

Larry K. Truesdale

Mobile: [REDACTED]

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Morro Bay, CA 93442-1313

May 17, 2024

City of Morro Bay
ATTN: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
Email: BESScomments@morrobayca.gov

Re: Public Comment to Draft EIR for battery proposal
April , 2024

Dear Ms. Fowler,

I am a resident of Morro Bay for the past 14 years. I became aware of this beautiful area during numerous diving trips along the California coast in the 1960's and 1970's and decided to retire here then if I lived that long. This unique coastal area is an environmentally fragile and important part of the West Coast of the United States. As a resident I feel I must play a role in assuring that all development here is done responsibly. Therefore, I am writing to you regarding the Preliminary EIR for the proposed battery storage facility referred to as BESS.

First, let me professionally introduce myself to help you understand my background. I received an AB degree in Chemistry with a minor in economics from UCSD in 1969 and then went to graduate school at UCLA graduating in 1973 with a Ph. D. in Chemistry. Then I went to MIT in Massachusetts for two more years of post-doctoral research. I have worked for several Major chemical and pharmaceutical companies and have help start three new companies. Concurrently, I have been an adjunct professor at Rutgers University and San Diego State University. I was also an editor for the American Chemical Society's Combinatorial Science journal.

I am going to primarily focus my remarks on the "Offsite Consequence Analysis" for the Vistra Morro Bay BESS Project: Project number 1690027676 dated March 20, 2024. The authors state the report is intended to aid the City of Morro Bay in considering Vistra's proposed BESS project and provide information to the community. The draft EIR claims the BESS project "does not present any significant health and safety risks to the public." From details they presented I disagree with their conclusion. Furthermore, offsite consequences must include the impact of the environmentally sensitive estuary and the life, flora, and fauna it supports.

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Much of the report's critical discussion centers around four toxic substances. During my career I have personally worked with large quantities of all of them; 1. Hydrogen Cyanide (HCN), which is a liquid below 78 degrees Fahrenheit; 2. Hydrogen Fluoride (HF), which is a liquid below 67 degrees Fahrenheit; 3. Hydrogen Chloride (HCl), which is a gas and 4. Carbon Monoxide (CO), a colorless, odorless gas at room temperature. HCN is a relatively mild acid (pKa 9.2) while HCl and HF are strong acids with HF being the strongest. HF and HCL are hygroscopic and mix exothermically with water.

With regards to toxicity both HCN and CO bind strongly to hemoglobin preventing one's circulatory system from transporting oxygen and carbon dioxide safely throughout one's body—thus these toxins suffocate animals that breath air. HCl is a strong acid and is usually encountered as a dilute solution in water, such as in a swimming pool. Undiluted it will severely “burn” body tissues which is a nice way to say it denatures and destroys bodily parts such as skin. These burns can be quite painful. HF is a stronger acid and more efficiently does the same thing HCl does to body tissues. However, exposure to it has been known to lead to fatalities when one has an accident in which as little as 10% of ones skin is involved in a spill. In these cases, the damage to the skin is not believed to be the cause of death, but something systemically is likely such as the inactivation of necessary enzymes for supporting life. A definitive explanation was not unknown at the time, but when handling HF either as a gas or as an aqueous solution, I used considerably greater precautions including respiratory protection since the respiratory system could be an easy path to systemic exposure.

The Offsite Consequences Analysis for the draft EIR only considers the human residents of the Morro Bay area. It really needs to cover all life forms there. Morro Bay and Los Osos surround an environmentally sensitive estuary that is key to many hundreds of migratory birds and is home to air breathing mammals such as sea otters and sea lions, is a rookery/spawning ground for many fish. The essential plant life in the estuary provides habitat for the sea life and serves as a detoxification system for the water entering the estuary and is very sensitive to man-made pollutants. Eel grass is the most talked about plant, but it is just one of many plants that call the estuary home. They are essential to keep the estuary vibrant.

Morro Bay and Los Osos are dependent on the estuary for much of their livelihood. It is an environmental tourist destination that attracts both the tourists and residents. Without a vibrant estuary the residents would just live next to a stream outlet. The migratory birds depend on it for their survival. There would be no habitable place south of the Monterey peninsula for the already endangered California sea otter. Bottom line is *all life* in the greater Morro Bay Area needs to be considered in the draft EIR. The loss of any one of the species in the estuary will disturb the delicate balance necessary to a viable estuary.

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Industrialization of Morro Bay is potentially detrimental to its stretch of the coast. Last time it was done in the 1950's, a power plant was placed on the waterfront of the successful, small fishing village. Any benefits to the area were minimal and coincided with the decline of the fishing industry. The primary purpose of the power plant was to provide electricity to the Central Valley to moderate hot summer weather for its residents. It was not a tourist attraction and at best, only stunted the development of the tourist venue. For the long-term financial viability of Morro Bay it is essential the impact of another massive industrial facility be fully understood. That means the viability *all life* forms that makes this destination vibrant. This needs to be included in the revised EIR.

The Offsite Consequences Analysis report does have sections addressing the battery technology that could be used for storage of electrical energy, design and safety measures that could be considered, an analysis of fires and thermal runaways at the facility, potential air emissions, impact of local weather patterns and a hazard analysis that brings these subjects together. The information presented is critical to being able to assess the value and potential impact the BESS facility could have on this fragile environmental area of the California coast.

Putting on my editor's hat for an international science journal, I have to say the report would not past muster for publication due to lack of clarity in the use of very basic chemical science terms requiring me to spend much effort to speculate what the authors were talking about. Something as basic as the word "oxygen" was routinely misused and significantly masked the intended message. Even my experience in high temperature carbon chemistry to make carbon nano tubes for batteries among other things, was unable to clearly unravel what was meant. I do not know if the field of lithium-ion batteries has usurped the word for an element to have a new technical meaning. That is very unlikely. Fortunately, the document is a DRAFT EIR and there is time to properly rewrite the report and I would strongly recommend it be done, should Vistra continue with its EIR for Morro Bay.

Another clarification definitely needed is to be crystal clear what the difference between a fire and a thermal runaway (p15) is and make sure the terms are always used correctly. That means when "fire" is used it is a fire and not a thermal runaway and vice versa. It would be helpful to discuss how battery fires are fought and how thermal runaways are fought. This will make for a clearer understanding for the reader. I got the impression that at certain parts of the report that the term fire was used as a generic term. These two terms are definitely different where one requires oxygen (that means the gas O₂) and the other occurs without oxygen.

The distinction of the differences between NMC batteries and LFP batteries was a very useful, rather concise summary of a large amount of data. The stability data for the two shows why one is chosen over the other. The NMC batteries are known for a higher energy density than the LFP batteries suggesting NMC batteries would be preferred,

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but the thermal runaway temperature for the NMC batteries was 60 degrees Centigrade lower than the LFP batteries (210 for NMC; 270 for LFP). Therefore, the LFP batteries have proven to be less flammable prone. This is clearly a choice where safety is a strong driver, but it does not necessarily mean LFP's are safe. From an economic perspective a plant built with LFP will likely have fewer fires and that is good for all. No fires is better still for all and that needed to be addressed.

Later in the report it was noted that the Pacific Northwest Labs calculated a fire incidence probability of 2.9%. That is a surprisingly high number for a facility on the waterfront in Morro Bay. However, this does raise the question as how well this number represents past data. A search of Battery Energy Storage Systems (BESS) failures is a proverbial can of worms with many variables since the technology has been rapidly evolving making it difficult to make direct comparisons between each reported incident. It does appear the rate of failures has decreased over time based on the number of BESS facilities suggesting research in this relatively new technology is advancing. The need for much more research to advance the field from its infancy to a mature technology has many years, possibly decades, to go. The 2.9% fire incident occurrence number put forward in the draft EIR should be viewed as a soft number. Glancing over the worldwide incidents data, I would think a 3-6% number range is a more realistic one. From a safety perspective, the immaturity of BESS Technology would also dictate that large facilities are premature. Smaller facilities appropriately placed will reduce the negative impact of failures. A 600 MW energy storage facility is definitely not ready for prime time.

The report stated LFP batteries contained either Lithium hexafluorophosphate (LiPF₆) or lithium tetrafluoroborate (LiBF₄) dissolved in an organic solvent. These constitute the electrolyte. While these batteries may perform similarly, it would be nice to know which lithium salt is being used as well as which solvent they are dissolved in. The report indicates the electrolyte is a flammable liquid. In the case of a thermal runaway there will likely be different gasses and solids dispersed over the area. Of the gasses emitted during a thermal runaway event, HCL constitutes approximately 75% of the mass. The report indicates that the battery separator is a source of the HCl emitted but is a highly chlorinated solvent also an additional source of HCl. Since the organic solvent may have a low boiling point, does it create high pressure in a cell fire leading to the cells rupture or does the cell contain it for until there is a thermal runaway. All these details are important in evaluating what is being emitted from the battery cells and when? This could also be a safety issue should fire fighters go near this toxic fire, I believe this is a significant omission from the discussion.

The report describes the main hazards for BESS facilities to be electrical shock, toxic emissions, fires and resulting explosions and *particularly* the risk of a thermal runaway. Mitigating the possibility of them happening is critical for safety. Studies have shown when they do occur four major toxic gasses are emitted. The magnitude of the toxic gasses that would be emitted were projected to be as shown below per module. Their

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assumption was it was unlikely all three modules would be involved in an emission event at once so the numbers are for only for a third of the actual BESS capacity. The numbers clearly show the magnitude of the facility projected for Morro Bay, These gasses are likely to be emitted as a hot gas stream mixture into the atmosphere either directly

Species	1 hr Emission	24 hr Emission	
HCN	11 lbs	264 lbs	
HF	105 lbs	2,520 lbs	
CO	24 lbs	576 lbs	
HCL	428 lbs	10,272 lbs	
TOTAL	568 lbs	13,632 lbs	

or for a contained module, into the interior before it can exit the module, if possible. The contained modules have a firewall around it that is supposed to be able to contain fire. It is not clear from the report at what temperature the firewall will fail and whether it could contain an explosion from a thermal runaway. These would be desired features for the firewall, if possible. Also, if water is used inside the contained module, how the contaminated liquid will be recovered without being released to the outside was not discussed.

Containment is used in pharmaceutical pilot plants and production facilities in case there are spills of hazardous chemicals or there is a fire. Inside the facilities there are drains leading to underground tank(s). They capture all liquids from inside and store them there. The hazardous wastes are neutralized and pumped into tank trucks for waste disposal. These tanks are also used for routine cleaning of the interior. I did not see any such protections from the toxic emissions to be captured and stored underground for future neutralization and disposal. To the contrary, their modeling expected the atmosphere absorb the toxic gasses and disperse them over a large area. This is problematic to me for a variety of reasons. That is partly influenced by the fact I have problems allowing such a large amount of toxic gasses to disperse at the whims of the weather present on whatever day the thermal runaway happens. Containing and neutralizing such toxic materials should be a must. The pharmaceutical industry does it! Remember there is an estimated 2.9% chance of a thermal event.

The report states BESS facilities are not expected to pose a significant risk to soil, water or habitats. Since the proposed BESS facility is to be on the waterfront in Morro Bay, the last sentence is definitely invalid. The proposed layout for the facility has a battery cluster within approximately 150 feet of the bay. Fighting a fire with water over multiple hours, unless *completely* contained (more about this later) would leak toxic, acidic water into the bay. A major sea otter rookery is in that corner of the bay and the species is notoriously sensitive to pollutants. It is also close to the entry to the bay/estuary and those pollutants would be washed up the estuary on every incoming tide. A twenty-four-hour fire could be seriously hazardous to the environment. This is something that

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could be completely avoided inexpensively by locating the facility inland away from the estuary. In fact, there is no significant benefit by placing it on the waterfront.

The proposal made in the draft EIR is based on "typical" weather, considering prevailing winds, to disperse of the toxic, hazardous emissions. It does not seem to specifically discuss what is expected during a heavy fog? The emissions are likely to be hot, possibly several hundred degrees hot. The expectation is that this hot gas would warm the fog for a short time before the surrounding air/fog cools it down. At this point will the fog reform to make an acidic, toxic fog? Will this slowly diffuse through the normal fog, or will the fogs distribute the effluents between themselves? Ultimately, heavy fogs drip toward the ground or condense on the ground giving the appearance of a light rain. Such a fog could be rather dangerous for people outside breathing it in. This acidic fog should be harmful to plants structures and vehicles. Unlike the acid rains back east caused by sulfur in coal burned in power plants, this effluent from a BESS facility also contains toxic gasses as well and likely would be at noticeably higher concentrations. The tables of toxic exposure in the draft EIR do not provide a level of confidence that they are relevant to a wide range of weather circumstances. Morro Bay has regular heavy fogs about five months out of the year. That is a significant part of the year but, not the majority of the time. Other conditions need to be discussed.

An analysis of how the effluent gasses spread during a light rainstorm and for a heavy rainstorm would be very different. These storms often come in from the northwest or the southwest and should have different distribution patterns. This sort of information is essential for the comfort level of the residents in the area. It is not available at this time.

Another assumption is only one module would be compromised at any time. First, I am not sure that is an absolute. What happens to the BESS facility if there is a tsunami that inundated the plant? The city was forced by the Coastal Commission to relocate a sewage treatment plant out of the area because they feared a tsunami would inundate it. Second, what would happen to the BESS facility if a major earthquake struck Morro Bay. How do you build an earthquake proof building, particularly one covering dozens of acres on coastal sand? Third, what would happen to the facility if a severe thunderstorm struck it? I would suspect an electrical surge would compromise the cells in each of the units. I am not sure how one does this but there must some industry safety guidelines for battery facilities. This should be explained in the EIR. Bottom line, assumptions about weather need to include weather extremes; they do happen. That is the only way to determine if the battery poses an unacceptable hazard to the region, It may also dictate what precautions are necessary if the facility were to be constructed. That is why I find it difficult to accept their model justifying how typical weather conditions would allow for the massive release of toxic vapors without doing any harm.

Apparently, battery cells are basically sealed to the outside environment and their construction material even prevents water from entering. During the heating of cells,

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are they stable if external water gets on them? Are they shock sensitive if cold water is flushed on them to facilitate cooling and how efficient is such a cooling process? Also how thermally conductive are the shells? Would it be safe for a properly suited up firefighter to try to enter a contained module and try to stop a fire before it becomes a runaway thermal event? Is there any role for firefighters in dealing with battery fires? This was not discussed, but from a safety and hazard perspective this would be helpful information for all to know. These sorts of fires are beyond the experience of most and some clarity here would be useful. What is unknown can easily be blown out of proportion so why not inform the those interested. If safety and acceptance are Vistra's goal, then transparency is a significant step forward. Ultimately, the Morro Bay estuary area is a valuable but fragile environment that can be easily harmed. Remediation is questionable and like would require over 100 years to accomplish if it is at all possible. This means the ultimate EIR for impact to the Morro Bay area must meet higher safety standards than in many other areas.

Sincerely,

Larry K. Truesdale

Larry K. Truesdale PhD

**CC: City of Morro Bay
Attn: Mayor and City Council
595 Harbor Street
Morro Bay, CA 93442
council@morrobayca.gov**

**Morro Bay Planning Commission
Attn: Chairman and Commissioners
955 Shasta Street
Morro Bay, CA 93442
planningcommission@morrobayca.gov**

**California Coastal Commission
Attn: Sarah MacGregor, Coastal Planner
725 Front Street, Suite #300
Santa Cruz, CA 95060
sarah.macgregor@coastal.ca.gov**

Bess comments

Richard Cunningham <[REDACTED]>

Sun 5/12/2024 1:23 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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My wife and I are relatively new residents of Morro Bay. Although we have only been able to call this area "home" for a couple of years. We can call Morro Bay the place where we spent childhood vacations and weekends here with our parents. As adults we called Morro Bay "our get away place". We are Central valley natives and dreamed of one day moving to Morro Bay. God answered our prayers and moved us here. How blessed we feel to be able to say this is our home.

