From:	
То:	SitingBoard Filing (DPU)
Subject:	Comments on Site Suitability Strawman Proposal
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Dear State Energy Regulators:

My comments on the Site Suitability Criteria below.

Executive Summary:

Answers to Questions asked to stakeholders:

1. Are the proposed evaluation criteria appropriate? NO

2. Are there criteria that should be applied to certain types of infrastructure and not others? YES, IMMUTABLE AND ADEQUATE SETBACKS FROM RESIDENTIAL PROPERTY LINES SHOULD BE ESTABLISHED AND MANDATED FOR ANY BESS

BESS Setbacks and Safety Criteria

The omission of Battery Energy Storage System (BESS)-specific criteria in the Massachusetts Site Suitability Strawman proposal is a significant safety concern. Recent catastrophic BESS failures-including a major fire in January 2025demonstrate that even with adherence to NFPA 855 Standards and UL 9540A testing, too many failure modes remain unaddressed.

For example, in Boston, Flatiron Energy is proposing a 300-MW/1,200-MWh BESS on Electric Avenue in Brighton that will be approximately 25 feet from residential property lines<u>17</u>. This proposal has faced pushback from residents over safety concerns, particularly in light of recent BESS fires elsewhere that have required mass evacuations<u>1</u>.

Key risks include:

- Human error during installation or integration (e.g., miswiring, improper fire suppression setup)<u>6810</u>
- Cell/module defects-with potentially thousands of individual cells in a BESS, even a small percentage of failures can lead to catastrophic events<u>6810</u>
- Operational vulnerabilities (e.g., overcharging, thermal management issues)<u>6810</u>
- Inadequate real-time monitoring and delayed fault detection
- External hazards (e.g., flooding, seismic events, vandalism)

While cell or module failures account for about 11% of BESS incidents, the sheer number of cells in a large facility means the risk cannot be ignored<u>6810</u>. In fact, 65% of failures are linked to issues with system operation, integration, or commissioning-not just cell defects<u>6810</u>.

These risks are exacerbated by the absence of clear, mandated minimum setbacks from residential property lines and critical infrastructure. The current 25-foot setback in the Flatiron proposal is insufficient given the potential for toxic gas plumes, radiant heat, and emergency response challenges <u>1</u>.

Recommended Additions:

- 1. Mandated Minimum Setbacks:
 - 300 feet from all residential property lines
 - 300 feet from critical infrastructure, including commuter rail lines, water mains, and electrical substations
 This is consistent with emerging best practices in other states, such as Michigan.
- 2. Third-Party Oversight:
 - Require independent verification of construction and commissioning quality
- 3. Enhanced Monitoring:
 - Mandate real-time thermal and gas detection with automated emergency shutdowns
- 4. Hazard Mitigation Planning:
 - Require air dispersion and fire modeling for any BESS within 1,000 feet of protected uses

Citations

- 1. <u>Bisnow: Flatiron Energy proposed a 62K SF BESS in Brighton, Boston, with a</u> 25-foot setback, facing resident safety concerns
- 2. <u>Solar Builder Mag: Analysis of BESS failure points to battery monitoring and</u> <u>system integration as key risk factors; cell/module failures account for 11% of</u> <u>incidents</u>
- 3. <u>Energy Storage News: Flatiron Energy gets ISO approval for 1.2GWh indoor</u> <u>BESS in Boston; project details and location</u>
- 4. Energy Storage News: BESS failure incident rate dropped 97% between 2018 and 2023, but most failures are due to integration and operational issues, not just cell defects
- 5. <u>EPRI Storage Wiki: BESS Failure Incident Database, root cause analysis and incident classification</u>

Matthew Sager, concerned citizen