedule a NYSDAM staff field visit. If project restoration is determined to be insufficient, the Project Company will develop a plan for appropriate rehabilitation measures to be implemented. NYSDAM staff will review and approve said plan prior to implementation. Additional monitoring may be required depending on additional restoration activities needed.</p> <p>The Project Company is not responsible for site conditions and/or potential damages attributable to the agricultural producer's land use management or others' land use management.</p>	Annual reports, as required, will be provided for the identified two complete growing seasons. If required, the Co-Applicants will develop a plan for appropriate rehabilitation measures to be implemented. NYSDAM staff will review and approve said plan prior to implementation. Additional monitoring may be required depending on additional restoration activities needed.

Decommissioning Requirements

The following table outlines the Solar Energy Guidelines pertaining to decommissioning. The operational life of the Facility is anticipated to be approximately 35–40 years. During Facility operation, no portion of the Facility Area will be used for agricultural cropland. Upon Facility decommissioning, the Facility Area will be substantially restored to pre-construction conditions, in coordination with the landowner. Therefore, overall site restoration and remediation and monitoring activities are not practicable until Facility decommissioning. During decommissioning, an EM will be designated to oversee on-site activities, in accordance with the NYSDAM Guidelines.

Table 4. Decommissioning Requirements

Guideline	Consistency
<p>If the operation of the generation facility is permanently discontinued, remove all above ground structures (including panels, racking, signage, equipment pad, security fencing) and underground utilities if less than 48-inches deep. All concrete piers, footers, or other supports must be removed to a depth of 48 inches below the soil surface. The following requirements apply to electric conductors located at the respective range of depth below the surface:</p> <p>48-inches plus: All underground electric conduits and direct buried conductors may be abandoned in place. Applicable conduit risers must be removed, and abandoned conduit must be sealed or capped to avoid a potential to direct subsurface drainage onto neighboring land uses.</p> <p>Less than 48-inches: All underground direct buried electric conductors and conductors in conduit and associated conduit with less than 48-inches of cover must be removed, by means of causing the least amount of disturbance as possible.</p> <p>Access roads in agricultural areas must be removed, unless otherwise specified by the landowner. If access is to be removed, topsoil will have to be returned from recorded project excess native topsoil disposal areas, if present, or imported topsoil free of invasive species that is consistent with the quality of the topsoil on the affected site. Restore all areas intended for agricultural production, according to recommendations by the current landowner or leasing agricultural producer, and as required by any applicable permit, the Soil and Water Conservation District, and NYSDAM.</p>	<p>At the conclusion of the Facility's operational life, the Decommissioning Plan, a preliminary version of which is provided as Appendix 29-A to the Article 10 Application, will be updated and implemented accordingly.</p> <p>The Co-Applicants will coordinate with the landowner and consult with the local Soil and Water District and NYSDAM.</p> <p>If the Facility Area will return to agricultural use, all Facility-related aboveground structures will be removed from within previously agricultural areas upon Facility decommissioning and site restoration. The low voltage underground cables planned at a depth of about 36 inches will be pulled out and removed while the deeper medium voltage cables planned at about 48 inches depth will be difficult to remove and therefore will be abandoned in place. Cable and conduit stub ups will be cut at least 30 inches below ground, which is not expected to interfere with future agricultural activities</p> <p>The Co-Applicants will coordinate with the landowner to decide which access roads will remain and which will be removed. Where roads are removed, appropriate topsoil conditions will be restored in areas returning to agricultural use.</p>
Monitoring and restoration requirements in accordance to the prior sections of these guidelines, will be required for the decommissioning restoration. NYSDAM requires notice before the Project Company undertakes decommissioning.	The Co-Applicants will notify NYSDAM prior to decommissioning, and will complete two complete growing seasons of monitoring, and applicable restoration as defined above.

Facility Consistency with NYSDAM Restoration of Farmland Guidelines

Fertilizer, lime and seeding guidelines are identified for use in restoration associated with construction projects. Because approximately 379 acres within the Facility Area will not return to active agricultural use during Facility operation, the seeding for specific support of that purpose within this area will not be implemented until decommissioning. However, the Facility will utilize appropriate seeding, supported by fertilizer as necessary, to conform with its SWPPP and result in stabilized ground surface for both temporary and permanent cover. Seeding mixes have been specifically identified in the SWPPP that will provide for stabilization, ground cover, low maintenance, and invasives control.

Facility Consistency with NYSDAM Pipeline Right-of-Way Guidelines

Consideration of the NYSDAM pipeline ROW guidelines has been applied to elements of the Facility that involve underground trenching, such as the underground collection system. In general, the measures identified in this set of guidelines has been reflected in the Solar Energy Guidelines for which consistency has been detailed above. Relevant information from each section of the NYSDAM pipeline ROW guidelines is summarized below, along with information about the Facility's plans to address applicable guidelines.

- 1.0 Introduction – This section recommends avoidance or special practices for construction in agricultural organic muckland soils; no agricultural organic muckland soils are mapped within the Facility Area.
- 2.0 Planning – This section speaks to development of the Environmental Management and Construction Plan (EM&CP) and identifies the need for a designated qualified individual to provide oversight. As discussed above, the HSE manager will be designed as the qualified individual to support work in agricultural areas. Mapping and planning for specific work areas is occurring as a part of the Article 10 review and the subsequent Compliance Filing process. Depth of cover requirements that are identified in this section are consistent with those specified for solar energy projects.
- 3.0 Construction/Restoration – This section outlines various best management practices to minimize impacts during construction and provide for agricultural topsoil protection. Trench breakers are not anticipated to be required for the Facility's trenching; topsoil stockpiling is discussed above; issues limiting ROW widths would not be relevant, as other Facility components will be using the other areas within the limits of disturbance and active agricultural use would not continue on the Facility Area until decommissioning; no significant effect to subsoils is anticipated; no blasting will be required; topsoil will not be used as backfill; appropriate crowning will occur for trenching locations; and significantly compacted subsoil will not result.
- 4.0 Two Year Monitoring and Remediation – Because the Facility Area will be used for solar generation until Facility decommissioning, the two-year monitoring commitment would follow Facility Area restoration, as noted in Table 4. Communication access will be available to allow for contact with the Co-Applicants throughout construction and operation.

Facility Consistency with NYSDEC Electric Transmission Right-of-Way Guidelines

NYSDAM's electric transmission ROW guidelines would be considered for the proposed above-ground electrical lines. Agricultural monitoring is required for such areas; as noted above, the HSE manager will serve that role for the Facility. As also discussed above, the placement of structures has prioritized upland areas along the edges of agricultural fields. No separate construction entrances are required for the electrical feeder lines, and construction access and duration will be limited within the proposed ROW. Active agriculture will not be occurring within LOD identified for the Facility Area once construction commences. Measures for addressing soil compaction and other restoration measures are discussed above relative to consistency with the Solar Energy Guidelines. The two-year monitoring period would follow Facility decommissioning for confirmation of adequate restoration.

Conclusions

As summarized above, the Facility will be consistent with the NYSDAM Guidelines to the maximum extent practicable. Although the Facility is proposed on land that is currently in agricultural use, the Facility has been designed within a consolidated, contained/fenced area and no crops will be farmed amongst or between the operational photovoltaic solar arrays. Any areas intended for agricultural production after decommissioning will be restored in accordance with the NYSDAM guidelines. If applicable guidelines from the NYSDAM Guidelines cannot be met, the Co-Applicants will contact NYSDAM to discuss reasonable alternatives.



Greene County Solar Facility

Case No. 17-F-0617

Appendix 4-E

Flach Media Article

My View: Solar saves farms

Hudson Valley 360- July 31, 2018

I am a farmer. My parents were farmers. My grandparents were farmers. My family began farming in Cossackie in 1979 when my father bought land from a local farmer who had gone out of business.

Today, I am proud to be actively farming land our family has been cultivating for nearly four decades.

Over the years, agriculture in our community has changed a lot. I remember a time when there were more than a dozen farms on Farm to Market Road. Today, our family farm is one of only two farms on that road.

To keep their farms viable, farmers constantly face make-or-break decisions about how to use their land. From the beginning of my life in agriculture, I've known that it's tough to make a living in farming. Once, my father had to sell 35 acres to pay property taxes, so he could keep the rest of our farm operating. Over the years, it has only gotten tougher as competition in national and international markets increasingly affects our bottom line.

For many farmers, here in the Hudson Valley and elsewhere, the prices they get for their product simply isn't enough to keep farming. So, they sell their farmland to developers of residential subdivisions, golf courses and other non-agricultural uses.

As my family considered ways to keep farming, we discovered the opportunity to turn part of our farm into a solar farm. Hecate Energy, which has developed solar farms across the nation, proposed building a 50-megawatt solar photovoltaic facility here in Greene County. That proposal, which would only use about one-third of our 1,200-acre property, will sustain our family farm for future generations while cultivating the growth of green power in Greene County.

I've worked hard all my life to keep our farm viable and our land productive. My family is committed to keeping our community a great place to live and work. I trust Hecate Energy shares that commitment.

Hecate Energy is listening to community interests and the company has already made significant changes to the scope and layout of the solar farm. Besides helping to keep our family farm viable, Hecate Energy is looking at ways to mix agriculture into the solar farm's operations.



In some parts of the country, solar farms provide grazing land for sheep that help manage the vegetation and eliminate the need for mowing. I've also heard of solar farms planting wildflowers and pollinator-friendly vegetation, and even growing crops among the arrays of solar panels.

I'm for that. But the proposal to build this solar farm isn't just about saving our family farm. It's also about bringing a lot of other economic, environmental and energy benefits to our community.

The developers of the solar farm, Hecate Energy, will provide millions of dollars in new payments to the village, town, county and local school district — revenues that will be many times greater than the property taxes currently being paid on that land. In addition, Hecate Energy will provide dedicated funds to support the local fire department, the ambulance service and the community library.

Hundreds of new jobs will be created by the development and construction of the solar farm. And when it's up and running, there will be employment opportunities in maintenance and operation. The economic activity from the solar farm's construction will also boost business at local stores, restaurants, lodging and gas stations.

The solar farm's clean energy will help to protect air and water quality from the pollution produced by other forms of electricity generation. In addition, as price of electricity from other sources increases when their fuel costs increase, solar energy — with its free energy from the sun — will help to hold down overall power costs.

So, this solar farm will not only help save our farm, it will serve our community by contributing new revenues to the coffers of local government, schools and other public services, by boosting prosperity with new jobs and investment, and by protecting natural resources with clean, renewable electric energy.

Over the years, my family has consistently demonstrated our commitment to protecting and improving the quality of life in Coxsackie as we've preserved our farm and the benefits it provides. I believe the proposed solar farm will likewise benefit our community and help to sustain our way of life.

It's just this simple: Solar saves farms and serves communities.

Mark Flach is a third-generation farmer in Coxsackie. He and his family have operated F&M farms in Coxsackie since the 1970s. He currently is working with the developers of the Greene County Solar Farm off Farm-to-Market road to place solar panels on one-third of his farmland so he and his family can afford to continue farming the other two-thirds of their land.

<https://www.hudsonvalley360.com/article/my-view-solar-saves-farms>



Greene County Solar Facility

Case No. 17-F-0619

1001.5 Exhibit 5

Electric System Effects

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EXHIBIT 5 Electric System Effects

This Exhibit addresses the requirements specified in Stipulation 5 and, therefore, the requirements of 16 NYCRR § 1001.05. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 5.

This Exhibit provides a description of each proposed solar collection substation and associated electric interconnection facilities, the results of the completed New York Independent System Operator (NYISO) System Impact Studies (SISs), including a summary of potential impacts to the New York State (the State) transmission system reliability and changes to the total transfer capabilities across affected interfaces. This Exhibit provides a description of the criteria, standards, and protocols to which the Facility, collection substations, and interconnection design will need to adhere, and provides maintenance and management plans associated with the Facility collection substations.

The Co-Applicants will have responsibility for vegetation management for all facilities and equipment owned by the Co-Applicants. Any new or existing facilities owned by Central Hudson Gas and Electric Corporation (CHGE), will be handled by CHGE in accordance with vegetation management plans approved by the New York State Public Service Commission.

(a) System Impact Study

The Greene County Solar Facility (Facility), located entirely within Greene County, will be interconnected to the State transmission system. The points of interconnection for the Facility will be on CHGE's 69 kilovolt (kV) transmission line that extends between the existing North Catskill and Cocksackie Substations. Forty (40) MWs of the Facility will connect to the CHGE line via two substations located on the western side of the Facility Area where the CHGE 69kV line is located. Forty (40) MWs of the Facility was evaluated by NYISO through its interconnection queue process as queues #572 and #597. Ten (10) MWs of the Facility will connect via a new CHGE feeder line that will run from the northern edge of the Facility Area to the Cocksackie Substation that is connected to the CHGE 69kV line and was evaluated by NYISO as queue #573.

Due to the proximity of the proposed Facility elements (Queue Nos. Q572, Q573, and Q597) the NYISO has determined that it was necessary to evaluate the Facility pursuant to the clustering provisions of Attachment Z to the NYISO Open Access Transmission Tariff (OATT). Therefore, The NYISO evaluated the three queue positions (Q572, Q573, Q597) together as a cluster per section 32.1.6 of the OATT, to determine its collective impact, and to confirm that no adverse reliability impacts resulted.

NYISO conducted the system impact study (SIS) for the Facility in accordance with the Applicable Reliability Standards set forth under Attachment Z of OATT, and concluded that the Facility will have no significant or adverse impact on the State transmission system's reliability. Results of this study are summarized below.