Morro Bay has always been a place for people to come and visit, to enjoy the beauty, the Rock, the State Park, the beach, weather, churches, shops, restaurants, special events, Morro Bay Theater, and the rest of the things that make this place so special, most of all the citizens.

This proposed BESS plant will not only be a danger to the people here, but it will also open a beautiful area to the possibility of a huge industrial blight site" taking over our coastline. This area was built on tourism and is still a tourist destination for thousands of people a year. Do not flush our city and the surrounding areas down the proverbial toilet by allowing this money grubbing company to take control of an area loved by thousands and thousands of people for many generations. Don't deny the future generations of visitors the delight and love of Morro Bay as we now know it.

Let's all do what we can to preserve Morro Bay. We will be voting YES on measure A 24 this November.

Thank you for the opportunity to express our thoughts and opinions.

Richard and Marilyn Cunningham

BESS Comments

Paul Donnelly <[REDACTED]>

Wed 5/15/2024 5:16 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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BESS draft EIR Comments:

Attention Kim Fowler, City of Morro Bay

At the May 7th, 2024 Planning Commission meeting I got up and spoke about the site preparation and grading of the proposed BESS site. I would like to elaborate a little more on that here in writing. I mentioned that hundreds if not thousands of cubic yards of material will need to be moved from the removal of the berms, the leveling of the site and excavation for the structures. The earthwork is significant and a cursory calculation indeed amounts to tens of thousands of cubic yards of material that will need to be moved leaving a minimum of 24 acres of exposed soil subject to wind or rain erosion. The entire site cannot be covered to prevent that from occurring and a Storm Water Pollution Prevention Plan (SWPPP) does little if not enforced. Case in point, the City of Morro Bay received two (2) notices of violations for erosion resulting from the construction of the new wastewater treatment plant on Teresa Drive even though there was a SWPPP for the project signed and endorsed by the City Engineer and on file with the Central Coast Regional Water Quality Control Board (Regional Board) in San Luis Obispo. The second notice sent to the City Engineer from the Regional Board said that the city continues to be in violation. It was never taken seriously and there was no follow-up by staff at the Regional Board. Documented violations kept continuing after that which polluted the Morro Bay estuary without any consequences. Most likely expect that this project will have similar notices from the Regional Board for violations of the federal Clean Water Act but again, with no consequences. Site preparation will occur during at least one wet season if not two, depending. There is really nothing to enforce the SWPPP to prevent pollution and certainly nothing in this draft EIR (DEIR) that can make it enforceable. Morro Creek runs through Vistra's property, and the site grading will occur immediately adjacent to the creek. The creek is habitat to the Tidewater Goby, Steelhead Trout, and the California Red-legged Frog. The dust control and compaction of the soil will require significant quantities of water to accomplish this, and the source and amounts of the construction water need to be identified which cannot be taken from the creek. Using any of the city's supply for this purpose would be considered unreasonable according to §100 of the California Water Code especially during a drought. Need to determine just how much water will be needed and available for these purposes for this DEIR to be considered adequate, in my opinion.

On page 2-17 of the DEIR it states; ***"no soil import or export would be required"***. According to Brad Watson from Vistra at the meeting held at the Del Mar School, he said that contaminated soil would be removed off-site. If that is the case, that quantity should be identified, where it will be disposed of and of what it consists. An engineering grading plan for that disposal may be necessary as a result of this project's impacts along with an engineering grading plan for the site itself. This is not to be simply deferred to a later time just before construction commences to figure out to what those impacts will be and how much material will be exported. Additionally, on page 4.5-17 under §4.5 Geology and Soils it suggests, ***"Removal or treatment of liquefiable soils"*** because, as stated on page 4.5-16, ***"The Project Site soils are susceptible to liquefaction and associated settlement that may result from a seismic event. Therefore, this impact is potentially significant, requiring mitigation."*** The DEIR should address these significant impacts to be considered adequate in my opinion. A soils engineer needs to investigate the existing site now and most likely will recommend over-excavation of the entire site before any fill is placed especially beneath the structures for uniformity. Again, tens of thousands of cubic yards of material will need to be moved and some of that exported.

The DEIR does not adequately identify the emissions resulting from the construction activities for those 36 to 48 months of construction. There will be multiple dozers, dump trucks, excavators, pile drivers, etc. working for more than a year and a half just during site preparation which will emit massive greenhouse gases (GHG), especially from diesel engines. Just saying that GHG emissions will be reduced from construction vehicles and equipment by requiring various actions as appropriate to the

construction project doesn't mean that no GHG will still be emitted and there will be an overall net increase in emissions generated at the site despite the thresholds. So much for the city's Climate Action Plan that requires a reduction in GHG emissions. An estimate of those emissions can be equated to the amount of fuel consumed by the construction equipment. Please list the various construction vehicles and equipment that will be required to prepare the site and how much fuel might be consumed.

On page 2-8 under Buildings it says, "**The buildings would be two stories and up to 35.2 feet in height from average natural grade. Equipment installed on the roof of the buildings may extend up to 10 feet in height which is included in the City's building height measurements**". Figure 2-6 Building Elevations found on page 2-11 indicates an average natural grade elevation of 27.5 feet but does not describe how that was determined. It seems arbitrary. The base elevation should be determined from a current topo using the original ground elevation at the site. A topo of the existing site is not provided showing that original ground topography so one is necessary to verify their otherwise assumed natural grade elevation. The proposed building height with screening exceeds the city's height limitations. The finish floor of the buildings is 6.3 feet below the shown average natural grade elevation with the thickness of that floor making the building excavation down even further. This is right in the path of sea water intrusion where the Morro Creek channel once had been and is illustrated in Figure 6 found in the Morro Bay Water Reclamation Facility Groundwater Modeling Technical Memorandum prepared by GSI Water Solutions, Inc. in April of 2019. This channel is also described in the city's water right decision WRD1633 found at the Division of Water Rights at the State Water Resources Control Board. On page 3 in GSI's Technical Memorandum it says, "**The first modeling task is an evaluation of the potential for sea water intrusion assuming the City fully exercises their permitted groundwater pumping allotment. The City is currently granted a permitted amount of pumping of 581 acre-feet per year (AFY) from the alluvial aquifer downstream of the Narrows.**" The City of Morro Bay is now proposing to extract up to 887 AFY with its Water Reclamation Project from this aquifer (see staff report dated November 14, 2023). When sea water passes through where the buildings will be submerged, the structure will be exposed to that sea water from the nearby bay merely 200 feet away, not the ocean. The concrete in the floor will be subject to corrosion from sea water and if it infiltrates into the floor of the building, it could come in contact with the batteries over time and have a serious significant impact.

The completed site will have altered the existing drainage pattern dramatically from what now mostly percolates into the ground and will be replaced with 100% hardscape despite what is stated on page ES-10. There are no provisions for stormwater detention and Low Impact Development (LID) does little in a downpour and can only be incorporated for the paved surfaces. Doesn't do much good for structures as the roofs would otherwise be leaking. The improved run-off cannot flow to the creek or into the bay but must be contained on-site in a stormwater detention basin. Figure 2-5 on page 2-10 shows no potential area for such a basin. An underground detention basin like was utilized at the HASLO project on Atascadero Road will silt up over time and be next to impossible to maintain. The run-off will pick up contaminants from the on-site improvements that will also need to be contained somehow.

On page ES-4 it briefly mentions tree removal by saying, "**Up to six Monterey cypress trees could be removed for access west of the proposed southernmost building and associated substation. Any removed trees would be replaced per the City's Major Vegetation Guidelines.**" There are more than six trees as several are on the slope of the berms which are to be removed and the BESS Facility Site Plan doesn't indicate where the replacement trees will be planted. Figure 2-5 on page 2-10 shows only one tree to be removed and Figure 4.3-1 on page 4.3-3 shows more than one. Need an accurate count of all trees to be removed, the type of trees there are and where the replacement trees will be planted. On page 2-15 it says, "**The 24-acre BESS Site would not be landscape**" which, in my opinion, is unacceptable and irresponsible. Certainly there can be some areas within the 24 acres to plant trees and landscape the site.

Also at the Planning Commission meeting I spoke of the Water Reclamation Facility EIR mitigations that were ignored and read what the construction manager Stephen Mimiaga said about them. He was quoted in the Estero Bay News (Vol #3 - issue #21) and said, "**Mimiaga pointed to a thick set of stamped engineering plans sitting on a table at the construction office trailer at the new treatment plant site and said those and the final CDP approved by the Coastal Commission are the project's controlling documents, not the EIR.**" The mitigation measures were included in that thick set of stamped engineering plans on plan sheet G-18 but were ignored. So much for any mitigation measures that any EIR can offer.

Lastly, unlike the decommissioned power plant, the proposed BESS facility is NOT coastal dependent and could go anywhere other than near the coast and certainly not in a community such as Morro Bay. It is asinine to even consider. The zoning doesn't allow this industrial use so the application should have never been accepted by the city.

Sincerely,
Paul F. Donnelly
Morro Bay, CA



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Comment on BESS EIR

Scott Morrison <[REDACTED]>

Wed 5/15/2024 4:34 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Hello,

I'm a resident of Morro Bay. I strongly oppose the construction of the potentially dangerous Battery Energy Storage System at this location. I also support the land use designation and zoning for the 24-acre site to remain Visitor-Serving Commercial. Further, the entire 107 acres presently owned by Vistra should be returned to the city of Morro Bay for residential and tourist purposes. The blight of the stacks, the tank farm equipment, the power grid, the power building, the intake valve building on the embarcadero, and the outlet structure by Morro Rock should all be removed at Vistra's expense. (The one-time 3-million dollar slap on the wrist requiring Vistra to remove the stacks was a terrible idea, nothing more than pocket-change to such a huge company, and for all practical purposes letting Vistra off the hook.) Obviously, Vistra's interest in this land is solely for profit with no concern whatsoever for local residents and tourism - now and future generations. Why on earth are we even considering this? I hope we have the presence of mind to see what's actually going on here.

Thank you,
Scott Morrison

Opposition to Vistra Proposed BESS Site

Mimi Black <[REDACTED]>

Fri 5/17/2024 4:05 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Dear Ms. Fowler,

I have been a resident of Morro Bay since 1973. I have seen the city grow, and have seen positive changes to our community, but I am opposed to the Vistra BESS project proposed on the Embarcadero/P&G&E site.

I could go into all of the aspects in terms why this site location is horrible, which I am sure that you have heard.

But, the ultimate bottom line is: Vistra, in no way, can guarantee the safety of this unbelievably large mega-plant and cannot guarantee in any shape, way, or form that a fire will not break out at the site. It is that simple.

This BESS is jeopardizing the health of our city, our children, our wildlife, not to mention the economic health of our businesses/city because a fire would ruin tourism.

Lithium batteries by nature are unpredictable. Google the words "spontaneous fires" and "lithium batteries" and you get the picture. There is a slew of fires at Battery Energy Storage facilities throughout the world, which you can easily find. The most recent was May 16th at a storage facility in Otay Mesa, San Diego. Despite having a fire detection system to extinguish flames, it didn't work. This resulted in an unpredictable fire with toxic fumes which created evacuation warnings for businesses and a shelter-in-place order at a state prison.

I am hoping that common sense will prevail and not the deep pockets of Vistra Corporation.

Thank you,
Mimi Black

Location Location Location

Michele Davison <[REDACTED]>

Fri 5/17/2024 6:10 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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We have a precious little bay here that needs to be protected! It boggles my mind that anyone could actually believe this huge battery storage facility will have negligible impact on wildlife and the many human businesses and residences in the very nearby area.

Accidents have happened in nearby Moss Landing and other BESS facilities causing evacuation of humans and harm to wildlife. No one can promise that an accident won't happen here. An accident would devastate the commercial fishing industry, tourism, and of course our beautiful little town.

Why not use the land near the ocean and bay for public enjoyment and continuing support of a sustainable fishing industry? I am guessing that Vestra doesn't want to have to foot the bill for cleaning up the toxic waste in the area. Toxic ground wouldn't be an obstacle for an industrial site.

If we must have a battery storage facility in Morro Bay, can't it be inland in a more sparsely populated (both human and wildlife) area?

Michele Davison

[REDACTED]

Morro Bay, CA

[REDACTED]

Bess Comment

Bruce ogilve <[REDACTED]>

Fri 5/17/2024 6:54 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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It would be immensely helpful to provide a layman's version concerning both the potential benefits and potential hazards this installation presents to the community.

The "No battery" group is using the fear of possible dangers posed by the Batteries to booster their opposition to this. I have heard no contrary opinion.

A candid review of the dangers and the mitigation options would really allow for a more honest assessment of this proposal both pro and con.

If available to the City, any excise tax this would generate certainly wouldn't hurt our budget situation

This transparency is vital...

If this information has already been made available please direct me where to find it.
I have been unable to find it.

Regards

Bruce ogilve

[REDACTED]

MB

Sent from my iPhone

My public comment to the draft EIR for BESS proposal in Morro Bay

Ted Blockley <[REDACTED]>

Mon 5/13/2024 10:59 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Steve Ray <steve.koci@hotmail.com>; Jeanne Colby <colbysplacemb@gmail.com>

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Ted Blockley

[REDACTED]
Los Osos, CA 93402

May 13, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

My wife and I are Los Osos residents. We are opposed to the BESS project proposed for Morro Bay and ask you to not recommend certification of the EIR, and recommend denial of the project. The draft EIR is inadequate in identifying the potential impacts to the community and environment.

Although this DEIR, by design, does not address economics. I have noticed that this project does provide fewer public facing amenities than a typical warehouse project might. I also note that the developers have not been required to provide a proportional payment to recoup the revenue the City would lose from this

project over a more lucrative visitor serving commercial development as well as exempted sales tax on the proposed construction. These factors will impact the city for decades to come.

My public comments to the draft EIR submitted by the City and its consultants are the following:

DEIR

ES-2 PG&E Deed Restriction

Comment: PG&E recorded a deed restriction, the DEIR questionably asserts that PG&E has the authority to regulate zoning and land use designations. If they indeed have that authority, the DEIR should state that fact. If not, the DEIR should state the contrary fact.

ES-2 DTSC Land Use Restrictions

Comment: The fact that the previous and current property owners and the DTSC entered into pollution mitigation agreements does not obviate future cleanup responsibilities. The DEIR should, but does not treat this topic

Since the first agreement, the power plant was sold, the application for an upgraded power plant was denied, operations suspended, and the City of Morro Bay changed the underlying Land Use Designation. The existing Land Use designation and pending voter referendum completely undermine the purpose, rationale and viability of the current DTSC agreements.

Given the existing land use designation, it is totally inappropriate to summarily dismiss the subject of comprehensive remediation of the former industrial site. The DEIR should provide a discussion of scope and responsibility for environmental remediation consistent with the commercial/residential milieu of RV parks, hotels and restaurants.

ES-3 Fencing and Landscaping

Comment: The lack of project landscaping is absolutely appalling. The project consists of four buildings and their appurtenances, covering 10 of the 24 acres in the project. The claim that the remaining 14 acres in “Beautiful Morro Bay” must remain free of landscaping is seemingly unfounded. Please provide factual justification for intentionally omitting meaningful landscaping and screening of a stark industrial plant within the heart of a major tourist destination.

ES-5 Demolition of Existing Stacks and Power Plant Building

Comment: The previously publicized agreement between Vistra and the City of Morro Bay announced the demolition of the stacks and power plant in a time frame different than the schedule laid out in the DEIR. Since it appears that the construction completion for the BESS will occur well after the publicized demolition date, please discuss the highly unusual rationale for placing demolition after construction.

Comment: The DEIR should treat the subject of Urban Decay and Blight in each of the alternative scenarios. The abandoned Power Plant building continues to deteriorate. The exterior cladding now shows signs that it has come loose in the weather. This presents both an unsightly appearance and a flying debris hazard. Beyond that, the lingering presence of a huge, abandoned building and its stacks may ultimately prove to be a “grand canvas” for graffiti artists, to the environmental detriment of the larger community.

