

TO SITING RENEWABLE ENERGY IN NEW YORK STATE



CONTENTS

3

INTRODUCTION

4

NEW YORK'S CLEAN ENERGY STANDARD

6

CURRENT SITING PROCESS FOR LARGE SCALE RENEWABLES

15

CHALLENGES TO SITING LARGE SCALE RENEWABLES

19

PRELIMINARY POLICY RECOMMENDATIONS FOR ADDRESSING SITING CHALLENGES

26

CONCLUSION

INTRODUCTION

ddressing climate change by shifting to renewable forms of energy production is more important than ever. The October 2018 IPCC Special Report: Global Warming of 1.5° C, which synthesizes research from thousands of scientists from around the world, reveals that the consequences of exceeding 1.5° C of warming are likely to be more severe, and to manifest more quickly, than previously recognized. Similarly, volume two of the Fourth National Climate Assessment, also issued in October 2018, summarizes the work of 13 federal agencies and more than 350 scientists, who conclude that without significant mitigation efforts, there will be substantial damage to the U.S. economy, human health, and the environment. Seeing the need to act, New York State has committed to reducing its greenhouse gas emissions 40% from 1990 levels by 2030 and 80% by 2050. Even before announcing these commitments, New York was a leader in encouraging the shift to renewables: in 2004, it adopted a Renewable Portfolio Standard (RPS) that called for producing 25% of the state's electricity from renewable sources by 2013. More recently, in 2016, it adopted a Clean Energy Standard (CES), discussed below, which calls for renewables to produce 50% of the state's electricity by 2030. And in January 2019, New York State Governor Andrew Cuomo announced his pledge to transition the state to 100% clean power by 2040. Meeting these ambitious goals will require a rapid shift to renewable generation across the state, in part by encouraging small-scale, distributed wind and solar installations, but primarily through the development of large-scale renewable capacity. However, many barriers confront the successful siting of large-scale solar and wind projects. This paper, after providing a brief background on the CES and the existing siting process for different large-scale renewables, highlights some of these issues and provides several preliminary policy recommendations for addressing them.

NEW YORK'S CLEAN ENERGY STANDARD



In its August 2016 Order Adopting a Clean Energy Standard, the New York Public Service Commission (PSC) adopted the 2015 State Energy Plan target of drawing 50% of New York's electricity from renewable resources (e.g., wind, solar, hydro, and biomass) by 2030.1 The key components of the CES are the Renewable Energy Standard (RES), the Offshore Wind Standard,² and the Zero Emissions Credit (ZEC) requirement. The latter, which pertains to nuclear generating facilities, is not relevant here. The RES effectively guarantees a certain level of compensation to new renewable generation owners by conferring a renewable energy credit (REC) to them for each megawatt hour they generate and by only permitting New York's retail utilities to operate if they can demonstrate procurement of a specified number of purchased RECs or if they make an alternative compliance payment (ACP).³ The offshore Wind Standard functions similar to the RES, but uses a slightly different indexed Offshore RECs (ORECs) compensation mechanism.

1 <u>https://on.nv.gov/2aKtpqA</u>. The Order also adopted the complementary SEP target of reducing New York State's greenhouse gas emissions by 40% from 1990 levels by 2030.

2 This element was added to the CES by a 2018 PSC order. See Case 18-E-0071, In the Matter of Offshore Wind Energy, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement (issued July 12, 2018).

3 Utilities that fail to demonstrate compliance in this way must make alternative compliance payments.

In 2017, 28% of New York's in-state electricity generation came from renewable sources.⁴ Most of this is in the form of hydro-electricity, but a small and growing percentage is coming from solar and wind resources. Figure 1, taken from the New York Independent System Operator's Power Trends 2018 report, shows the proportion of fuel sources used to generate electricity in New York State each year from 2000 to 2018; solar is included in the "other renewables" category.

While the percentage of wind and solar generating resources is currently quite small, it is likely to increase significantly in the coming years if proposed renewable projects can successfully get sited and permitted.



FIGURE 1. Proportion of Electricity Generation in New York by Fuel Type, 2000-2018

4 https://www.eia.gov/state/?sid=NY.

CURRENT SITING PROCESS FOR LARGE SCALE RENEWABLES

Under existing state law, electric generating facilities must follow different permitting processes depending on whether their generating capacity will be greater or less than 25 megawatts (MW). Facilities generating 25 MW and over are subject to the Article 10 process administered by the Department of Public Service (DPS) in coordination with other state agencies. Facilities under 25 MW, including community distributed generation (CDG) facilities (which must be 5 MW or smaller), are governed by the State Environmental Quality Review Act (SEQRA) and local zoning laws. Each of these processes is briefly explained below. In addition, offshore wind facilities, currently under negotiation in New York, have their own unique siting challenges as offshore lease areas are in federal, not state, jurisdiction.

ARTICLE 10 PROCESS FOR GENERATING FACILITIES OVER 25 MW

The NY Power Act of 2011⁵ re-established Article 10.⁶ The reauthorized Article 10 resembled an earlier electric generation facility siting law (codified as Articles VIII and X of the Public Service Law) that had expired under its own provisions in 2003.⁷ From 2003 through 2011, projects now subject to Article 10 were reviewed under SEQRA, discussed below. Governor Andrew Cuomo described the bill that became the current Article 10 as establishing "a simplified regulatory process."⁸ By establishing a singular decision-making entity, the New York State Board on Electric Generation Siting and the Environment (the Siting Board), Article 10 was intended to create a streamlined approach to siting large-scale energy generating facilities.

Article 10 vests the Siting Board with ultimate authority to approve construction and operation of projects of 25 MW and greater through the issuance of Certificates of Environmental Compatibility and Public Need. The Siting Board is comprised of seven members, with two representing the local community. Article 10 also allows the Siting Board to waive any local law it determines to be "unreasonably burdensome"9 on the project under consideration. However, to date, no state Siting Board has exercised this capacity to waive a local law, in part due to uncertainty about what constitutes "unreasonably burdensome." While Article 10 has elements that enable municipalities to express their concerns or interests to the Siting Board, there is anxiety among communities over how adequately these concerns get addressed.

