



VIA ELECTRONIC FILING

January 23, 2025

New York City Department of Buildings
Office of the General Counsel
280 Broadway, 7th Floor
New York, NY 10007

Re: Comments of New York Solar Energy Industries Association on the DOB Proposed Rules regarding the installation of energy storage systems

To Whom it May Concern,

New York Solar Energy Industries Association (NYSEIA) appreciates the opportunity to provide comments in response to the DOB Proposed Rules regarding the installation of energy storage systems.

Attached please find our comments. Feel free to contact us if you have any questions.

Thank you.

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Background and Introduction

The New York Solar Energy Industries Association (NYSEIA) appreciates the opportunity to comment on the New York City Department of Buildings' (DOB) proposed rules governing the installation of electrical energy storage systems (ESS). As a leading advocate for the solar energy industry in New York, NYSEIA has extensive experience and expertise in promoting sustainable energy solutions, including energy storage systems (ESS).

Energy storage and resilient power is vitally important to New York City. As the city continues to face the challenges of climate change, extreme weather events, and an aging electrical grid, the need for reliable and resilient power sources becomes increasingly critical.

Energy storage systems play a pivotal role in enhancing the resilience and reliability of New York City's power infrastructure. By storing excess energy generated during periods of low demand and releasing it during peak times, ESS help balance the supply and demand for electricity, ensuring a stable and continuous power supply. This capability is particularly essential during power outages and emergencies, where the lack of resilient power can pose significant public health threats. Hospitals, emergency services, and vulnerable populations are especially at risk when power disruptions occur, highlighting the urgent need for robust energy storage solutions.

The benefits of energy storage extend beyond resilience. ESS facilitate the integration of renewable energy sources, such as solar and wind, by mitigating their intermittency and enhancing their dependability. This not only supports New York City's ambitious clean energy goals but also contributes to a reduction in greenhouse gas emissions and improved air quality. Additionally, energy storage can lead to cost savings for both consumers and utilities by reducing the need for expensive peak power generation and enhancing grid efficiency.

NYSEIA commends the DOB for proposing rules that streamline the installation of ESS in New York City. These rules are a crucial step towards creating a more resilient, sustainable, and efficient energy system. While these proposed rules do not address NYC's infeasible real-time monitoring and alerting requirements for residential ESS in the fire code, NYSEIA is hopeful that the DOB's proposed rules represent a significant first step towards enabling the safe and widespread deployment of residential energy storage in New York City. By adopting national standards and establishing clear guidelines for the design, installation, and maintenance of ESS, the DOB is fostering a more supportive regulatory environment that encourages the adoption of energy storage systems, ultimately contributing to a more resilient and sustainable energy future for New York City.

Comments on the Proposed Rules

NYSEIA is generally supportive of the proposed rules set forth by the New York City Department of Buildings (DOB) regarding the installation of energy storage systems (ESS). Establishing comprehensive requirements for ESS is a significant advancement, as it ensures that these systems are no longer treated as alternative materials. This shift is crucial because it provides a clear and standardized framework for the design, installation, and maintenance of ESS, thereby enhancing safety, reliability, and a more efficient permitting process.

Support for Streamlined Approval Processes and Flexible Installation Pathways

NYSEIA is enthusiastically supportive of the elimination of the requirement for Office of Technical Certification and Research (OTCR) site specific reviews on installations in one- and two-family dwellings. This change simplifies the approval process for residential ESS installations, making it more feasible for homeowners to adopt energy storage solutions. It also reduces the administrative burden and associated costs, encouraging wider adoption of ESS in residential settings.

The proposed rules also provide a clear pathway for ESS installations both outdoors and indoors. This flexibility is essential for maximizing the potential benefits of energy storage systems. Whether installed in residential, commercial, or industrial settings, the ability to deploy ESS safely in diverse environments ensures that all New Yorkers can benefit from enhanced energy resilience and sustainability.