ES-5 Master Plan

Comment: There is no need to change the Land Use Designation from Visitor Serving Commercial. The DEIR should, but does not, treat this subject nor the need for Coastal Commission approvals and potential CDP appeals. The construction of the BESS can be accomplished with a narrowly defined Conditional Use Permit (CUP). The people of Morro Bay, through their elected

officials, formally changed the Land Use Designation to “Visitor Serving Commercial”. A CUP would preserve that recently approved change. The DEIR should provide a discussion of the use of a CUP in lieu of a Master Plan Amendment, including how the CUP conditions would revert the land use back to “Visitor Serving Commercial” when the proposed BESS is decommissioned.

For reference, the City of Menifee (San Bernardino County) recently approved a CUP for a similar sized BESS (680 MW) at a former power plant location on Heavy Industrial zoned land. The conditions of approval included a formal Decommissioning and Deconstruction plan.

2.6 Project Characteristics

Comment: The proposed BESS is described as connecting to the existing PG&E switchyard. The existing switchyard is a remnant from the prior PG&E/Duke/Dynegy power plant. The power plant and stacks are also part of the project site as indicated on the diagrams within the DEIR.

The 60+ year old switchyard, full of antiquated and heavily weathered equipment is well past its “use by” date and will need replacement before the BESS is placed into service. The switchyard is the big justification for this BESS location. This renovation will require regulatory environmental processes. Likewise, the project itself seems to be composed of a Phase one and Phase two, each requiring environmental reviews. CEQA prohibits piecemealing the environmental processes. To avoid piecemealing, this DEIR should include all relevant proposed actions, such as Switchyard Upgrades, proposed phase 2 developments and reasonably foreseeable use of the remaining harborside remnants of the old Power Plant. Both the BESS and the switchyard electrical facilities will be under construction at the same time. The CEQA alternative narrative for this DEIR states infeasibilities between the BESS and other land uses, including perhaps those of “Visitor Serving Commercial” of phase 2. The DEIR will be incomplete if discussion of this topic is postponed to a future date.

The last thing the City of Morro Bay needs to face is a request for a second BESS or other heavy industrial facility at this location on the basis that the planned visitor serving commercial land uses are incompatible with the BESS!

4.7.3 Regulatory Setting

Comment: The California Building Code applies to this project. For ESS projects like this one, Explosion Control is a code requirement (414.5.1). The DEIR should, but currently does not treat this subject.

Comment: Best Practices from the NFPA 855 (2023 Ed.) indicate that the buildings should be constructed with “Damage Limiting Construction” to “prevent building collapse in the event of an explosion”. Since it will be important to know if blow-out wall panels or roof panels will be employed and how potential airborne debris would be managed, the DEIR should treat this subject.

Comment: The two existing BESS installation at Moss Landing (population 31) have each experienced battery fires that caused extensive shelter-in-place orders and/or evacuations. Neither project equals the size of the proposed Morro Bay BESS. NFPA fire suppression notes indicate that battery fires, under the best of circumstances, can burn for days. This potential eventuality is not, but should be treated by the DEIR.

Comment: This facility is described as having the capacity to provide 600MW of electricity.

However, that figure doesn't tell the amount of stored energy that is planned. This BESS might, on a typical day, have 100% of 8 hours of power stored in chemical form, which would be 4800 MWH. The 8 hour figure is an estimation (based on a recent BESS in Santa Clara, California), since the actual proposal currently omits that detail.

In the past, batteries weren't generally seen as hazardous. They had low energy densities and weren't very flammable. Times have changed. Now that "Damage Limiting Construction", "in the event of an explosion" and "megawatthours" are combined in a single project, knowing the magnitude of hazard is a reasonable topic for this EIR.

MWH converts directly to explosive chemical yields: 4800 MWH is roughly equal to 4 Kilotons of TNT (8,000,000 lbs). This stored energy presents the small but real chance of deflagration and/or detonation. In a rural or industrial setting, a 4 kiloton risk might be acceptable.

However, the same is not true for a facility surrounded by the Coast Guard Station, the harbor and docks, the Embarcadero, the High School, the proposed Phase 2 mixed use Hotels, Morro Rock's attractions, et cetera. It will be appropriate for the first time to address both the direct effects and the lingering after effects of a catastrophic occurrence. These magnitudes should be quantified in the DEIR.

4.7 Hazards and Hazardous Materials:

Comment: The proposed BESS location is extremely problematic from a public safety standpoint. The DEIR inadequately treats this subject. Lithium and Lithium Ion batteries are hazardous materials, which needs adequate treatment in the DEIR.

"A hazardous material is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment" (Health and Safety Code §25501(o)). Under federal and state laws, any material may be considered hazardous if it is toxic, ignitable, corrosive, or reactive (causes explosions or generates toxic gases).

Comment: Morro Rock is a well known, popular tourist destination. Every person who visits the rock by automobile travels past the BESS site on the same two lane, dead-end street. On busy days, hundreds of cars are parked at the rock and departing traffic moves at a slow walking pace. This roadway may be crucial to firefighting efforts, but it is unreliable as the primary evacuation route. The surrounding beaches, harbor, and creek, all ESHA areas, prevent ready development of alternate vehicle evacuation routes

Comment: The DEIR analysis of existing site and city contaminants to the nth degree is in sharp contrast to the lack of actual information, analysis, and effects of the materials proposed for this project.

The DEIR should, at a minimum, estimate the total tonnage of Lithium Ion compounds planned for the proposed facility.

Comment: The DEIR does not, but should describe contaminants from fire and fire-fighting efforts that could migrate into adjacent ESHA areas.

Comment: The DEIR should outline measures for both storm water management and to those to impound contaminated runoff from the site.

Comment: The project developer commissioned the Ramboll consulting firm to prepare an offsite consequences analysis (OCA). This analysis for the proposed project should have been included in the DEIR. If the project itself is changed to Alternative 5 to match the OCA presented by Vistra, the DEIR should be thoroughly amended and recirculated to account for all substantially different operational characteristics.

Comment: Only 500' of distance separate the dredged channel from the BESS site. The harbor and its entrance should be treated as part of the emergency planning in the DEIR.

Comment: Since Morro Bay is relevant to this project and to Division of Boating and Waterways, that agency should be checked and notified on the DEIR transmittal form.

Comment: The US Army Corps of Engineers has an active role in maintaining the Morro Bay harbor. there is no indication this agency has been contacted regarding their comments regarding this DEIR.

Comment: Likewise, Morro Bay's US Coast Guard Unit (Department of Homeland Security) is stationed directly across the street from the proposed project. The 11th Coast Guard District (1301 Clay Street Suite 700N, Oakland, CA 94612) should be invited to comment on the DEIR.

5.1 Alternatives Development and Screening Process

“ An off-site alternative was determined to be infeasible because there is no other similarly-sized property in Morro Bay with an appropriate land use designation and appropriate adjacent land uses to support a 24-acre General (Light) Industrial land use”

Comment: The DEIR should present an off-site alternative in a different location. The proposed project will serve over 400,000 homes with electricity. It is not a Morro Bay focused project. Given those characteristics a non-Morro Bay alternative is both feasible and the appropriate choice for an EIR alternative.

Comment: The former power plant site itself has neither the appropriate land use designations, nor appropriate adjacent land uses. The DEIR does not and should discuss should discuss how the waterfront site is the most environmentally appropriate location for the proposed huge battery.

Hazardous Material Technical Study

P. 10, P 35 “The project has been sited to mitigate sea-level rise and tsunami risk; the side of the project facing the ocean is protected by existing berms that are approximately 33 feet in height.”

Comment: It is plain to see that the existing berms are substantially less than 33 feet in height. ‘Google Earth Pro’ confirms that the seaward/harbor facing berms are between 10 and 15 feet above the existing ground. Please incorporate corrected data into the DEIR technical studies and visualizations.

Comment: Tsunami risks include widespread inundation. The existing non-contiguous berms are too low and too intermittent to be seriously counted as tsunami protection. For example, in Hilo, Hawaii’s 1960 tsunami, the inundation extended inland to an elevation of approximately 50 feet above sea level and totally flooded all structures near the shoreline. Current evacuation areas there and here use the 50’ elevation benchmark. The EIR does not but should assess the results of dunking 4800 MWH of lithium batteries in ocean water.

P 35 “The design would incorporate an automatic sprinkler system. There would be one system dedicated to suppression at the battery/rack level and, if required, another system to protect the buildings.”

Comment: Lithium metal and many lithium battery compounds are pyrophoric and/or water-reactive. The hazardous material study neither identifies the specific battery chemistry proposed, nor the best practice for managing fires in those types of batteries. The hazardous material study also does not establish the suitability of an ordinary automatic fire sprinkler system and standpipes for this project, given the hazards involved.

P 35 “Explosion Prevention Protection. The lithium-ion batteries selected for the BESS would incorporate explosion prevention protection pursuant to the National Fire Protection Association (NFPA) 855 or International Fire Code Chapter 12.”

Comment: Annex G of NPFA 855 (2023 ed.) indicates that testing (i.e. project specific testing) is appropriate for determinations of effective fire/explosion protection systems. See G 6.1.1 and G 6.1.3.3. The protective measures include ventilation of presumably toxic vapors, gasses and heat, which will discharge into the atmosphere in close proximity to sensitive population groups. The testing, and analysis of airborne effects should be included in the study as part of the DEIR.

In conclusion, I believe that, for the multitude of reasons stated above, this DEIR does adequately describe or assess the Environmental Impacts of the BESS project. I reiterate my opinion that the City of Morro Bay should not approve this proposal.

Sincerely,

Ted Blockley

Fwd: My Public Comment Re Draft EIR for Battery Energy Storage System (BESS) proposed for Morro Bay

TJ Kawamoto <[REDACTED]>

Sun 5/19/2024 8:42 AM

To: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>; sarah.macgregor@coastal.ca.gov <sarah.macgregor@coastal.ca.gov>

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Copy of comments sent to Kim Fowler

Begin forwarded message:

From: Tracy Stratton <[REDACTED]>

Date: May 19, 2024 at 8:17:40 AM PDT

To: BESScomments@morrobayca.gov

Subject: My Public Comment Re Draft EIR for Battery Energy Storage System (BESS) proposed for Morro Bay

Attn: Kim Fowler, Interim Planning Manager

Ms. Fowler,

I am a resident of Morro Bay. I am opposed to the BESS project proposed for Morro Bay and ask you to not certify the Environmental Impact Report (EIR), and ask you to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. Impacts to this community will be significant, and effective mitigation will not be feasible.

BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay - The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

If the BESS project is implemented, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors may start avoiding Morro Bay due to the unpleasant noise.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic and corrosive gasses - This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide.

Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. Our school staff, teachers and children will not be safe. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk.

Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic "Morro Rock," at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The "rock" and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact either. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

You will be putting our firefighters in danger as these fires are unpredictable. Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is

published. An analysis of lithium-ion battery fire hazards and toxic chemicals must be included in the EIR, not submitted separately. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay.

A BESS fire recently broke out in Otay Mesa, releasing toxic gasses in a radius at least 600 feet, and a much larger area was ordered to evacuate or shelter-in-place. A day or two after the fire was believed to be extinguished, it reignited itself and then reignited itself three days later as well. In Morro Bay, 600 feet includes residences, tourists, restaurants and wildlife.

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site.

Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that they now support an alternative design, which is a substantially different project. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Cordially,

Tracy Stratton

Public comment on the BESS draft EIR

Jeanne Marie Colby [REDACTED] >

Sun 5/19/2024 12:37 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

 1 attachments (816 KB)

51924 BESS letter (Otay Mesa thermal runaway).pdf;

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Dear Ms. Fowler,

Attached please find an EIR public comment letter for the planning commission regarding the proposed BESS in Morro Bay.

Thank you,

Jeanne Marie Colby

May 19,2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

Please consider this a comment on the BESS draft EIR. I am a resident of Morro Bay. A recent BESS incident is commanding the attention of this community and I urgently request the city follow the news on this, as it is a case study for impacts from the proposed BESS here in Morro Bay.

The ongoing BESS incident in Otay Mesa, California began Wednesday May 15, in building No. 3 at the Gateway Energy Storage facility in the 600 block of Paseo de la Fuente in Otay Mesa, which contains lithium-ion batteries. The fire has since reignited several times, with the latest blaze finally damaging the structure. Incident report attached.

The ongoing incident is a classic case of thermal runaway. “Firefighters say they were able to keep the fire contained to the inside of the building through their latest update Friday night. That changed overnight. Cal Fire reported Saturday morning that fire activity increased overnight as the lithium-ion batteries continued to experience thermal runaway. The fire extended into the building components and burned through part of the storage facility’s roof.”
[Lithium battery fire burns through roof of storage facility; evacuation orders in place](#)

We are not learning about thermal runaway from the draft EIR on the proposed BESS project in Morro Bay, as the term is not even mentioned there once. We are learning about it on the news and from our own research. In a thermal runaway event one module of batteries is damaged, overheats, goes into runaway and causes a cascading event in which nearby modules are damaged and go into thermal runaway. It requires copious amounts of water to attempt to cool the “fire” but continues to reignite. “Let it burn” still seems to be the firefighting approach which best keeps the firefighters safe, but also because they can’t stop it.

The Otay Mesa firefighters barricaded a 600 foot perimeter as dangerous levels of toxic, corrosive gasses were detected inside that perimeter. That was on Wednesday. A larger area evacuation order was in place Saturday. Otay Mesa is not near residential areas, but their firefighters are in danger. (A BESS fire in Surprise, Arizona resulted in traumatic brain injuries, broken bones and a collapsed lung to the members of the HAZMAT team that responded).

A 600 foot perimeter containing toxic gasses around the project site for Morro Bay includes residences, restaurants and shops, Coleman beach, and parts of the national estuary. The consequences of a BESS thermal runaway would be devastating for our firefighters and community in Morro Bay.



CAMINO FIRE INCIDENT UPDATE

Date: 05/18/2024 Time: 7:00 PM



@CALFIRESANDIEGO



@CALFIRESANDIEGO

INCIDENT FACTS

Incident Start Date: 05/15/2024		Incident Start Time: 3:46 pm
Incident Type: Commercial Structure Fire		Cause: Under Investigation
Incident Location: 641 Camino de la Fuente, San Diego, CA 92154		
CAL FIRE Unit: CAL FIRE/San Diego County Fire		
Unified Command Agencies:		
Size: 16,000 sq foot building	Occupancy: Energy Storage	Expected Full Containment:
Civilian Injuries/Fatalities: 0		Firefighter Injuries: 0
Structures Threatened: 0	Structures Destroyed: 1	Structures Damaged: 0

CURRENT SITUATION

Situation Summary:	The fire has significantly diminished compared to the fire activity this morning. Despite major damage to the building, firefighters were successful in confining it to the building of origin. Our priority has been life safety and protecting natural resources. Firefighters continue to monitor the air and water quality to ensure there is no threat to life and safety. Some of the batteries continue to experience thermal runaway, therefore firefighters will continue to implement cooling measures throughout the night.
Evacuations:	Orders: Grid 0436 Northeast and Southeast Corner Warnings: Grid 0437 Entire Grid
Evacuation Center(s):	None
Road Closures:	Camino de la Fuente at Paseo de la Fuente
Animal Evac. Center(s):	None

ASSIGNED RESOURCES

Engines: 6	Water Tenders: 0	Trucks: 2	Hazardous Materials: 1	Squads: 0
Other: 3		Total Personnel: 30		
Cooperating Agencies: San Diego Fire-Rescue Department, San Diego County Sheriff's Department, San Diego County Department of Environmental Health – Hazardous Materials Division, Chula Vista Fire				

See also, Firefighters battling blaze at battery storage facility in Otay Mesa, - The Sa...

Sincerely, Jeanne Marie Colby

Cc: CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

BESS EIR

Alex Beattie <[REDACTED]>

Mon 5/20/2024 8:35 AM

To: Planning Commission <planningcommission@morrobayca.gov>

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Greetings members of the Morro Bay Planning Commission,

I have previously expressed to you my concerns about the EIR on the BESS project submitted by Rincon on behalf of Vistra. Upon further research, I have developed additional concerns that I would like to share with you. The document ignores certain facts and embellishes the project's achievements. Not surprising given that Rincon was paid by Vistra.

