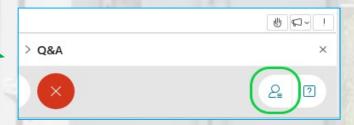


Meeting Procedures:

- Members of the public are muted upon entry
- Questions and comments may be submitted in writing through the Q&A feature at any time during the event
- The chat feature is disabled
- Today's materials, along with a recording of the webinar, will be posted to www.nyserda.ny.gov/StorageGuidebook
- If technical problems arise, please contact Sal.Graven@nyserda.ny.gov

You'll see when your microphone is muted



Series Recap:

- Battery Energy Storage Systems 101
 Featuring Dr. Stanley Whittingham, 2019 Nobel Laureate for Chemistry
- 2. Fire Safety
 Featuring NYS Office of Fire Prevention and Control, Energy Safety Response Group
- 3. Zoning and Permitting
 Featuring NYSERDA's Clean Energy Siting Team
- 4. <u>Decommissioning and End-of-Life Considerations</u>
 Featuring DNV, Li-Cycle
- 5. <u>Assessments and Taxation</u>
 Featuring Hodgson Russ LLP

Agenda:

- Recap: Energy Storage in NYS
- Assessments & Taxation:
 - Sales Tax & BESS
 - Property Tax & BESS
 - Assessing BESS
- Q&A

Featured Speakers:

- Joshua Lawrence Partner, Hodgson Russ LLP
- Mila Buckner
 Senior Associate, Hodgson Russ LLP
- Henry Zomerfeld
 Senior Associate, Hodgson Russ LLP





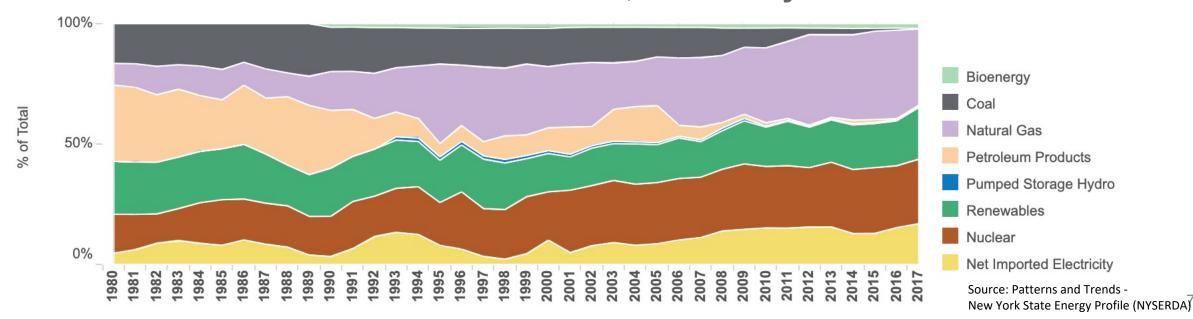
The Climate Leadership and Community Protection Act (Climate Act)

Electricity Sector Goals:

- 70% Renewable Electricity by 2030
- 100% Emissions-Free Grid by 2040

Technology-Specific Goals:

- 6,000 MW Distributed Solar by 2025
- 9,000 MW Offshore Wind by 2035
- 1,500 MW Energy Storage by 2025;
 3,000 MW by 2030

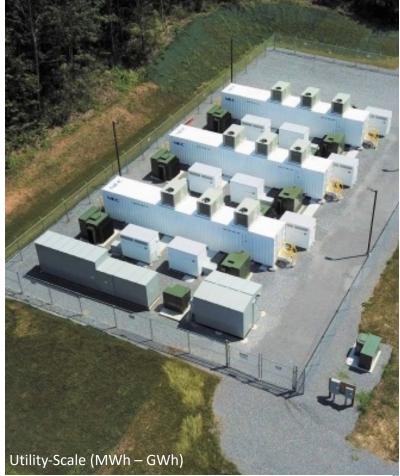


Energy Storage Systems (ESS) 101

- ESS store energy for conversion to electrical energy
- Batteries are the most common and flexible ESS
- Lithium-ion batteries are the prevailing chemistries for ESS
- ESS components include:
 - Cells → Modules → Racks
 - Battery Management System (BMS)
 - Monitoring, Safety, and Balance of System Equipment