The Article 10 process takes an estimated two years to complete; however, most pending projects are several months or years beyond this estimation. A summary of this process includes the following steps:

8 Governor Andrew Cuomo's Program Bill #21 on the Power New York Act of 2011, at 6-7.

9 No court has yet construed the meaning of the term "unreasonably burdensome." See Michael Gerrard & Edward McTiernan, State Authority in NY to Preempt Local Laws Regulating Renewable Energy Projects, NYLJ, May 5, 2018, <u>https://bit.ly/2PqMojb</u> (noting that New York courts have not yet construed the term "unreasonably burdensome"); see also Citizens for the Hudson Valley v. NY State Bd. on Electric Generation Siting & Env't, 281 A.D.2d 89 (3d Dept. 2001) (rejecting argument that Article 10's zoning waiver provision violates the home rule provisions of the State Constitution, or that the statutory phrase "unreasonably restrictive" is unconstitutionally vague)].

⁵ New York State Senate, Senate Bill S.5844, <u>https://bit.ly/2JHwvPP</u> (accessed Nov. 5, 2018). 6 Ch. 388 Laws of 2011.

⁷ That earlier law had been in force since 1992. It was similarly enacted a few years after the lapse of a still earlier siting law, which had been in force from 1972 to 1989. Jennifer Cordes, *Article X: The Future of Electric Generating Facility Siting in New York*, 6 Alb. L. Envtl. Outlook 37 (2001).



- Submit a Pre-Application, referred to as the Public Involvement Program (PIP), to the Siting Board, which will support public access to information about the proposed project for the duration of the review process.¹⁰
- Develop a Preliminary Scoping Statement (PSS), which must be filed before an official application can be submitted. The PSS spells out what studies will be undertaken to assess the proposed project's environmental, economic, cultural, and environmental justice impacts.¹¹
- Carry-out the Stipulations process, which includes the various studies mentioned above. While considered optional, each project will likely have different Stipulations to complete. There is no mandatory timeframe on the Stipulations process and the Siting Board will issue deficiency letters

to the applicant if the studies are not deemed satisfactory. This process and the back and forth can take months or even a year.

- Receive a notice of "compliance" from the Siting Board once the Stipulations are approved. The Siting Board then conducts a public hearing and accepts comments before making a final decision.
- Await the Siting Board's decision, which can take up to 12 months after an application is deemed compliant. Decisions on whether to approve an application can include conditions—and can be challenged. After all conditional compliance filings and petitions for re-hearings have been ruled upon and a certificate is issued, the Article 10 process is considered complete.

10 PIP requirements are codified at 16 NYCRR § 1000.4. 11 PSL § 163(3); 16 NYCRR § 1000.5.

STEP/STATUS	NUMBER OF PROJECTS	YEAR FILED (number of projects filed in that year)
1 Public Involvement Program Submitted	16	2012 (1), 2013 (1), 2014 (1), 2016 (2), 2017 (3), 2018 (8)
2 Preliminary Scoping Statement Submitted	15	2014 (1), 2015 (1), 2016 (1), 2017 (4), 2018 (8)
3 Application Submitted	2	2018
4 Application Deemed Compliant	4	2018
5 Application Approved	0	
6 Certified (final step)	2	2014, 2015
Withdrawn	3	
TOTAL	42	

TABLE 1. Status of Projects Proposed to Siting Board¹³

This process is often lengthy, cumbersome, expensive, and of uncertain duration and outcome, both for developers and for parties that intervene in the process. Moreover, while Article 10 allows the Siting Board to overrule an "unreasonably burdensome" local law, no court nor the Siting Board has articulated in any detail what types of local laws would meet this standard.

As of December 2018, only one renewable project has been fully certified pursuant to the new Article 10 process—the Cassadaga Wind Project, which received a conditional certificate in January 2018 but final approval only after another 11 months of adjudication and modification to plans for environmental impact mitigation.¹² Dozens of others, as shown in Table 1, have experienced slow progress so far. Even with Article 10 approval, in several instances, local approvals are still required, such as tax agreements or road crossings.

¹² Order Granting Certificate of Environmental Compatibility and Public Need, With Conditions, Application of Cassadaga Wind LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 to Construct a Wind Energy Project, New York State Board on Electric Generation Facility Siting, Case 14-02216 (Jan. 17, 2018); Order on Rehearing, Case 14-02216, at 27 (May 15, 2018) ("... we decline to modify the findings, conclusions, or conditions imposed by our January 17, 2018 Order ... except to make the correction to Certificate Condition 32[, Bird and Bat Conservation Strategy] described in this order."]; Press Release, New York Public Service Commission: PSC Gives Final OK for Western New York Wind Farm Project (Nov. 15, 2018). https://on.nvgov/2P7xavd.

¹³ Board on Electric Generation Siting and the Environment, Projects Under Review, <u>https://on.ny.gov/2QnWBdm</u> (accessed Nov. 5, 2018). This table is up to date as of February 2019.

SEQRA FOR GENERATING FACILITIES UNDER 25 MW

Renewable energy projects not otherwise covered by Article 10 (i.e., those under 25 MW) must comply with SEQRA.¹⁴ SEQRA requires all State and local governmental agencies¹⁵ to evaluate environmental impacts resulting from actions they might approve, fund or undertake (referred to as "discretionary" actions). The State or local agency that is undertaking the proposed action or has the most significant approvals for the project under its jurisdiction is referred to as the "lead" agency. In the context of renewable energy projects, examples of discretionary actions can include adoption of ordinances or codes, site plan approval, zoning variances, special use permits, environmental permits, etc. The process is typically triggered when a local or state governing body receives an application.

Once SEQRA is triggered, the lead agency's first task is to classify the action as Type 1 (which requires the preparation of an Environmental Impact Statement, or EIS), Type II (which does not require the preparation of an EIS) ¹⁶, or Unlisted (which may require the preparation of an EIS). If an EIS is required, the SEQRA process must continue through acceptance of a draft and final EIS by the lead agency, which incorporates comments from the public, followed by the issuance of a findings statement, which is the agency's rationale for its decisions regarding the project and that it will avoid or minimize environmental impacts to the maximum extent practicable. Once the lead agency determines that the impacts are either not significant or can be appropriately mitigated, a project can be approved under applicable state or local

permitting requirements. Recently the New York State's Department of Environmental Conservation (DEC) amended the SEQRA regulations such that the installation of solar arrays on several types of previously-disturbed sites of 25 acres or less is considered a Type II action.¹⁷ However, even when projects go through SEQRA rather than Article 10, any required state permits must be obtained, such as when they involve sensitive areas, wetlands or endangered species.