One example is displayed by one the project's objectives is to "assist" the CPUC to achieve its goal for energy storage". In 2013, the CUPC set a goal for 1340 MW of storage by the end of 2024. In Oct. 2023 the California Energy Commission announced that it expected to have about 8500 MW of storage by the end of 2024. No assist needed, so BESS is not needed!!!

Another example is the claim that its project will improve the view corridor using land that is basically useless for anything else. A 91,000 SF 35 foot high building surrounded by a chain link fence may be better than the existing power plant building but there must be numerous other viable projects that will improve the view even more. The applicant's statement that the parcel the project is to be built upon can only be used for industrial purposes is an overstatement. While it is true that the State has imposed deed restrictions on the parcel but they can be removed by remediation. A similar situation occurred at the Union Oil site in Avila Beach which was more highly contaminated than the one for the BESS site. Think of what Avila Beach looks like now.

These examples, plus several others, display bias and a lack of objectivity in the EIR. There are better uses for this site and the applicant should be asked to revise their project.

Thanks for reading this far,
Alex Beattie

BESS comment

JoAnn Smith <[REDACTED]>

Sun 5/19/2024 11:22 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>; Me <gumbyops@yahoo.com>

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Dear Ms. Fowler,

We are residents and visitors of Morro Bay and the surrounding communities. We are opposed to the BESS project proposed for Morro Bay and ask you to not certify the Environmental Impact Report (EIR), and ask you to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. Impacts to this community will be significant, and effective mitigation will not be feasible. BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay - The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys. If the BESS project is implemented, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors may start avoiding Morro Bay due to the unpleasant noise. Lithium-ion batteries have a history of spontaneous ignition and releases of toxic and corrosive gasses - This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. Our school staff, teachers and children will not be safe. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger. BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic "Morro Rock," at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The "rock" and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more.

The Coastal Act also prioritizes coastal-dependent development, which battery storage is not. BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact either. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species. You will be putting our firefighters in danger as these fires are unpredictable. Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. An analysis of lithium-ion battery fire hazards and toxic chemicals must be included in the EIR, not submitted separately. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay. A BESS fire recently broke out in Otay Mesa, releasing toxic gasses in a radius at least 600 feet, and a much larger area was ordered to evacuate or shelter-in-place. A day or two after the fire was believed to be extinguished, it reignited itself and then reignited itself three days later as well. As of now, the fire is in thermal runaway. In Morro Bay, 600 feet includes residences, tourists, restaurants and wildlife. The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that they now support an alternative design, which is a substantially different project. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments. The BESS is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

JoAnn Smith



Morro Bay, CA 93442 _____

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

BESS

[REDACTED]
Sun 5/19/2024 2:38 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 1 attachments (209 KB)

MB BATTERY FARM - PROTEST 5-18-2024.pdf;

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Please accept attached Draft EIR comments.

Thank you

City of Morro Bay
Attn :Kim Fowler, Interim Planning Manager
Morro Bay California 93442
BESScomments@morrobayca.gov

Subject: Draft EIR for the Vistra Battery Storage System (BESS).

Do not certify the flawed EIR. The project must be denied. The following are reasons for denial.

1. The Lithium battery farm will be in a Flood Plan and a Tsunami Inundation Zone. The California Coastal Commission demanded that the City of Morro Bay move the existing sewer plant inland because it was in these hazard zones. The residents of Morro Bay have been burdened with sewer and water bill for decades to come at a cost of over a hundred of million dollars. Now we are being told that it is ok to have a have toxic waste battery farm in this same hazard zone. There is no way to mitigate the risk or protect us from a lithium battery fire at this site. Fukushima was built to survive the tsunami, it was obliterated and will never recover. The City of Morro Bay will be destroyed, our National Estray will be poisoned, and the residents of our city will suffer the consequences. Lithium fires are inevitable.

Here is a short list of lithium fires in the U.S

<https://eridirect.com/blog/2022/03/the-5-biggest-lithium-ion-battery-fires-to-date/>

Vistara Energy's Facility in Moss Landing, California

Shoreway Environmental Center in San Carlos

California, Felicity Ace Burns in the Atlantic Ocean

Superior Battery in Morris, Illinois

Royal Waste Services in Jamaica, New York

Here is a worldwide data base on BESS Failures - Stationary Energy Storage Failure Incident

https://storagewiki.epri.com/index.php/BESS_Failure_Event_Database. 87 failures 2011- 2024

2. According to Vistra there will be a total of 15 fulltime staff monitoring the Morro Bess when the battery farm 24 hours a day comes online. This means there will be 3- eight hour shifts a day. So, when a lithium fire occurs there will be five-Vistara employees to handle the fire. The Morro Bay BESS will not have enough trained staff to contain a lithium fire, let alone put it out. The Morro Bay Fire Department is already understaffed and does not have anyone trained or experienced to handle this type of fire. Morro Bay will need to call for help from fire departments around the state to save our town.

This is what happened at a BESS in Australia. "In 2021, another fire affected a Tesla Megapack-based energy storage project near Geelong in southeastern Australia. **It burned for four days, prompting local authorities to send 150 firefighters and more than 30 fire trucks to the scene.** After the investigation was finished, the probable cause was determined as being coinciding short circuits triggered by a coolant leak outside the battery compartment". P 1

Sources: The Guardian, Bloomberg, ABC News Australia, Sky News Australia (YouTube).
<https://insideevs.com/news/688894/tesla-megapack-battery-fire-queensland-australia/>

So, who is going to pay for a fire like this in Morro Bay? How much will 30 fire engines and 150 firefighters for four days cost – millions of dollars? What about the residents and visitors in Morro Bay, who will be told to shelter in place or evacuate during the lithium fire?

3. Here are some things to consider about having a BESS in our town that have not been addressed. In the Draft EIR. **Key considerations:**<https://westgardnersolar.com/utility-scale-solar-health-and-safety-concerns/>

Does a BESS storage facility make sense near residences?

Do our county local firefighters have the manpower, equipment and materials to fight a fire at BESS facility? If not, who will pay for this?

Will local firefighters have easy access to quickly fight a fire?

Are all county Emergency Responders trained and prepared to respond quickly and assist communities if a BESS fire or explosion were to happen?

Will there be evacuation plans?

Who will pay the costs to those harmed by the fire evacuation or shelter in place orders, lost time at work, or worse, residents or firefighters exposed or killed by toxic smoke and fire?

Where can the public find the details for fire and emergency response to utility-scale solar and BESS storage facility fires?

Respectfully yours,

Deborah L. K. Barker

Deborah L.K. Barker

Morro Bay Resident since 1976

[REDACTED]

cc:

City of Morro Bay

Attn Mayor and City Council
595 Harbor Street
Morro Bay CA 93442
council@morrobay.gov

California Coastal Commission

Attn: Sarah MacGregor, Coastal Planner
725 Front Street. Suite # 300
Santa Cruz, CA 95060
MacGregor@coastal.ca.gov

Morro Bay Planning Commission
Attn: Chairman and Commissioners
955 Shasta Avenue
Morro Bay, California 93442
PlaningCommission@morrobayca.gov

Flawed Ramboll EIR Fire Report

Steve Paige <[REDACTED]>

Mon 5/20/2024 8:43 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>; no.mb.bess@gmail.com <no.mb.bess@gmail.com>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>

1 attachments (381 KB)

Lithium+Batteries+Hazmat+Handout+-+Toxicity+-+WA+Symposium+2024 (1).pdf,

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City of Morro Bay
Attn: Mayor and City Council
995 Shasta Avenue
Morro Bay, CA 93442
BESScomments@morrobayca.gov

Dear Mayor and Council Members.

I do not think the author of the BESS EIR fire hazard report is a neutral party. Ramboll LLC is a huge foundation run Danish conglomerate that has been buying up American consulting assets as a growth venture. Ramboll's BESS fire evaluation only reflects their own corporate goals, not the safety for our small town residents. Their EIR document on fire safety is seriously flawed. It needs to be returned for revision and authored by a more neutral third party with firefighting and hazmat experience. Here is why.

1. Ramboll underestimates the hazard of a fire in the worst possible case which is a tsunami that inundates the entire battery field. Aggressive saltwater intrusion
2. Ramboll underestimates the volume of toxic air created in their scenario.
3. Ramboll uses the EPA's AERSCREEN software that was not designed to model toxic runaway battery fire pollutants. There is no specific software designed to
4. Ramboll evades the problem of off-site pollution and recovery by saying a 36 cubic mile toxic cloud generated by the volume of the storage contaminants is contained
5. Ramboll leaves out the issue of groundwater degradation from contaminated water used in fire suppression. No study, no modeling.
6. If you go to Ramboll's website: [Navigating the complex landscape of regulatory requirements for green fuels - Ramboll Group](#) You can see their bias seems to be
7. Ramboll ignores environmentally safer energy storage like Liquid Air Energy Storage that has no risk of large scale air and water pollution. LAES would not require

First, Ramboll, the EIR contractor, decided to use EPA's AERSCREEN to computer model the results of a BESS fire. I downloaded the PDF User's Guide for AERSCREEN. Then I searched for any mention of 'thermal runaway' and 'battery fires' in the PDF user's software guide. The PDF search engine came up with ZERO word results. Check yourself: https://gaftp.epa.gov/Air/aqmg/SCRAM/models/screening/aerscreen/aerscreen_userguide.pdf#page=26.35

Further, Ramboll's choice to use AERSCREEN software was somewhat random. I quote from their own BESS EIR document:

"A fire will result in an elevated plume with some heat associated with it. ALOHA is not designed to handle fires outside of the specific scenarios contained in the program, which does not include battery fires. PHAST does not have a battery fire module and, as a proprietary model, is less appropriate for use in a public-facing evaluation. SCREEN3 and AERSCREEN can both be appropriate for use in this analysis, but AERSCREEN is more recent and is being continually updated. Accordingly, we are using AERSCREEN for this analysis."

By Ramboll's estimate A battery fire at BESS would release 1,145,592 grams (24 hours times 47,733g/hr) or 2500 Lbs. per event of toxic HF and toxic LI nanoparticles. A lethal dose for HF is 0.0139 g/m³ (170 ppm) So how many square meters of toxic gas is created that contains a lethal dose of HF from a modeled BESS fire in Morro Bay? I asked chatGBT to estimate. According to chatGBT, the amount of cubic meters of atmosphere containing a lethal dose of HF is 82,371,230.22 cubic meters! So if you breathed one cubic meter of this air you would have received one lethal dose. This is the equivalent of 31 square miles of fire smoke that contains toxic levels of lethal HF gas not to mention other constituents of the battery components that are fully consumed in thermal runaway. Yet we are expected to believe that most of these toxins and contaminated air volumes are contained on site? AERSCREEN software is more commonly used by EPA clients to model the dispersion of Nox and No2 not toxic gasses. As Ramboll admits, they do not have simulation resources that model BESS 'thermal runaway' battery pollutants and arbitrarily picks 24 hours as the maximum period of toxic exposure based on the AERSCREEN software model that was not designed to model battery fires.

A better source for understanding toxic battery fires can be found at <https://www.hazmatandrescue.com> It is an organization that specializes in hazmat Battery fire training. I enclose a 18 page PDF that was used at a presentation by them for their annual symposium. (see attached). Many hyperlinks are accessible to do your own research. Introductory paragraph from their symposium:

"Hello WA Hazmat Symposium - This handout contains some good stuff on Li-ion batteries as well as white papers for our discussion about toxicity to include the metal problem that is rarely discussed. I briefly covered a few of these in the presentation (briefly), but this format will allow you to look for yourself. Do your own searches and you will find many more. As stated, I have far more questions than answers!" (by Todd Smith)

Ramboll takes guesswork to a new level of obtrusive complexity where people who actually have to fight battery fires are entirely fearful of these new technologies. Also there is no evaluation of groundwater contamination from massive amounts of firewater being mixed with the toxic stew of thermal runaway constituents that are un-dousable. Firewater cannot stop battery thermal runaway. That firewater to groundwater contamination has not been adequately studied to develop industry standards making the Morro Bay and the Morro Bay coastal habitat actual environmental guinea pigs if this portion of the EIR is approved.

Ramboll's extreme BESS fire case does not take into consideration the site being fully engulfed in an aggressive tsunami that would cause the thermal runaway of multiple structures or multiple battery pack units due to violent salt water intrusion. There have been several tsunamis that have inundated this site in the historical record since 1812. The risk is higher than claimed in the EIR. The American Geophysical Union, Fall Meeting 2009, abstract id. NH31B-1113 exposed the following factual narratives about local tsunamis that have impacted the subject site and California like sites at equivalent sea levels for the last 200 years. I Quote from the conclusions of that meeting:

"These reports of historic tsunamis represent wave elevations significantly higher than the 1964 Alaska earthquake tsunami that is typically used for emergency planning for tsunami inundation in California. Since it appears, 4 much larger tsunamis occurred in the Central Coast area in 1812, 1878, 1907 and 1913; it appears we may have become complacent during this recent period of tsunami quiescence. Emergency planning for Central Coast tsunamis should be anticipating tsunami waves in the 50 to 100 feet elevation range. "

Ramboll completely ignores safer options for energy storage. The most environmentally benign energy storage project would be a grid-scale Liquid Air Energy Storage (LAES) plant. Where liquified air is the electrical storage medium. This is where windmill energy is used to cool air into a liquid state and store the energy in the phase change state. from air to liquid air and back. This process would create peak load energy balancing with off the shelf turbine technology.

Further, an LAES plant could be scaled to sell waste heat to the residential and commercial components of the Morro Bay Plan North Embarcadero element to raise the LAES project efficiency to 75%+ with *no toxic fire or groundwater contamination risk*. A review of LAES industry can be found here:

<https://www.sciencedirect.com/science/article/pii/S2666792421000391#>

https://highviewpower.com/news_announcement/world-first-liquid-air-energy-storage-plant/

<https://www.mdpi.com/1996-1073/16/17/6216>

Using off the shelf industrial components this method of energy storage is not only safe for the environment but has less up front carbon footprint costs and half the financial up front inputs. Ramboll has again not even mentioned this technology in its BESS EIR. There is of course, the potential for tsunami destruction of an LAES plant but LAES has no large scale toxic release component because the LAES plant energy is stored in liquified air at one atmosphere pressure. This is the environmentally safe solution for our ecologically sensitive coastal habitat.

Batteries are not the solution here. The wind farms at sea are well proven though contested. Giant battery storage plants, like BESS Morro Bay, are unmodeled and experimental technologies with high potential social and environmental costs due to fire, air and water contaminants. LAES plants are also experimental but they don't have any contamination risk. If an expected catastrophic tsunami caused LAES energy release, it would be merely clean air released into the atmosphere. This option should be evaluated in the BESS EIR. Preserving clean air and water should be the goal in the entire catastrophic evaluation. Otherwise, it's not truly a green project.

Your friend,
Steve Paige

Resident of Morro Bay
Past member of the Morro Bay Water Advisory Board
Past elected member of Los Osos Community Advisory Council

Hard Copy delivered to 995 Shasta Avenue 5/21.
PDF at <https://www.hazmatandrescue.com> and below>

Hello WA Hazmat Symposium - This handout contains some good stuff on Li-ion batteries as well as white papers for our discussion about toxicity to include the metal problem that is rarely discussed. I briefly covered a few of these in the presentation (briefly), but this format will allow you to look for yourself. Do your own searches and you will find many more. As stated, I have far more questions than answers!

I cannot vouch for all of the content so if something is wrong, please let me know. I believe the other presentations also had some valuable links and resources such as UL FSRI, RISE, NFPA, etc, that I encourage you to look at as well.

If you want to dive deeper into the white papers and various lectures they are here (and there are many more). Usually, the abstracts or conclusions are enough to get the relevance without diving too deep in the weeds, but don't take my word for this – look at it yourself. Control click the link and you are off and running.

Most importantly, please be safe and keep those around you safe!