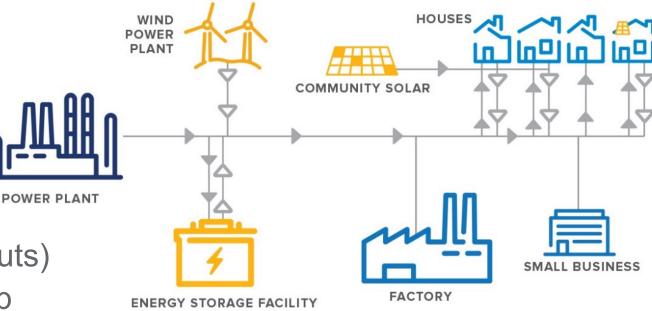




Use Cases for Energy Storage

Battery Energy Storage Systems can serve a variety of important roles, including these more common uses:

- Defer costly upgrades to transmission and distribution infrastructure
- Provide key grid services
- Support integration of renewable energy generators, including solar and wind
- Alleviate congestion in the grid (reducing brownouts and blackouts)
- Electric bill management, backup power for homes and businesses



NYSERDA Energy Storage Initiative

Provides incentives & technical assistance to support deployment of advanced energy storage technologies

Retail Energy Storage Incentives:

- For residential through commercial-scale storage projects < 5 megawatts (MW)
- Incentives vary based on region and megawatt-hour (MWh) block allocation
- Over \$164 million allocated; ~\$13 million remaining for projects on Long Island (residential + commercial) and Con Edison (commercial)

Bulk Energy Storage Incentives:

- For storage projects > 5 MW
- Incentives vary based on project size and year of interconnection
- Funding is fully allocated

www.nyserda.ny.gov/EnergyStorage

Energy Storage Deployment in NYS

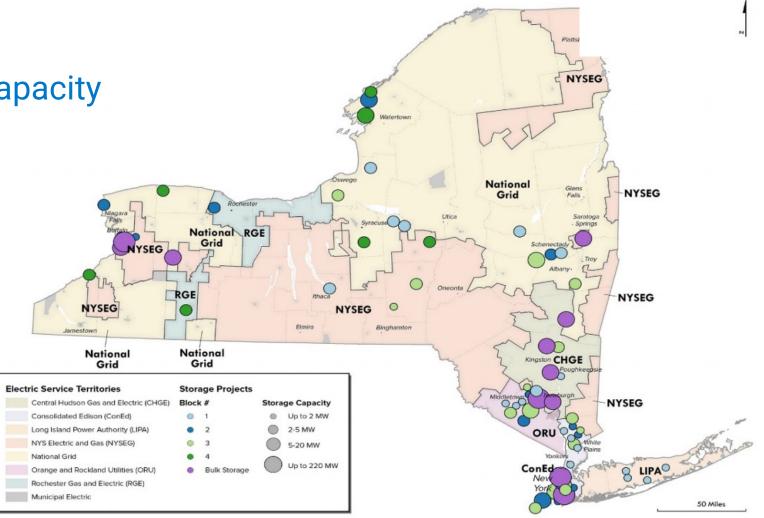
As of April 20, 2021:

115.5 MW of installed capacity

Over 1,100 projects

As of April 30, 2021:

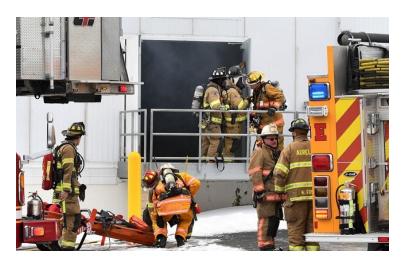
- 1,027 MW contracted, under development
- Over 100 commercial and bulk projects



Fire Safety

Key Takeaways:

- Codes and Standards: Requirements have evolved with the technology; significant protections are in place under the 2020 NYS Uniform Code.
- Fire Testing: Certain systems are required to complete large-scale fire testing to ensure installation safety.
- Trainings: NYS Office of Fire Prevention and Control, NYSERDA, and subject matter experts (SMEs) are partnering to ensure training and information reaches critical audiences.

