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Urgent Opposition to the Proposed BESS Near Vacaville A Critical Threat to Public Safety and Infrastructure

I am writing to express my strong opposition to the proposed construction of a Battery Energy Storage System (BESS) near the Vacaville substation. While the integration of renewable energy infrastructure is essential, the potential risks associated with this project, particularly to the residents of Vacaville and the critical transportation arteries I-505 and I-80, are significant and warrant thorough consideration.

Safety Risks to Residents

Fire Hazards and Explosions: Lithium-ion batteries, commonly used in BESS facilities, are susceptible to thermal runaway—a condition that can lead to fires and explosions. The Federal Emergency Management Agency (FEMA) has highlighted that such incidents release extremely hot flammable and toxic gases, posing severe risks to nearby populations.

Toxic Emissions: In the event of a fire, lithium-ion batteries can emit hazardous gases, including hydrogen fluoride, which are dangerous even at low concentrations. The Fire Safety Research Institute notes that these emissions can spread over considerable distances, potentially affecting residential areas.

Environmental Contamination: Fires involving lithium-ion batteries can result in the release of toxic chemicals into the environment, contaminating soil and groundwater, which could adversely affect local ecosystems and agriculture.

Risks to Transportation Arteries (I-505 and I-80)

The proximity of the proposed BESS to major highways I-505 and I-80 introduces substantial risks:

Disruption of Critical Transportation Routes: A fire or explosion at the BESS could necessitate the closure of these highways. Based on previous incidents involving hazardous material spills or fires, closures of major freeways can last anywhere from 12 hours to several days, depending on the severity of the event. In extreme cases, as seen in the 2021 Tesla Megapack fire in Australia, fire suppression efforts lasted more than 72 hours. A fully engulfed BESS at this location would have unimaginable consequences to the state of California

Economic and Social Impacts of Freeway Closures:

Commuter Disruptions: I-80 serves as a vital transportation corridor, with an Annual

Average Daily Traffic (AADT) of over 100,000 vehicles. A closure could severely disrupt commuter traffic, leading to hours-long detours and gridlock on secondary roads.

Supply Chain Impacts: These freeways are key routes for goods movement across Northern California. A prolonged closure could delay deliveries, disrupt regional commerce, and increase transportation costs.

Emergency Response Delays: Freeway closures would hinder emergency services' ability to reach affected areas quickly, compounding the potential risks to public safety.

Secondary Accidents: Incidents at the BESS could lead to accidents on adjacent highways due to reduced visibility from smoke or driver distraction, further compromising public safety.

Risk of Terrorist Attacks

BESS facilities near critical infrastructure may become targets for malicious activities:

Attraction of Malicious Actors: The Bulletin of the Atomic Scientists has reported that terrorists are increasingly adopting drones to attack critical infrastructure, including energy storage systems, due to their potential to cause widespread disruption. A BESS at this location puts the state at too much risk of malicious actors.

Potential for Cascading Failures: A successful attack on the BESS could lead to cascading failures, affecting the power grid and transportation networks, thereby amplifying the impact on national security and public safety.

Potential Impact on Residents and Commuters

The proposed BESS site is within a 5-mile radius encompassing approximately 117,597 residents and 38,917 households. Additionally, Interstate 505 near Vacaville experiences an Annual Average Daily Traffic (AADT) of approximately 36,300 vehicles, while Interstate 80 at the 505 junction is about 149,000 vehicles per day. An incident at the BESS facility could thus directly impact tens of thousands of residents and 100,000+ commuters, leading to significant disruptions and potential evacuations.

Conclusion

Given the substantial risks and potential for long-term freeway closures with severe social and economic impacts, I urge you to reconsider the placement of the BESS near the Vacaville substation. Exploring alternative locations that are distant from residential areas and critical infrastructure would better align with public safety and security objectives.

Thank you for your attention to this critical matter. I look forward to your response and to actions that prioritize the safety and well-being of the Vacaville community.