Again, full disclosure, I am not a toxicologist, doctor, engineer, or industrial hygienist. I am a fire and explosion investigator on the tail end of a 30 year career in law enforcement. I also have a keen interest in this subject born out of my shock when we conducted our own testing when my original interest was how can I tell if a battery caused the fire or was a fire victim.

My opinions are mine and not those of my employer.

My understanding is that the immediate toxic by-products produced during a Li-ion battery (LIB) fire will depend slightly on which of the 6 main LIB chemistries is involved. Suppression water, SOC (state of charge), size of the battery system, type of batteries, geometry of the batteries within the pack, the type of containment, confined space, etc., can all impact what is produced during either venting or combustion. These things will also influence the subsequent fire behavior and the potential for a rekindle if suppression is successful.

The gases produced, both asphyxiants and irritants, are nasty, but many of these appear to dissipate quickly so the threat posed by them is more immediate to the incident so staying out of the plume, direct smoke, and remaining upwind while wearing good PPE and protecting our respiratory system should provide good protection. I know this is not always possible so if you are exposed like this please be mindful of gear contamination, consider writing an exposure report, and also consider getting blood testing from your health department or provider.

This brings us to the metals and my concerns. Keep in mind that the same recommendations to prevent hazardous exposures apply to this threat. The metals will be more persistent as particulates and may pose the larger threat in or on the burned appliance, at the fire seat, and downwind of the fire seat in the event of a fire. Remember that some of these particles can be quite small. Nanoparticles or particles less than 10 micrometers are more easily absorbed, ingested, breathed, or possibly ionized (highly reactive). Here are a few papers if you wish to look and I have included excerpts and highlighted relevant portions.

As stated, there is much we do not know about exposures or contamination of our PPE or to the scene but the amounts observed in the few published studies far exceed permissible limits. As we scale up the size of the battery system (best measured in kWh), it is reasonable to believe the threat scales up as well. I am not as concerned about smaller batteries unless you are in a confined space, vape (direct exposure), or you encounter a fire with dozens of them (add up the kWh) but caution is always our friend.

Due to the expense of testing, we are currently left with “theoretical yields” or suspicion of the same for large systems, but we are following our hazmat training to recognize this threat!

There is some research on the toxicity of cobalt dusts but very little research into how these materials behave at temperatures as high as 4000 degrees F (according to some but usually 2k or better) or in the presence of other volatile compounds such as the solvent chemistries. Manufacturers are just trying to design a better battery and not much thought is given to possible toxic combustion by-products and their impact on human health because they are designed to store energy, not for combustion. The industry is very focused on energy density and economics so don't assume they have looked at this subject comprehensively or that they would publish the information.

*side note – if these links do not open or give you access to the full paper copy the title and look it up on google, you should be able to access the full copy if all you get is a summary or excerpts – some sites charge and others do not but you can usually find it and I have access to some you may not. There are many dozens of published (peer-reviewed) white papers on this subject as you will see if you simply google lithium-ion battery toxicity, etc.

[Experimental determination of metals generated during the thermal failure of lithium ion batteries - Energy Advances \(RSC Publishing\) DOI:10.1039/D2YA00279E](#)

Here are excerpts from this study published in January 2023 that directly reference metal particulates as toxins produced in these fires:

“Metal residues must also be considered as a source of exposure following a battery release; potential routes of exposure could occur through both dermal uptake and any inhalation or ingestion of metals as a result of direct or indirect transfers.”

“Each metal determined in this study has its own associated hazard. Nickel and cobalt are known sensitizers, both are known to cause respiratory issues including ‘asthma like’ allergic reactions. In addition, nickel and nickel compounds are classified Group 1 carcinogens as defined by IARC and nickel can cause skin irritation and allergic dermatitis at sometimes low concentrations.³²

Elevated exposure to cobalt can affect heart, thyroid, liver, and kidneys. Repeated exposure to cobalt dust can cause scarring of the lungs (fibrosis) even if no symptoms are noticed.

Aluminium compounds have been linked to asthma, obstructive pulmonary disease, and heart disease, however it is better known for causing adverse neurological effects.³³

With manganese compounds the central nervous system is the primary target of manganese toxicity, specifically causing detrimental neurological effects, since inhaled manganese is often transported directly to the brain before it is metabolised by the liver.

“The methods of analysis used here do not allow the comprehensive determination of the metal containing compounds/species; this is the subject of further work. However, it is not unreasonable to expect metal oxides to be formed from a combustion event, and some of the oxides of cobalt, manganese and in particular nickel are known to be hazardous to human health. The health impact of such an exposure depends not only on the species present, but also to the bioavailability of the compounds, influenced by solubility and, for inhaled absorption, particle size. Certainly, initial effects from exposure to the aforementioned metal oxides would present as skin and inhalation irritations. More long-term health effects can include cancer and neurological issues.”

*some of these metals if inhaled can stay in your lungs for months or even years according to some toxicologists and papers (again, doublecheck anything I say if you question it), but we don't seem to have good answers on this or any understanding of potential bio-accumulation from multiple exposures.

Here is another paper from 2020 that specifically looks at LiFePO₄ (LFP) or lithium iron phosphate with excerpts (the current favorite chemistry for larger systems such as EV's or ESS). Sadly, I don't think we are far ahead in our understanding than we were in 2020 when this was published and it does NOT focus on the metal particulates -

[A comprehensive investigation on the thermal and toxic hazards of large format lithium-ion batteries with LiFePO₄ cathode - ScienceDirect](#)

“Toxic gases released from lithium-ion battery (LIB) fires pose a very large threat to human health, yet they are poorly studied, and the knowledge of LIB fire toxicity is limited...”

“The major toxic gases detected from the online analysis are CO, HF, SO₂, NO₂, NO and HCl.”

“Results show that the effects of irritant gases are much more significant than those of asphyxiant gases. HF and SO₂ have much greater toxicity than the other fire gases. The maximum FEC value is approaching the critical threshold in such fire scenarios.”

“Until now, few studies have been done on evaluating the fire effluents of LIB and the knowledge of their toxicity is very limited.”

*Fractional Effective Dose (FEC) is basically the dose at which really bad stuff happens to human beings – see this link for further understanding: [130 A2016 FKT-AAA CIREport.pdf \(nfpa.org\)](#) – i.e. - we use this for fatal fires for CO or HCN when we get victim bloodwork back.

*Here is a 2017 paper on toxicity specifically looking at Cobalt – as we discussed cobalt is a key ingredient in the most popular battery chemistry NMC (nickel manganese cobalt) and two other

primary chemistries nickel cobalt aluminum (NCA) and lithium cobalt oxide (LCO) with excerpts. I don't mean to pick on cobalt because nickel, manganese, titanium, iron, aluminum, and the rest also have toxicological profiles. Again, OSHA/NIOSH and the Euros generally reference permissible limits of these metals for "dusts" and those are much larger particles than you will find in batteries. Again, the smaller the particle the more toxic it is to humans (more easily absorbed).

[Cobalt toxicity in humans Leyssens et al Toxicology 2017.pdf \(imperial.ac.uk\)](#)

"Although cobalt has a biologically necessary role as metal constituent of vitamin B12, excessive exposure has been shown to induce various adverse health effects."

"The systemic health effects are characterized by a complex clinical syndrome, mainly including neurological (e.g. hearing and visual impairment), cardiovascular and endocrine deficits.

"toxic reactions at lower doses have been described in several cases of malfunctioning MoM hip implants, which may be explained by certain underlying pathologies that increase the individual susceptibility for Co-induced systemic toxicity. This may be associated with a decrease in Co bound to serum proteins and an increase in free ionic Co^{2+} . As the latter is believed to be the primary toxic form, monitoring of the free fraction of Co^{2+} might be advisable for future risk assessment.

*MoM refers to metal on metal joint replacements – a source of lots of class action lawsuits right now for adverse outcomes. I included a link at the end for a Ted Talk by Dr. Tower talking about his experience with a cobalt hip. It is very interesting, but keep in mind his exposure (and others) was very direct.

*a few notes here about this 56 pages of text – it is NOT specifically looking at lithium-ion batteries, only other exposures to "cobalt". The last quoted excerpt above is the scariest because these are LITHIUM-ION batteries so would it not be possible that we might have ionized cobalt emitted from the battery during venting (pre-fire) and combustion? I don't know, but it should be studied further and remember as we discussed an EV battery may contain 5, 10, 15, or more kg of cobalt along with other ingredients that have toxicological concerns such as nickel, manganese, aluminum, copper, iron, etc. There can be over 150kg of metals in the larger batteries for EV's and we now have ESS that are the equivalent of 40 EV batteries inside one vented Conex style box with buses or other appliances such as heavy equipment that will equal 5 or more large EV batteries. It is not common and best practice to evacuate downwind for these larger incidents.

***I will repeat this again, keep in mind that most of the toxicology studies are for dusts in a manufacturing setting and not ionized particles (possibly) or nanoparticles that may be encountered in a fire or present afterwards so it is reasonable to assume that metal particulates from a battery fire will be worse than metal dusts in an industrial setting.**

*Here is another paper from 2022 that looked at "contamination" post-fire. It is relevant although it's not directly applicable to contamination of humans specifically as that was not the goal of the research. This corroborates my assertion and fear that the dusts or soot (post-fire and

during the fire) are something to be concerned about. I disagree with their assertion that an ICE and EV vehicle burn at the same temperatures, but that is an argument that continues (most researchers believe it burns hotter).

*On a good note, it looks like the auto industry is beginning to engineer better separation and insulation between modules within a pack to minimize rapid fire progression with some good effect so this might reduce previously observed temperatures and rapid/violent fires.

The key take-away for me from this paper as I presented is:

[Thermal runaway and fire of electric vehicle lithium-ion battery and contamination of infrastructure facility - ScienceDirect](#)

“The results of experiment 3 indicate that with active ventilation, soot is transported over long distances and is deposited on surfaces. The amounts of soot found were much lower e.g. about 0.5 g/m^2 at 100 m distance compared to $17\text{--}20 \text{ g/m}^2$ in the enclosed space of experiment. However, the quantities of the heavy metals nickel, cobalt and manganese as well as lithium are still high, which is why professional decontamination is also required here.”

“3.1.1. Contamination of infrastructure and textiles (*PPE or turn-outs?*)

“Inorganic pollutants which are toxicological and corrosion chemical relevance were present in the form of large amounts of the elements Co, Ni and Mn, each amounting to approximately $150\text{--}400 \text{ }\mu\text{g/cm}^2$, and of the element Li amounting to around $30\text{--}70 \text{ }\mu\text{g/cm}^2$, see Table 5. Water-soluble fluorides in amounts of $40\text{--}52 \text{ }\mu\text{g/cm}^2$ were detected on the collector plates and textile, see Table 6. Therefore, the usual background levels for non-contaminated surfaces are exceeded by factors up to approximately 2000–4000 (Co, Ni), 500–700 (Mn), 400–700 (Li) and 50 (fluorides).

“Conclusion Using the scalable experimental design, a contamination with soot in the range of 20 g/m^2 can be expected when a lithium-ion battery of 32 kWh capacity burns down in an enclosed parking space for 30 cars. Thermal runaway and fire of a battery of type NMC 111 produced soot consisting mainly of heavy metal-oxides of nickel, manganese and cobalt (each 18–20% by mass) as well as, to a lesser extent, of lithium (3–4% by mass), fluorides (appr. 2.5% by mass) and chlorides (appr. 0.2% by mass).”

*30 car garage? What about a two-car garage? We don’t know, but these are very high numbers for permissible exposure limits or PEL as we discussed. I will include some SDS sheets if you want to look at them below or look up your own. They don’t always tell you what the exact chemistry of the battery is (proprietary special sauce).

Remember, combustion of LIB’s may also cause other compounds to be formed so don’t assume these are high school chemistry class questions that follow typical oxidation-reduction formulas. Again, we really don’t know enough about this stuff or the long-term health consequences of exposures or contamination.

Firefighters PPE contamination PV (solar) and EV -
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9566750/>

It also contains test results showing that firefighters' clothes accumulate harmful substances after fighting these types of fires. Pilot tests for the presence of polycyclic aromatic hydrocarbons (PAHs) and formaldehyde showed that levels exceeded limits in all clothing samples. For example, the cobalt level was 24 times higher than that considered safe in the test carried out with car battery fire. Although it is recognized that liquid carbon dioxide (LCO₂) methods of cleaning may be more effective than traditional water washing, further research on cleaning efficiency for clothing containing substances emitted from car battery and PV modules fires is required.

Here is an old but decent representation of the "content" of a 60kWh EV battery pack (NMC chemistry) but keep in mind that the amounts of materials vary. Tesla is trying to get away from cobalt and it may contain very little but other manufacturers use more cobalt.

Visualizing an EV battery <https://elements.visualcapitalist.com/the-key-minerals-in-an-ev-battery/>

SDS for lithium nickel manganese cobalt oxide
<https://www.sigmaaldrich.com/US/en/sds/aldrich/761001>

SDS for lithium nickel cobalt aluminum oxide <https://loradchemical.com/data/sds/SDS-Lithium-Nickel-Cobalt-Aluminium-Oxide.pdf>

SDS for lithium nickel oxide <https://www.ltschem.com/msds/LiNiO2.pdf>

6 most common lithium battery types <https://dragonflyenergy.com/types-of-lithium-batteries-guide/>

Look these up yourself simply by searching things like lithium cobalt oxide SDS – .02mg per cubic meter TWA for PEL

<https://www.fishersci.com/store/msds?partNumber=AA4209022&productDescription=LITH+CBLT%28III%29+OXID+99.5%25+100G&vendorId=VN00024248&countryCode=US&language=en>

*Iron is used in LFP batteries (lithium ferrous phosphate or LiFePO₄) – Iron is "less toxic" than other cathode metals for LIB's but as I stated, we don't really know much about nanoparticle toxicity and most reference "not studied" when you read a straight SDS for Lithium Iron Oxide or Iron Oxide (rust) and there is possibly a threat of iron fume similar to what welders may experience. The last paper I link at the very bottom of this book states that combustion may produce other hazardous compounds with even higher toxicity, but we don't know.
https://www.continentalbattery.com/assets/Lithium_Safety_Data_Sheet.pdf

* Let us break this “soot” down further from the testing above with what we discussed about SDS and OSHA/NIOSH limits.... .5g/m² is well over .02g per cubic meter and this was measured at 100m away (! Think about the old guys like me NOT on SCBA at the end of the driveway) with 17-20g per meter squared in the enclosure for 30 cars. It is logical that this might be far worse in a two-car garage or in a smaller semi-confined space. Not to make a math lesson about this, but if permissible limits of dusts are .1mg, 5g, .02mg, .05mg per cubic meter over a 40 hour work week, that is a LONG way from 17g per square meter! As the “plume” (containing these metals) cools the particulates will drop to the ground or on you, your PPE, and your apparatus. **This is the contamination that will remain present post-fire in and around the fire seat, on the appliance or container, and on our PPE.** Remember, average size EV is around 60kWh and these measurements were in a far larger space than a garage so 20g per sq meter may be far lower than an incident you might respond to or less in an open parking lot.

Remember, these things are fully expelled with little to no copper or aluminum left (often just empty battery casings) so all of this stuff goes somewhere!

Another from 2017 - [Toxic fluoride gas emissions from lithium-ion battery fires - PMC \(nih.gov\)](#)

“Lithium-ion battery fires generate intense heat and considerable amounts of gas and smoke. Although **the emission of toxic gases can be a larger threat than the heat, the knowledge of such emissions is limited.**”

“While the fire itself and the heat it generates may be a serious threat in many situations, **the risks associated with gas and smoke emissions from malfunctioning lithium-ion batteries may in some circumstances be a larger threat, especially in confined environments where people are present, such as in an aircraft, a submarine, a mine shaft, a spacecraft or in a home equipped with a battery energy storage system.**”

[Full article: Lithium-ion battery explosion aerosols: Morphology and elemental composition \(tandfonline.com\)](#)

“**Aerosols emitted by the explosion of lithium-ion batteries were characterized to assess potential exposures.** The explosions were initiated by activating thermal runaway in three commercial batteries: (1) lithium nickel manganese cobalt oxide (NMC), (2) lithium iron phosphate (LFP), and (3) lithium titanate oxide (LTO).”