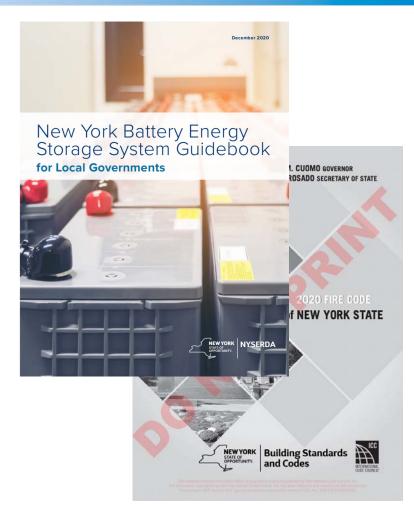




Permitting & Zoning

Key Takeaways:

- Regulatory Framework for Permitting BESS:
 - BESS co-located with large-scale generators: Permitted by Office of Renewable Energy Siting
 - All other projects, regardless of size: permitted at the local level under SEQR, other local requirements
- NYSERDA Energy Storage Guidebook for Local Governments:
 - Model Permit + Inspection Checklist
 - Model Zoning Law
- 2020 NYS Uniform Codes:
 - NYS Residential Code
 - NYS Fire Code



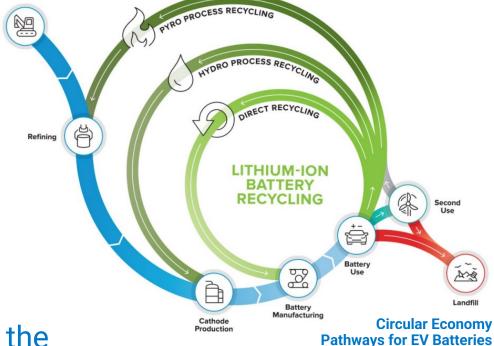
Decommissioning & End-of-Life Considerations

Decommissioning BESS:

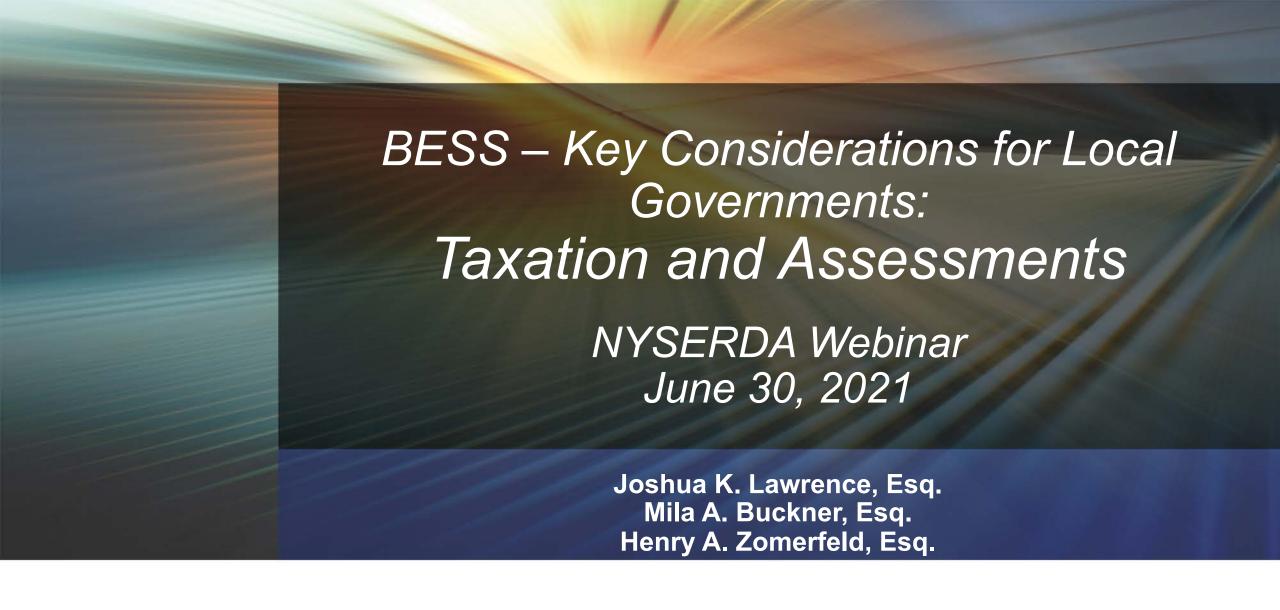
- Decommissioning is multifaceted:
 - Removal from service
 - Disassembling, removing, transporting components
- Disposal, reuse, recycling of components
- Site restoration and remediation
- Decommissioning plan required under 2020 NYS Uniform Code; can be supplemented by local law requirements.