- Steady-State Analysis (N-0 & N-1): For the studied summer and winter system conditions, the steady-state analysis did not identify any thermal or voltage violations caused or worsened by the Facility.
- For the Sensitivity case with Cocksackie and South Cairo generators in-service, the Facility caused some thermal overloads on the North Catskill 115-69 kV transformers, sections of the Hurley Ave-Saugerties – North Catskill 69 kV lines, and the Cocksackie 69-13.8 kV transformer which are to be addressed as follows:
 - CHGE has a Local Transmission Plan project to replace the North Catskill 115-69 kV transformers and rebuild the Hurley Ave – North Catskill 69 kV line to operate at 115 kV by the end of 2022. As such, no upgrades are required to mitigate these overloads under the

Minimum Interconnection Standard (MIS).

- A Distribution Upgrade is planned to replace the Cossackie transformer with a larger transformer.
- Local Distribution Analysis: Results indicate that the voltage fluctuations are within CHGE's 2 percent limit.
- Stability Analysis: Stability simulations showed that the system remained stable and positively damped for all contingencies tested following the addition of the Facility.
- Short-Circuit Analysis: Short-circuit analysis identified some substations near the Facility POI where the fault currents increased by 100 amps or more due to the addition of the Facility; however, these fault currents did not exceed the respective lowest breaker ratings at the substations.

(b) Evaluation of Potential Significant Impacts of Facility and Interconnection

As summarized in Exhibit 5(a), the results of the SIS assessment conducted for the Facility show that the Facility will have no significant or adverse impact on the State transmission system's reliability. This conclusion assumes that the Facility will be operated in accordance with all applicable requirements, including Article 10 Certificate conditions and NYISO operational procedures. The Facility will be operated in a manner that does not negatively impact the State transmission system; this may include dispatching patterns that eliminate potential reliability issues that may exist during certain system contingency conditions.

(c) Effects of Facility on Ancillary Services and the Electric Transmission System

The SIS assessment shows the Facility will not have any significant adverse impact to the State transmission system. For the studied summer and winter system conditions, the steady-state (N-0 and N-1) analysis did not identify any voltage violations caused or worsened by the Facility.

(d) Reasonable Alternatives to Mitigate the Adverse Reliability Impacts

Under the MIS requirements, any potential adverse reliability impact identified by the SIS that can be managed through the normal operating procedures of the NYISO, will not be identified as a degradation of system reliability or noncompliance with North American Electric Reliability Corporation, Northeast Power Coordinating Council, or New York State Reliability Council reliability standards. It is anticipated that the Facility will be subject to, and shall abide by, the applicable NYISO operating procedures (e.g., security constrained economic dispatch, meaning that pre-contingency the system will be dispatched at all times in such way as to not violate the post-contingency applicable limits). Consequently, under the NYISO MIS requirements, no System Upgrade Facilities other than planned minor local upgrades are required. The Facility does not present any significant adverse impacts to the reliability of the affected transmission systems.

(e) Estimate of Increase in Total Transfer Capacity

The SIS assessment did not identify any changes to the total transfer capacity across any interfaces that would result from interconnection and/or operation of the Facility.

(f) Description of Criteria, Plans, and Protocols for Generation and Ancillary Facilities Design, Construction, Commissioning, and Operation

The Co-Applicants intend to contract with an engineering, procurement, and construction (EPC) contractor(s) to design, build, and commission the Facility. The Co-Applicants shall require their consultants and contractors to engineer, construct, and commission the Facility in compliance with all applicable federal, state, and local building codes and requirements adopted by the applicable agencies having jurisdiction. The Facility will be constructed based on New York State Professional Engineer-stamped drawings.

(1) Engineering Codes, Standards, Guidelines and Practices

The Co-Applicants will require that the Facility to be designed, constructed, tested, and operated and maintained to meet the requirements of Facility agreements, including the planned electrical Interconnection Agreement, as well as applicable requirements and standards of American Society for Testing and Materials International, the American Society of Mechanical Engineers, the American Society of Civil Engineers, the Institute of Electrical and Electronics Engineers, the Occupational Safety and Health Administration, and the Uniform Building Code. Upon completion of Facility construction and commissioning, the Co-Applicant's EPC contractor(s) will provide to the Co-Applicants a certificate that documents that the work was completed in compliance with Facility agreements and applicable codes and standards.

It is anticipated that Interconnection Agreements will require the Facility to comply with applicable CHGE standards, including:

- Central Hudson, "115 and 69 kV System Protection Design Guide," June 30, 2010;
- Central Hudson, "Substation Shunt Capacitor Protection Guide," June 7, 1993;
- Central Hudson, "Interconnection Protection Requirements for Distributed Generators of Greater than 300 kVA Connected in Parallel with the CHGE Electric Delivery System," May 5, 2002;
- NYISO, "Control Center Requirements," Version 3.0, March 28, 2014;
- NYISO, "Direct Communications Manual," Version 3.0.1, August 17, 2017;
- New York State Electric Meter Engineers' Committee. "Guide for Uniform Practice in Revenue Quality Metering," Rev. 4, August 20, 2003;
- New York State Public Service Commission, "Approved Meter List," Latest Revision;
- NYISO, "Revenue Metering Requirements Manual," Version 2.0, March 11, 2019;
- Central Hudson, "Manual of Safe Practices";
 - Section 12, December 10, 1982
 - Section 14, March 20, 2013
- Central Hudson, "Standards for MOV Arresters Application for Central Hudson," S.R. 89-16, October 1, 1989;
- NYISO, "Emergency Operations Manual," Version 7.5. April 1, 2019;
- Central Hudson, "Transmission Facility Ratings Methodology," Rev. 3, May 17, 2016;
- NYPP Tie-Line Ratings Task Force, Final Report on Tie-Line Ratings 1995, November 1995;
- NYISO, "Outage Scheduling Manual," Version 4.9, May 3, 2019;
- Central Hudson, "Customer Request Form to De-Energize Transmission Service";
- NYISO, "Transmission and Dispatching Operations Manual," Version 4.1; and

- NYISO, “System Restoration Manual,” Version 4.3, April 12, 2017.

(2) Certification for Representative Technology Type Being Considered

The materials and equipment used in the final Facility configuration will be new and will meet applicable requirements. The equipment will be investment-grade to facilitate the long-term, reliable operation of the Facility. Type certification, as commonly provided for wind turbines, is not applicable for photovoltaic (PV) solar power equipment; however, some equipment, such as the PV modules or the inverters, may be listed per the requirements of the National Electric Code. Several PV module and inverter suppliers will be considered. Appendix 5-B presents a listing certificate for a representative inverter that may be considered for the Facility. Final selection of the major solar equipment will be completed prior to construction and will depend on a variety of factors including market conditions; all equipment must comply with the applicable standards and requirements, including any applicable Article 10 certificate conditions .

(3) Procedures and Controls for Facility Inspection, Testing, and Commissioning

Successful Facility operation starts with a thorough and comprehensive Facility commissioning effort. Visual and test-based verification of components and wiring during Facility construction, as well as prior to Facility energization, will be performed. These data sets will serve as benchmarks for the future system checks during Facility operation.

The system checkout, testing, and commissioning of the Facility will comply with the applicable NYISO and CHGE utility requirements. The commissioning team will manage and oversee the Facility commissioning and document the results of the tests. Anomalies uncovered in these tests may be investigated and corrected as necessary. Where required, the tests will be performed using certified calibrated equipment. The test reports will be compiled and saved for the owner review and archived for reference during Facility operation. Overall Facility performance testing will be conducted, including applicable measurements, field observations, weather conditions, calculations, and correction factors to demonstrate that the Facility meets the owner’s performance requirements and is ready for reliable operation. The checkout and commissioning tasks conducted for the Facility and the collection substation may include:

- Visual and mechanical inspections of all equipment, structures, and systems;
- As-built verifications;
- Checkout and commissioning of the power inverter skids according to the manufacturer requirements;
- Electrical cabling testing (continuity, megger, phase rotation, etc.);
- Direct current string testing, open circuit voltage testing, and operating current testing;
- Verification of latest firmware on inverters, trackers, and data acquisition system;
- Checkout and commissioning of trackers according to manufacturer’s requirements;
- Infrared scans of key equipment and combiner boxes according to owner’s requirements;
- Checkout and commissioning of medium and high voltage transformers including dissolved gas analysis oil sample testing;
- High-potential testing of major high voltage equipment;
- Substation Supervisory Control and Data Acquisition and relay protection checks;
- Substation grounding checks;

- Commissioning of Facility's data acquisition system remote communication system; and
- Facility reliability and performance testing.

(4) Maintenance and Management Plans, Procedures and Criteria

Facility maintenance and management plans, procedures, and criteria are described in Exhibit 5(i). Management of the Facility involves various aspects, including:

- Operating and maintaining the Facility;
- Compliance with Facility contracts;
- Compliance with the Article 10 Certificate, laws, regulations, and Facility permits and approvals;
- Facility dispatch and energy market participation;
- Accounting and budget control; and
- Regulatory and public stakeholder engagement.

The Co-Applicants will have overall responsibility for managing the Facility. The Co-Applicants may engage contractors, consultants, and other parties to manage different aspects of overall Facility management; however, the Co-Applicants will oversee contractual and regulatory compliance.

The Facility will normally be unstaffed except for routine inspections; planned and unplanned maintenance; and other on-site work. The Facility will be designed with industry standard protections and fail-safe shutdown features. The Facility will be remotely monitored and controlled by the Operations and Management Service Provider (OSP) staff located at the OSP's control center (the location of the OSP control center will be determined upon selection of the OSP, prior to operation). The OSP will actively monitor and control the Facility during daytime hours and be on-call for emergency responses during nighttime hours.

Facility Operations and Management (O&M) activities will be supported by a network of local support staff and subcontractors. The OSP will ensure all O&M is conducted in compliance with the equipment warranties and, when necessary, may pursue the equipment suppliers to satisfy warranty claims.

Facility O&M activities will be limited to within the Facility Area. The Facility O&M activities will not include any work on or near any off-site high-voltage transmission facilities. No O&M work is proposed within public ROWs.

The Co-Applicants will require the OSP to operate the Facility in compliance with the applicable requirements of the NYISO and CHGE standards as further discussed in Exhibit 5(f)(1).

(g) Thermal Component of Facility

As there is no thermal component associated with the Facility, this section is not applicable.

(h) Collection Substations

(1) The Solar Substations and Switchyard Facilities

The Co-Applicants will have an oversight role of its consultants and contractors to ensure the Facility complies with the applicable requirements. The Co-Applicants may implement that oversight role through a combination of in-house staff and technical/project management consultants. The oversight team will conduct periodic reviews of the design and implementation and receive regular implementation reports from the contractors. Upon completion of construction and testing of the Facility, the EPC contractors will provide

to the Co-Applicants a certificate documenting that the work was done in accordance with the applicable requirements of the Facility Article 10 Certificate, agreements, standards, and permits.

(2) Substation, Switchyard, and Interconnection Design for Transmission Requirements

The design of the collection substations and associated facilities will be closely coordinated between the Facility engineer and the utility's engineering team. The Facility engineer will ensure all applicable utility requirements are addressed in the design. Prior to startup, the Facility engineer and utility engineers will coordinate the protection relay settings at the Facility substations and the remote substations to ensure the settings and logic meet the utility requirements and are coordinated to properly work in conjunction. Upon completion of the installation, the Facility engineer will ensure the final as-built drawings of the collection substations are provided to the utility in accordance with the interconnection agreements.

(3) Operational and Maintenance Responsibilities

CHGE will be responsible for the O&M of the regional electric system upgrades and the new interconnect facilities required for the Facility. The Co-Applicants will be responsible for the O&M of the collection substations, per Exhibit 5(i). The CHGE interconnect facilities will consist of one to two new towers or poles located within the existing utility ROW, plus a new 69 kV half-breaker substation near the Facility's on-site collection substations; all features associated with the interconnection are proposed within the Facility Area. An access easement may be required across the Facility Area in order to allow CHGE access to the collection substations and the utility interconnect facilities. The final arrangement will be determined in the during the final design by CHGE.

(i) Facility Maintenance, Management, Procedures, and Criteria

The Co-Applicants intend to hire an experienced OSP or use its in-house organization to operate and maintain the Facility, which includes all solar power systems; PV modules; trackers; inverters; control and monitoring systems; collection substation and Substation Supervisory Control and Data Acquisition; direct current and alternating current cable systems; on-site access pathways; fencing; grounds and vegetation management; security; substation lighting equipment; safety; stormwater and erosion control management features; and general site conditions. The Co-Applicants will maintain overall responsibility for the Facility's compliance with the Facility Article 10 Certificate, agreements, and permits. The OSP may hire subcontractors and labor to perform various O&M tasks required, such as landscaping, vegetation management, security, inspection services, environmental inspections, operations control, monitoring, communications, and other tasks.

(1) Maintenance of Substation and Electrical Transmission Components

Maintenance of the collection substations and electrical transmission components of the Facility will be done in accordance with the equipment manufacturers' recommendations and acceptable industry practices. The maintenance schedule, summarized in Exhibit 5(i)(2), will include regularly scheduled inspections including examination of the Facility's electric components' integrity in accordance with manufacturer's recommendations. Routine preventative maintenance will be regularly performed, and corrective maintenance will be performed as needed. No work associated with the Facility is proposed to occur within a public ROW. The Facility's maintenance plan, further described Exhibit 5(i)(2), addresses Facility collection substation, gathering and line inspections, maintenance, and repairs, including the minimization of interference with electric and communication distribution systems.