OFFSHORE WIND

As part of his January 15, 2019 State of the State address, Governor Cuomo quadrupled his 2017 goal for offshore wind (2,400 MW by 2030), and called for New York to procure 9,000 MW of offshore wind by 2040. These aggressive targets are part of his new climate goal of 100% clean power by 2040. Recently, many coastal states including New Jersey, Connecticut, Massachusetts, Rhode Island, and Maryland, have made similar announcements on offshore wind, signaling that the offshore wind industry is finally taking root in the U.S. Currently, the New York State Energy, Research, and Development Authority (NYSERDA) has two open RFPs to procure the "first phase" of approximately 800 MW of offshore wind energy.¹⁸ Proposals were due in February 2019 and contracts will be awarded in April 2019.

¹⁴ SEQRA's regulations are available at 6 NYCRR Part 617.

¹⁵ The term "agency" includes state and local boards, districts and other governing bodies. See 6 NYCRR Part 617.2(c).

¹⁶ DEC has determined that the installation of solar arrays on several types of previously-disturbed sites of 25 acres or less is a Type II action, which does not require the preparation of an EIS. 6 NYCRR § 617.5 (c) (14) & (15).

^{17 6} NYCRR § 617.5 (c) (14) & (15).

¹⁸ This RFP is available at <u>https://on.ny.gov/2E54m5q</u>.



In addition to the clean energy benefits that wind provides, an important attribute of offshore wind specific to New York State is its close proximity to Long Island and New York City, areas which collectively account for 45 percent of the state's electricity use but have constrained access to land-based renewable electricity due to the congested transmission facilities linking them to upstate renewable sources.¹⁹

While there is significant potential for renewable energy generation with offshore wind, there are many complex siting challenges.

Siting issues involving offshore wind can encompass three separate components: the siting of the turbines themselves, the transmission lines that carry the power generated by the turbines to land, and the interconnection points that connect, and sometimes convert, the power so it can be carried to and utilized by end users.

In addition to these challenges, another layer of complexity is that oceans are federal jurisdiction beyond the first three miles offshore (the first three miles are state jurisdiction), so while New York State has identified two areas off the coasts of New York and New Jersey for possible offshore wind development, the federal government ultimately has jurisdiction over establishing areas for wind energy development and leasing these areas to developers. The federal Bureau of Ocean Energy Management

19 NYISO, Power Trends 2018, at 36-37, 49 (2018), https://bit.ly/2zkl2k9



FIGURE 2. New York State's Area for Consideration²²

(BOEM), has identified preferred and less-preferred areas for future potential leasing, an area referred to as the New York Bight; however these areas do not completely align with New York's identified areas. Figure 2 provides a map of areas under consideration and areas that already have leaseholders.

In addition to soliciting the two RFP's, NYSERDA's comprehensive Offshore Wind Master Plan²⁰ outlines a path to achieve the Governor's offshore wind goals, including the following:

- Identifying the most favorable areas for offshore wind development;
- Providing seven possible financial mechanisms to procure this energy at the lowest cost to ratepayers

(the advantages and disadvantages of these mechanisms are more fully developed in a separately issued Offshore Wind Policy Options Paper²¹);

- Explaining potential impacts of offshore wind development and how to mitigate them;
- Outlining infrastructure requirements and how this compares to existing facilities; and
- Describing workforce development opportunities of offshore wind.

²⁰ The Master Plan and supporting documents is available at <u>https://www.nyserda.ny.gov/</u> <u>All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan.</u>

²¹ The Offshore Wind Policy Options Paper is available at <u>https://www.nyserda.ny.gov/-/media/Files/</u> Publications/Research/Biomass-Solar-Wind/Master-Plan/Offshore-Wind-Policy-Options-Paper.pdf.

²² This map is available at <u>https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Off-shore-Wind-in-New-York-State-Overview/Siting-Offshore-Wind-Facilities/Area-for-Consideration.</u>

The Master Plan also includes 20 studies that analyze a variety of social, environmental, economic, regulatory, and infrastructure-related issues, seven of which are focused on potentially adverse impacts and are intended to help avoid various siting concerns. As a first step in conducting these studies, the Master Plan identifies a 16,740-square mile offshore study area in the Atlantic Ocean, extending from New York City and the south shore of Long Island to beyond the continental shelf break, where the studies were conducted.

As part of carrying out their duties under the Master Plan, the Policy Options Paper states that NYSERDA and other State agencies will develop siting standards for offshore wind projects, which could include a minimum distance from shore to address potential visibility concerns or the application of best management practices to address environmental or commercial activity concerns.

COMMUNITY SOLAR AND THE ROLE OF LOCAL LAW

Community distributed generation (CDG) facilities allows a group of individuals to purchase renewable energy from an energy-generating facility located somewhere other than on the property of the participants. Participants buy-in to the energy being produced off-site and receive credits from that facility to offset their bills. These projects typically range from 500 kW to 5 MW of generating capacity,²³ and were first authorized by the Public Service Commission in 2015.²⁴ In New York, such facilities are predominantly solar, rather than wind, and are often called "community solar." CDG projects must navigate local permitting and zoning requirements while also gathering sufficient local subscribers to cover operational and capital costs, as Figure 3 shows above.



FIGURE 3. CDG Roles and Responsibilities²⁵

New York localities determine what requirements a project must meet, resulting in a relatively easy or difficult process for siting a CDG project.²⁶ Many of New York's roughly 1,600 localities have adopted local laws modifying their comprehensive plans and zoning requirements with the development of solar capacity in mind; in nearly all cases, they have done so to both enable solar development and constrain where and how it occurs.²⁷ However, many other

25 NYSERDA, Community Distributed Generation: Overview for Project Developers, https://on.ny.gov/2DTDQLD.

²³ Order on Phase One Value of Distributed Energy Resources Project Size Cap and Related Matters, In the Matter of the Value of Distributed Energy Resources, Case 15-E-0751 (Feb. 22, 2018) (raising "cap" on permissible CDC project capacity from 2MW to 5MW).