Recycling BESS:

- Recycling evolving in response to increased demand/uses for batteries
- Moving toward a circular economy of component recovery and recycling
- Li-Cycle's Rochester, NY recycling operation will be the largest in North America (underway!)



Source: ReCell, Argonne National Laboratory





Introduction to Hodgson Russ

Broad-Ranged, Full Service Firm with Deep Roots and Capabilities

- More than 200 attorneys practicing in all major areas of U.S. law
- Offices in New York City, Albany, Buffalo, Saratoga Springs, Palm Beach, Hackensack, Rochester, and Toronto
- Founded in 1817, with two former U.S. Presidents in its partnership alumni, Hodgson Russ has experience in markets across Europe, North America and Asia
- Deep New York State history instrumental in completion of the Erie Canal, Robert Moses Niagara Power Plant, Buffalo's City Charter, the founding of Wells Fargo and Citibank, and development of many major industrial, health care, educational, and cultural organizations

Frequently Recognized for Excellence

- The National Law Journal's "NLJ 500"
- Chambers USA: America's Leading Lawyers for Business
- Best Lawyers, "Best Law Firms" and "Best Lawyers in America"
- "Best-Branded Law Firm", 2019 BTI Brand Elite: Client Perceptions of the Best-Branded Law Firms Report
- American Lawyer's AmLaw 200, 2019-2021, and ranked 10th in the "A-List for Female Equity Partnership"
- Super Lawyers





Hodgson Russ Headquarters, The Guaranty Building, Buffalo, NY



Introduction to Renewable Energy Practice

Practice Areas

- Multidisciplinary team cost-effectively guides clients through virtually every aspect of a project's lifecycle:
 - Strategic Planning
 - Zoning and State Permitting
 - State and Federal Regulatory
 - Environmental Review
 - Financing
 - Lease and Easement Agreements
 - Title Insurance and Curatives
 - Contracts and Agreements
 - Taxation
 - Litigation
 - Insurance
 - Corporate Structuring and Collaborations
 - o Purchase, sale, and related due diligence



- <u>Projects</u>: Experienced in wind, solar, energy storage, landfill gas-to-energy, bioenergy projects, electric vehicle infrastructure, energy efficiency and decarbonization strategies
- <u>Clients</u>: Developers, lenders, acquirers, landowners, permitting agencies, development agencies, parts and service suppliers, manufacturers, contractors and investors
- International Expertise: Counsel foreign entities participating in United States projects involving cross-border finance,
 CFIUS, FACTA Compliance, immigration issues, licensing and technology transfer, protection of foreign patents,
 international taxation and Tax Treaty compliance, multinational mergers and acquisitions, NAFTA and other trade issues

Overview

- Sales tax liabilities and exemptions
 - What exemptions if any apply to costs incurred in the course of installing the facility
 - Private vs. public ownership
 - Permanent vs. temporary issues
 - Standalone vs. integrated storage systems
 - Sales tax treatment of energy sales
- Real property tax treatment
 - Availability of exemptions under RPTL § 487 and through Industrial Development Agencies
 - Standalone versus solar (or wind) plus storage tax treatment
 - Issues for behind the meter storage equipment
 - Negotiating payment-in-lieu-of-taxes ("PILOT") agreements
 - Treatment of electric energy storage facilities under tax exemption provisions for New York and New York City
 - Methodology for assessing storage facilities
 - Income Capitalization
 - Cost basis
 - Are batteries taxable real property?
 - Challenging real property tax assessments





- New York Imposes Sales Tax on:
 - Retail sales of tangible personal property (unless specifically exempted)
 - Services specifically enumerated as taxable
 - Gas, electricity, refrigeration and steam
- Exemptions/Exclusions Potentially Applicable to Energy Storage?
 - Production/Manufacturing Exemption
 - Covers machinery or equipment used in directly manufacturing (including generating electricity for sale
 - Capital Improvement to Real Property
 - Covers the service of furnishing and installing property that meets the capital improvement test
 - Property Installed for Exempt Entities
 - Exemptions for Residential and Commercial Solar Energy Systems