(2) Electric Transmission, Gathering, and Interconnect Line Inspection, Maintenance,

and Repairs

The OSP will develop a spare parts strategy that identifies priority spares based on system priority, the probability of failure, costs, and parts availability. Many parts associated with solar equipment are readily available from suppliers or repairable. Preventive maintenance tactics will be employed to reduce risk of equipment failure or establish fast response arrangements with repair facilities.

The OSP will establish an inspection plan that will involve a combination of routine, more frequent visual inspections and periodic scheduled inspections and checks. Additional details are provided in the Preliminary O&M Plan, provided as Appendix 5-C. In addition to equipment and system maintenance, the O&M work should include other aspects such as:

- Driveways, Interior Access Pathways, and ROWs. Visually inspect access pathways, and ROWs for obstructions or debris (including heavy snow), degradation of the route (due to erosion or heavy traffic), and defects such as pot holes) that may prevent traffic flow for persons or vehicles.
- Stormwater and Erosion Control Features. Visually inspect installed erosion control features, including ditches, velocity check dams, rip rap, aprons, and culverts, for signs of damage, clogging or non-performance. Check for signs of erosion, channeling or bare-earth areas not accommodated in the civil design.
- Vegetation Conditions: Inspect on-site vegetation in according with the vegetation maintenance section of the Preliminary O&M Plan (Appendix 5-C). Look for signs of invasive species encroachment, fallen or dangerous trees, and overgrown grasses or weeds. Look for overgrown vegetation and trees that may cause safety hazard or module shading.
- Perimeter. Visually inspect perimeter fence and gates to ensure secure posts, gates, webbing, and ties. Look for signs of breach or unauthorized entry (under, over or through), concealed or obstructed warning/information signs. Check cameras and other entry detectors, if installed.

(j) Facility Vegetation Plan

Vegetation management and maintenance of the Facility Area will be incorporated into the overall long-term O&M plan for the Facility. Preliminary details of the vegetation management plan are presented below. The Facility Area will be routinely visited for various tasks, during which general site conditions will be checked. These checks will help monitor the vegetation and site stabilization conditions within the Facility Area.

Ensuring stable and well-vegetated site ground conditions and functioning storm water management features are among the goals of the vegetation management plan. Effective vegetation management also is important to avoid risk of damage to the solar components and shading of the PV modules. The plan also will incorporate long-term maintenance of any perimeter landscaping required for visual screening of the Facility. All work should be restricted to within the limits of disturbance; however, inspections and checks may be warranted anywhere in the Facility Area.

Preliminary Details of Vegetation Management Plan

Initial Operation Period:

During the early months of operation, special attention will be paid to promoting early stage growth of the site ground cover, landscaping features, and stormwater management features. The stormwater management features will be more frequently checked during that time.

The seed mix used during initial site seeding may require a different mix depending on the time of year and

reseeding in subsequent seasons as needed. The site grass or other ground cover will be checked more often during the first year of operation to ensure it fully establishes growth. Bare areas may require scarifying of additional topsoil, and re-seeding. Wetland or stream restoration requirements, will require a seed mix designed specifically for wetland and/or stream areas in consideration of the region, and that is conducive for long-term O&M of the Facility.

Special attention may be required to manage faster growing or undesirable vegetation that establish more quickly among the PV arrays during the initial growing period until the primary ground cover takes hold and establishes the desired area. Particular attention must be paid to monitor and manage invasive species throughout the entire Facility Area. The regular vegetation inspections will include periodic inspection for invasive species as per the Invasive Species Management Plan (ISMP) that will be formalized as a Compliance Filing. The initial operation period site checks will consider the previous invasive species reports that identified invasive species presence locations. The Co-Applicants will consult a vegetation expert to assist with initial checks for invasive species and will provide ISMP training of staff that regularly maintain Facility vegetation management staff to facilitate more frequent checks for invasive species.

New plantings of trees and shrubs will be followed with regular watering appropriate to the season, weather conditions, type, and condition. More frequent inspections are expected to occur immediately following initial planting. Once the plantings have been established, an inspection also will occur during the subsequent spring. Based upon inspection, repairs and/or replacement of trees may be implemented, as necessary.

Perimeter trees identified for removal/pruning to avoid shading will be addressed during the construction period. Tree removal in areas identified as potential bat habitat will only be performed during the non-roosting season (November 1 – April 1), unless special survey and work procedures are followed. During the initial operation period, the OSP staff will regularly check the status of the ground stability in those areas. Design-level review of the perimeter vegetation was assessed, and although not likely, additional trees may be cleared/pruned to eliminate shading of the panels.

Ongoing Operation:

The long-term management plan will continue the efforts described above, but on a less frequent basis depending on site conditions. The plan will shift more focus to long-term maintenance of vegetation and site stability. Mowing will occur during the growing season as necessary to ensure the integrity of Facility options, and according to any environmental requirements. Depending on site conditions, targeted mechanical vegetation trimming may be performed around inverters, substations, fencing, gates, and select portions of roadways. To avoid potential environmental impacts to the maximum extent practicable, if herbicides are used their use will be selective and targeted as opposed to wide broadcast treatment.

The long-term vegetation management plan may consist of a variety of measures listed below. The Co-Applicants will update the plan considering input from the environmental assessment and advice from avian experts regarding timing of mows.

- Regular planned routine inspections will check for:
 - Excessive growth of ground cover grass or weeds;
 - Strive to keep vegetation below bottom edge of PV modules;
 - Bare spots and/or excessive vegetation growth;
 - Condition of landscaped trees (signs of stress);
 - Deterioration of erosion control and storm water management features;

- Vegetation that impedes on facility equipment;
- Condition of the wetland vegetation;
- Signs of uncontrolled runoff or sedimentation;
- Signs of damage to the perimeter fence due to vegetation growth;
- Trash and debris;
- Inspections for invasive species per ISMP; and
- Check road conditions and signs of mud tracking off-site and address accordingly.
- Periodic mowing and repairs to grassed areas includes:
 - Typically maintaining to below 18-24 inches, based on actual observed growth;
 - Approximately 3–6 mows annually depending on conditions;
 - Avoiding mowing while ground is wet or with 24-48 hours after heavy rain;
 - Mowing fenced area and between solar module rows;
 - Mowing less often just outside fence (about 5 to 15 feet);
 - Mowing select landscaped areas as needed to promote tree growth;
 - Adding or repairing stakes and support cables for newly planted trees, as needed;
 - After full growth, trimming of shrubs and landscaping trees may be required;
 - Trimming targeted storm water management features and ditches;
 - Trimming around and within substations;
 - Repairing bare or eroded areas as necessary; and
 - Checking for and removing loose debris.
- If necessary periodic herbicide treatment will be conducted consistent with procedures in the ISMP by a licensed applicator, and includes:
 - Applications by a licensed applicator;
 - Use of only United States Environmental Protection Agency-approved products;
 - Use of herbicide treatment to support vegetation management efforts;
 - Apply using manual methods (avoid machine broadcast); and
 - Use on select target areas such as around transformer foundations
- Periodic management of perimeter landscaping includes:
 - Trimming branches as needed;
 - Repairing stakes and guide strings; and
 - Removing dead or fallen trees and limbs, as needed.
- Periodic repairs to storm water management and erosion control features as necessary, which may include vegetation management measures.

The vegetation management inspections and maintenance measures will be periodically summarized by the OSP in the facility O&M reports provided to Facility owner management. The O&M plan will include an environmental compliance review that may, amongst other things, address vegetation management

requirements. The OSP and Certificate Holder will periodically assess effectiveness of the plan and adjust accordingly.

(k) Sharing of Aboveground Facilities

The Co-Applicants are not proposing that the Facility share any aboveground facility with other utilities.

(l) Equipment Availability

Availability and delivery times for key equipment may vary slightly depending on desired equipment features, manufacturer activity, inventory, infrastructure activity, and market conditions. The Co-Applicants will continue to monitor equipment availability and market conditions that will guide final equipment selection. The Co-Applicants will maintain contact with suppliers and explore early discussions in preparation for purchase orders to support the implementation schedule. The delivery of key major equipment may be in the range identified in Table 5-2.

Table 5-2. Equipment Deliveries

Equipment	Delivery Times (following receipt of order)
PV Modules	6–16 weeks
Trackers	12–16 weeks
Inverters and Medium Voltage Transformers	14–20 weeks
Electrical Switchgear	14–22 weeks
High Voltage Transformers	16–25 weeks

Long-lead equipment includes the main step up transformers, which typically can be ordered early and be delivered in the late stages of construction. The equipment procurement strategy will be firmed up during the final engineering and planning stage of the Facility, prior to construction. Some adjustments to equipment procurement may be made after starting Facility construction.

(m) Black Start Capabilities

Black start capabilities are not proposed in association with the Facility. Therefore, this section is not applicable and not included in this Article 10 Application.

(n) Electric Transmission Reliability Criteria

The Co-Applicants coordinated with the NYISO for the preparation of the SIS, conducted in accordance with the Applicable Reliability Standards set forth under Attachment Z of the NYISO OATT. Results of the SIS are summarized in Appendix 5-A. The SIS report shows that the Facility will have no significant or adverse impacts on the State transmission system reliability.

As part of the interconnection process, the Co-Applicants will execute interconnection agreements with NYISO and CHGE. The interconnection agreements will require compliance with the CHGE's technical and operating standards, among which the operation and protection settings compliance with Institute of Electrical and Electronics Engineers 1547 (anti-islanding standard). The Co-Applicants will require the procured Facility inverters to comply with this standard and other CHGE standards applicable to the Facility.



Greene County Solar Facility

Case No. 17-F-0617

Exhibit 5 Figure

Figure 5-1 Diagram of Proposed Connections

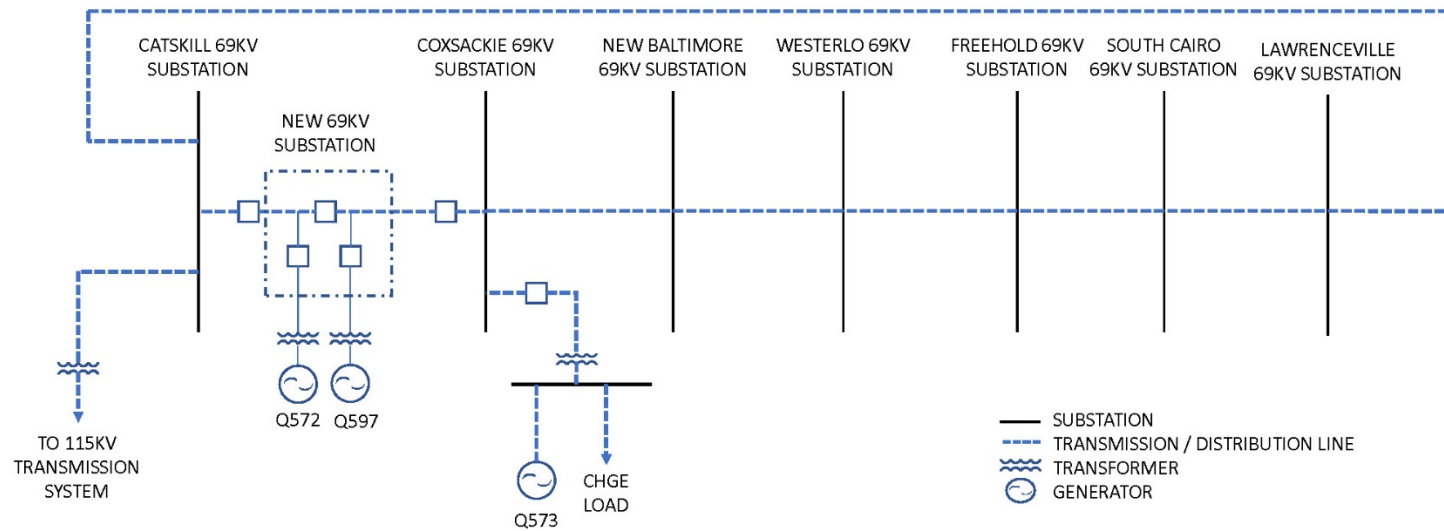


Figure 5-1. Diagram of Proposed Connections

Greene County Solar Facility,
Town of Coxsackie,
Greene County, New York



Greene County Solar Facility

Case No. 17-F-0617

Appendix 5-A

System Impact Study Reports

REDACTED

This document contain(s) critical infrastructure information, confidential commercial information, trade secrets, and /or proprietary information and as such is entitled to confidential treatment under Section 87(2) of the New York State Public Officers Law and the Commission's regulations (16 New York Codes, Rules and Regulations [NYCRR] 6-1). An unredacted version of this document has been submitted under separate cover pursuant to 16 NYCRR 6-1.4.



Greene County Solar Facility

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Appendix 5-B

Example UL Certification



Certificate of Compliance

Certificate: 70065250

Master Contract: 254012

Project: 70065250

Date Issued: 2016-05-13

Issued to: Toshiba Mitsubishi-Electric Industrial Systems Corporation
Power Electronics Systems Division
TOKYO SQUARE GARDEN, 3-1-1 Kyobashi
Chuo-ku, Tokyo 104-0031
JAPAN

*The products listed below are eligible to bear the CSA Mark shown
with adjacent indicator 'US'*



Issued by: Robert
Hempstock
Robert Hempstock

PRODUCTS

CLASS – 5311 89 - POWER SUPPLIES - Distributed Generation - Power Systems Equipment - Certified to U.S. Standards

Utility Interactive Inverter for PV applications, models PVH-L2700GR, PVH-L2500GR, PVH-L2700GR-EG and PVH-L2500GR-EG, permanently connected for use with grounded PV arrays system.

