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July 11, 2024

**TO: TOWN OF AMSTERDAM
TOWN BOARD**

**FROM: TOWN OF AMSTERDAM
PLANNING BOARD**

RE: BATTERY ENERGY STORAGE SYSTEM (BESS)

The Town of Amsterdam Planning Board received a proposed draft law in February 2024 from the Town Board that would enact certain changes and create regulations to the Town's Zoning Laws for Battery Energy Storage Systems (BESS).

Since February the Planning Board has engaged in several discussions concerning the proposed zoning amendments. The Board has serious concerns about allowing Battery Energy Storage Systems (BESS) in the Town.

At the Planning Board monthly meeting on July 1, 2024 the Planning Board has issued some recommendations to the Town Board for Battery Energy Storage Systems. Attached are those recommendations from the Planning Board.

A motion was made to adopt the draft motion to provided recommendations & report to the Town Board on the proposed zoning amendments related to Battery Energy Storage Systems (BESS).

Motion by: Kelly Joyce

Second by: Charles Archinal

Respectfully submitted,

Alex Kuchis
Planning Board Chairman

Motion of the Town of Amsterdam Planning Board

Dated: July 1, 2024

The Town of Amsterdam Planning Board has received a draft proposed local law via the Town Board that would enact certain changes to the Town's zoning law that would create regulations for battery energy storage systems (BESS) (hereinafter, the "Proposed Zoning Amendments").

The Planning Board received the draft law in February 2024 and, since that time, has engaged in discussion concerning the Proposed Zoning Amendments at four (4) meetings, including conducting a special workshop discussion on May 1, 2024, which was scheduled at 6:30pm, half an hour earlier than its regular 7:00pm meeting time.

The Planning Board desires to reiterate that, having conducted extensive research into BESS as a proposed use, the Board continues to have serious concerns about allowing utility-scale BESS (UBESS) in the Town. Therefore, in accordance with its powers and duties under Art. XIII Section 51 and NYS Town Law, the Planning Board issues a report on the Proposed Zoning Amendments, which is included as Attachment A and is annexed hereto and made a part hereof, and on the basis of the findings set forth in said report, does hereby issue the following recommendations:

1. That the Town Board adopt the Proposed Zoning Amendments with respect solely to small-scale BESS, as these uses are defined in the Proposed Zoning Amendments. These uses ought to be allowed as accessory uses in all districts and, where accessory to a primary use that itself is subject to site plan approval, also be similarly subject to site plan approval.
2. That those provisions of the proposed draft zoning amendments to allow UBESS in the Town be set aside from consideration by the Town Board, and that UBESS, as defined in the proposed draft, be deemed a "Prohibited Use," set forth in the Town's zoning law at Art. II Section 4 (Definitions).
3. That the Town Board make the following additional modifications:
 - a. The definition of "Public Utility Station or Structure" should be modified to specifically exclude energy storage systems or devices.
 - b. The definition of "Solar Storage Battery" should be eliminated from the zoning law, and the words "energy storage devices" be eliminated from the definition of "Solar Energy Equipment and Systems."

Attachment A: Report of the Planning Board Concerning Proposed Zoning Amendments Allowing Battery Energy Storage Systems in the Town of Amsterdam.

1. Utility-Scale Battery Energy Storage System (UBESS) failure has the potential to undermine public health, safety and welfare, will potentially be situated in locations without access to water supply for fire suppression, and will overtax the Town's first responders. BESS failure and ensuing thermal runaway and fire can produce a range of toxic gasses and particulates, including "several highly toxic compounds including benzene, toluene, styrene, biphenyl, hydrogen fluoride and many others."¹ That the probability of occurrence of such failures is not small was demonstrated during the summer of 2023, during which UBESS facilities in Jefferson, Orange and Suffolk Counties burned. There is also widespread uncertainty about the potential environmental effects of toxic emissions that are likely to be released due to fires at UBESS facilities.² Small-scale BESS, as defined in the Proposed Zoning Amendments, however, present lesser concerns due to their smaller size (fewer number of batteries).

2. The Planning Board finds that allowing UBESS in the Town would be inconsistent with the following goals and objectives set forth in the Town of Amsterdam Comprehensive Plan:
 - Allowing UBESS as a permitted use anywhere in the Town is contrary to the overall goal set forth in the Comprehensive Plan, which is to "Promote land uses that complement and enhance the Town's existing development patterns and are consistent with the Town's rural character, while recognizing natural resources and constraints on development,"³ for the following reasons: failure of UBESS present serious safety risks to adjacent land uses and to the natural environment and UBESS, as industrial energy storage facilities are inconsistent with the Town's rural character.