²⁴ Order Establishing a Community Distributed Generation Program and Making Other Findings, Proceeding on Motion of the Commission as to the Policies, Requirements and Conditions for Implementing a Community Net Metering Program, Case 15-E-0082 (July 17, 2015), <u>https:// on.nvgov/zoIFzoh</u>.

²⁶ In New York State, localities have zoning authority so long as they undertake zoning "in accordance with a comprehensive plan," Town Law § 263; Village Law § 7-704. For New York City, the key phrase is "in accord with a well-considered plan." Gen. City Law § 20(25), meaning, broadly, that any changes to zoning requirements reflect due consideration and reasoning. See Udell v. Haas, 21 NY. 2d 463, 470 (1968) (finding evidence that the public interest is being served in "careful and deliberate review of the present and reasonably foreseeable needs of the community").

²⁷ Notably, even local laws that provide for solar development often limit it. See, e.g., Town of Shawangunk, Local Law No. 1 of 2018 § E(3)(b) (limiting solar developments to 2 MV) and/or 20 acres). In addition, a number of localities have adopted moratoriums—and sometimes several successive moratoriums—to give them to time to develop and adopt local laws to authorize but delimit and guide solar development.

localities have not adopted such modifications,²⁸ effectively guaranteeing that any solar development will face a steeplechase involving requests for zoning variances, permitting exceptions, and the processes required to see those requests through.²⁹

Recognizing the importance of providing clear local administrative pathways for solar development, NYSERDA developed a model local law for solar, along with guidance on how to make use of its provisions and on other related topics, such as regulating the operations and decommissioning of solar installations.³⁰ A number of localities have drawn on its definitions, parameters, and assorted other provisions when drafting local laws for their particular circumstances. Some localities have sought to encourage CDG as well as rooftop and utility-scale solar. Below are several examples of localities and local laws that illustrate the importance and challenges of solar development by, among other things, amending zoning requirements.

Town of Callicoon, Sullivan County³¹

In 2010, before any changes had been made to the Town of Callicoon's comprehensive plan regarding solar, plans to install a solar array on the roofs of two town-owned buildings were presented to the town board but ultimately abandoned.³² A May 2013 update to the town's comprehensive plan called for the amendment of local zoning requirements "to include specific provisions allowing for wind, solar, geothermal and other alternative energy projects,³³ but the zoning provisions of the town's code remain unchanged,³⁴ and—despite potential access to state-level financial support—no significant solar projects have been developed there.

Town of Delaware, Sullivan County

By contrast, the neighboring Town of Delaware worked through the process of developing and

adopting a local law pertaining to "renewable energy systems" in November 2016,³⁵ and in March 2018, announced the completion of a 2.7 MW CDG facility.³⁶ However, the town board has considered several and adopted at least one temporary moratorium on solar development: a moratorium preceded adoption of its renewables local law and another was proposed as development of two solar facilities neared completion.³⁷ Plans for the CDG facility completed in 2018 were amended materially three times. In addition, the town adopted further zoning changes focused on solar developments in 2018.³⁸ Whether these are mere refinements or measures intended to choke off further CDG facility development is unclear.

Town of New Scotland, Albany County

The Town of New Scotland's solar-related 2017 amendment to its zoning laws contains a notable set of provisions: "Zoning for Future Solar Access."³⁹ These provisions direct architects, developers, and

30 NYSERDA, New York State Solar Guidebook, <u>https://on.ny.gov/zqRV4AY</u> (accessed Nov. 16, 2018) (providing links to the New York State Unified Solar Permit and related guidance, the Model Solar Energy Local Law and related guidance, as well as other similar documents).

31 The Town is distinct from the hamlet of Callicoon, which is located within the boundary of the neighboring town, Delaware.

32 Jeanne Sager, Solar panels in Callicoon's future, Sullivan County Democrat, Mar. 10, 2009, https://bit.ly/2DJIYaq; Jeanne Sager, Solar energy projects in Callicoon on hold, Sullivan County Democrat, Mar. 10, 2009, <u>https://bit.ly/2QSet0m</u>; Jeanne Sager, Compromise on Callicoon solar energy project, Sullivan County Democrat, Jan. 22, 2010, <u>https://bit.ly/2FF8F9p</u>.

33 Town of Callicoon, Sullivan County, Update to Comprehensive Plan 48 (May 2013). https://bit.ly/2DKgdpA.

34 See Code of Callicoon, adopted May 1, 2013, <u>https://bit.ly/2QRVGCg</u>; see *also* Town of Callicoon, Regular Town Board Meeting, 2 (Mar. 14, 2016), <u>http://townofcallicoon.org/wp-content/ uploads/2016/10/RM03,16.pdf</u> (recording that town's zoning enforcement officer mentioned availability of NYSERDA's model local law for solar and noted possible use of its provisions by Callicoon).

35 Town of Delaware, Local Law No. 3-2016 (adopted Nov. 1, 2016).

36 Matthew Nanci, Sullivan County solar project completed, Times Herald-Record, Mar. 13, 2018, https://bit.ly/20PCyVn.

37 Town of Delaware Town Board Regular Meeting, May 19, 2018, <u>https://www.townofdel-aware-ny.us/Files/present_year/TownBoard/BdMinMay.pdf</u> (discussing but not adopting resolution regarding solar development moratorium).

38 Town of Delaware, Sullivan County, Local Law No. 3-2018 (adopted Sept. 26, 2018), https://bit.ly/2qT3jgy.

39 https://bit.ly/2Dw4yd1

²⁸ See Lana Bellamy & Paul Brooks, Wave of large solar power projects puts spotlight on local laws, Times Herald-Record, Apr. 21, 2018, <u>https://bit.lv/2DiixNA</u> ("Over the past five years, developers have pitched 125 projects in Sullivan, Ulster and Orange counties, *** [but] only 50 of the 90 local towns, villages, counties and cities have solar power project laws in place, according to the database of local laws maintained by New York's Department of State.").