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record, Annex A, or the descriptive report.

APPLICABLE REQUIREMENTS

UL Std. No. 1741-2nd Edition - Inverters, Converters, Controllers and Interconnection System
Equipment for Use With Distributed Energy Resources (Rev. January 7,
2015)

Note: Compliance with UL 1741 includes requirements of IEEE 1547 and IEEE 1547.1.



Supplement to Certificate of Compliance

Certificate: 70065250

Master Contract: 254012

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
70065250	2016-05-13	Utility Interactive Inverter, models PVH-L2700GR, PVH-L2500GR, PVH-L2700GR-EG and PVH-L2500GR-EG. (US)



Greene County Solar Facility

Case No. 17-F-0617

Appendix 5-C

Preliminary O&M Plan



Preliminary Operation and Maintenance Plan

for the

Greene County Solar Facility

Coxsackie, Greene County, New York

December 2019

Prepared by:

Hecate Energy LLC

621 W. Randolph Street

Chicago, Illinois 60661

(833) 529-6597

contact@greenecountysolarfacility.info

ISSUE AND REVISION RECORD

Revision	Date	Description
A	12/12/2019	Article 10 Application

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APPENDICES

- APPENDIX A. FACILITY LOCATION AND LAYOUT
- APPENDIX B– EQUIPMENT & SYSTEM SERVICE DESCRIPTIONS

ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
AC	alternating current
Co-Applicants / Owners	Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC
DAS	data acquisition system
DC	direct current
the Facility	Greene County Solar Facility
the Facility Area	approximately 827 acres located within the Town of Coxsackie, Greene County, New York on which the Greene County Solar Facility is proposed
MW	megawatt
NYISO	New York Independent System Operator
O&M	operations and maintenance
OSP	Operations and Maintenance Service Provider
PV	photovoltaic
TBD	to be determined

1.0 INTRODUCTION

The Greene County Solar Facility (the Facility), proposed within an approximately 827-acre area located along Farm to Market Road, between United States Route 9W and County Route 385 (the Facility Area), will consist of photovoltaic (PV) solar arrays and associated infrastructure. The Facility will have a nameplate capacity of approximately 50 megawatts (MW) (alternating current [AC]).

The Facility will consist of PV modules, single-axis trackers, direct current (DC) collection system, AC/DC power conversion stations (inverters), medium-voltage step-up transformers and electrical cable collection system, fencing, access roads and associated support systems. A site plan depicting the Facility's location and layout is included in Appendix 11-A.

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (the Co-Applicants) will own and operate the Facility.

The purpose of this Preliminary Operations and Maintenance (O&M) Plan is to outline an operation and maintenance program to facilitate safe, high performing, and reliable Facility operations. Upon the Facility entering the operation phase the O&M Service Provider (OSP) will establish its own company specific O&M Plan for the Facility, incorporating and updating necessary provisions of this Preliminary O&M Plan. The Co-Applicants will require the OSP to comply with all applicable conditions of the Facility Article 10 Approval Certificate, permits, and applicable laws, regulations, and industry standards.

Solar facilities typically perform safely and reliably in excess of 96-98 percent availability. The Facility is expected to operate in a similar fashion. The Facility will be remotely monitored and controlled by the OSP through a data acquisition system (DAS). The Facility substations also may include a Supervisory Control and Data Acquisition system to facilitate remote monitoring and control by the OSP and/or grid operator. Most Facility maintenance will be accomplished through advance scheduling with little or no impact to Facility output.

2.0 OPERATION

2.1 COORDINATION AND REPORTING

Prior to operation, the Co-Applicants and OSP will establish O&M objectives and expectations. The Co-Applicants will provide OSP with instructions and guidance regarding the operational goals. The Co-Applicants and OSP will review the Facility requirements drawn from the Facility Article 10 Certificate, permits, and contracts.

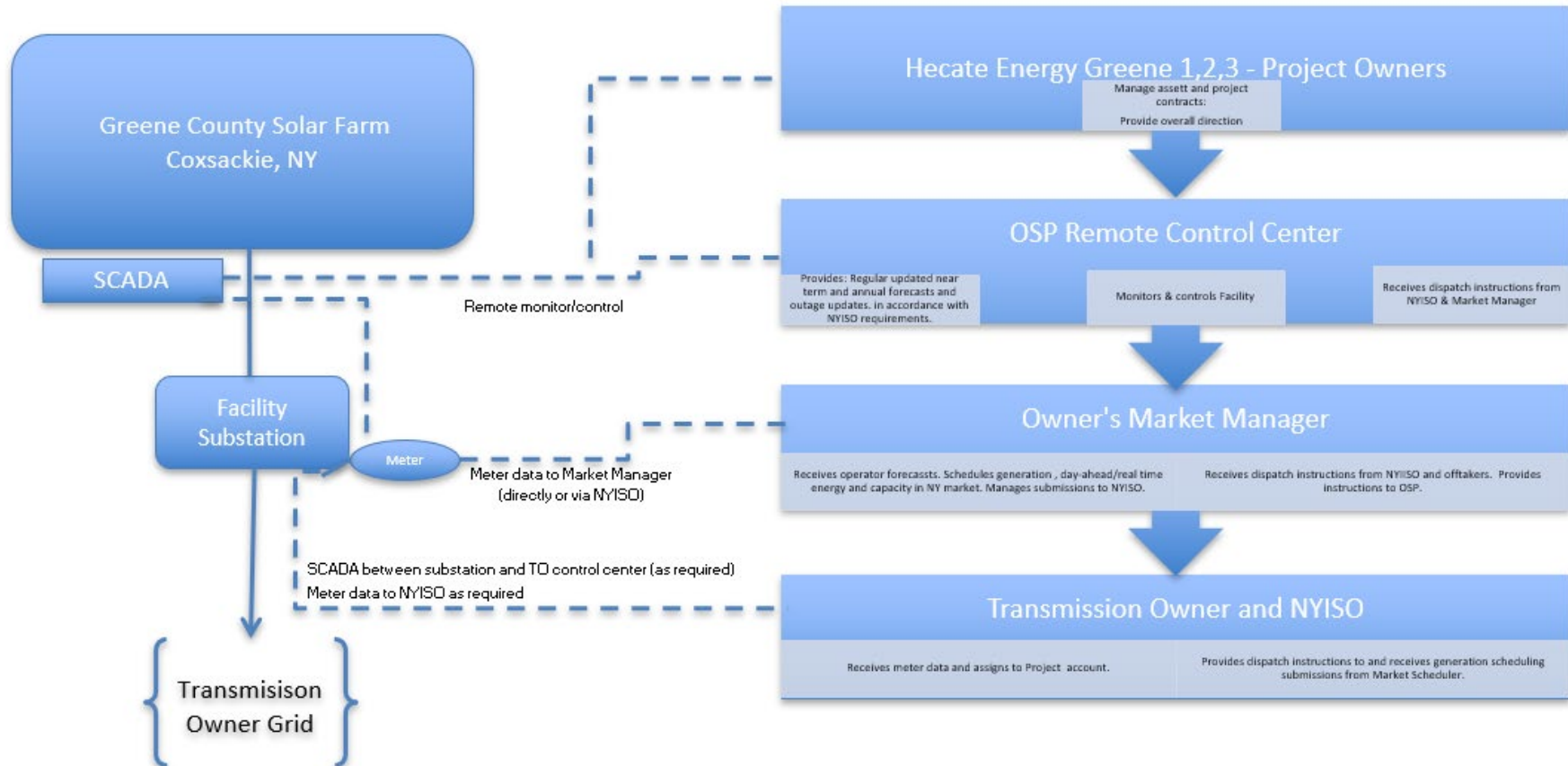
The communication protocol will identify all Facility stakeholders requiring interfacing and coordination during O&M. The communication plan may include many of the aspects as shown in Figure 1.

The Co-Applicants will have overall asset management responsibility including ensuring the Facility remains in compliance with the contractual and regulatory requirements. The Co-Applicants will assign certain coordination responsibilities to the OSP (or another market scheduling firm or market manager for power scheduling only) to ensure effective coordination with the utility, the New York Independent System Operator (NYISO), off-takers, and applicable regulatory representatives.

Once clear guidance and instructions are provided by the Co-Applicants, the OSP will assume operational coordination with the Transmission Owner (Central Hudson Gas and Electric Corporation), NYISO, any assigned market participation manager, and any bi-lateral power off-takers.

As agreed with the Co-Applicants, the OSP will issue regular reports of the operational performance and maintenance effectiveness. The OSP will also report to the Co-Applicants on all health, safety, and environmental / regulatory compliance aspects. OSP will report to the Co-Applicants any inquiries from the public or regulatory agencies.

Figure 1. Greene Solar Facility O&M Communication Outline



2.2 PLANNING AND FORECASTING

The OSP will provide to the Co-Applicants an annual forecast of the Facility output and planned maintenance outages and Facility derates. An allowance will be discussed for unplanned outages and derates. The Facility forecast will be based on seasonal irradiation. The OSP will also provide regular updates to the Facility output forecast (periods TBD). The forecasts will not be adjusted for day-to-day weather conditions; however, OSP and the Co-Applicants will discuss with the market participant manager suitable approaches as necessary.

The OSP will closely coordinate with the Co-Applicants, market participant manager, NYISO, and Transmission Owner regarding changes to forecasts and day-to-day operations, notifying of planned and unplanned outages and start-ups, and shutdowns.

2.3 CONTROL, MONITORING, AND RESPONSE

The Facility will be equipped with a robust remote monitoring and control system (DAS) that will facilitate all necessary functions for Facility operation. The DAS will record historical operational and event data useful for performance benchmarking, evaluation, and diagnosis. The OSP will provide to the Co-Applicants regular performance reports along with recommendations for improvement or corrective actions. The Facility will be designed to automatically shutdown safely each night and reliably startup each morning. Any time grid power is lost at the Facility Area, the Facility inverters will automatically and safely shutdown. The Facility substation controls will facilitate remote operation and some controls of the main breaker switches, along with monitoring of key power quality parameters, metering, and other selective performance indicators or equipment alarms.

The Facility will be monitored and controlled remotely from the OSP control center. The OSP will staff a control center desk for the Facility during all operational time periods and will provide emergency contact support during nighttime hours. The OSP will be able to receive operational instructions from the market participant manager, Transmission Owner, and NYISO as required and authorized; for example, adjustments in frequency, reactive and real power output, voltage, and control schemes.

The OSP will have local technical O&M resources close to the Facility that will regularly visit the site for inspections and for planned and unplanned work. The local OSP staff will also support third-party site visits, as well as unplanned and/or emergency event requirements.

3.0 MAINTENANCE

3.1 PREVENTIVE MAINTENANCE

Preventive maintenance services will be performed generally in accordance with the Equipment & System Service Descriptions, provided as Appendix B to this plan. The Appendix B schedule will be updated by the OSP prior to operation and periodically updated as conditions warrant. In addition, the OSP will perform preventive maintenance, as required by the manufacturers in the applicable equipment manuals or specifications, to the extent required such that the Facility components maintain any available extended warranty contracts.

Preventative maintenance will include planned equipment maintenance as well as regular routine system and equipment inspections and checks. Most preventative maintenance work can be performed with the Facility in service and with little or no reduction in Facility output. The inspections and checks may include visual inspections of cabling, tracker structure and operation, and internal equipment checks and tests.

The preventative maintenance work will also include site condition maintenance and repairs such as mowing, vegetation management, maintenance of stormwater control features, repairs of denude areas and channeling, as well as fence maintenance.

All Facility work and access will be coordinated through the OSP Facility management protocols.

3.2 CORRECTIVE (OR UNPLANNED) MAINTENANCE

Corrective maintenance services will occur on an as-needed basis and include the repair or replacement of any defective or malfunctioning part of the Facility, including the collection substations. Most solar facility maintenance issues are typically addressed via long-term or short-term scheduled fashion (i.e., the work can be scheduled days or weeks ahead of time). The OSP will monitor system performance to help predict issues as they reveal themselves in order to address them in a scheduled way. In rare occasions when issues must be addressed immediately, the OSP will notify the necessary parties and deploy the necessary staff.