Production/Manufacturing Exemption

- Covers machinery or equipment used:
 - "directly and predominantly in the production of tangible personal property, gas, electricity, refrigeration or steam for sale, by manufacturing, processing, generating..." (Tax Law § 1115(a)(12) (emphasis added)
 - "Directly": essentially, used directly in the "production" phase
 - <u>"Predominantly"</u>: used more than 50% of the time in that capacity
 - <u>"Production"</u>: the "production" phase means, "The production line of the plant starting with the handling and storage of raw materials...and continuing through the last step of production where the product is finished and packaged for sale."
 - "Distribution" phase, by contrast, includes: "all operations <u>subsequent</u> to production, such as <u>storing</u>, displaying, selling, loading and shipping finished products." (20 NYCRR § 528.13(b)).



- Can Energy Storage Qualify as "Production" Equipment?
 - Not likely, per Department of Taxation and Finance.
 - In <u>TSB-A-09(36)S</u>, Aug. 21, 2009, the Department analyzed whether a flywheel storage system used to provide frequency regulation services qualified for the "production" exemption. The Department said "no" based on two points:
 - The service's chief function was to regulate power on the grid, not to generate power for sale; and
 - Even if the service provider *could* be deemed a generator, the flywheel system was used less than 50% of the time in "producing" energy to distribute to the grid (as opposed to absorbing excess power from the grid).
 - In <u>TSB-A-13(9)S</u>, April 11, 2013, the Department concluded that equipment used to construct a solar generating facility qualified as "production" equipment, but drew a line between equipment in the "production" versus "distribution" phase:
 - Qualifying: solar panels, racks, combiner boxes, wires connecting to the inverter and the inverter itself.
 - Not qualifying: intra-facility intra-connection equipment, meters, junction boxes, step-up transformers and "other equipment used beyond the inverter."



Capital Improvement Exclusion

- Sales tax is imposed on the "installation of tangible personal property", but excluding installations that constitute a "capital improvement to real property." (Tax Law § 1105(c)(3)).
- A "capital improvement" means any addition or alteration, which:
 - Substantially adds to the value of real property or appreciably prolongs its useful life;
 and
 - Becomes part of the real property or is permanently affixed so that removal would damage the real property or the article itself; and
 - Is intended to become a permanent installation. (Tax Law § 1101(b)(9)(i)).
- Note: the exclusion applies to the service of furnishing and installing property, not to the retail sale of the materials; contractors must pay tax when purchasing materials, but do not need to charge tax if the work constitutes a capital improvement.



- Do Energy Storage Systems Qualify as Capital Improvements?
 - Important: Treatment of energy storage systems as real property for RPTL does not govern "capital improvement" treatment under Tax Law.
 - First two prongs of test likely met, as long as units are affixed to concrete foundations and cannot be easily removed.
 - As an example, solar panel racks affixed to concrete foundations and footings, as well as panels attached and wired to structures have been deemed to qualify as a capital improvement. (See <u>TSB-A-13(9)S</u>; Publication 856, Sales Tax Classifications of Capital Improvements and Repairs to Real Property).
 - Installations on Leased property versus owned property:
 - Leasehold improvements are presumed to fail the "permanence" test
 - Can be rebutted if, per lease terms, tenant improvements vest immediately in the landlord or remain with the property after termination of lease. A requirement that tenant improvement be removed at the end of the lease would disqualify an improvement on leased property.



Exempt Organizations

- Organizations that qualify as tax-exempt under Tax Law § 1116 are sales-tax exempt on all purchases of property and services
- Qualifying organizations include:
 - New York State governmental bodies;
 - U.S. governmental bodies
 - Nonprofits organized for charitable, religious, educational, scientific, etc., purposes.
- Contractors working on property owned by an exempt organization can purchase equipment, building materials, etc. as long as the property becomes an "integral component part" of the property. Energy storage systems would qualify.
- Industrial Development Agency ("IDA") arrangements can confer similar benefits, even though the project developer itself is not an exempt organization.