“**The abundance of elements from the anode, cathode, and separator in respirable aerosols underscored the need for the selection of low-toxicity battery materials due to potential exposures in the event of battery thermal runaway.**”

“Aerosols emitted by lithium-ion battery thermal runaway have not been characterized to the authors’ knowledge. In particular, information is lacking on the size, composition and morphology of explosion aerosols in the respirable size range (e.g., $\leq 4 \mu\text{m}$). However, the powder deposited after lithium-ion battery thermal runaway has been studied for 8.5–300 μm particles (Chen, Wang, and Yan [Citation2020](#)). The study was carried out for a single battery type with an NMC cathode and showed that powder samples contained carbon, organic compounds, carbonates, and transition metals. **The transition metal content of mixed aerosols can especially influence toxicity.** In mixtures with carbonaceous particles, **transition metals mediate the**

production of reactive oxygen species that cause oxidative damage, such as **DNA strand breaks and inflammation**”

*Full disclosure, I am not a doctor, but DNA strand breaks are NOT good and we are now in the realm of cancer, birth defects, and a whole list of other bad stuff. As stated in the presentation, we don't know but until we do.....

One of my favorite papers that I referenced because it focuses on the metal particulates - [Full article: Detailed characterization of particle emissions from battery fires \(tandfonline.com\)](#)

“Lithium-ion (Li-ion) batteries that are becoming ubiquitous in various applications may be susceptible to thermal runaway when subjected to certain abuse factors. **Fire ensuing from such a thermal runaway event results in significant release of gaseous and particle emissions that pose a critical safety risk to human health.**”

“there have been limited studies reported in the literature that examine particulate emission characteristics in detail”

“**Thermal runaway resulted in very high particle emissions.**”

- “Battery fires emanating from thermal runaway events can result in significant particle and gaseous emissions. Both overcharge tests of LFP modules, and the nail penetration test of the NMC module resulted in PM_{2.5} emissions exceeding 375 g/h and total PN emissions of the order of 2E + 17 part./h. **These emission rates are 5 to 6 orders of magnitude higher than those typically emitted from the exhaust of a modern heavy-duty diesel engine.** It is to be noted that the aforementioned statement is primarily to provide a contextual comparison with a well-documented particle emitter.

* my note - particles are metal particulates, oxides, etc as discussed above – gases are generally asphyxiants and irritants. Not to bore anyone with statistics but **an “order of magnitude” is generally 10x more than the subject of comparison so we are talking about 50-60 times the particulates that are emitted from a diesel exhaust.** Diesel can be nasty but remember that they are designed to reduce particulate emissions from the exhaust and those particulates are NOT as toxic nor are they in the same quantities (especially for metals) as batteries. My opinion.

Nickel toxicity and environmental concerns – nickel is often the main metal cathode ingredient in NMC batteries – - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7037090/>

Human exposure to highly nickel-polluted environments may cause a variety of pathological effects [34,35]. Accumulation of nickel and nickel compounds in the body through chronic exposure may be responsible for a variety of adverse effects on the health of human beings, such as lung fibrosis, kidney and cardiovascular diseases and cancer of the respiratory tract [36,37]. High incidence of nasal and lung cancer in workers exposed to nickel and nickel compounds was observed [37,38,39,40,41,42]. A small fraction of nickel is dermally absorbed, and Ni²⁺ ions and nickel particles penetrate the skin at sweat ducts and hair follicles. Moreover, dermal absorption of this metal is affected by solubilizing agents, such as detergents, and clothes and gloves that behave as a barrier to the skin.

*Remember, the warmer the particle the more easily it is absorbed through your skin.

Nickel nanoparticles are associated with reproductive toxicity.

Potential toxicity of nickel and nickel compounds is dependent on their physico-chemical characteristics, as well as the amount, duration of contact and route of exposure. Nickel can enter the body via inhalation, ingestion with food and dermal absorption; however, the route for this element to enter cells is determined by its chemical form. **The riskiest route of exposure to nickel is by inhalation.**

Insoluble nickel sulfide (Ni₂S₃) is a carcinogen agent for the respiratory tract: When it is inhaled, particles of nickel sulfide accommodate themselves in the lungs of human beings, where they remain in contact with epithelial cells. These nickel particles are removed by macrophages in the digestive tract. Under high exposure to nickel, the macrophage activity of removal could be perturbed, and Ni₂S₃ particles may be taken into epithelial cells by endocytosis. **In this way, nickel particles are delivered to the nucleus of lung epithelial cells, causing a heritable change in chromosomes,** inducing lesions of both double- and single-stranded DNA in cultured human cells.

Here are the random articles, YouTube videos, and other stuff you may find interesting and educational.

A MUST WATCH is Dr. Christensen's presentation (up top). He has trained hundreds or thousands of firefighters in Europe and Australia and he specifically talks about **the vapors NOT being smoke and VCE's or vapor cloud explosions** being a threat like Captain Clare shared with us in the two incidents he presented. The amount of gas produced by these things is scary and I believe he now puts that at 500-3000L per kWh (I think this older presentation states 300L-3000L of gas per kWh). The potential of major explosions (like that in AZ) is definitely real!

I recommend that your family watch this too so they recognize a vapor cloud, hissing, and the sound of pressure relief caps popping.

For reference, many e-mobility devices are .5 kWh or 1 kWh, Residential ESS systems can be 10-40 kWh, and EV's and larger grid or industrial ESS systems can be much larger. He also points believes the black smoke from initial venting of the cell(s) are the cathode metals and these do NOT dissipate so **we are at risk of contamination, inhalation, or ingestion** while conducting a scene exam, during a fire, or post-fire.

You may see references to carbon black or black carbon in the batteries (instead of graphite) – look it up – it's also a suspected carcinogen. Yes, I am a joy to have at dinner.

Something new I learned – a CO detector may well react to a venting battery that is heating but has not or does not catch fire because CO is a big part of the vapor cloud put out to relieve pressure inside the cell when thermal runaway begins. **Keep this in mind if you are running a**

truck and answer a CO alarm or a witness references a CO alarm activation prior to the fire. If you have batteries in your house I would have a CO detector even if you don't have gas appliances. You should always have a smoke detector in your garage. Just a recommendation from a fire investigator!

29 minute version:

[SWFRS webinar with Prof Paul Christensen. Lithium-Ion Batteries and electric vehicles - YouTube](#)

<https://www.youtube.com/watch?v=rvRCz-2zcmM> 41 minute version of same presentation (mostly)

Christensen video – “the new asbestos” – 13 minutes – he makes some great points about the lack of regulations <https://www.youtube.com/watch?v=GfZPNSOGjgE&t=10s>

What is a lithium-ion battery? Dr. Billy Wu – great introduction and overall view of the technology - <https://www.youtube.com/watch?v=DBLHaLhyo2w&t=24s>

Why do they catch fire? Dr. Billy Wu – I showed part of this during the presentation but it is very good and it is not long, you can forward through the graph portion where he talks about combustion properties of specific batteries so probably 9 minutes worth and watch the conclusion - <https://www.youtube.com/watch?v=VWMfesebyt4&t=689s>

YT – ABC Australia EV fires – references cobalt poisoning and vapor barrier and this is where the union president mentions firefighters medically retired from exposures (to cobalt). Australia is having a lot of battery fires. <https://www.youtube.com/watch?v=NWvI1daNils>

YT – EV fire in garage – newer model loaner Mercedes totals a house (it was NOT charging) and I am still impressed with the knockdown on this fire - <https://www.youtube.com/watch?v=SIpXkQhq1ps>

YT – EV fire in driveway with not a single SCBA being used – this kills me! <https://www.youtube.com/watch?v=rItu9FIBsKE>

YT – E-bike battery catches fire on video in garage - <https://www.youtube.com/watch?v=2ex7Qf0j7Rw>

YT – Phoenix Fire puts Tesla in container with wet sand – this is not an endorsement, but just throwing it out there in case you are interested but few fire agencies have as much experience as Phoenix with these fires – batteries don't like warm temperatures? https://www.youtube.com/watch?v=LUGu30hR_kU

YT – fire blanket news story - <https://www.youtube.com/watch?v=3db6Wyl9CSQ>

YT – EVFireSafe – EV van on fire in London – good educational presentation <https://www.youtube.com/watch?v=mIIdMkwKLP4>

YT – EV fire blanket demo – short https://www.youtube.com/watch?v=n_JINtx08iA

Toxic fluoride gases from fires – white paper - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5577247/>

Cobalt toxicity in humans – white paper - <https://pubmed.ncbi.nlm.nih.gov/28572025/>

Lithium ion battery research – storage systems – ORNL – good stuff - <https://www.osti.gov/servlets/purl/1963149>

ECHA SDS cobalt oxide – Europeans believe it to be a carcinogen and impact reproductive health and lungs? - <https://echa.europa.eu/substance-information/-/substanceinfo/100.013.777>

CDC report on manganese toxicity - <https://www.atsdr.cdc.gov/toxprofiles/tp151-c2.pdf>

Comprehensive investigation of thermal and toxic hazards LIBs - <https://www.sciencedirect.com/science/article/abs/pii/S0304389419308696>

Toxic gas emissions from damaged LIBs - <https://www.mdpi.com/2313-0105/2/1/5>

Ecotoxicity of extinguishment water – always consider aquatic toxicity as a major threat to your community. We have to do what we have to do, but may come in handy to explain to the public why you chose to let it burn rather than flow a lot of water - <https://pubs.acs.org/doi/10.1021/acs.est.2c08581>

Particle emissions from battery fires - <https://www.tandfonline.com/doi/full/10.1080/02786826.2021.2018399>

LIB explosion hazards/aerosols - <https://www.tandfonline.com/doi/full/10.1080/02786826.2021.1938966?src=recsys>

Thermal runaway and EV contamination - https://www.dora.lib4ri.ch/empa/islandora/object/empa%3A29507/datastream/PDF/Held-2022-Thermal_runaway_and_fire_of-%28published_version%29.pdf

<https://www.youtube.com/watch?v=rvd1ce7hGo> – StacheD M18 battery burns down truck – this is a good one to be aware of because tool pack battery fires happen and we are moving away from 2-cycle gas powered lawn equipment or snowblowers to battery powered equipment and that is very hard usage often with temperature extremes during use or storage. We will see more fires from these in the future and most of the time these are found in the garage.

Headline – 2 firefighters killed in China <https://www.pv-magazine.com/2021/04/21/two-firefighters-killed-and-one-missing-after-beijing-battery-blaze/>

Rivian Factory – 3 fires in a year (believe its 4 now) for local fire dept - <https://insideevs.com/news/589006/rivian-normal-fire-battery-pack/>

Scooter fire and explosion – BBC - <https://www.bbc.com/news/uk-england-leeds-64881631>

Recall fire for vacuum battery off Amazon - <https://www.nbcchicago.com/consumer/explosions-fires-and-injuries-know-the-risks-behind-lithium-ion-batteries/3133300/>

AZ ESS explosion and legal fights - <https://spectrum.ieee.org/dispute-erupts-over-what-sparked-an-explosive-liion-energy-storage-accident>

Fire investigators have battery explode during investigation – a good one to be aware of!
<https://www.denver7.com/news/local-news/close-call-lithium-ion-battery-explodes-in-adams-county-fire-investigators-face>

EV in China explodes during suppression <https://www.dailymotion.com/video/x7vpbz1>

Australia 2 firefighters cobalt poisoned <https://7news.com.au/lifestyle/motoring/firefighters-union-calls-for-government-action-on-ev-fire-risks-c-8827258>

Australia original source for 2 firefighters..... https://www.carexpert.com.au/car-news/firefighters-union-calls-for-government-action-on-ev-fire-risks#article_comments

*Again, I don't know what happened to these firefighters but the source of this is the President of their firefighters union and he has never retracted or corrected the quote which has been widely used in the media. I really fear stories like this may become MORE common because of a lack of training and awareness within the fire service.

Scooter battery blows out wall into hallway
<https://www.linkedin.com/feed/update/urn:li:activity:7108327644307353601/>

Tesla into garage FF in smoke and one on the roof -
<https://www.nbcnews.com/business/autos/federal-regulators-warn-risks-firefighters-electrical-vehicle-fires-n1271084>

Overall news story good stuff <https://www.youtube.com/watch?v=WKBDNtMIRfI>

Toxicity of cobalt and nickel nanoparticles
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3501377/>

Heavy metals and cancer - <https://www.intechopen.com/chapters/76911>

Cobalt exposure white paper - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7410254/> talks about inhalation hazard and dermal absorption

Ebikes Australia rekindle <https://www.youtube.com/watch?v=fyY-tnohLiY>

Mutagenity/carcinogenity of cobalt dust and oxides - <https://pubmed.ncbi.nlm.nih.gov/2195331/>

45000g of water for a Nissan Leaf? - <https://www.wkrn.com/news/local-news/electric-vehicle-fire-in-franklin-requires-thousands-of-gallons-of-water/?ipid=inline-link>

Followup story talks about the US Fire Admin - <https://www.wkrn.com/news/local-news/electric-vehicle-fires-continue-to-fuel-concerns-among-first-responders/>

Pollution in Congo – Spina Bifida and limb abnormalities - <https://www.theguardian.com/global-development/2020/may/06/pollution-causing-birth-defects-in-children-of-drc-cobalt-miners-study>

UK report on e-mobility fires – good product -

https://www.electricalsafetyfirst.org.uk/media/sgyikuwb/esf_batterybreakdown_report_2023_v7_final.pdf

Waste and Recycle Fires - https://www.linkedin.com/pulse/waste-recycling-fire-report-achieving-best-case-from-ryan?trk=news-guest_share-article

Thermal imaging of overcharge failure -

<https://www.youtube.com/watch?v=RedHpzZesPs&t=4s>

Professor Guillermo Rein Twitter thread on innovation blind spots and stats – he has some good stuff on YouTube and I will try to link others -

<https://twitter.com/GuillermoRein/status/1552812305242521600>

Recent lecture on LIB's by Professor Rein - <https://www.youtube.com/watch?v=BUVw85SZciU>

E-scooter fire on London subway BBC - <https://www.youtube.com/watch?v=m24ZQ0SjriQ>

Tesla First Responders Guide to ESS - <https://www.tesla.com/firstresponders/industrial-energy-emergency-response-video>

Energy Wall Fires Oct 23 – Recalls – Europe - <https://www.pv-magazine.com/2023/10/10/germany-austria-hit-by-multiple-solar-battery-fires-in-september/>

Recall on LG ESS Oct 23 - <https://www.news.com.au/technology/acc-urgent-recall-on-lg-solar-storage-system-battery/news-story/283a4eb58dc011ababf2da6c687fb4e9>

BESS fire problem – San Diego Oct 23 -

<https://www.sandiegouniontribune.com/business/story/2023-10-11/battery-storage-is-a-key-piece-of-californias-clean-energy-transition-but-theres-a-problem-with-fires>

Update on fighting EV fires Denmark – new design and recommendations - <https://cfpa-e.eu/new-knowledge-about-battery-fires-in-electric-cars-on-ferries/#:~:text=Jul%202022-DBI%20%E2%80%93%20The%20Danish%20Institute%20of%20Fire%20and%20Security%20Technology%20has,consisting%20of%2040%2Dfoot%20containers>

Electric buses under high rise apts Europe – bad idea? - <https://www.telegraph.co.uk/money/net-zero/electric-bus-fire-threat-risks-tower-blocks-volcano/>

CPSC recall on 550 sets of pajamas for flammability risks – irony? -

<https://www.cpsc.gov/Recalls/2023/Childrens-Pajamas-and-Nightdresses-Recalled-Due-to-Violation-of-Federal-Flammability-Standards-and-Burn-Hazard-Imported-by-Little-Cotton-Clothes-Recall-Alert>

*I include this recall because this is the standard we have established to keep children safe from fire(s) so this goes directly to the risk/benefit analysis of school buses or mass transit. The failure can be quite sudden and violent, the venting can generate large vapor clouds of metal particulates, and an explosion or violent fire can occur. It is reasonable to believe that airplanes, submarines, ships, and other people movers greatly increase the risk of catastrophe with this

technology from an explosion, fire, or toxic exposure regardless of “how” or “why” a fire is started. These things should require the most stringent safety engineering to prevent venting into the passenger compartment as well as stringent maintenance and monitoring.