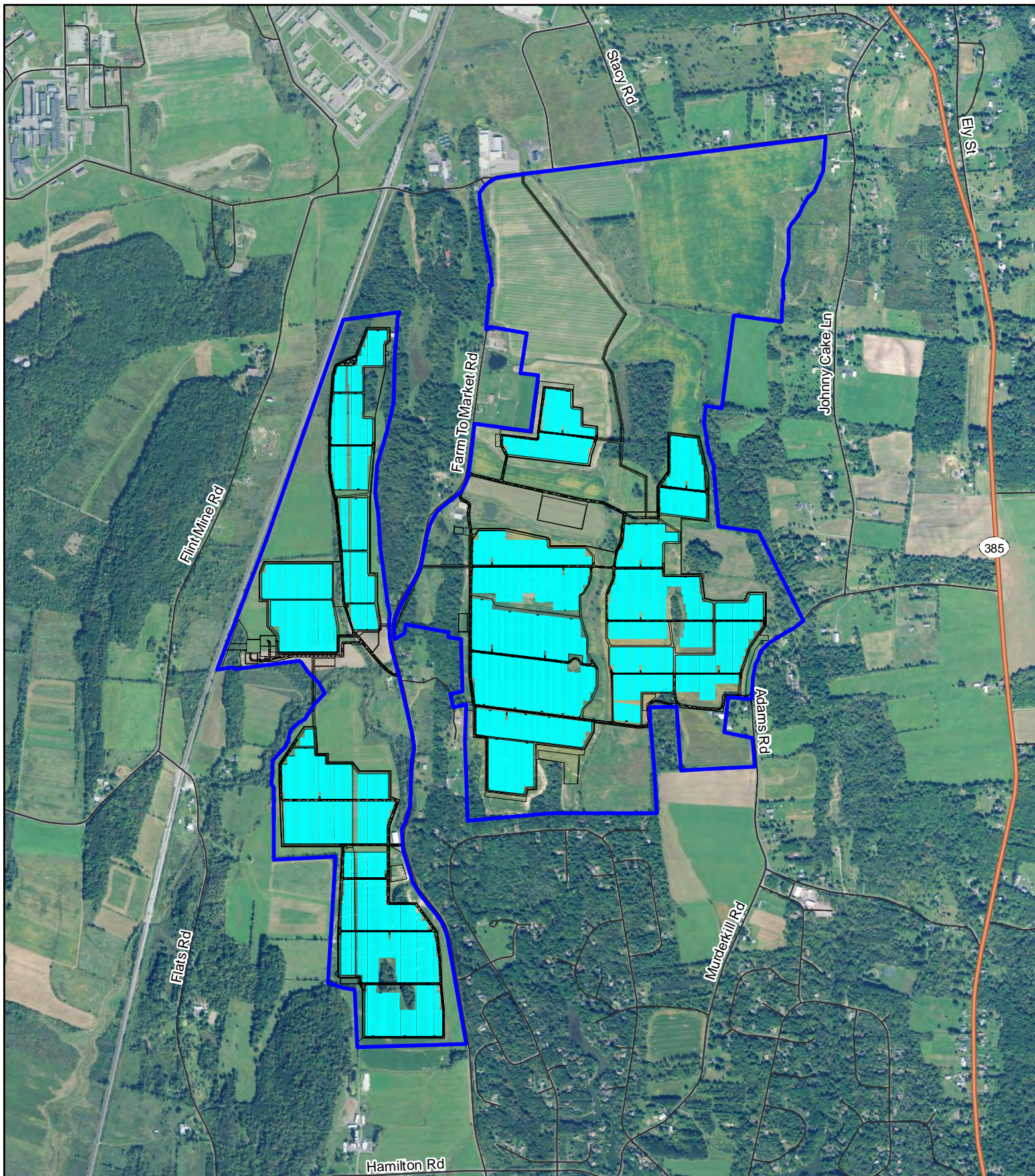
3.3 MISCELLANEOUS

The following miscellaneous services may be included within the scope of the OSP's responsibilities:

- Occasional removal of snow from the PV solar modules (most snow will automatically fall off modules given tracker rotation);
- Occasional cleaning of the surfaces of the PV solar module shall be performed with the use of clean water and during times that energy loss and thermal stress of the modules are minimized. This will likely be very rare (every few years) given regular rainfall of the Northeast climate;
- Vegetation control will be undertaken regularly to keep the Facility Area in good condition and minimize the effect of high ground cover shading lower edges of the PV solar modules;
- Periodic cleaning of the lateral ditches and boundary ditches (if any);
- Obtaining and providing consumables and spare parts, other than modules and inverters, that will be used by, or incorporated into, the Facility;
- Maintaining buildings within the Facility Area, as required;
- Maintaining electrical system located at the Facility;

- Monitoring of PV module or array performance and replace modules that may be underperforming according to manufacturer warranty provisions;
- Performing required preventive and corrective inverter skid maintenance;
- Cleaning and calibration of the installed weather station;
- Checks of electrical switchboards, combiner boxes, switchgear, relays, and transformers according to schedule; and
- Periodic thermal sensing surveys to identify hotspots that require connection tightening or equipment replacement.

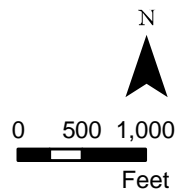
APPENDIX A. FACILITY LOCATION AND LAYOUT



Legend

- Facility Area
- Facility Layout
- Panel Layout

Source: USDA NAIP (2017)



Greene County Solar Facility Layout

Greene County Solar Facility
Greene County, New York

APPENDIX B. EQUIPMENT AND SYSTEM SERVICE DESCRIPTIONS

Appendix B – Equipment & System Service Descriptions:

The following table presents a preliminary schedule of inspections, checks, and preventive maintenance activities planned on the Facility equipment, systems, and site. The Appendix B will be updated by the O&M Service Provider prior to operation, and again periodically based on experience. The list is not exhaustive. The OSP may conduct many more inspections and maintenance that may be required for the effective, reliable, and safe operation of the Facility. The inspection and maintenance frequency may change based on guidance from OSP and equipment suppliers. Many tasks may also be performed more often than shown but rotating throughout different portions of the Facility.

Frequency	Service Description
<u>General Site Conditions</u>	
Weekly	Inspect PV modules for defects that can appear in the form of burn marks, discoloration, delamination or broken glass.
	Visual inspection for security breaches, fences, gates, and site conditions.
Monthly	Check general status /Visually inspect inverter buildings for signs of rodents.
Every 3 Months, or more often based on season or events	Visual checks of site conditions, roads, and stormwater management features.
Every 6 Months	Invasive species and weed check and treatment, as needed.
<u>Modules</u>	
Every 6 Months	Inspect PV modules for defects that can appear in the form of burn marks, discoloration, delamination or broken glass.
	Check modules for excessive soiling from dirt buildup or animal droppings.
	Consider drone flight to check thermal hot spots.
<u>DC Source Circuits and Output Circuits</u>	
Every 6 Months	Ensure that module wiring is secure and not hanging loose and exposed to potential damage, bent to an unapproved radius or stretched across sharp or abrasive surfaces.
	Check that the zip ties that hold the wires to the tracker are still intact.
	Visually inspect the DC output circuits for corrosion and discoloration at the terminations.
	Fuse Check. Consider thermal image check for hot spots, depending on experience.
<u>Combiner Boxes</u>	
Every 6 Months	Check proper placement of warning placards, including arc flash or personal protective equipment requirements, for accessing equipment.
	Check conduits for proper support, bushings, and expansion joints, where needed.
	Look for signs of corrosion near the supports and hardware.
	Open combiner boxes and check for torque marks on the connections.
<u>DC Grounding System</u>	
Every 6 Months	Visually inspect the bolt connections.
	Visually inspect the weld connections.
	Visually inspect the corrosion.
	Visually inspect the discoloration.

Frequency	Service Description
	Visually inspect the fraying.
<u>Tracker Structure</u>	
Every 6 Months	Periodically inspect the tracker structures for loose connections and any corrosion on the joints and structural members.
	Look for misalignments. Check tracker motors and cable connections.
<u>Inverter</u>	
Daily	Replace failed inverters, as needed, in coordination with inverter supplier.
Every 3 Months	Look for properly placed warning placards, including arc flash or personal protective equipment requirements, for accessing equipment.
	Inspect the inverter/electrical pad to make sure it does not show excessive cracking or signs of wear.
Every 3 Months	Perform a visual inspection of the interior and exterior of the inverter.
	Check Insulated-Gate Bipolar Junction Transistors and inverter boards for any discoloration.
	Check input DC & output AC capacitors for signs of damage from overheating.
	Record all voltage and current readings from the front display panel.
	Check appearance/cleanliness of the cabinet, ventilation system, and insulated surfaces.
	Check for corrosion/overheating on terminals and cables.
	Torque terminals, connectors, and bolts, as needed.
	Check continuity of all fuses to see if they have continuity and inspect for signs of hot spots or overheating.
	Record ambient weather conditions, including the temperature, and whether it is cloudy or sunny.
	Check the appearance of both the AC and DC surge suppressors for damage or burn marks.
	Check the operation of all safety devices (i.e., E-Stop, door switches, ground fault detector interrupter).
	Inspect (and clean or replace, if necessary) air filter elements.
	Look for signs of water intrusion and corrosion.
	Check functionality of controls and download historical data.
	Install and perform any recommended engineering field modifications, including software upgrades.
<u>Skid Auxiliary Cabinet</u>	
Every 6 Months	Check the external and internal conditions of the cabinet. Look for signs of water intrusion or corrosion.
	Check the air filters.
	Check the fans.
	Check the auxiliary voltages.
	Check the relays, fuses, and circuit breakers.
	Check the gaskets, locks, and hinges.

Frequency	Service Description
	Check the cables and bars tightening.
Every 6 Months	Check the conditions of the nameplate and warning signs.
<u>Tracker Motors</u>	
Every 6 Months	Inspect module clamp fasteners or module rail fasteners for torque integrity.
	Inspect gear drives and drive-shaft assemblies for proper driveshaft alignment, limit switch integrity, and overall structural integrity.
	Test wind stow function by tripping wind sensor.
Every 2 years	Grease gearboxes
	Check slew ring assembly lubrication level.
<u>Low Voltage Distribution</u>	
6 Months	Visually inspect the all of the terminations for loose connections and corrosion.
	Inspect splices and terminations and make mechanically and electrically tight, as necessary.
Every 2 months	Periodic thermographic imaging should consider on terminations and combiner boxes.
<u>Medium Voltage Transformer</u>	
Yearly	Visually inspect high voltage bushings.
	Visually inspect low voltage bushings.
	Visually inspect the arresters (if provided).
	Visually inspect the enclosure integrity (i.e., hinges, locking provisions, corrosion).
	Visually inspect for evidence of oil leakage.
	Visually inspect ground connections.
	Visually inspect accessories.
	Visually inspect safety labels.
	Visually inspect transformer tilt.
	Take oil samples, as appropriate.
<u>Medium Voltage Cables and Terminations</u>	
Yearly	Visually inspect bushings.
	Visually inspect bolt connections.
	Visually inspect the arresters (if provided).
	Visual inspect the enclosure integrity (i.e., hinges, locking provisions, corrosion).
	Visually inspect elbow connections.
	Visually inspect ground connections.
	Visually inspect accessories.
	Visually inspect safety labels.
	Visually inspect equipment tilt.
<u>Medium Voltage Deadbreak Junctions</u>	
Yearly	Visually inspect bushings.

Frequency	Service Description
	Visually inspect bolt connections.
Yearly	Visually inspect the enclosure integrity (i.e, hinges, locking provisions, corrosion).
	Visually inspect elbow connections.
	Visually inspect ground connections.
	Visually inspect accessories.
	Visually inspect safety labels.
	Visually inspect equipment tilt.
	Visually inspect fault indicator state.
Medium Voltage Overhead Maintenance (if applicable)	
Yearly	Visually verify the pole is in overall good condition (minimal ground line rot, spalling, and pole top decay). Concrete poles should be checked for splits, chips, and excessive erosion.
	Verify setting depth is adequate from birthmark, check for excessive soil erosion or excavation and check plumb of pole.
	Ensure pole ground wire is attached to pole and is also connected to driven rod in ground.
	Verify pole hardware is corrosion free, properly attached, and free from obvious signs of pitting and arcing. Verify insulators and conductor clamps are not damaged.
	Ensure equipment and enclosures are properly mounted to pole, free from corrosion, and there are no visible signs of arcing, pitting or damage.
	Ensure all guy wires are tight and have guy guards installed.
	Check anchor depth is maintained and guys are securely attached.
	Visually check conductor for damage. Check sag and note any clearance problems from excessive sag, either from span length, guying problems, new pole attachments, or the erection of new structures on the right-of-way.
Every 2 years	Thermal image checks should be considered on connections, equipment insulators, equipment tanks, associated underground terminations or connections, and any protective devices.
	A quick overall visual inspection of the line should be performed to check for damaged poles, conductors or equipment. This would consist of a “ride through” inspection performed from a vehicle on the road.
Every 10 years	Standard excavation, sounding, and boring of all wood poles should be considered and, if pole is found defective, a recommendation should be made at that time regarding whether to treat or replace the pole based on inspector’s discretion. If not replaced, poles in advanced conditions of decay should be inspected more frequently following the initial inspection.
Grounding System	
Yearly	Visually inspect bolt connections.
	Visually inspect weld connections.
	Visually inspect for corrosion.
	Visually inspect for discoloration.
	Visually inspect for fraying.

Frequency	Service Description
<u>Fiber Optic System (if applicable)</u>	
Yearly	Inspect and clean the external surface of the equipment to minimize the negative impact of environmental dust or debris.
	Check AC power supply in order to ensure that power supply is stable and within the rated voltage of the equipment.
<u>Optical Ground Wire (if applicable)</u>	
Yearly	Conduct bidirectional test of optical power of the entire sector on dark fibers to maintain uninterrupted service (one fiber for each line).
	Inspect and accommodate patch cords: Check that the wiring is correct and properly connected and ensure that the patch cords are not exceeding the specified radius of curvature.
	Inspect and clean Optical Distribution Frame (ODF): Check that connections in the ODF are unchangeable and unused ports have caps against dust.
	Inspect and clean labeling: Verify that the labeling of all equipment, cables, and other components is legible and in good condition. If labels are damaged, replacement is required. Compare records and detect variations.
	Inspect and clean connectors: Check that all connectors are secured by moving gently and verify that there are no vibrations in the rack that may be affecting the connections. Caution: Do <u>not</u> disconnect any connectors unless there is an express authorization.
	Inspect and clean wiring: Visual identification of damage to catenary mooring; change too tight or abnormal conditions; organization of wiring and other items that may cause harm to the fiber roll.
	Inspect and clean equipment: Check that all equipment is turned on and operational. Check all visual indicators of hardware.
	Inspect and clean Optical Junction Box, and verify it is sealed, check the state of the seals, drainage, dust, moisture damage, etc.
<u>Clearing and Pest Control</u>	
Monthly	Check general status/visually inspect inverter buildings for signs of rodents.
Every 4 Months	Pest control treatment.
Every 6 Months	Chemical weed control.
<u>Meteorological Station</u>	
Weekly	Check the pyranometer for level and contamination. Gently clean, if needed.
	Visually inspect the wind sensors and radiation shield.
Monthly	Check the rain gage funnel for debris and level.
	Do a visual/auditory inspection of the anemometer at low wind speeds.
	Check the filter of the temperature/humidity sensor for contamination.
	Check sensor leads and cables for cracking, deterioration, proper routing, and strain relief.
	Check the tripod or tower for structural damage, proper alignment, and for level/plumb.
	Periodically check the condition of all cables and connectors on the tracker.
	Check drying cartridges for mounted radiometers on the tracker.
	Check if the bubble level is still within range on the tracker.