- Exemption for Residential and Commercial Solar Systems
 - Applies to the "sale of or consideration given for [commercial or residential solar energy systems." (Tax Law §§ 1115(ii)), 1115(ee)).
 - "Solar energy systems" are defined as:
 - An arrangement or combination of components installed upon [residential/non-residential] premises that utilize solar radiation to produce energy designed to provide heating, cooling, hot water and/or electricity. Such arrangement shall not include equipment that is part of a non-solar energy system.
 - Little guidance exists in terms of regulations or rulings, but the exemption appears focused on systems that provide power, heat, etc. to specific premises.





RPTL § 487 Exemption

- Provides a 15 year real property tax exemption for solar and wind (including storage when integrated into the system), farm waste energy systems, standalone energy storage, Micro-hydroelectric energy system, Fuel cell electric generating system, Micro-combined heat and power generating equipment systems, and Fuel-flexible linear generator electric generating systems.
- Does not exempt these systems from special assessments or ad valorem levies.
- Amount of the exemption is equal to the increase in value of the property caused by adding the system. In the case of standalone storage, that should always be 100%



RPTL § 487 Exemption for Energy Storage

- "Electric energy storage equipment means a set of technologies capable of storing electric energy and releasing that energy as electric power at a later time. Electric energy storage technologies may store energy as potential, kinetic, chemical or thermal energy, that can be released as electric power and include, but are not limited to, various types of batteries, flywheels, electrochemical capacitors, compressed air storage and thermal storage devices." RPTL § 487(1)(m).
- "Electric energy storage system means an arrangement or combination of equipment designed to store electrical energy in electric energy storage equipment and release electric power at a later time." RPTL § 487(1)(n).



Obtaining the Exemption

- The owner of the real property must submit an application on the form provided by the NYS Department of Taxation and Finance, Office of Real Property Tax Services to the assessor of the appropriate assessing unit (town, village, school district, etc.).
- Information that must be included on the form: (1) Description of the project; (2) Date the project was completed; (3) Cost of the project; (4) "Incremental Cost" of the project; and (5) Owner certification.
- Applications are to be filed by the taxable status date, which is typically March 1 in most jurisdictions.



After the Exemption Application

- Assessor reviews the application and determines if an exemption applies.
- If real property granted an exemption under RPTL § 487 ceases to be used primarily for eligible generating purposes, the tax exemption will end.
- If an application is approved, the real property tax exemption applies for fifteen years. RPTL § 487(2).
- Restrictions: The tax exemption can only apply to micro-hydroelectric energy systems, fuel cell electric generating systems, micro-combined heat and power generating equipment systems, electric energy storage equipment or electric energy storage system, or fuel-flexible linear generator electric generating system that were constructed after 1/1/1991 and prior to 1/1/2025.

RPTL § 487(5)(b).



Be Careful: Opt Outs

"[A] county, city, town or village may by local law or a school district . . . may by resolution provide . . . that no exemption under this section shall be applicable within its jurisdiction with respect to any micro-hydroelectric energy system, fuel cell electric generating system, micro-combined heat and power generating equipment system, electric energy storage equipment or electric energy storage system, or fuel-flexible linear generator electric generating system constructed subsequent to [1/1/1991] or the effective date of such local law, ordinance or resolution, whichever is later. A copy of any such local law or resolution shall be filed with the commissioner and with the president of the authority." RPTL § 487(8)(a)(ii) (ellipses and brackets added).



IDAs and the RPTL § 487 Exemption Alternative

- IDAs can provide an alternative route to an exemption
 - Opt Out Irrelevant IDA does not need local permission to grant a PILOT, but many IDAs have policies that require local approval
 - No time limit can be longer than 15 years
 - Can also provide sales tax and mortgage recording tax exemptions
 - Charge a fee 1%-2% of total project cost, plus legal costs



ESS Tax Abatement - NYC

RPTL § 499-bbbb: New York City Energy Storage Property Tax Abatement

- Provides a real property tax abatement for energy storage equipment in New York City worth the lesser of (1) 10% of the expenditures on the equipment, (2) the amount of taxes payable in such tax year, or (3) \$62,500. RPTL 487 is significantly better exemption, depending on PILOT
- To qualify, equipment must be installed on an eligible building and placed in service on or after January 1, 2019 and before January 1, 2024. Eligible buildings cannot be located on utility property.
- Abatement applies for the year in which the tax abatement commences and the three years immediately thereafter (4 years total). RPTL 499-aaaa(4).
- Applications must be submitted by March 15, 2024. RPTL § 499-ccc(1).