San Diego writing local codes after losing 4 trash trucks and for BESS -

<https://www.activistpost.com/2023/10/city-to-write-laws-for-regulating-storage-disposal-of-lithium-ion-batteries-for-evs-etc-after-losing-4-trash-trucks-to-fires-many-injuries.html>

White paper on lithium battery contents -

<https://www.sciencedirect.com/science/article/pii/S2405844019347012>

French LIB submarine – bad idea? - <https://www.navalnews.com/naval-news/2023/10/france-offers-new-scorpene-evolved-li-ion-submarine-to-indonesia>

20 ton electric excavator with batteries by Proterra - <https://www.mequipment.ro/en/noi-excavatoare-electrice-komatsu-cu-baterii-in-clasa-20-de-tone/>

Proterra bankruptcy filed – the battery management system is apparently being updated by the company that took that portion over and I hope that continues –

<https://techcrunch.com/2023/08/09/what-led-to-ev-darling-proterras-bankruptcy/> This is a real concern because quality manufacturers often update the BMS to make them safer, but if a company goes bankrupt the engineers are not working on this (think transit or school buses) so if a problem exists within the BMS the software remains the same

FDNY commissioner letter to Amazon for only UL or certified products sold – this is really becoming a big problem because the discount or knock-off market is not regulated for safety with no UL testing on products. Please always pay close attention to these products in your home and follow best practices!

<https://twitter.com/FDNYFC/status/1712949020379803937/photo/1>

Aqueous rechargeable batteries – a solution? – no flammable electrolyte – I include this because you constantly hear about new battery tech that will change the game and lower risks. This is an example as are the solid state batteries, sodium ion, silicon, and others. I think we will get there eventually, but not any time soon as it often takes a long time to field new chemistries

<https://thedebrief.org/lithium-ion-batteries-could-soon-be-replaced-by-new-green-aqueous-rechargeable-batteries/>

IPO listing for 2022 stats – 65% growth in demand – NMC vs LFP -

<https://twitter.com/IPOACADEMY01/status/1713860353413759041>

NSW – scooter fire with video of aftermath – blew out window -

<https://www.fire.nsw.gov.au/incident.php?record=rec3hvFSdo2qjZKYh>

Gulf clubhouse burns down – cart batteries? - <https://www.youtube.com/watch?v=GekYcU-s9YI>

Best study on cobalt toxicity? Jan 23 – Agency for Toxic Substances (CDC) - [tp33.pdf \(cdc.gov\)](#)

Cobalt toxicity and ionized cobalt – 2012 - [Cobalt metabolism and toxicology--a brief update - PubMed \(nih.gov\)](#)

Scooter battery explodes on Madrid subway - <https://batteriesnews.com/explosion-madrid-metro-carriage-left-destroyed-after-faulty-e-scooter-battery-causes-blast/>

Francesco Retuccia lithium battery fires lecture –
<https://www.youtube.com/watch?v=rJsoWD0J7bQ&t=522s>

Lithium batteries a clear and present danger to CT with stats -
<https://ctbythenumbers.news/ctnews/lithium-ion-batteries-a-clear-and-present-danger-in-connecticut>

Francesco Retuccia – Fire Science Show - <https://www.firescienceshow.com/118-different-batteries-different-challenges-with-francesco-restuccia/>

Why Tesla, GM And Other EV Companies Have A Fire Problem – CNBC
<https://www.youtube.com/watch?v=XWq-Mq1Uqpw>

Science and technology of battery fire safety from Imperial College – some **really good stuff** on this one. Discusses the importance of heat dissipation and how that impacts larger scale systems AND the FACT that most research on battery fires have been done with single cells. Behavior (and risks) change as the packs become larger and this is VERY important to understand. The bigger the battery the higher the risks due to heat dissipation influence and more failure points?
<https://www.youtube.com/watch?v=LVSPbbXFd5g>

Cobalt hip transplant failure/poisoning? This is the one I mention above. He also references the epidemic of cobalt in beer foam in the 60's (this really happened to beer drinkers). It's an interesting Ted Talk - <https://www.youtube.com/watch?v=ksuFfbic6tA>

Mike Abraham's (ATF electrical engineer) presentation on DCARI (great YouTube channel for fire investigators by the way) – let's get his hits up there!
<https://www.youtube.com/watch?v=ZWc0Gf07MU8>

London Fire Brigade scooter - <https://www.youtube.com/watch?v=Ka2hMktqoCY>

UL testing of scooter in news story with rapid flash and explosion -
<https://www.youtube.com/watch?v=cC0t7foqr8k&t=29s>

“It scares the daylights out of me:’ Florida’s top firefighter fears more lithium-ion battery fires” -
<https://www.youtube.com/watch?v=CC0KyXkJPIA>

<https://www.youtube.com/@evfiresafe7330/videos> link to the EV Fire Safe videos on YouTube

Electric bus fire in downtown Paris – this is crazy. From other sources it sounds like the bus driver thankfully reacted to warnings and he evacuated the bus earlier to the bus behind this one in the video – There were over 100 of these very expensive buses that were pulled from service after this fire and one other (I believe from other sources) – I believe they are now back in service - <https://www.youtube.com/watch?v=uA7SoM2DWuM>

2 mechanics hurt after VTA bus fire (Proterra) – they dispute that it was the batteries but that is not what is important – fires will happen - <https://www.youtube.com/watch?v=VmK8NpstKi0>

Electric bus crash in Italy – media does not use word electric, but witnesses who rescued survivors were unable to get to survivors who were screaming due to the subsequent fire – any bus can catch fire and they do, but a LIB bus may pose some unique challenges
<https://www.youtube.com/watch?v=Id2CvnUVtBk>

Chinese parked buses catch fire – we showed this one in presentation – consider this if you have e-buses in a bus barn or parked next to one another – rapid spread but remember this video is sped up a bit https://www.youtube.com/watch?v=T71cVhxG_v4

CT transit bus fire news story – we showed this during presentation -
<https://www.youtube.com/watch?v=8YClwsWTyU>

Bus fire in China that we showed – it's not funny but try to count how many people were on the bus! - <https://www.youtube.com/watch?v=wzWqLekgDSc>

Another bus barn fire that could have been much worse!
<https://www.youtube.com/watch?v=O8p4JUwb680>

Lithium battery fire in a backpack – a lot of backpacks now contain charging banks of questionable quality (see how cheap they are on Amazon) or people are getting on planes with charging banks - <https://www.youtube.com/watch?v=2cKVgaynEuA>

Battery storage system fire in Idaho recently – these are happening more frequently as the number of these systems greatly increase and more are in transportation -
https://www.youtube.com/watch?v=wmVCc_nKNu8

Battery fires in London and the UK – it's not just in NYC that is having many more of these -
<https://www.youtube.com/watch?v=9OvkNbbHGnQ>

Lithium battery fire in a hostel in Australia - https://www.youtube.com/watch?v=j15GowW5f_g

Hotel fire caused by charging battery - https://www.youtube.com/watch?v=Ho_e6cDyJvQ

Great video showing how much gas these things can put out – Australia again, New South Wales Fire is estimating 1/3 fires they run on now are batteries – remember, these are ignitable vapors!
<https://www.youtube.com/watch?v=2AvBs3CI8pg&t=36s>

Firefighter cancer report Canada – this is an excellent product -
<https://www.occupationalcancer.ca/wp-content/uploads/2024/01/FFCRPW-Report-Jan-2024.pdf>

How are EV batteries recycled - <https://blog.ucsusa.org/jessica-dunn/how-are-ev-batteries-actually-recycled/>

Concerns about e-mobility fires – very good <https://www.youtube.com/watch?v=G665T8eGAn8>

Toxicity of metallic nano-particles paper -
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9822575/>

Li-ion batteries cause scrapyard fire - <https://www.newshub.co.nz/home/new-zealand/2024/02/lithium-batteries-may-have-caused-large-t-huhu-scrap-yard-fire.html>

Carbon black and cancer - <https://www.ncbi.nlm.nih.gov/books/NBK326509/>

Metals generated during thermal failure - <https://pubs.rsc.org/en/content/articlehtml/2023/ya/d2ya00279e>

ESS trends global 2023/2024 - <https://www.energytrend.com/research/20231218-41985.html>

Toxicity, Emissions and Structural Damage from Lithium-Ion Battery Thermal Runaway

<https://www.mdpi.com/2313-0105/9/6/308>

GC-MS was used to qualitatively detect and analyze the thermal runaway gaseous products of the battery. Dozens of toxic substances can be detected in thermal runaway products of LIBs with different cathode materials and SOC, among which six very toxic substances such as 2-propenal, methyl vinyl ketone, propanedinitrile, propanenitrile, 1,2-dimethyl-hydrazine and thiocyanic acid ethyl ester could be detected and analyzed. For NMC and LCO, high-SOC batteries had more types of products than low-SOC batteries. For LFP, most types of toxic products were detected in 30% SOC battery samples. At the same time, it was found that certain substances used as electrolyte solvents or additives may react with electrode materials or thermal runaway products during the thermal runaway process, **generating new products with higher toxicity**. Therefore, when choosing electrolyte solvents and various functional additives containing elements such as N, S, Cl, etc., more serious concern is needed.

*Academics are the best source we have right now to define the possible threats to health and safety, but as we saw in our EV battery burn and testing you can measure a lot of stuff but it does not tell you how much is present. However, we need to demand testing to quantify our exposures and the best source may be our PPE, bloodwork, and health. The statement that is bolded above is the biggest problem I see with these batteries.

Respiratory hazards of LIB's -

https://dial.uclouvain.be/pr/boreal/object/boreal%3A196570/datastream/PDF_01/view

Janus Electric converted 16 semi-trucks to electric with 2 fires -

<https://bigrigs.com.au/2023/12/18/why-electric-truck-caught-fire-on-the-west-gate-freeway/>

Nikolai Trucks in Phoenix – semi's – 209 built with 4 fires and now recalled

<https://electrek.co/2023/09/08/nikola-trucks-cant-stop-catching-fire-4th/>

Hummer fire on I-405 while we were at symposium – this is a very large battery for an EV (246kWh NMCA battery or about 4 average EV's)

<https://www.king5.com/video/news/local/hit-and-run-crash-causes-hummer-ev-to-reignite-three-times/281-45bcf6f3-6667-47b4-b8f7-a8bb0198d919>

Morris, IL (talked about in EPA presentation) accumulator mixed battery fire suspected to be between 100-200 tons abandoned in a warehouse. EPA cleanup still active I believe.

<https://www.nbcchicago.com/news/local/nearly-100-tons-of-lithium-batteries-involved-in-large-morris-industrial-fire/2543694/>

Battery recycling fire in France. Fires are not uncommon at these facilities that take in large amounts of unknown and possibly damaged batteries. 900 tons present allegedly

<https://www.reuters.com/world/europe/french-recycling-plant-fire-housing-900-tonnes-lithium-batteries-2024-02-18/>

Toronto e-bike fire on the subway – good points from the Chief about codes and regulations

<https://www.youtube.com/watch?v=J22mbd70DxU>

Another e-bike fire and explosion that will really get your attention!

<https://www.youtube.com/watch?v=vJ4ODDLhvjI>

Lithium battery fire in Harlem high-rise kills young man – rope rescue

<https://www.youtube.com/watch?v=s356Y0hX6P8>

The next asbestos or PFAS? <https://www.pbs.org/newshour/show/what-we-know-about-toxic-forever-chemicals-and-how-to-reduce-our-exposure>

Firefighters exposure to PFAS -

<https://www.frontiersin.org/articles/10.3389/fmats.2023.1143411/full>

This is not all inclusive, but I hope you take what you learn(ed) and pass it on to others and I apologize for sounding like Dr. Doom but we deserve better answers about these things and all of us (and our families) should be very careful until we get some.

*Again, all *opinions* are mine and not those of ATF but I sincerely hope you develop your own “informed” opinions and ideas based on credible science and not the prevailing narratives or “tradition”. This is new technology and it is going to take us a while to get our feet under us with it. We need to keep pushing for answers because this is important!

Feel free to reach out if you have any specific questions and if you come across something interesting, I always appreciate a note about it or a link! I will keep my phone number when I retire if the email does not work.

Stay safe and best wishes!

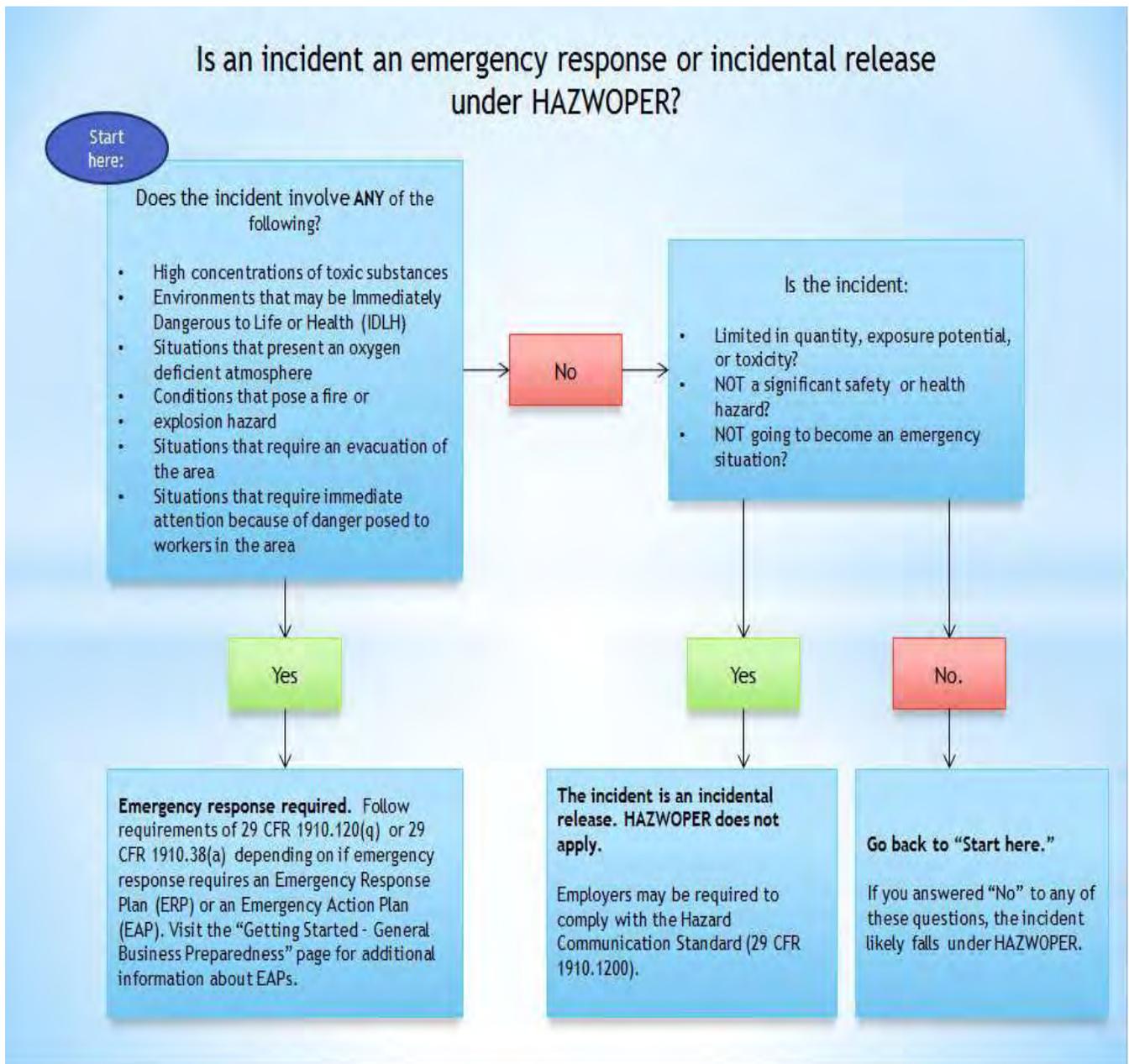
C. Todd Smith

Christopher.smith@atf.gov

509-342-0652

“I would rather have questions that can't be answered than answers that can't be questioned.” —
Richard P. Feynman

Where is your battery fire?