Frequency	Service Description
Monthly	Check the sun sensor position on the tracker.
Every 3 Months	Measure the battery voltage.
	Check the Desiccant and replace as required.
Every 6 Months	Clean the temperature/humidity sensor.
	Clean the radiation shield.
Every 6 -18 months	Inspect the logger equipment, per their requirements.
Yearly	Replace anemometer bearings.
	Calibrate the rain gage.
	Calibrate the probe.
	Check calibration of probe; replace the humidity chip, if necessary.
Every 2 years	Calibrate the solar radiation sensors.
	Calibrate the temperature sensor.
	Replace the wind vane potentiometer and bearings.
Every 4 – 5 years	Replace sensor cables, as required.
<u>Control and Monitoring System</u>	
Daily	Verify that the equipment is operational.
	Check system status and alarms.
	Check performance benchmarks, and variations in inverter or string outputs, variation from predictions, etc.
Monthly	Clean air filters.
	Check cable connections.
Every 3 Months	Check condition of perimeter fence and gate.
	Check the condition of the sensor cable.
Yearly	Full Perimeter Testing.
	Routine maintenance per the manual.
	Complete roadway maintenance.
<u>Supervisory Control and Data Acquisition System</u>	
Daily	Check general functioning status.
Every 6 Months	Check external connections.
	Complete exterior cleaning.
As Needed	Backup software and data.
<u>Substation Control Buildings</u>	
Yearly	Clean control panel.
	Review of operation of signal lamps on the control panel.
	Function Testing relay of control panel.
	Test cuts from the relay control panel.
	Check the operation of electromechanical relays of the control panel.
	Review and tighten of terminals at the control panel.

Frequency	Service Description
Yearly	Maneuvers making with control panels remote controls.
	Review of operation of automatic and differential Auxiliary Service.
	Review of operation of the remote control and lamp signaling on control panel and auxiliary services.
	Review and tighten the terminals of the Auxiliary Service.
	Review DC battery.
	Check of the high-voltage safety.
	Fire protection material Checks. Replace portable extinguishers as required.
	Regular lighting testing.
	Emergency lighting testing.
Substation Breakers	
Yearly	Envelope status check.
	Inspect and, if necessary, retighten bolts.
	Cable and terminal bottles checking.
	Check operation of heating element.
	Check fuses, auxiliary relays and signal lamp. Relay checks functional checks.
	Check the status of mechanical interlocks.
	Check maneuver signaling on control panel.
	Check power cut mechanism.
	General cleaning and lubrication of moving parts.
Auxiliary Service Power Transformers	
Yearly	Check general condition.
	Inspect and, if necessary, retighten bolts.
	Check operation of temperature sensors.
	Current measurements in high- and low-voltage.
	Check the state of the cables and terminal bottles.
	Ground resistance measurement.
	Inspect and tighten, if necessary, of terminal.
	General Cleaning.
	Control encapsulated insulation.
	Control the value of compression of supports.
	Humidity, thermo resistance and functionality control.
	General cleaning and lubrication of moving parts.
Every 5 Years	Measure dielectric strength of oil.
Main Power Transformer	
Yearly	Check general conditions.
	Inspect and, if necessary, retighten of bolts.

Frequency	Service Description
Yearly	Check operation of temperature sensors.
	Current measurements in high- and low-voltage.
	Check the state of the cables and terminal bottles.
	Ground resistance measurement.
	Inspect and tighten, if necessary, of terminal.
	General Cleaning.
	Control encapsulated insulation.
	Control the value of compression of supports.
	Humidity, thermo-resistance and functionality control.
Every 5 Years	Measurement of dielectric strength of oil



Greene County Solar Facility

Case No. 17-F-0619

1001.6 Exhibit 6

Wind Power Facilities

EXHIBIT 6 WIND POWER FACILITIES

The Greene County Solar Facility is not a wind power facility, and as such, this Exhibit is not applicable and not included in this Article 10 Application.



Greene County Solar Facility

Case No. 17-F-0619

1001.7 Exhibit 7

Natural Gas Power Facilities

EXHIBIT 7 NATURAL GAS POWER FACILITIES

The Greene County Solar Facility is not a natural gas power facility, and as such, this Exhibit is not applicable and not included in this Article 10 Application.



Greene County Solar Facility

Case No. 17-F-0619

1001.8 Exhibit 8

Electric System Production Modeling

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EXHIBIT 8 Electric System Production Modeling

This Exhibit addresses the requirements specified in Stipulation 8, and, therefore, the requirements of 16 New York Codes, Rules, and Regulations § 1001.8. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 8.

The Co-Applicants are seeking trade secret protection for some or all of the input files used in the analyses discussed herein. Digital copies of all inputs used in the simulations will be provided to the New York State Department of Public Service and the New York State Department of Environmental Conservation under the appropriate confidentiality protection, and subject to applicable critical infrastructure information restrictions.

Details provided in this exhibit are based on the Electric System Production Modeling Report provided as Appendix 8-A, which also contains additional details and assumptions of the electric system production cost modeling.

(a) Estimated Statewide Emission Levels

The estimated statewide emission levels with and without the Greene County Solar Facility (the Facility) are summarized in Table 8-1. Overall, estimated statewide emission levels will be reduced when the Facility is operational, as the Facility is not an emitting resource. Specifically:

- Sulfur dioxide (SO₂) emissions are reduced 0.6 tons, or 0.27%
- Nitrogen oxides (NO_x) emissions are reduced 42.8 tons, or 0.14%
- Carbon dioxide (CO₂) emissions are reduced 63,574 tons, or 0.15%

Table 8.1 Estimated Statewide Emission Levels

Emissions	Basecase	With Facility	Difference
Sum of SO2(Tons)	204.9	204.4	(0.6)
Sum of NOx(Tons)	30,043.4	30,000.7	(42.8)
Sum of CO2(Tons)	43,890,622	43,827,048	(63,574)

(b) Estimated Annual Spot Prices

Table 8.2 contains estimated minimum, maximum, and average locational marginal prices (LMPs) for each New York Independent System Operator (NYISO) zone both with and without the Facility. Statewide LMPs as well as pricing in the local area will decrease with the addition of the Facility. Average monthly peak and off-peak LMPs are available in Appendix 8-A. The average NYISO LMP for all 8,760 hours decreases \$0.01 when the Facility is operational (Table 8-2). Peak hours during summer months naturally experience larger decreases in LMP; for example, June shows a \$0.14 decrease in average NYISO LMP across all peak hours. The average LMP at the Facility's point of interconnection decreases from \$50.96 to \$50.78, or \$0.18, when the Facility is operational.

Table 8-2. LMP by NYISO Zone

NYISO Zone	Average LMP		Min LMP		Max LMP	
	Basecase	With Facility	Basecase	With Facility	Basecase	With Facility
CAPITL	\$50.02	\$50.00	\$27.55	\$27.55	\$94.15	\$94.62
CENTRL	\$48.69	\$48.68	\$26.40	\$26.40	\$97.66	\$97.66
DUNWOD	\$51.56	\$51.56	\$28.09	\$28.09	\$97.70	\$97.76
GENESE	\$47.30	\$47.29	\$26.10	\$26.10	\$94.14	\$94.10
HUD VL	\$51.13	\$51.12	\$27.94	\$27.94	\$96.88	\$96.96
LONGIL	\$51.54	\$51.53	\$28.14	\$28.14	\$97.27	\$97.30
MHK VL	\$49.24	\$49.23	\$26.48	\$26.48	\$97.10	\$97.10
MILLWD	\$51.42	\$51.41	\$28.05	\$28.05	\$97.60	\$97.60
N.Y.C.	\$52.34	\$52.34	\$28.20	\$28.20	\$99.70	\$100.44
NORTH	\$45.79	\$45.79	\$24.96	\$24.96	\$90.43	\$90.40
WEST	\$46.84	\$46.84	\$26.23	\$26.23	\$94.25	\$94.21
Grand Total	\$49.63	\$49.62	\$24.96	\$24.96	\$99.70	\$100.44

(c) Estimated Capacity Factor for the Facility

The estimated annual capacity factor for the Facility is 21.3 percent (%).

(d) Estimated Annual and Monthly Megawatt Output Capability Factors

The Facility is a 50-megawatt (MW) photovoltaic solar electric generating facility. Monthly peak and off-peak capability factors are summarized in Table 8-3.

Table 8-3. Monthly Peak Capability Factors

Month / Capability Factor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Peak Capability Factor	12.9%	23.1%	33.3%	40.2%	47.1%	48.8%	48.8%	44.1%	37.0%	27.0%	16.5%	12.3%	32.7%
Offpeak Capability Factor	0.0%	0.0%	0.7%	3.1%	5.5%	7.1%	6.1%	4.4%	1.8%	0.5%	0.0%	0.0%	2.5%

(e) Estimated Average Annual and Monthly Production Output for the Facility

Table 8-4 outlines the estimated annual and monthly production output for the Facility.

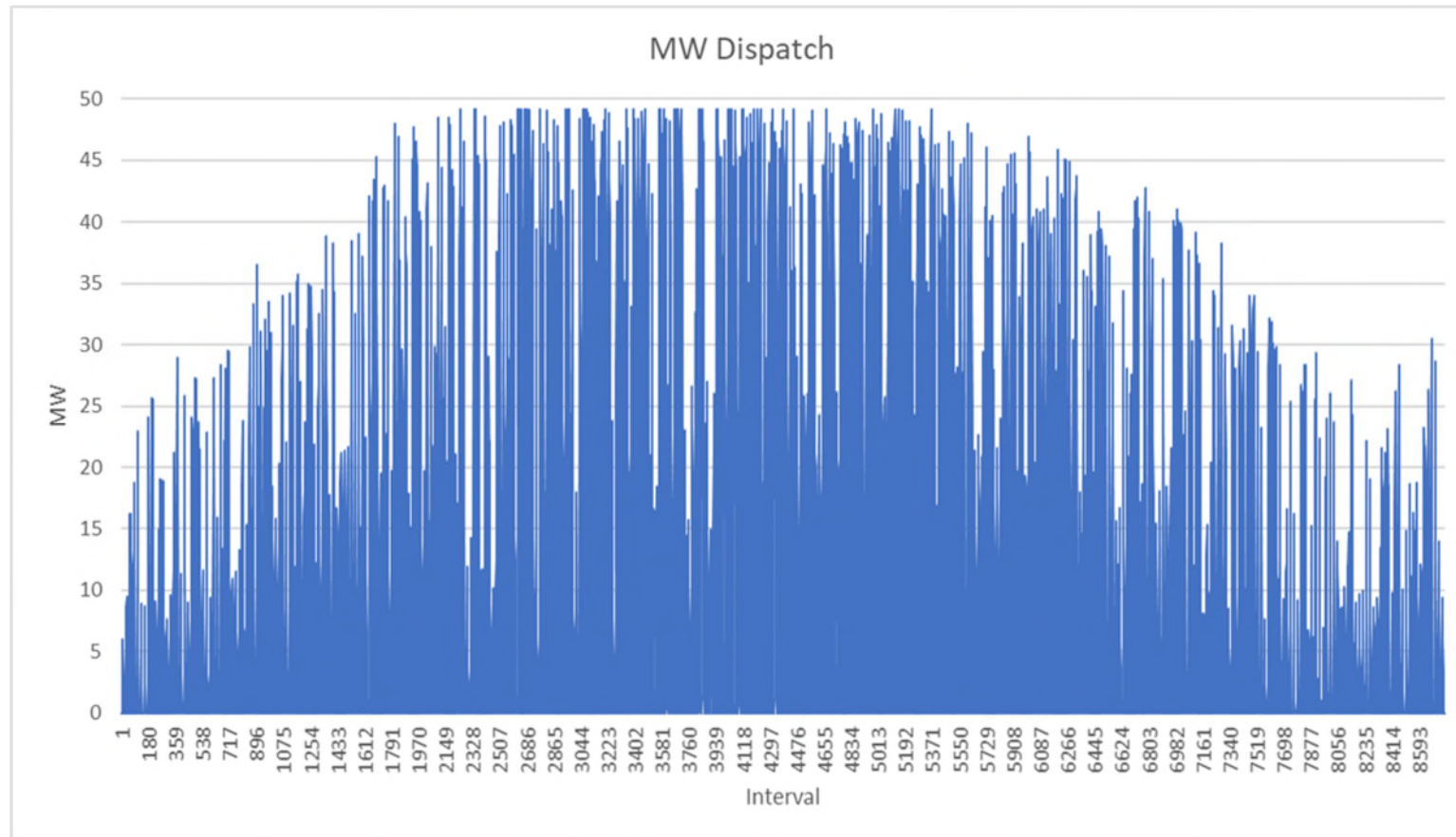
Table 8-4. Facility Production by Month

Month	MWh - Hecate Solar
January	2989
February	4854
March	7841
April	9477
May	11716
June	11941
July	12196
August	10875
September	8579
October	6351
November	3723
December	2864
Total Annual	93406

(f) Estimated Production Curve for the Facility

The estimated production curve for the Facility shows the projected hourly dispatch for the Facility for all 8,760 hours of a study year. Figure 8-1 shows that the Facility typically has a higher output during the peak hours of summer months and a lower output throughout the winter months; this is an expected result for solar generating facilities.

