

DOCKETED

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Detrimental to Solano County

Additional submitted attachment is included below.

December 3, 2024

California Energy Commission
715 P Street
Sacramento, CA 95814

RE: Corby Battery Energy Storage System
Docket: 24-OPT-05

Dear Commissioners,

My name is Sarah Dunn and I am a representative of the community group “Keep Vacaville Safe.” Our group consists of over 715 members that are located in Solano County who are concerned about lithium-ion battery energy storage systems (BESS) located in inappropriate locations.

Our group is not entirely against battery energy storage systems, but we acknowledge specifically, “lithium-ion BESS” have inherent risks of thermal runaway which is a chemical reaction resulting in a fire. Our concerns about lithium-ion BESS installations that can result in thermal runaway include:

Fires caused by thermal runaway are impossible to extinguish and can burn for multiple days.

Burning lithium-ion batteries emit highly toxic and flammable gases.

There is potential for toxic water runoff from fighting a lithium-ion battery fire that can contaminate waterways and soil.

Fighting lithium-ion battery fires tie up emergency response for days at a time.

Substantial costs could be incurred to taxpayers for emergency training and equipment for preparedness.

Lithium-ion BESS could cause property value decrease.

Significant noise pollution could be caused by cooling systems to prevent overheating and thermal runaway in the battery system.

Lithium-ion battery fires can endanger health and safety of residents, first responders, animals and livestock.

Public evacuations could be difficult in the case of a fire. Evacuations could cause financial hardship, displacement, closed schools and businesses for days at a time.

Potentially hazardous or harmful impacts to air quality could affect surrounding communities during fires.

There are potential road and/or highway closures during hazmat conditions which could cause inconvenience and also damage to local or regional economy.

Post-fire damage to soil could cause additional expense, remediation and cleanup.

There is a potential to create a brownfield site after a fire.

Because of these risks, we are advocating for them to be built responsibly in the right locations and using only the safest technology and battery chemistry. Our top priority is safety.

The very large Vacaville-Dixon PG&E substation sits just on the edge of the city limits of Vacaville. From what I understand, it is very appealing to developers of battery energy storage systems to want to build near this location. There have been several energy companies interested in this area in Vacaville. However, there are numerous sensitive receptors in that area. There are greater than 1,200 homes, including a large housing subdivision in close proximity to the substation. Also, there are active agriculture operations and rural homes on the two sides of the substation. There is a future school site, an adult day care center, and Kaiser Permanente has a level II trauma center hospital within a mile. The substation is situated between Hwy 80 and Hwy 505. A fire at a BESS facility near the substation could have disastrous consequences and it would be difficult to evacuate residents. Over the last two years, there has been a huge public outcry against BESS being located near homes and businesses. Therefore, Solano County and the City of Vacaville have realized the need to investigate the safety impacts battery energy storage systems could have on our community. Both the City and the County took action in the form of imposing temporary moratoriums on BESS until they can make informed decisions regarding the permitting of them and determining the appropriate locations.

Over the last year, I have been honored to serve as part of the Solano County Technical Working Group on BESS. Solano County is currently creating an ordinance that will include best practices for siting and permitting battery energy storage systems. I joined the technical working group because I wanted to help find solutions that help build energy resiliency while maintaining our community's safety and preserving our precious agricultural lands.

While I'm not an expert, I have been well versed on the subject of battery energy storage systems. These are my personal comments after reviewing the Corby Battery Storage LLC application:

Corby Battery Storage LLC applied with Solano County for a conditional use permit in June of 2023. They also applied through the AB205 Opt-in process on Nov 4, 2024. As of Nov 21, 2024 they had not withdrawn their application with Solano County. It appears they are shopping for the most favorable outcome. They may wish to try their luck with Solano County if denied by the California Energy Commission. I do not believe this is what the opt-in process was intended for.

There has not been enough discussion with the fire departments and the fire districts that would be responsible for responding to a potential problem at the facility. In the application, noted on July 24, 2024, a representative, hired by the applicant, contacted the Dixon Fire Department and spoke with a third party Fire Marshall. It is my understanding that the fire district, which is run by volunteers and is understaffed, would be the responsible party, not the City of Dixon Fire Department. Furthermore, the questions asked about fire response were very vague and did not confirm the department was equipped to handle a fire at the proposed project. A facility of this size and this battery chemistry needs a robust emergency response plan as recognized by SB 38. This needs more discussion, detail and coordination between the City and County fire departments and the Corby Project. There may be additional costs to our county and nearby municipalities that haven't been explored in order to adequately address the needs of the project. Solano County has identified the following areas that would enable emergency preparedness for this project: "Funding of countywide consolidated dispatch system and center. Enabling radio interoperability would allow for rapid and coordinated response to thermal runaway at energy storage sites from all Solano Fire Protection Districts and City Fire Departments. An additional priority would be to include funding for ongoing staffing and operations. To the extent that Solano County or associated Fire Districts identifies additional training and equipment that is required to render emergency response services to the site, funding for [annual or more frequent] BESS fire response training and required equipment for Solano County Fire Departments and Fire Protection Districts. Multi-agency emergency command post located on site at minimum 300 feet from any BESS modules, that abides by most recent industry standards and provides a central command and control location for early detection, battery management system, access to onsite water storage to protect exposures, thermal imaging cameras, four-gas meters, and other requirements requested by responding Fire District. Insurance or bond posted for the replacement of first responder equipment required to be replaced in case of response to thermal runaway incident." (From the November 12th Board of Supervisors Agenda)

Next, the application doesn't include a signed community benefits agreement. Furthermore, the benefits outlined in the application aren't enough to justify the risk our

community would be taking on nor the expense associated with emergency planning requirements. Furthermore, I don't see the energy benefit to our community because the Corby Project has contracted to sell the stored energy to CleanPowerSF. Our residents will not benefit from lower electricity bills. Also, our county only has power outages, not frequent blackouts so there isn't a justification or benefit for this project at this location.