Payment in Lieu of Taxes ("PILOT") Agreements

- "A county, city, town, village or school district, [] that has not acted to remove the exemption under this section may require the owner of a property which includes a solar or wind energy system which meets the requirements of subdivision four of this section, to enter into a contract for payments in lieu of taxes. Such contract may require annual payments in an amount not to exceed the amounts which would otherwise be payable but for the exemption under this section. If the owner or developer of such a system provides written notification to a taxing jurisdiction of its intent to construct such a system, then in order to require the owner or developer of such system to enter into a contract for payments in lieu of taxes, such taxing jurisdiction must notify such owner or developer of its intent to require a contract for payments in lieu of taxes within sixty days of receiving the written notification." RPTL § 487(9)(a).
- No PILOT Mandated for Standalone Storage Systems

Favorable PILOTs

- Payment per megawatt, not assessed value or actual production.
- Terms of payment.
- Adjustments for system changes.
- Assignment clause.
- Defense/indemnification provisions.
- Remedies on default.
- Termination conditions.
- Payment of school district costs to negotiate PILOT.



PILOT Example

5 MW Solar Project in Orange County, New York with 15 MWh Energy Storage System

PILOT Agreement for Town / County / School District (all in):

- \$10,000 per MW for solar system + \$500 a year for ESS + 2% escalation per year
- Valuation for 15 MWh ESS = ~\$1M





Treatment of Energy Storage as Real Property

- RPTL Section 102(12) contains multiple definitions of what constitutes "real property" as compared to personal property under RPTL Section 300.
- RPTL Section 102(12)(b) provides that, among other things, "structures" are real property, and so are those items "affixed" to buildings or structures.
- Energy storage is considered a fixture, and is thus real property in New York.
- As held by the Court of Appeals in *Matter of Metromedia, Inc. v. Tax* Comm'n. of City of N.Y., 60 N.Y.2d 85, 90 (1983), a structure is "affixed" to the land when it meets the common-law definition of a fixture.
- "To meet the common-law definition of a fixture, the personalty in question must: (1) be **actually annexed** to real property or something appurtenant thereto; (2) be **applied to the use or purpose** to which that part of the realty with which it is connected is appropriated; and, (3) be intended by the parties as a **permanent** accession to the freehold." *Id.* (emphasis added).



Valuing Energy Storage

- Cost approach (a/k/a reproduction cost new less depreciation ("RCNLD"))
 - Disfavored by the Court of Appeals: "the reproduction cost less depreciation formula ... is the one most likely to result in overvaluation and, thus, its use is generally limited to properties deemed "specialties." Saratoga Harness Racing Inc. v. Williams, 91 N.Y.2d 639, 646 (1998)
 - Limited to "Unique properties for which there is no market are considered specialties and are valued by the cost basis." Xerox Corp. v. Ross, 71 A.D.2d 84, 86-87 (4th Dep't 1979) (citing Matter of County of Suffolk v. C. J. Van Bourgondien, Inc., 47 N.Y.2d 507(1977)).
 - Property Value = Land Value + (Cost New Accumulated Depreciation).



Valuing Energy Storage

- New York City has indicated it will use cost approach for ESS
 - But is that allowable?
 - Is there really no market for ESS facilities?
 - What about 5 years from now?
- RPTL Section 575-b assessment model
 - Requires discounted cash flow for wind or solar, but no discussion of ESS.
 - The appraisal model rates have not yet been set; difficult to predict how model will look for initial year.
 - Anticipated to be published in October of 2021 (180 days from effective date of law)
- So far there are no court cases on this issue specifically, but challenges are inevitable.



Valuing Energy Storage

- Income Capitalization
 - A method of valuation when the property is income producing, and sometimes the preferred method in such an instance.
 - Income expenses = net operating income ("NOI")
 - NOI / X% capitalization rate = \$Y
 - A cap rate is a calculation used to determine the profitability of a real estate investment. In essence, the cap rate is the NOI of a property in relation to the property's asset value.
 - Low cap rates imply lower risk; higher cap rates imply higher risk.
 - By taking the NOI and dividing it by the purchase price of the property, you can get a cap rate, but that may not be the ultimate cap rate used, as there are other considerations that go into building a cap rate.