²⁹ Cf. Eleanor Stein and Mike O'Boyle, Siting Renewable Generation: The Northeast Perspective 5 (Mar. 2017) ("when a project is proposed [in a locality with no local law anticipating renewables development] there is a scramble to respond, leaving local action open to the most vocal opponents").



the town's planning board and zoning board of appeals to consider how any proposal would affect potential future installations of solar and to take steps to maximize the feasibility of such installations, for instance by encouraging buildings to be sited close to northern lot lines so that more space on the south side of lots remains available. While the 2017 amendments clearly encourage small-scale solar adoption in a variety of ways, they also restrict the installation of large-scale solar facilities (defined as any solar collection system not meeting the definition of a smallscale system⁴⁰) by prohibiting solar facilities from being located on land that is "mature forest," "prime farmland," and "farmland of statewide importance," which covers more than half of the town's land.⁴¹

Village of Mount Kisco, Westchester County

Updates to Mount Kisco's local laws, adopted in December 2018,⁴² authorize roof-mounted solar panels in residentially-zoned areas, and ground-mounted arrays on certain commercially-zoned properties, such as two local cemeteries and a capped landfill where solar installations have been proposed and planned. The legislation also characterizes solar installations as compatible with the village's historic preservation and conservation development districts, so long as particular decommissioning protocols (e.g., replacement tree-planting) are followed. Mount Kisco's adoption of these measures is an example of local laws providing a mechanism for integrating solar development opportunities with more general land use priorities by combining the relaxation of some restrictions with the maintenance or adjustment—or addition—of others.

40 It defines small-scale solar systems as those mounted on a rooftop or sized to serve primarily electric loads co-located on the same lot as the system.

41 Town of New Scotland Local Law No. 2017-5, https://bit.ly/2Dw4yd1.

42 Proposed Village of Mount Kisco Solar Energy Law, https://bit.ly/2E74GQr.

CHALLENGES TO SITING LARGE SCALE RENEWABLES

The following section identifies several challenges to siting large-scale renewable facilities, including legal and regulatory means devised by localities to slow or impede large-scale renewables development, limited access to the transmission grid, and potential incompatibility with farmland and fisheries. With respect to the first challenge, it should be noted that while these barriers can be met and potentially neutralized, underlying them is local aversion to the (real or perceived) impacts of renewables. Rather than focusing only on problematic local laws, a larger strategy for quelling this aversion and addressing underlying concerns may be through targeted public education and engagement.

LOCAL LAWS DESIGNED TO PREVENT DEVELOPMENT

As described above, the absence of comprehensive plan elements or zoning requirements that expressly address renewables can present an effective barrier to large-scale renewable facility development, whether the process is governed by Article 10 or SEQRA. So too can local laws that impose limits on key elements of renewables development. The following examples illustrate this point but are not exhaustive.

 Moratoria in general and on meteorological ("met") towers in particular. Localities often impose temporary moratoria on renewable development to give themselves time to develop local laws that would regulate renewable installations' development, operation, and decommissioning. Such moratoria delay development by design and, if imposed at critical times, can kill a development proposal or dissuade developers from even considering an area for a project. For example, approval of a wind farm requires completion of studies, which in turn require the erection of met towers to gather data on local wind resources. Recognizing this, several towns have adopted moratoria on met towers.⁴³

- Lot coverage restrictions and setback requirements. Localities can limit the area or capacity of a proposed renewable development indirectly by restricting how much of a given property that development may occupy. Lot coverage restrictions and setback requirements effectively require a developer to buy and maintain more acreage than is technically required, and also, depending on the size of available lots in the jurisdiction, indirectly serve as sizing limits on any given installation.
- Local grid upgrade prohibitions. In addition to identifying and securing a site that accesses available wind or solar resources, a renewables

⁴³ See, e.g., Town of Clayton, Local Law No. 2 of 2016 (Apr. 27, 2016); Town of Yates, Local Law No. 1 of 2016; Town of Knox, Local Law No. 1 of 2006. The Town of Clayton's story is instructive: In June 2016, shortly after a developer had submitted its Article 10 Public Involvement Plan for the proposed Horse Creek Wind Farm in Clayton, the town's board adopted a moratorium on the erection of the met towers. The developer sued, Brian Kelly, *Developer sues Clayton over moratorium on wind energy projects*, Watertown Daily Times, June 1, 2016, but did not initially persuade the court to issue a preliminary injunction suspending the moratorium. Brian Kelly, *Judge: Clayton's moratorium on meteorological towers stands for now*, Watertown Daily Times, July 15, 2016, and eventually reached an advantageous settlement with the town board, which approved the original application for the met towers. Marcus Wolf, *Planning Board approves met tower application*, Watertown Daily Times, Nov. 7, 2016. The result was delay and an opportunity to consolidate local opposition to the project.

developer must also secure access to the bulk power system (for larger installations) or the local distribution grid (for smaller ones). If proximate grid facilities are too small to handle the power that would flow from the planned installation, either the plans must be scaled down or the grid facilities enlarged. Some localities have adopted local laws prohibiting any renewables development that would require such enlargement. In circumstances where project economics hinge on a minimum scale of capacity, this prohibition can effectively rule out renewables development.

• Opt-outs from tax exemptions. New York State Real Property Tax Law section 487 is designed to cancel the effect on property tax of installing renewable generation on one's property and thereby add to that property's value. It provides a 15-year exemption to property owners who would otherwise have to pay that additional increment of tax. Numerous localities, however, have opted out of this exemption,⁴⁴ and so have restored a disincentive for renewables development of a small, additional property tax payment.

LIMITED ACCESS TO TRANSMISSION GRID

It is no secret that there is not enough existing transmission capacity to support the amount of renewable generation to meet the CES in a cost-effective manner. However, developing additional transmission and/or distribution infrastructure can be a time-consuming and complicated process that includes engaging in a broader scope of discussions with utilities, localities, and affected landowners, and possibly needing to do so within the context of a rate case or statewide proceeding, like the ongoing Reforming the Energy Vision (REV) before the PSC.



In addition, the interconnection process, which is the set of legal rules and procedures for connecting a renewable energy system to the grid and is governed by the Standardized Interconnection Requirements (SIR) in New York,⁴⁵ can be slow and cumbersome, which can cause delays for getting projects up and running. In April and October 2018, the PSC made a series of changes to the SIR aimed at making the interconnection process more efficient, the effectiveness of which are too early to be determined.⁴⁶

⁴⁴ New York State Department of Taxation and Finance, RPTL Section 487. Exemption for certain energy systems, <u>https://on.ny.gov/2EGOqbi</u> (accessed Nov. 25, 2018); see *also*, e.g., Town of New Scotland, Local Law 2017-3, <u>https://bit.ly/2Rjmr2Q</u>.