In the application, there is reference to UL9540a testing of the proposed battery type in a lab. There is no plume analysis conducted by a third party to determine thermal runaway impacts on sensitive receptors or visibility with regard to the Vacaville Airport for this project. This project is located near sensitive receptors, such as residential homes, an adult day care center, a hospital and Interstate Highway 80. It would be helpful to have the hazard analysis, plume modeling with prevailing winds to show the impact on sensitive receptors prior to your review of the application.

This application is for a battery energy storage system. The applicant listed "alternative energy storage" uses for the project such as: compressed air storage, thermal energy storage, super capacitors, and hydrogen storage. However, there was no alternative "battery chemistry types" listed. The Corby Battery Storage LLC intends to use lithium iron phosphate (LFP) batteries. LFP batteries have an inherent risk of thermal runaway. Risk of thermal runaway is a major concern of the project. There are numerous additional chemistries that can be utilized for battery energy storage systems that do not have the risk of thermal runaway. These are generally safer chemistries that should be investigated and listed as alternatives to the project. Examples of different chemistries include; zinc hybrid, vanadium redox flow batteries, iron flow batteries, iron air batteries and zinc air batteries.

The project site has been designated by state law for agriculture. The project site is designated as "prime farmland, unique farmland, and farmland of state importance." Under the Solano County's zoning plan this parcel is currently zoned "A-40 exclusive agriculture." Battery energy storage isn't appropriate for this parcel. "According to the California Department of Conservation, California is losing approximately 50,000 acres of agricultural land annually. This loss threatens food production, environmental health, and the State's economy. "Once this agricultural land is built over, it cannot be replaced. Additionally, locating the BESS next to agriculture could result in farmers not wanting to use nearby properties for agricultural production. This project seems better suited for a high industrial area that is isolated away from active farming and sensitive receptors

The project site is in close proximity to rural residential homes. Residents may be exposed to toxic gases that can threaten their health and safety if a fire occurs at the facility. Toxic runoff from water used to cool adjacent burning battery units could potentially contaminate residential wells. This area contains narrow roads and could be difficult to evacuate quickly in an emergency.

The project has a high probability of causing property value decrease and noise pollution for the nearby residents. (See sources at below) This is a major concern for the homeowners and the surrounding area as it may become a less desirable place to live and impacts may have ripple effects. Property value decline affects people's livelihood because for most people, their home is their largest investment and often helps fund their retirement. Utility scale lithium-ion battery storage systems should not be located near homes. Manufacturers typically advertise them in isolated areas far from population centers. This project location is close to homes, a major hospital, a major interstate, an adult care center and borders the Vacaville City limits.

In summary, the applicant appears to be forum shopping in regard to their multiple applications. They have purchased land that isn't appropriate for the project and would permanently remove important agricultural land. They haven't adequately addressed whether or not our City and County Fire Departments are prepared to handle their project. There is no plume modeling study on how a thermal runaway event at the facility would impact the surrounding community. They haven't listed any alternatives to the project concerning different battery chemistry that could be used. They have no signed community benefit agreement and the proposal for monetary benefits, are minimal. The project would likely result in property values declining and negative impacts to the agricultural industry. There appears to be no tangible benefit from their project to our community but it adds much risk. The project location puts residents at risk of exposure to toxic gases and could be difficult to evacuate. Because of these reasons, I do not see this as a good project and if approved, could be quite detrimental to Solano County.

Thank you for your consideration,

Sarah Dunn

See sources on lowered property values near power lines: <https://www.iprore.com/news/lots-near-power-lines-lose-nearly-half-their-value>

See source on solar farm's negative effects on home

values: https://www.providencejournal.com/story/news/environment/2020/09/30/study-solar-projects-driving-down-home-values-in-ri-suburbs/114167186/?mc_cid=331c513f5d&mc_eid=62849195eb&fbclid=IwZXh0bgNhZW0CMTEAAR3UvZ-

[bGsUwdfAXRgqexZ8bCG4R2SjhwhWyMs8uNzM6_vs1IH3k26xNBkw_aem_VqN5ScJuxT1BwAbEmmrc9g](https://www.providencejournal.com/story/news/environment/2020/09/30/study-solar-projects-driving-down-home-values-in-ri-suburbs/114167186/?mc_cid=331c513f5d&mc_eid=62849195eb&fbclid=IwZXh0bgNhZW0CMTEAAR3UvZ-bGsUwdfAXRgqexZ8bCG4R2SjhwhWyMs8uNzM6_vs1IH3k26xNBkw_aem_VqN5ScJuxT1BwAbEmmrc9g)

See news story on lowered property value near BESS

installation: <https://www.youtube.com/watch?v=mUFCFDyNfXE>