Other ESS Valuation Issues

- •Where storage is part of an integrated solar/wind facility, is it being evaluated on a income capitalization basis?
- Is it part of the exemption under RPTL 487 and IDA PILOTs?
- •Where storage is truly behind the meter, is it being treated as an addition to the main property and assessed in the same manner as the main property?



Challenging Real Property Assessments

- Must first file a grievance with the municipality/board of assessment review by Grievance Day.
 - Typically fourth Tuesday in May for most jurisdictions
 - NYC is March 1 (Class 2, 3, 4 properties including standalone storage); March 15 (Class 1 properties)
- Appear for hearing, if required, and respond to requests for information from board of assessment review.
- Filing a grievance is a pre-condition to litigation.
- If grievance is denied and assessment is not reduced, commence RPTL Article 7 special proceeding.
- Commence proceeding within 30 days of the publication of the final assessment roll.
- Particular service provisions under the law, which are not forgiving.
- Reduction of assessment results in a three-year freeze. RPTL § 727.
- Refunds of difference in taxes paid and reduced assessment following settlement or court order.



Thank You!

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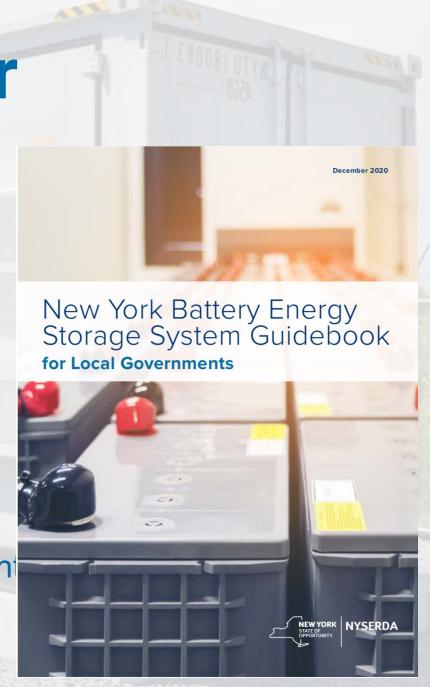
NYSERDA Resources for Local Governments

NY Battery Energy Storage System Guidebook:

- Model Zoning Law
- Model Permit + Inspection Checklist
- 2020 NYS Uniform Code References

NYSERDA Clean Energy Siting Team

- Works one-on-one with municipal boards & local officials to provide free technical assistance
- Offers free accredited trainings for code enforcement officials or planning/zoning board members



Q&A

Helpful links:

- Energy Storage Guidebook for Local Governments
- NYSERDA Energy Storage Program

For additional assistance, reach out to cleanenergyhelp@nyserda.ny.gov



NYSERDA

Thank you for participating!

Recordings & materials from all webinars in this series available at www.nyserda.ny.gov/StorageGuidebook

Questions? Email cleanenergyhelp@nyserda.ny.gov

Battery Energy Storage Systems Trainings for Local Governments

Local government officials across New York State –including municipal board members, first responders, code enforcement officers and other community stakeholders can access prerecorded webinars or register for upcoming sessions to obtain information and resources necessary to ensure responsible battery energy storage system development.

Webinars below feature presentations from NYSERDA and external subject matter experts on key topics related to battery energy storage systems which are particularly important for communities and local governments.

Previous Webinars

Battery Energy Storage Systems 101

Date: Wednesday, May 5, 2021

Featured Speakers: Dr. Stanley Whittingham, 2019 Nobel Laureate for Chemistry; Distinguished Professor of Chemistry, SUNY Binghamton

Gain an introduction to key concepts and technologies associated with battery energy storage systems, as well as an overview of relevant New York State (NYS) goals, policies, and programs.

- View Webinarr
- Download Presentation Slides [PDF]

Fire Safety

Date: Wednesday, May 19, 2021

Featured Speakers: NYS Office of Fire Prevention and Control (OFPC), Energy Safety Response Group (ESRG)