Concerns Regarding ESMS Requirements for Residential Installations

NYSEIA has serious concerns regarding the proposed requirements for energy storage management systems (ESMS) in residential installations. While we recognize the importance of monitoring and control systems for ensuring the safe and efficient operation of energy storage systems (ESS), the current proposals are infeasible for residential settings. It is important to note that the UL 9540 regulations only require ESMS for projects greater than 500kWh. Extending this requirement to smaller residential systems is inappropriate and counterproductive.

Residential battery products are equipped with battery management systems (BMS), which provide the appropriate degree of command and control for small batteries. These BMS are specifically designed to monitor and manage the performance of residential ESS, ensuring their safe and efficient operation. Residential battery products typically do not have the capability to electrically isolate elements by physically opening a switch, as required in the proposed rule. This is a feature more common in larger, more complex systems. Requiring the capabilities of an ESMS, which is designed to coordinate multiple interconnected Battery Management Systems in larger installations, would make it impossible for the most commonly installed residential battery products to comply with the code, creating a significant new barrier to ESS deployment.

NYSEIA strongly recommends that the Department of Buildings eliminate the ESMS requirements for residential installations. We propose aligning the regulations with the UL 9540 standards, which would limit the ESMS mandate to larger projects. This approach would ensure that residential homeowners are not denied access to clean, resilient backup power while still maintaining the safety and reliability of ESS installations.

Addressing the Fire Code Requirement for 24/7 Real-Time Monitoring and Alerting

NYSEIA wishes to highlight a critical issue that, while outside the immediate scope of these proceedings, is highly relevant to our overall efforts to enable the safe and efficient deployment of energy storage systems (ESS) in New York City. The current FDNY requirement for 24/7 real-time monitoring and alerting for residential energy storage systems represents a de-facto ban on these technologies in New York City.

This requirement, which mandates continuous data transmission from the energy storage management system to a 24/7 staffed remote monitoring facility, is both impractical and incompatible with residential installations. Unlike commercial-scale batteries, residential energy storage systems (ESS) typically do not have the advanced monitoring functionality required by this rule. Residential products generally have fewer sensors and are equipped with a single Battery Management System (BMS) that monitors basic parameters such as voltage, current, and temperature. The level of advanced detection and real-time monitoring proposed by the FDNY is not required by existing national product standards for residential battery products and is not economically viable at the residential scale, nor is there a demonstrable safety need.

The requirement for 24/7 real-time monitoring and alerting makes the installation of residential ESS in New York City virtually impossible. This bespoke New York City mandate imposes significant costs and technical challenges that are not present in any other jurisdictions, effectively preventing homeowners from installing and benefiting from residential energy storage systems. This situation is particularly concerning given the potential benefits of residential ESS, including utility bill savings, resilient backup power, and reduced reliance on polluting fossil fuel power plants.

Conclusion

NYSEIA strongly supports the New York City Department of Buildings' (DOB) efforts to establish comprehensive and standardized rules for the installation of energy storage systems (ESS). These proposed rules represent a significant step towards enhancing the resilience, reliability, and sustainability of New York City's power infrastructure. By streamlining the approval process and providing clear pathways for both outdoor and indoor ESS installations, the DOB is making it more accessible for homeowners and businesses to adopt energy storage solutions, thereby fostering a more resilient and efficient energy system.

To fully realize the potential of these advancements, it is crucial to address the specific concerns raised regarding the requirements for energy storage management systems (ESMS) in residential installations. The current proposals, while well-intentioned, impose undue burdens on homeowners and risk stifling the adoption of residential energy storage solutions. Aligning these requirements with established UL 9540 standards will ensure that residential users are not unfairly disadvantaged and can benefit from the safety and reliability of modern ESS technologies.

NYSEIA is committed to working collaboratively with the DOB, the FDNY, and other stakeholders to find viable solutions that ensure public safety while eliminating administrative barriers to the adoption of efficient energy storage systems. By addressing the concerns outlined in our comments, the DOB can help ensure that New York City residents have the opportunity to benefit from the transformative potential of energy storage technologies.