⁴⁵ Information about the SIR is available at https://on.ny.gov/116j52C.

⁴⁶ These changes include identifying projects that can be fast-tracked, enhanced metering and performance standards, new interconnection rules for larger projects up to 5 MW, and other back-end enhancements. See https://tinyurl.com/yc932la2 and https://tinyurl.com/yc932 and <a href="https:/

FARMLAND AND FISHERIES

Relative to nuclear or fossil fuel-fired power plants, renewable electricity generating facilities have a footprint that is both much larger and much lighter. That is, renewables cover a much larger land area per MW of capacity,⁴⁷ and while that coverage limits some other uses it does not exclude all other uses.

Farmland

Certain features of agricultural lands make them uniquely suited for renewables, such as a clear and flat landscape. Wind power is generally compatible with agricultural land uses: turbine towers and supporting equipment have small physical footprints, and can be spaced to allow passage of even very large farming equipment. The same is generally not true for large-scale solar arrays, however, which can be compatible with light grazing and apiaries (i.e. bee hives) but not with more intensive uses like heavy grazing and raising crops.⁴⁸

Of New York State's roughly 31 million acres, 3.9 million (13%) are active cropland and 3.3 million (11%) are pasture.⁴⁹ Owners of that land benefit from its advantageous tax treatment—but only if they farm it. In fact, conversion from farmland to use as a solar farm can yield penalties under state law.⁵⁰ While wind turbines are potentially compatible with continued farming, most large scale solar arrays are not. Furthermore, research continues to explore the effects of solar arrays on soils,⁵¹ and to identify best management practices for developers and land owners. Because solar developers tend to lease land for 20 years at a time, land owners have limited options for hedging against these risks.

In addition to farmland, the use of forest or other pristine land for large-scale solar or wind development is also contentious. A 100-acre solar farm in



the Town of Brookhaven on Long Island that will include 67,000 solar panels was controversial with some local stakeholders primarily because it would involve the clear-cutting of trees, though the property itself was zoned for industrial use.⁵²

52 Information about the Middle Island Solar Farm project is available at misfenergy.com.

⁴⁷ Michael B. Gerrard, Legal Pathways for a Massive Increase in Utility-Scale Renewable Generation Capacity, 47 ELR 10591 (2017), <u>https://bit.ly/scSLqVy</u> (estimating land area required for deployment of renewables adequate to displace fossil-fueled sources of electricity); R.R. Hernandez et al., Land-use efficiency of big solar, 48 Envtl. Sci. & Tech.1315 (2014).

⁴⁸ Benjamin Mow, National Renewable Energy Laboratory, Solar Sheep and Voltaic Veggies: Uniting Solar Power and Agriculture, June 6, 2018, <u>https://bit.ly/2rUw3YU</u>; see also Stephen J. Herbert et al., Agriculture and Solar Energy Dual Land Use, <u>https://bit.ly/zuiKjLZ</u> (accessed Nov. 28, 2018) (describing investigation of how solar arrays can be made compatible with various agricultural applications).

⁴⁹ NY PSC Case 15-E-0302 - Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Final Supplemental Environmental Impact Statement 3-3 (2016).

⁵⁰ See Travis Grout and Jennifer Ifft, Approaches to Balancing Solar Expansion and Farmland Preservation: A Comparison across Selected States 6 (May 2018), <u>https://bit.lv/2030bxm</u> ("To simplify slightly, a landowner deciding to convert covered land to a non-agricultural use (typically including large-scale solar) must pay a tax penalty based on the difference between use and market value for the previous five tax years, including interest.").

⁵¹ Jennifer Ifft et al., Cornell Community & Regional Development Institute, Large-Scale Solar Information and Research Needs for New York State 5 (May 2018), <u>https://bit.ly/2DQVRtW</u>.



Fisheries

The New York Bight is home to over 300 species of fish, as well as an active recreational, for-hire, and commercial fishing industry. Almost every square inch of this area (and the ocean in general) has value for someone in the fishing industry. Offshore wind development offers a significant challenge to unfettered access to these areas and some in the fishing industry have argued that the turbines and related equipment will degrade prime fishing grounds. Alternatively, some groups have suggested that the areas around the turbines, most notably the bases of the turbines themselves, could enhance recreational fishing by the creation of artificial reefs. As a result of real or perceived threats, the fishing industry has generally opposed offshore wind development on or near fishing grounds and some in the commercial fishing industry have called on the federal government to compensate them for property and economic loss.⁵³ BOEM has recently narrowed the "call areas" within the New York Bight (i.e. the areas where the turbines can be sited) in large part because of opposition from the fishing industry, specifically scallopers.⁵⁴

⁵³ See Offshore wind energy: NJ fisherman want money for losing fishing grounds, Asbury Park Press, Sept. 21, 2018, <u>https://tinyurl.com/ybu8zor5</u>.

⁵⁴ See Boem Elaborates on Map for New York Bight Areas for OffShore Wind, South Coast Today, Nov. 23, 2018, <u>https://www.southcoasttoday.com/news/20181123/boem-elaborates-on-map-for-new-york-bight-areas-for-offshore-wind</u>

PRELIMINARY POLICY RECOMMENDATIONS FOR ADDRESSING SITING CHALLENGES

The policy recommendations below focus on FIVE KEY AREAS:

- 1. Improving the Article 10 process,
- 2. Ensuring that communities proactively evaluate and incorporate large-scale renewable development into their land-use decisions,
- Improving community engagement early in the siting process,
- 4. Promoting public education concerning the local and regional benefits of renewable energy, and
- 5. Encouraging developers and localities to explore revenue sharing from locally-sited facilities.