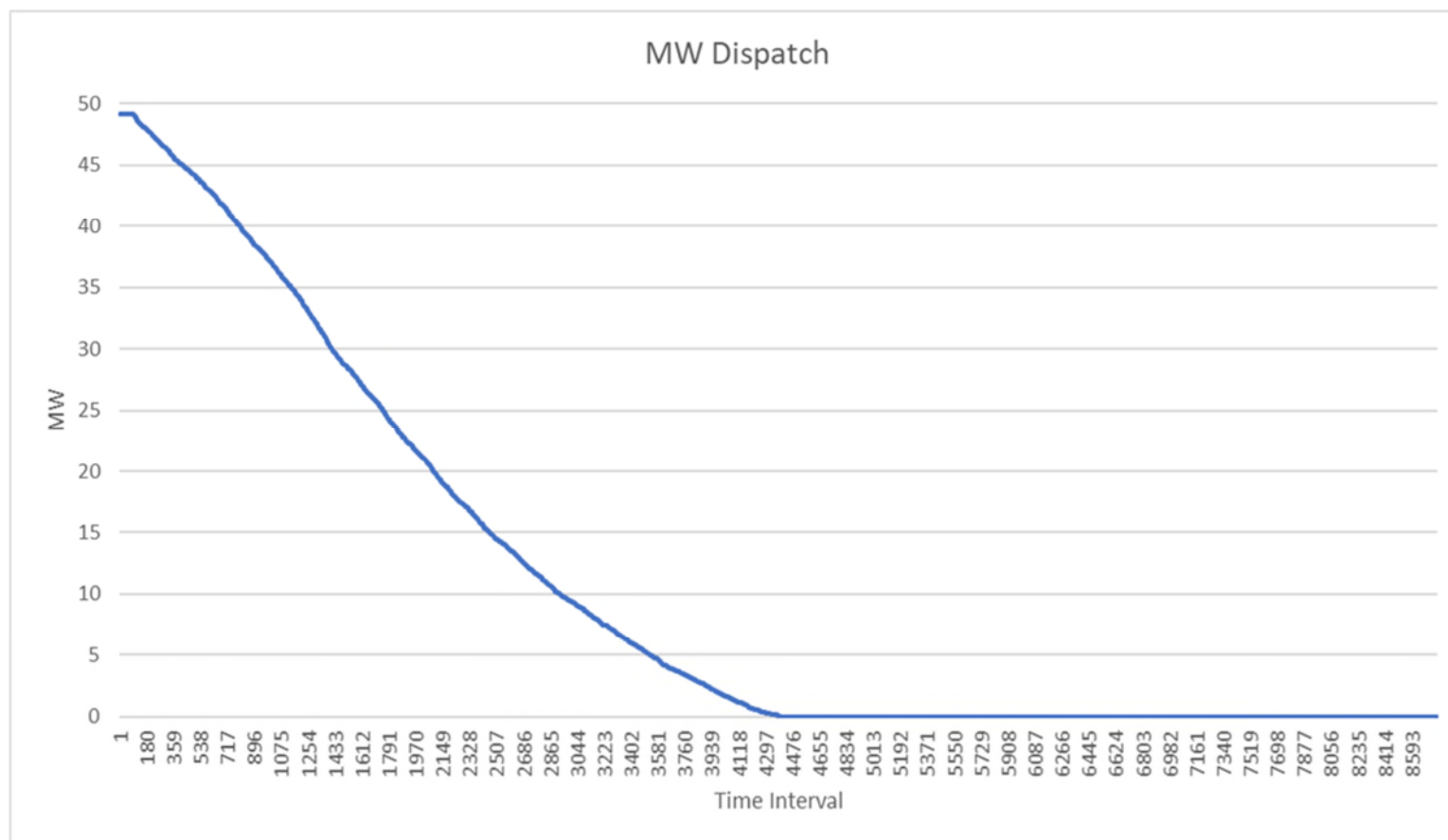
Figure 8-1. Production Curve



(g) Estimated Production Duration Curve for the Facility

Figure 8-2 provides the production duration curve. The production duration curve illustrates the number of hours the dispatch is above a certain level. For example, Figure 8-2 illustrates that the Facility produces greater than 30 MW for approximately 1,433 hours during a study year. Figure 8-2 also illustrates that production is at or near zero in approximately 50% of hours. This is an expected result for solar generating facilities, as they do not produce energy during overnight hours.

Figure 8-2. Production Duration Curve



(h) Estimated Effects of the Facility on the Energy Dispatch of Existing Must-Run Resources

There is no statistically significant impact on the energy dispatch of existing Must-Run Resources due to the addition of the Facility (Table 8-5). For this purpose, Must-Run Resources are defined as existing wind, hydroelectric, and nuclear facilities, as well as co-generation facilities to the extent they are obligated to output their available energy because of their steam hosts.

The anticipated reduction in hydroelectric reflects only a slight change in the Niagara plant's output, and is an insignificant amount on a percentage basis. No smaller local hydroelectric units are anticipated to experience any dispatch impacts. The increase in solar exclusively reflects the addition of the Facility; no other solar facilities are anticipated to experience any dispatch impacts. There also is no statistically significant impact on co-generation facilities.

Table 8-5. Impact on Must-Run Resources

Must Run Resource Type	MWh - Basecase	MWh - with Solar	Difference
Hydro	24683855	24682694	-1161
Nuclear	29454540	29454540	0
Solar	101770	195176	93406
Wind	4443495	4443495	0

MWh – megawatt-hour

References

PowerGem 2019. Electric System Production Modeling Report for the Greene County Solar Farm. PowerGEM Power Grid Engineering and Markets. November 2019.



Greene County Solar Facility

Case No. 17-F-0617

Appendix 8-A

Electric System Production Modeling Report



PowerGEM

Power Grid Engineering & Markets

Electric System Production Modeling Report for the Greene County Solar Farm

Prepared for

**Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and
Hecate Energy Greene County 3 LLC** 621 West Randolph Street
Chicago, IL 60661

Submitted by

PowerGEM LLC

632 Plank Rd Suite 101
Clifton Park NY 12065

November 2019



STUDY OVERVIEW AND APPROACH

Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene County 3 LLC (the Client) commissioned PowerGEM LLC (PowerGEM) to perform an Electric System Production Modeling study for Exhibit 8 of its New York Public Service Law Article 10 Application for the Greene County Solar Farm (the Facility). The objective of this study was to identify potential production and emissions impacts from the Facility by performing market analysis and simulation of the New York – Independent System Operator (NYISO) market for Study Year 2023 with and without the Facility included.

Specifically, to complete the production cost analysis, PowerGEM used its PROBE LT market simulation software to run the following two simulation scenarios and measure impacts between the scenarios:

1. Without the Facility (herein referred to as “reference” case)
2. With the 50-megawatt (MW) Facility, in order to isolate impacts from the Facility (herein referred to as the “study” case)

STUDY ASSUMPTIONS

The approach utilized a full 8,760-hour (365-day) production cost nodal simulation for Study Year 2023; specific assumptions include:

Transmission Model

- PowerGEM used a full, detailed NY-ISO base transmission model with all approved NY-ISO transmission projects as modeled in NY-ISO future planning load flow cases, including the upgrades identified in NY-ISO’s “AC transmission proceeding.”
- PowerGEM modeled thousands of transmission facilities (115-kilovolt [kV] voltage level and above) and N-1 contingencies during simulation, consistent with NY-ISO markets.

Generation

- All future generation, larger than 10 MW, was included at each unit’s appropriate in-service date, if the project has an executed Generator Interconnection Agreement. PowerGEM specifically notes that this included CPV Valley, Cricket Valley, and two Bayonne combustion turbines (CTs).



- All generation retirements announced to NY-ISO were modeled as retired at their appropriate retirement dates. This included the retirement of the Indian Point nuclear plants. All NY-ISO coal plants were also modeled as retired.
- Representative generator outages were applied to the model.

Hourly Demand and Renewable Profiles

- Hourly NY-ISO demand was modeled at the zonal level for all 8,760 hours. The source for demand was the NY-ISO Gold Book demand for Study Year 2023, cross-referenced and trued-up with NY-ISO Congestion Assessment and Resource Integration Study (CARIS) base case zonal load.¹
- Hourly wind and solar profiles were utilized during simulation for all 8,760 hours
 - PowerGEM sourced on-shore wind and solar profiles from National Renewable Energy Laboratory (NREL).
 - The 8,760 Facility profile was provided by Hecate.

Natural Gas Price

- CARIS assumptions were used and equated to approximately a \$4.39 natural gas price annual average, varied per month and pipeline as in the CARIS assumptions

Additional information regarding PowerGEM's PROBE LT market simulation software is included as Attachment A.

CONGESTION ANALYSIS / MARKET SIMULATION RESULTS

The key findings from the two simulations (reference and study cases), especially related to metrics required as part of the Article 10 Application, are as follows:

- By all metrics, there are positive benefits from the Facility
 - Emissions, price, and production cost are all reduced with the addition of the Facility
 - Benefits are in-line with the size of the Facility
- There were no instances of curtailment of the Facility

¹ <https://www.nyiso.com/cspp>



- No other NY-ISO Must-Run Resource is adversely impacted or curtailed when the Facility is added. For this purpose, Must-Run Resources are defined as existing wind, hydroelectric, and nuclear facilities, as well as co-generation facilities to the extent they are obligated to output their available energy because of their steam hosts.

The following figures and tables highlight a few key statistics, as measured between the reference case and the study case.

As shown in Table 1, the annual average NY-ISO locational marginal price (LMP) is reduced with the addition of the Facility. The size of the reduction is in-line with what PowerGEM expected based on the size of the Facility. Attachment B contains the monthly peak and off-peak LMPs for both the reference case and study case simulations.

Table 1. LMP by NY-ISO Zone

NYISO Zone	Average LMP		Min LMP		Max LMP	
	Basecase	With Facility	Basecase	With Facility	Basecase	With Facility
CAPITL	\$50.02	\$50.00	\$27.55	\$27.55	\$94.15	\$94.62
CENTRL	\$48.69	\$48.68	\$26.40	\$26.40	\$97.66	\$97.66
DUNWOD	\$51.56	\$51.56	\$28.09	\$28.09	\$97.70	\$97.76
GENESE	\$47.30	\$47.29	\$26.10	\$26.10	\$94.14	\$94.10
HUD VL	\$51.13	\$51.12	\$27.94	\$27.94	\$96.88	\$96.96
LONGIL	\$51.54	\$51.53	\$28.14	\$28.14	\$97.27	\$97.30
MHK VL	\$49.24	\$49.23	\$26.48	\$26.48	\$97.10	\$97.10
MILLWD	\$51.42	\$51.41	\$28.05	\$28.05	\$97.60	\$97.60
N.Y.C.	\$52.34	\$52.34	\$28.20	\$28.20	\$99.70	\$100.44
NORTH	\$45.79	\$45.79	\$24.96	\$24.96	\$90.43	\$90.40
WEST	\$46.84	\$46.84	\$26.23	\$26.23	\$94.25	\$94.21
Grand Total	\$49.63	\$49.62	\$24.96	\$24.96	\$99.70	\$100.44

The Facility also shows an emissions benefit in New York State by reducing the emissions from overall NY-ISO generation, as shown in Table 2.



Table 2. Estimated Statewide Emission Levels

Emissions	Basecase	With Facility	Difference
Sum of SO2(Tons)	204.9	204.4	(0.6)
Sum of NOx(Tons)	30,043.4	30,000.7	(42.8)
Sum of CO2(Tons)	43,890,622	43,827,048	(63,574)

As shown in Table 3, Facility production peaks in the month of July, which is also as expected from solar generation.

Table 3. Facility Production by Month

Month	MWh - Hecate Solar
January	2989
February	4854
March	7841
April	9477
May	11716
June	11941
July	12196
August	10875
September	8579
October	6351
November	3723
December	2864
Total Annual	93406

The solar output is well-aligned with typical NY-ISO peak hours. Figure 1 shows the hour-by-hour projected solar MW production from the Facility, averaged over the 365-day period.



