

Battery Energy Storage

Southern Tier West
Webinar

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Battery
ENERGY STORAGE

Overview

Local Municipalities are seeing an increase in proposals for solar energy systems and battery energy storage systems in their communities. These types of projects may be submitted together under one proposal or a standalone proposal may be submitted for a battery energy storage system. The intent of this presentation is to discuss the different types of proposed projects and the local laws that can be created to regulate them. We will discuss the NYS Model Battery Storage law and how other municipalities have utilized this Model law to create their own battery storage law within their Zoning Code. We will also discuss the inclusion of battery storage requirements under existing solar energy laws.

Presenter

Andrew C. Reilly

- Engineer and Planner
- Wendel
- Represented Municipalities for over 35 years
- SEQR Expert
- Created Battery storage laws, processed projects through laws, and amended laws
- Representing Municipalities on Article 10 projects and now 94 -C
- Not an attorney – cannot give legal advice!



Experiences

- Solar and battery storage projects
- Large scale Battery storage
- Battery storage for existing Wind projects
- Writing and Amending Local laws
- Processing projects through processes
- Smaller scale projects through Building applications



Presentation Outline

Presenter and Background

Experiences

Types of Battery storage systems

How do Municipalities Regulate

New 94 C Process

Other Issues

Who Is in the Audience?

- Planning Board Member, Other Board Members, others?
- Have you had a battery storage project in your Community?
- Do you have a separate battery storage law?

Storage of Energy!

- The Storage of Energy is becoming more and more an important part of our world.
- Recent Articles in the Buffalo News focused on Energy Storage systems and called Battery Storage technology part of the future economic boom.
- Storage in the form of batteries and other products such as Hydrogen cells are on the rise!

NYS Goals (NYSERDA)

- **Energy Storage in New York**
- In 2019, New York passed the nation-leading Climate Leadership and Community Protection Act (Climate Act), which codified some of the most aggressive energy and climate goals in the country.
- 6,000 MW of Solar by 2025
- 70% Renewable Energy by 2030
- 3,000 MW of Energy Storage by 2030
- 9,000 MW of Offshore Wind by 2035
- 100% Carbon-free Electricity by 2040
- 85% Reduction in GHG Emissions from 1990 levels by 2050
- Energy storage will play a crucial role in meeting these our State's ambitious goals. Storage will help to integrate clean energy into the grid, reduce costs associated with meeting peak electric demands, and increase efficiency. Additionally, energy storage can stabilize supply during peak electric usage and help keep critical systems online during an outage.

If you regulate Battery storage within your solar or wind ordinance you may want to create a separate law to address these other types!

Battery Storage:

TYPES OF INSTALLATIONS

- Residential: Tier 1
- Commercial – Interior and Exterior: Tier 1
- Large scale systems: Tier 2
- Large systems just for sale to grid or storage: Tier 3.
- Large scale for renewable projects (depending on your solar law).



Residential Use Systems

- Can be used to help with energy usage.
- Can be used as emergency back-up instead of generator
- New NYS Building Code has requirements. Building Inspector training occurred in 2020
- See 2019 changes to NYS Uniform Fire Prevention and Building Code
- Typically, just a Building permit



Commercial Use Systems

- Located in building or larger units can be located outside
- Typically, have been regulated through building permits.
- Meet Fire and building codes
- Can regulate through approval process – such as site plan approval

Utility Grade Systems

- Can be associated with a planned solar or wind project.
- Can come after a solar or wind project is constructed.
- Can be an independent system constructed to store and sell power to the grid.
- Can be a system put in to help with local problems to the grid (brownouts/blackouts).
- Can regulate all differently (see 94 c though).



Utility Grade Systems

- For the smaller systems, 5 MW or less, I have not seen Battery storage added (but can be).
- Have seen proposed in Article 10 projects.
- In Orangeville, we saw a system added for the Turbines built there.
- In Java, proposed to solve energy system problems
- We are starting to see stand-alone systems.



The Battery Energy Storage Law

- NYS Model law
- Definitions (types of systems)
- Where allowed; Processes required
- Bulk zoning requirements
- Submittal materials
- Other requirements; including specifics to your community.
- Required sections of the law





Larger Scale Utility Grade Systems

- Determine **Where Allowed** (look to Comprehensive Plan) – Ag lands, other important features, etc.
- Process for approval; Site Plan, Special Use Permit
- Limit size in certain areas
- Bulk zoning requirements; setbacks, height, etc.
- Other technical requirements – Electric, fire safety, etc.
- Construction requirements (bonds, insurances, etc.).
- Host Community agreement, etc.

Common Issues For Battery Projects

- Fire Safety
- Setbacks
- Noise
- Screening/ aesthetics
- Emergency Operations
- Operation and Maintenance
- Post construction; decommissioning, PILOTS, etc.



Unique Issues to your Community

- Different types of categories
- Restrictions to certain zoning districts
- Approval processes; SUP, Incentive zoning, pre-permitted, etc.
- Unique features of community
- Bonds and Insurances
- Home Rule – What is allowed under NYS Implementing regulations

Article 10 Projects

- Large projects with highly regulated NYS procedure.
- Most Article 10 projects that are in process will switch to new 94 C.
- Must try and meet local zoning but can get waivers
- If constructed Article 10 projects want to add Battery storage; it is our opinion must meet local zoning?



Article 94c; New Process

- Legislation passed and new rules out 3/2/21.
- NYS Office of Renewable Energy Siting (ORES)
- Presently hiring consultants to help with setting up procedures and to help process projects
- It has been stated by some that new process will even further limit local control
- Mandates timeframes for approval process
- 94- C does include Battery Storage projects!

Thank You.

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