IMPROVE THE ARTICLE 10 PROCESS

▶ From a developer and intervenor perspective, the Article 10 process is time-consuming and involves a high degree of uncertainty. The recommendations below attempt to clarify some of these uncertainties and shorten the overall process. These recommendations are consistent with those made by the Alliance for Clean Energy New York and The Nature Conservancy in an October 2017 report entitled *Accelerating Large-Scale Wind and Solar Energy in New York*.⁵⁵

Clarify the "unreasonably burdensome" provision

Article 10 authorizes the Siting Board to overrule an "unreasonably burdensome" local law, but does not specify factors or circumstances to help stakeholders or the Siting Board determine when it is appropriate to do so. No court has yet opined on what constitutes an "unreasonably burdensome" local law, nor on whether that term is broader in its meaning than the term "unreasonably restrictive," which appeared in the prior versions of Article 10 and was the basis for several judicial decisions.⁵⁶ The Siting Board should develop guidance regarding its interpretation of how various factors inform application of the ambiguous term and how it would apply to several illustrative cases hypothetical or based on past instances.

Develop more efficient stipulations process

As part of the Article 10 application, applicants can prepare studies concerning a project's anticipated environmental, economic, cultural and environmental justice impacts. This optional part of the application process is referred to as the Stipulations process. This process has no required timeline and often includes many rounds of submissions and comments between the applicant and the Siting Board. Guidance on acceptable study methods should be established so parties have clear direction regarding the types of information and quality of evidence required to address and resolve concerns. In addition, the Stipulations should set a deadline for parties to raise issues with the studies presented. This process should be used to improve the application process rather than slow it down.

Conduct agency analyses of length of time of current process

DPS and/or other relevant State agencies should conduct a Lean analysis to determine the length of various steps in the application process from PIP to certificate issuance and to understand where improvements can be made. A Lean analysis is a process improvement tool inspired by privatesector manufacturers to improve their operations. Governor Cuomo implemented a Lean program in 2013, which encourages state employees to improve their processes to remove unnecessary steps and streamline government services.⁵⁷ When an inefficiency is identified in the Article 10 process, the agency should develop recommendations for how to reduce or eliminate it.

⁵⁵ The report is available at https://www.nature.org/content/dam/tnc/nature/en/documents/ accelerating-large-scale-wind-and-solar-energy-in-new-york.pdf.

⁵⁶ Gerrard & McTiernan, supra note 5.

⁵⁷ Additional information about this program is available at <u>https://www.governor.ny.gov/news/</u> governor-cuomo-announces-new-york-states-lean-initiative-wins-citizens-budget-commissions-prize.

ENCOURAGE APPROPRIATE SITING AND DEVELOPMENT OF LARGE-SCALE RENEWABLES

Most communities lack the necessary resources to properly evaluate and incorporate large-scale renewable development into their land-use decisions. Below are several recommendations to address this.

Promote siting large-scale renewables in previously disturbed areas

NYSERDA, DEC, and other State agencies should explore incentives that build on the coordinated measures taken in 2018, which include a toolkit that offers guidance on the use of brownfields and landfills for solar development,⁵⁸ and a decision by DEC to categorize as a SEQRA Type II action (i.e. which does not require the preparation of an EIS) the installation of solar arrays on several types of previously-disturbed sites of 25 acres or less.⁵⁹ Recognizing that localities' experiences with the installation of CDG facilities on brownfields and landfills can be idiosyncratic,⁶⁰ policies devised to encourage this approach should combine funding and technical assistance, as well as fostering connections between officials who navigated a siting process in one locality with officials seeking to do so in another.

Support local comprehensive planning that includes large-scale renewable development in appropriate locations

State agencies, including the Department of State, NYSERDA and DEC, should provide funding and technical assistance for municipalities looking to create comprehensive plan elements that incorporate renewable energy goals into plans for infrastructure, fiscal sustainability, and resilience.

Address complex siting process for offshore wind

An important consideration with respect to siting turbines offshore is ensuring that marine and fishing habitat are minimally disturbed, including areas that are used for commercial and recreational fishing, and ensuring that turbines minimize the impact on birds and waterfowl. Given that the Port of New York and New Jersey is among the busiest in the world, turbines should not be located in areas that are in or adjacent to designated shipping channels.

Many of the same issues can arise with transmission lines. Two options for transmission include direct radial transmission, which connects a single project to a land-based interconnection, and backbone, which is expandable and can accommodate an initial project as well as projects built later on.⁶¹ Interconnection also raises several important, and thorny, siting issues. Simply locating the cables themselves is one. Another relates to transmission and substation upgrades, which may require the use of additional onshore land. Many of these siting issues have arisen in Long Island in connection with the South Fork Wind Project, a 15-turbine wind farm currently in negotiation located 35 miles off the coast of Montauk, Long Island.

⁵⁸ See New York Solar Guidebook for Local Governments (Aug. 2018).<u>https://on.ny.gov/2PBuWWq</u>. 59 6 NYCRR § 617,5 (c) (14) & (15).

⁶⁰ See, e.g., NY PSC, Press release: PSC Moves to Reduce Municipal Street-Lighting Costs with Solar Power, Aug. 2, 2017, <u>https://on.ny.gov/2zil.pHy</u> (describing rule change that allowed Town of Beacon to offset street lighting costs using electricity from CDG sited on closed landfill); Jeff Simms, *Beacon Solar Farm Ready to Shine*, The Highlands Current, June 22, 2018, <u>https://bit. ly/zzmcopyu</u>.

⁶¹ New York's initial 800 MW procurement includes only radial transmission given that this was the most feasible in the short term. However, future solicitations could allow for or accommodate backbone transmission options, which may have significant cost benefits for ratepayers as wind energy facilities increase over time.

POLICY RECOMMENDATION 3 IMPROVE COMMUNITY ENGAGEMENT IN THE SITING PROCESS

Local opposition can be a significant barrier to siting large-scale renewables. While community engagement can be a time-intensive process and does not guarantee that the community will eventually support the project, below are suggestions that are likely to lead to increased stakeholder participation and may improve the likelihood of community support.



Develop materials that explain stakeholder involvement in Article 10 process

DPS should develop materials that explain the roles and responsibilities of parties to the Article 10 process (other than the developer) so that stakeholders can participate effectively and have confidence in the process. These materials should be distributed as early as possible to actual participants and made readily available to wouldbe participants.

Encourage public officials and developers to identify early opportunities for stakeholder engagement

State and public officials, as well as developers, should create and/or take advantage of opportunities for engaging community members as early as possible. Forums should allow for a variety of different perspectives and should include municipal officials from other communities who can share their experiences regarding project siting. Allowing the sharing of information will increase opportunities for negotiation and compromise.