 - Allowing UBESS as a permitted use in the Town's Agriculture, R-1 Residential, and R-2 Residential districts is contrary to the stated goal to "Preserve the Town's Rural Character and Open Spaces" and its objectives and implementation, i.e., to "Encourage and enhance the preservation of open space in the Town" and "Limit commercial and industrial development to areas proximate to existing development, where it will have the least impact on the rural character of the community,"⁴ as UBESS facilities represent commercial and industrial development that would consume open space in a way that is detrimental to the Town's rural character.

 - Allowing UBESS as a permitted use in the Town is not consistent with the stated goal to "Preserve the Natural Environment," as UBESS failure carries serious risks due to

¹ Premnath, V., et. al, "Detailed characterization of particle emissions from battery fires," *Aerosol Science and Technology*, 2022, Vol. 56(4), available at <https://www.tandfonline.com/doi/full/10.1080/02786826.2021.2018399>.

² NFPA, for example, is still researching potential environmental impacts associated with BESS fires. See "Environmental Impact of Li-ion Incidents Compared to Other Types of Fires," (6 November 2023), available at <https://www.nfpa.org/education-and-research/research/fire-protection-research-foundation/projects-and-reports/environmental-impact-of-li-ion-incidents-compared-to-other-types-of-fires>.

³ See *Town of Amsterdam Comprehensive Plan*, April 2004, at p. 71.

⁴ *Id.*

potential emission and environmental release of toxic substances, and their deposition on land and in water. The stated objective associated with this goal is to “Protect and preserve the natural resources of the Town through land use regulations and enforcement,” which is to be implemented by “Prohibit[ing] uses that are detrimental to the natural environment.”⁵ UBESS, due to risks associated with catastrophic failure at these facilities, which are similar to the risks posted by catastrophic failure at open petroleum or chemical tank farms, should similarly be deemed detrimental to the natural environment and included, along with open petroleum or chemical tank farms, as a Prohibited Use in the Town.

3. In addition, the Planning Board further finds that UBESS would be contrary to the purposes of the future land use plan and zoning districts, as identified in the Town’s Comprehensive Plan and Zoning Law.⁶
 - R-1 Residential District, R-2 Residential District, R-M Mobile Home Residential District. UBESS are non-residential, industrial energy storage facilities, the catastrophic failure of which poses significant public health, safety, and welfare risks. Therefore, UBESS are inconsistent with stated purposes each of these residential districts, which are as follows:
 - R-1: “to preserve established single-family residential neighborhoods. This district will permit only single-family homes, home occupations, family and group family day care homes, community parks and public buildings”;
 - R-2: “to create areas for higher density residential development. These districts are located to buffer single-family residential areas from commercial development”; and
 - R-M: “preserve the community character of the Town.”
 - B-1 Business District. UBESS are industrial energy storage facilities, the catastrophic failure of which poses significant public health, safety, and welfare risks, and do not involve high-traffic retail or other types of business or commercial activity. The stated purpose of this district is to “provide a location for high-traffic retail uses along the existing commercial corridors of Route 30 and 67E, and a smaller strip in Tribes Hill.”
 - B-2 Business District. The intent of this district is to provide “a mix of smaller scale commercial and residential uses. These districts are located to buffer existing R-1 residential neighborhoods from intensive commercial and manufacturing uses.” As large-scale industrial facilities that may occupy tens or 100’s of acres, UBESS are not “smaller scale” or commercial or residential uses. In addition, UBESS are industrial energy storage facilities that are inappropriate as buffers to residential areas due to the health and safety risks their failure poses.
 - M-1 Manufacturing/Mixed Use District. UBESS are industrial-scale energy storage facilities the failure of which is associated with a high catastrophic potential and are, therefore, inconsistent with the stated purpose of this zone to “allow compatible light industrial, commercial and professional businesses to be intermixed in a planned

⁵ *Id.* at 72.

⁶ *Id.* at 77-79.

environment.” These uses, due to this risk profile, potential public health and safety risks, and potential heavy demand on community services in the event of a failure are not “compatible” with a “planned environment” of light industrial, commercial, and professional businesses.

Motion by: Kelly Joyce

Second by: Charles Archinal