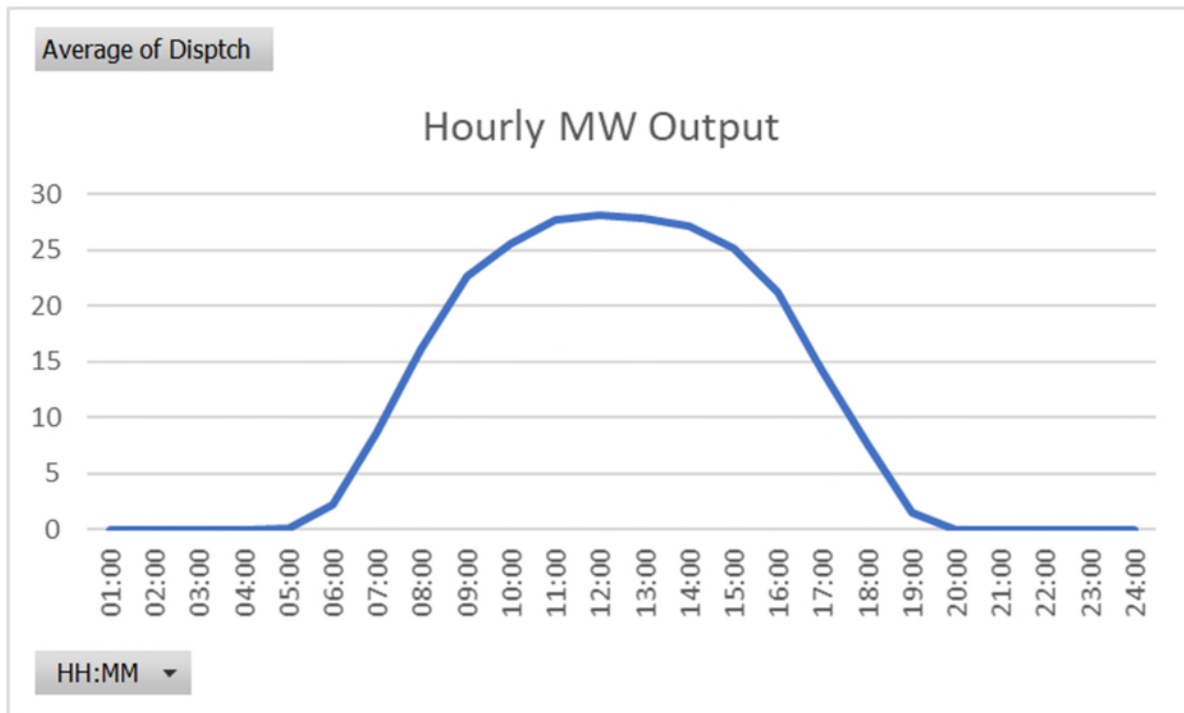


Figure 1. Production Curve



ATTACHMENT A: PROBE LT MARKET SIMULATION SOFTWARE

PowerGEM used PROBE LT software to perform market simulation and production cost analysis. PROBE is a mature product that is uniquely qualified to perform detailed simulation. Product development started in 2002, working with experts within several ISOs to ensure all market rules were precisely modeled in the software. PROBE has since expanded to widespread use at five ISOs, various market participants, and for countless consulting studies. In addition to precise market modeling, PROBE has fast solution time and does not place restrictions on parameters such as number of transmission lines and flowgates to model¹ – a key advantage as compared to other production cost modelling products.

PowerGEM's PROBE software sets a Location-Based Marginal Price (LBMP) exactly as NY-ISO and other ISOs set prices. The software minimizes bid production costs, while accounting for the entire transmission system (including line losses, ratings, etc.) as well as all generator bids and input parameters, such as minimum run times, start-up costs, and ramp rates. Ultimately, upon production cost minimization, the price is set by the marginal unit i.e. the unit that will serve the next MW of load (as determined by the linear programming solution). In a hypothetical unconstrained/lossless system, there will be one marginal unit and the price will be equal to the bid point of the marginal unit; in the actual solution with transmission constraints there will be a few different marginal units.

In short, PROBE does not use stack models or other simplified models. Each generator (and import, export, etc.) has a multi-segment bid curve based on their heat rate, fuel price, variable operation and maintenance (VOM) costs; the software determines the least-cost commitment/dispatch and price is set. Again, this is precisely consistent with how ISO markets and Regional Transmission Organizations (RTOs) function each day – there are other production cost softwares that make simplifications, but PROBE does not.

¹ To develop the list of flowgates to model, PowerGEM's TARA software is used to simulate thousands of extreme generation stressed dispatches while applying a contingency file that corresponds to each model. The result of that simulation is over 3,000 flowgates within NYISO which are then used by PROBE to determine potential future system constraints.



ATTACHMENT B: MONTHLY PEAK AND OFF-PEAK LMPs

Reference Case Simulation

Zone	January		February		March		April		May		June		July		August		September		October		November		December		Grand Total
	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	
CAPITL	\$65.00	\$75.31	\$55.78	\$63.71	\$49.44	\$57.04	\$38.62	\$44.61	\$35.66	\$42.81	\$40.19	\$51.90	\$43.74	\$57.14	\$41.13	\$52.92	\$35.67	\$46.16	\$33.53	\$40.41	\$41.81	\$49.70	\$50.74	\$60.40	\$50.02
CENTRL	\$63.60	\$73.74	\$54.53	\$62.38	\$48.25	\$55.79	\$37.40	\$42.61	\$34.56	\$41.38	\$38.91	\$50.68	\$42.44	\$56.04	\$39.81	\$51.91	\$34.45	\$44.89	\$32.48	\$39.34	\$40.46	\$48.18	\$49.19	\$58.82	\$48.69
DUNWOD	\$66.61	\$78.17	\$56.98	\$65.88	\$50.45	\$58.79	\$39.72	\$46.54	\$36.54	\$44.40	\$41.25	\$53.86	\$44.86	\$59.24	\$42.17	\$54.70	\$36.29	\$47.52	\$34.17	\$41.61	\$42.55	\$51.24	\$51.92	\$62.49	\$51.56
GENESE	\$62.43	\$71.20	\$53.51	\$60.49	\$47.37	\$54.10	\$36.78	\$41.59	\$34.02	\$40.12	\$38.21	\$48.82	\$41.47	\$53.56	\$39.03	\$49.83	\$33.79	\$43.03	\$32.06	\$38.17	\$39.74	\$46.68	\$48.31	\$57.10	\$47.30
HUD VL	\$66.30	\$77.41	\$56.75	\$65.30	\$50.23	\$58.31	\$39.44	\$45.94	\$36.33	\$43.93	\$40.98	\$53.29	\$44.56	\$58.61	\$41.89	\$54.18	\$36.10	\$47.04	\$34.01	\$41.26	\$42.35	\$50.77	\$51.66	\$61.93	\$51.13
LONGIL	\$66.57	\$77.97	\$56.96	\$65.75	\$50.42	\$58.64	\$39.74	\$46.46	\$36.59	\$44.38	\$41.35	\$53.89	\$44.87	\$59.29	\$42.27	\$54.80	\$36.33	\$47.49	\$34.18	\$41.59	\$42.56	\$51.16	\$51.93	\$62.44	\$51.54
MHK VL	\$64.29	\$75.08	\$55.08	\$63.38	\$48.70	\$56.63	\$37.64	\$43.31	\$34.79	\$41.93	\$39.14	\$50.97	\$42.76	\$56.58	\$40.14	\$52.35	\$34.74	\$45.36	\$32.67	\$39.72	\$40.81	\$48.89	\$49.50	\$59.62	\$49.24
MILLWD	\$66.57	\$77.92	\$56.95	\$65.69	\$50.41	\$58.62	\$39.61	\$46.27	\$36.47	\$44.22	\$41.17	\$53.65	\$44.76	\$59.00	\$42.08	\$54.50	\$36.24	\$47.34	\$34.13	\$41.50	\$42.51	\$51.08	\$51.88	\$62.33	\$51.42
N.Y.C.	\$67.00	\$79.78	\$57.22	\$67.06	\$50.67	\$59.73	\$40.04	\$47.74	\$36.75	\$45.29	\$41.56	\$55.01	\$45.22	\$60.56	\$42.49	\$55.79	\$36.51	\$48.50	\$34.31	\$42.23	\$42.78	\$52.18	\$52.21	\$63.61	\$52.34
NORTH	\$60.35	\$69.73	\$51.99	\$59.29	\$46.02	\$53.06	\$35.38	\$39.51	\$33.02	\$39.01	\$37.00	\$46.39	\$40.29	\$51.96	\$37.96	\$48.28	\$32.80	\$41.72	\$30.90	\$36.64	\$38.36	\$45.34	\$45.74	\$54.98	\$45.79
WEST	\$62.23	\$69.65	\$53.46	\$59.49	\$47.35	\$53.33	\$36.87	\$40.97	\$34.25	\$39.70	\$38.29	\$48.03	\$41.54	\$52.58	\$39.13	\$49.12	\$33.97	\$42.37	\$32.33	\$37.85	\$39.85	\$46.05	\$48.32	\$56.26	\$46.84
Hecate Solar POI	\$66.24	\$77.12	\$56.71	\$65.09	\$50.20	\$58.14	\$39.27	\$45.56	\$36.21	\$43.66	\$40.84	\$53.03	\$44.43	\$58.39	\$41.75	\$53.97	\$36.08	\$46.93	\$33.94	\$41.07	\$42.33	\$50.54	\$51.57	\$61.68	\$50.96

Study Simulation

Zone	January		February		March		April		May		June		July		August		September		October		November		December		Grand Total
	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	Offpeak	Peak	
CAPITL	\$65.00	\$75.43	\$55.81	\$63.78	\$49.44	\$56.96	\$38.62	\$44.57	\$35.64	\$42.74	\$40.17	\$51.79	\$43.73	\$57.12	\$41.14	\$52.93	\$35.64	\$45.95	\$33.54	\$40.48	\$41.81	\$49.69	\$50.73	\$60.45	\$50.00
CENTRL	\$63.60	\$73.90	\$54.58	\$62.41	\$48.25	\$55.65	\$37.40	\$42.54	\$34.55	\$41.31	\$38.89	\$50.59	\$42.42	\$56.09	\$39.83	\$51.91	\$34.42	\$44.68	\$32.48	\$39.41	\$40.46	\$48.17	\$49.19	\$58.91	\$48.68
DUNWOD	\$66.61	\$78.29	\$57.00	\$66.00	\$50.45	\$58.75	\$39.74	\$46.53	\$36.53	\$44.34	\$41.24	\$53.74	\$44.85	\$59.20	\$42.18	\$54.73	\$36.27	\$47.30	\$34.17	\$41.71	\$42.55	\$51.23	\$51.91	\$62.52	\$51.56
GENESE	\$62.43	\$71.36	\$53.56	\$60.50	\$47.37	\$53.96	\$36.78	\$41.51	\$34.01	\$40.06	\$38.19	\$48.74	\$41.45	\$53.61	\$39.06	\$49.83	\$33.77	\$42.85	\$32.06	\$38.22	\$39.74	\$46.67	\$48.31	\$57.20	\$47.29
HUD VL	\$66.30	\$77.52	\$56.77	\$65.39	\$50.24	\$58.24	\$39.46	\$45.91	\$36.31	\$43.85	\$40.97	\$53.16	\$44.54	\$58.57	\$41.90	\$54.18	\$36.07	\$46.82	\$34.01	\$41.35	\$42.35	\$50.75	\$51.66	\$61.96	\$51.12
LONGIL	\$66.58	\$78.09	\$56.98	\$65.86	\$50.42	\$58.60	\$39.75	\$46.47	\$36.58	\$44.32	\$41.34	\$53.77	\$44.86	\$59.22	\$42.27	\$54.84	\$36.30	\$47.27	\$34.18	\$41.69	\$42.56	\$51.15	\$51.93	\$62.46	\$51.53
MHK VL	\$64.29	\$75.22	\$55.11	\$63.43	\$48.71	\$56.53	\$37.64	\$43.26	\$34.78	\$41.88	\$39.12	\$50.88	\$42.74	\$56.59	\$40.15	\$52.36	\$34.71	\$45.15	\$32.67	\$39.79	\$40.81	\$48.88	\$49.50	\$59.69	\$49.23
MILLWD	\$66.57	\$78.04	\$56.98	\$65.80	\$50.41	\$58.57	\$39.63	\$46.26	\$36.46	\$44.15	\$41.16	\$53.53	\$44.75	\$58.97	\$42.08	\$54.52	\$36.21	\$47.13	\$34.14	\$41.59	\$42.51	\$51.08	\$51.88	\$62.36	\$51.41
N.Y.C.	\$67.02	\$79.87	\$57.24	\$67.22	\$50.68	\$59.74	\$40.07	\$47.76	\$36.74	\$45.22	\$41.55	\$54.88	\$45.21	\$60.48	\$42.48	\$55.82	\$36.49	\$48.29	\$34.31	\$42.34	\$42.78	\$52.18	\$52.20	\$63.60	\$52.34
NORTH	\$60.35	\$69.87	\$52.02	\$59.34	\$46.03	\$52.97	\$35.39	\$39.46	\$33.01	\$38.96	\$36.99	\$46.33	\$40.28	\$51.97	\$37.97	\$48.29	\$32.78	\$41.55	\$30.90	\$36.71	\$38.36	\$45.34	\$45.74	\$55.04	\$45.79
WEST	\$62.23	\$69.82	\$53.51	\$59.47	\$47.36	\$53.16	\$36.87	\$40.87	\$34.24	\$39.66	\$38.27	\$47.96	\$41.52	\$52.67	\$39.16	\$49.11	\$33.94	\$42.19	\$32.34	\$37.90	\$39.85	\$46.04	\$48.33	\$56.38	\$46.84
Hecate Solar POI	\$66.24	\$77.09	\$56.74	\$64.95	\$50.20	\$57.77	\$39.26	\$45.25	\$36.16	\$43.28	\$40.78	\$52.52	\$44.38	\$57.92	\$41.73	\$53.62	\$36.05	\$46.46	\$33.94	\$40.98	\$42.32	\$50.41	\$51.57	\$61.61	\$50.78