Use trusted third-party organizations to organize collaboration among different groups

NYSERDA and other State agencies should identify trusted third-party organizations like Sustainable CUNY,⁶² American Farmland Trust,⁶³ and others to organize and facilitate stakeholder engagement concerning issues that are likely to arise in the siting process.

63 American Farmland Trust, New York Solar Siting Resources, https://www.farmland.org/new-york-solar (accessed Nov. 23, 2018).

⁶² Sustainable CUNY, NY Solar Smart, <u>https://bit.ly/2SI6JEa</u> (accessed Nov. 23, 2018).

PROMOTE PUBLIC EDUCATION ON LOCAL AND REGIONAL BENEFITS OF RENEWABLE ENERGY

State and local officials should identify public education opportunities that explain the local and regional benefits of renewable energy, including economic opportunities, to increase community support and answer points raised by community opposition—for siting renewables projects.

Provide communities with information on large-scale renewables potential

NYSERDA should sponsor development of a New York State version of California's "Climate Console," a GISbased mapping tool that supports rapid assessments of present and future feasibility of particular sites for large-scale renewable siting.⁶⁴ Once this tool is developed, NYSERDA and other State agencies should roll it out widely and in ways that promote community awareness and understanding of the tool's outputs. NYSERDA has performed a detailed analysis of wind resource potential for offshore wind as part of its Offshore Wind Master Plan,⁶⁵ although it is still very early in the process and it has not been determined exactly where these projects will be located.

Update study on economic benefits of large-scale renewables to localities

NYSERDA's 2013 Renewable Portfolio Standard Assessment Report includes an assessment of the macroeconomic impacts of the renewable energy resources in the RPS program, including net-job creation.⁶⁶ NYSERDA's 2017 and 2018 Clean Energy Industry Reports survey jobs and investments related to renewables and other technologies, but provide only limited details regarding county- and regionallevel economic impacts.⁶⁷ NYSERDA should conduct periodic updates of its 2013 report and should include estimates of local economic contributions of investments in large-scale renewable projects during their construction and operation phases.

Explain health and environmental benefits of renewable energy to communities, including low-income and Environmental Justice (EJ) communities

Renewable energy resources can have local health and environmental benefits, including potential reductions in criteria air pollutants such as nitrogen dioxide, sulfur dioxide, and particulate matter as a result of displacing local fossil-fueled electricity generation. This potential is especially important because dirtier generation facilities are often located in low-income and EJ communities, where they contribute to increased rates of asthma and other respiratory illnesses in these communities. Developers and public officials should identify, estimate, and communicate benefits to these communities as a way of building public support.

64 California Climate Console, <u>http://climateconsole.org/</u> 65 See <u>https://on.ny.gov/2AzHXce</u>. 66 See <u>https://on.ny.gov/2KHThrn</u>. 67 See <u>https://on.ny.gov/2RPxIbD</u>.

POLICY RECOMMENDATION 5

ENCOURAGE DEVELOPERS AND LOCALITIES TO EXPLORE AND AGREE ON APPROPRIATE REVENUE-SHARING



In Britain, Denmark, Germany, and elsewhere, "community funds" or "community benefits" have long been a commonplace means for renewable facility developers to garner the goodwill of a host community by sharing the financial benefits of power production and sales.⁶⁸ These arrangements take diverse forms,⁶⁹ but all involve commitment of some portion of the revenues flowing through a renewable facility to its host community. Fundamentally, such arrangements may avoid community members viewing a renewable developer negatively because it creates an arrangement where developers invest back in to their host community in ways that can meet specific needs of the community itself. This is already taking place through host benefit agreements in New York in communities that host solid waste facilities. In addition, many renewable companies are working with communi-

ties in this way through lease payments, payment in lieu of tax agreements, good neighbor agreements, and agreements for capital improvements to community resources and infrastructure. While these agreements offer a potential solution, they could result in increased cost for these projects. Public officials, NGOs, and CBOs should continue to explore how a community's needs can be met and revenue can be shared with a host community in a way that is most beneficial and meaningful.

⁶⁸ See, e.g., Mhairi Aitken et al., Wind Farms Community Engagement Good Practice Review (2014), <u>https://bitly/zzxbcww</u>; see *also* Aberdeenshire Council, Community Benefit Guidance: Guidance for Community and Voluntary Groups for Renewable Energy Projects (2016), ("Scottish Government guidance promotes a national rate for onshore renewable energy developments as being equivalent to at least £5,000 per installed [MW] per year. This is intended to be index linked for the operational lifetime of the development, together with consideration by developers of the scope for community investment.").

⁶⁹ See T. Lane and J. Hicks, Department of Environment, Land, Water and Planning, Victorian Covernment, Melbourne, Community Engagement and Benefit Sharing in Renewable Energy Development: A Guide for Applicants to the Victorian Renewable Energy Target Auction 24-26 (2017), <u>https://bit.lv/2E4/fxa</u> (discussing types of community benefit sharing, including sponsorship of local infrastructure and co-ownership of renewable facilities).

CONCLUSION

ramatically increasing large-scale renewable generating capacity across New York State is necessary for New York to reduce power sector emissions and achieve a carbon neutral electricity system by 2040, while at the same time electrifying the transportation and building sectors. As this paper has shown, there are numerous siting-related challenges that confront large-scale renewables development. This paper has set out a series of preliminary policy recommendations designed to make siting less contentious and more efficient. It takes note of interests and priorities that compete with renewables siting and points out the central role that stakeholder engagement plays in reconciling those sources of potential dispute. Its recommendations also include improvements to the Article 10 process and exploration of opportunities for community engagement and revenue sharing. Following a series of regional roundtable discussions with stakeholders focused on the local challenges and opportunities, the New York League of Conservation Voters will issue final recommendations for improving the renewable energy siting process.



For more than 25 years, the New York League of Conservation Voters Education Fund (NYLCVEF) has educated and engaged New Yorkers on environmental policy issues. Our programs equip New Yorkers with the resources they need to be informed voters and to hold our elected leaders accountable. Together with a broad network of partners, NYLCVEF addresses New York's most pressing environmental challenges, including combating climate change, protecting public health, and safeguarding our air and water quality. Learn more at **www.nylcvef.org**.

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