Battery storage plant

Tamara Wark [REDACTED] >

Sun 5/19/2024 3:55 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

[You don't often get email from [REDACTED]. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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OBJECTION TO THE BATTERY PLANT ON ONE OF THE MOST BEAUTIFUL AND RURAL HARBORS IN CALIFORNIA????.. now slated to be industrialized!!!!

Morro Bay is unique... why not take advantage of the one of a kind experience that could be had here and emphasize it instead of destroy!

Potential serious harm from the batteries storage facility with salt water intrusionremember "you people" and your green agenda and nightmare scenarios about global warming.....this is NOT the location for your agenda!

Neither is a deep water port to service wind turbines that will be outdated by the time they are built and maintenance a disaster on the coastal waterways much less the fisherman's loss!

Take a breath, step back...technology is changing ever so fast and there will always be a Better way, less costly all around!

Tamara Wark

Sent from my iPad

BESS Draft EIR COMMENTS

Colby Crotzer <[REDACTED]>

Sun 5/19/2024 4:07 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

[You don't often get email from [REDACTED]. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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As an enrolled elder of the Sissiton/Wahpeton Oyate reservation I have an obligation to respect Mother Earth and her progeny, our children. Having served two terms as an elected member of my MB City Council I know something about my town's governmental functions and history. Since the Federal and State of California have made the transition to renewable energy a high priority, all of this personal experience aligns with those values to inform my support for this project.

The urgent need to address a changing climate and the attendant timeline targets to replace fossil fuels, make changes to our current energy supplies both ambitious and necessary. This proposed project will facilitate the efficient use of existing renewable energy facilities (we have solar panels on our roof) and the development of new renewable energy facilities.

This draft EIR highlights the PG&E Deed Restrictions and DTSC Land Use Restrictions along with the LUC which all support this BESS project as a logical and legal use of this site as well as its proximity to the PG&E switchyard.

The recent change (Nov, 2022) from an appropriate M-2 zone to Visitor Serving Commercial was ill-informed and illogical. The historic Deed Restrictions and Land Use Covenants prohibit other public uses (like parks, etc,) as incompatible.

I am critical of how this draft points out the only significant and unavoidable impact would be the demolition of the plant building and smokestacks! They are an eyesore and an insult to the California coastline.

I would suggest that the method of deconstruction fo the smokestacks might best be by sectioning them into portions capable of being airlifted by helicopter or dirigible out to sea and reassembled into an artificial reef for a fish and marine animal habitat. That was recently accomplished with the repatriated rocks returned from San Luis Harbor. Air pollution would be minimized generally as well as directly to my home address directly SW of the site, in the direction of prevailing winds.

Sincerely,

Colby Concho Crotzer

[REDACTED]
Morro Bay, CA 93442
[REDACTED]

FW: BESS IN MORRO BAY

Michael Codron <MCodron@morrobayca.gov>

Mon 5/20/2024 10:45 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 5 attachments (3 MB)

20240320 181453.jpg; Resized 20210823 162410.jpeg; Resized Resized 20240320 191050(1).jpeg; 20240229 143530.jpg; 20240320 185230.jpg;

From: Heather Goodwin <hgoodwin@morrobayca.gov>

Sent: Monday, May 20, 2024 9:28 AM

To: Michael Codron <MCodron@morrobayca.gov>; Kim Fowler <kfowler@morrobayca.gov>

Subject: FW: BESS IN MORRO BAY

Fyi...

From: Robert Ivers <[REDACTED]>

Sent: Saturday, May 18, 2024 12:07 AM

To: Council <Council@morrobayca.gov>

Subject: BESS IN MORRO BAY

CAUTION: This is an external email. Please take care when clicking links or opening attachments.

To whom this may concern, my name is Robert Ivers and live here in Morro Bay. For the last 4 years I've been bringing awareness to every resident living in this area about the Potential hazards associated with Lithium-ion Batteries catching fire. I cannot understand why you all are still in the process in going ahead with this project especially of this magnitude. I attended the last meet at Del Monte Middle school and spoke about the Potential risks of a Major Earthquake and possible Tsunami. Also, "Thermal Runaway" seems to be a very high risk as well with these types of batteries. I surely hope and pray that you all rethink about moving forward with this (BESS) facility in our beloved City and surrounding areas. This Project Poses a significant THREAT and DANGER on so many levels. We are living in very precarious times right now especially the state of this Country. Also, an uptick in seismic activity here in California, Oregon and Washington. I surely hope you all been paying attention to residents here in Morro Bay and myself on our concerns, Thankyou.

several Morro Bay residents formed **Citizens for Estero Bay Preservation** and have worked on a way to formally oppose building on what they consider to be an undisturbed and unindustrialized part of the city.



LITHIUM PLANT & OFFSHORE WIND FARM
pose significant THREAT to
MORRO BAY!



STOP

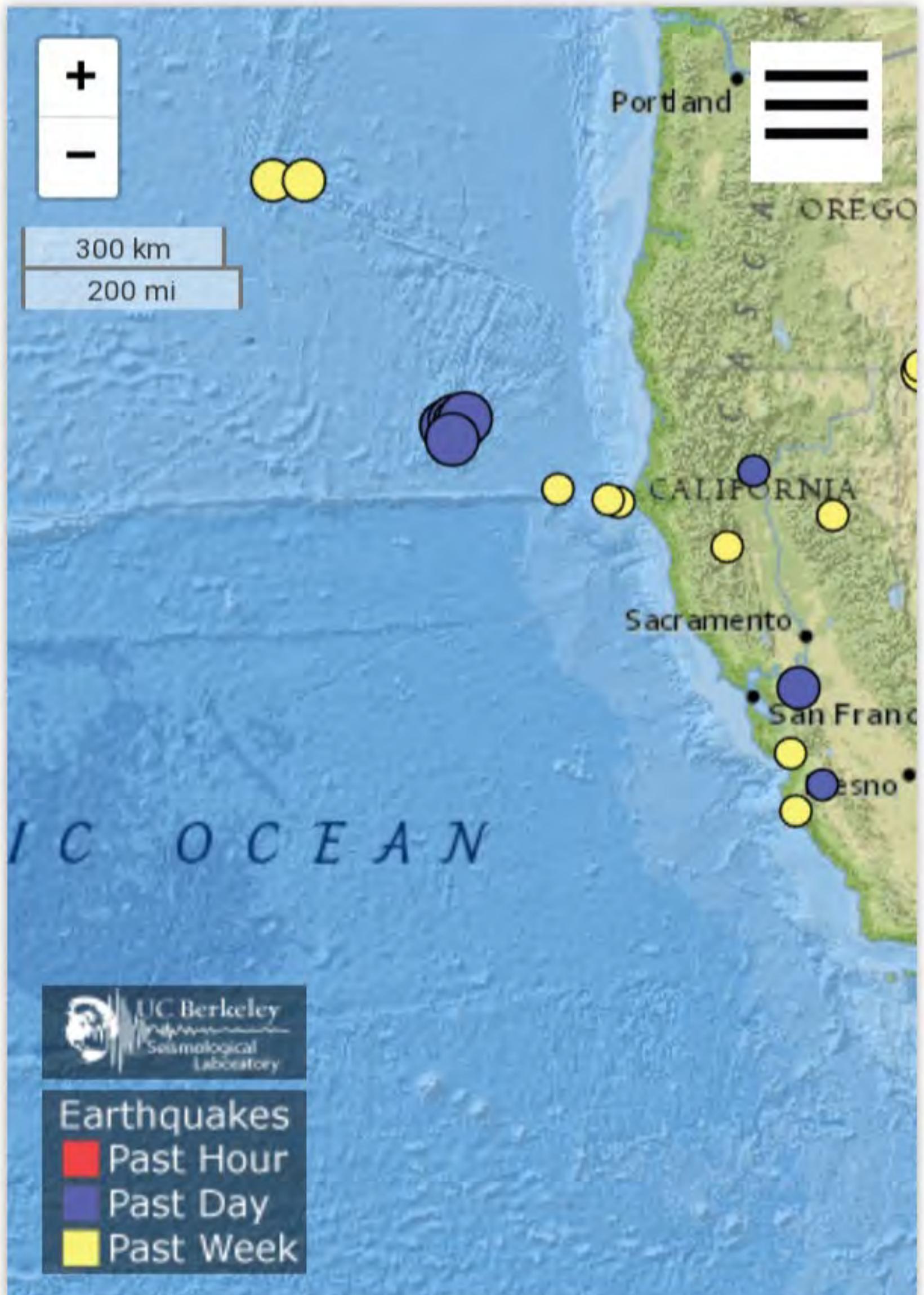
SAVE MORRO

HI





Real-Time Interactive Earthquake Map



Tōhoku-oki Earthquake and Tsunami, March 11, 2011



How an earthquake in Japan helped shape California's plan for the next tsunami

FW: Morro Bay Draft EIR Comments

Michael Codron <MCodron@morrobayca.gov>

Mon 5/20/2024 10:45 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 1 attachments (209 KB)

MB BATTERY FARM PROTEST 5 18 2024.pdf;

From: Heather Goodwin <hgoodwin@morrobayca.gov>

Sent: Monday, May 20, 2024 9:30 AM

To: Michael Codron <MCodron@morrobayca.gov>; Kim Fowler <kfowler@morrobayca.gov>

Subject: FW: Morro Bay Draft EIR Comments

Fyi....

From: [REDACTED] >

Sent: Sunday, May 19, 2024 2:49 PM

To: Council <Council@morrobayca.gov>

Subject: Morro Bay Draft EIR Comments

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Cc Morro Bay Mayor and City Council

Thank you for your attention.

BESS PROJECT

Alex Beattie <[REDACTED]>

Tue 5/21/2024 10:35 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Greetings members of the Morro Bay City Planning Commission

I have concerns about the EIR on the BESS project submitted by Rincon on behalf of Vistra. Upon further research. The document ignores certain facts and embellishes the project's achievements. Not surprising given that Rincon was paid by Vistra.

One example is displayed by one the project's objectives is to "assist" the CPUC to achieve its goal for energy storage". In 2013, the CUPC set a goal for 1340 MW of storage by the end of 2024. In Oct. 2023 the California Energy Commission announced that it expected to have about 8500 MW of storage by the end of 2024. No assist needed, so BESS is not needed!!!

Another example is the claim that this project will improve the view corridor using land that is basically useless for anything else. A 91,000 SF 35 foot high concrete building surrounded by a chain link fence may be better than the existing power plant building (barely) but there must be numerous other viable projects that will improve the view even more. This site has potential. In addition, the applicant's statement that the parcel the project is to be built upon can only be used for industrial purposes is an overstatement. While it is true that the State has imposed deed restrictions on the parcel but they can be removed by remediation. A similar situation occurred at the Union Oil site in Avila Beach which was more highly contaminated than the one for the BESS site. Think of what Avila Beach looks like now.

These examples, plus several others, display bias and a lack of objectivity in the EIR and the necessity of BESS. There are better uses for this site. I urge you to uphold our LCP.

Thanks for reading this far,
Alex Beattie

t

EIR Comment Letter

David Yohe <[REDACTED]>

Tue 5/21/2024 2:42 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Carla Wixom <cwixom@morrobayca.gov>; Zara Landrum <zlandrum@morrobayca.gov>; Laurel Barton <lbarton@morrobayca.gov>; Cyndee Edwards <cedwards@morrobayca.gov>; Jennifer Ford <jford@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Isobel.Cooper@coastal.ca.gov <Isobel.Cooper@coastal.ca.gov>; Luke.Henningsen@coastal.ca.gov <Luke.Henningsen@coastal.ca.gov>

You don't often get email from [REDACTED]. [Learn why this is important](#)

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21May2K24

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

I am a resident of Morro Bay. I am opposed to the BESS project proposed for Morro Bay for the following reasons:

It is our responsibility to speak for our voiceless animal neighbors, as well as for the human wildlife that flocks to our habitat to enjoy such things as seeing the juvenile Gray Whale that visited our harbor in March of this year 2024. People came from all over to watch the show, which did not seem to bother this baleen whale's feeding.

Last weekend, 2-4May2K24, Morro Bay hosted a Cruisin' Morro Bay Car Show. This weekend 19May2K24, Morro Bay will host Ironman 70.3.

These events, along with many other events throughout the year, draw large numbers of tourists into our small community, which is more or less a cul de sac, with few access roads that would be able to accommodate an emergency evacuation, in the event of a toxic fire at the Vistra Corp. proposed Massive Battery Storage Plant that is being suggested for the retired PG&E plant in Morro Bay. This proposal would house batteries in three warehouse-sized buildings, or 174 individual enclosures. According to David Yeager, a spokesperson for Vistra Corp., at this point, Vistra Corp. has no CLEAR plan. Although all of their proposals look really nice on their laptops, back at their offices, there are few reassuring descriptions of their plans.

Community fears are in regards to potential Fires, Explosions, Toxic Leakage, Contaminants Leaching into Morro Bay Harbor affecting the Marine Wildlife and Bird Populations, and evacuation response in the event of Explosions or Fires. If an Emergency event happens during a Community event the Battery Storage Plant would block the only escape route leaving the main attraction--Morro Rock. Does Vista Corp. have an effective Escape Route Plan?

Morro Bay has a Tsunami Warning System in the event of a Tsunami. In the event of a Tsunami reaching the Vista Corp. Battery Storage Plant sitting on the Morro Bay harbor, if the plant is not enclosed, large amounts of water will flush over the Battery Storage units. The run-off water will not be contained and will affect the harbor with toxic backwash that will contaminate the harbor and potentially affect the Estuary as the tide comes in, as well as the residents living in close proximity. There is also the question of electrocution, with such high power and water.

On 7February2K24, residents of Morro Bay, Cayucos, and Los Osos were asked to take cover as a severe thunderstorm capable of producing a tornado passed through our area, according to the National Weather Service. How often will this be a problem in the future, considering the weather effects of global warming?

There are concerns about toxic chemicals that will fill our air, as well as vapor clouds, thermal runaway, and water run-off. Vistra has not made clear how we will be protected from and unaffected by these issues. There is a need for Independent Investigations regarding the effects of various toxicities involved with this venture with straightforward responses that can be trusted.

As a resident of Morro Bay and a protector of my environment and its inhabitants, I have serious concerns regarding the safety of my community, including the Otter Habitat and the Birds of the Windy Cove Rookery with its Monterey Cypressess. According to The California Department of Fish and Wildlife: Morro Bay Estuary is a semi-enclosed body of water protected from full exposure to the Pacific Ocean by a lengthy sandspit running south from Morro Rock. Located in San Luis Obispo County, this estuary is one of the largest wetland ecosystems on California's central coast. Fresh water flowing from Chorro and Los Osos creeks mixes with salt water from the ocean, creating a range of diverse ecosystems in the estuary that support many sensitive species.

Morro Bay State Marine Reserve (SMR) and Morro Bay State Marine Recreational Management Area (SMRMA) are neighboring marine managed areas that encompass nearly four square miles of this estuary. Morro Bay SMR protects less than one square mile of a very shallow, inland portion of the estuary including mostly tidal flats and coastal marsh habitats. Morro Bay SMRMA protects more than three square miles of sandy beach, tidal flat, coastal marsh, and eelgrass bed habitats. The estuary provides critical bird habitat and is recognized as a National Estuary; the bay is also home to a small commercial fishing fleet, and partially borders the charming fishing and tourist town of Morro Bay.

Morro Bay SMR:

It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource.

[California Code of Regulations Title 14, Section 632\(b\)\(92\)](#)
(opens in new tab)

Morro Bay SMRMA:

It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, EXCEPT:

Take of waterfowl in accordance with general waterfowl regulations is allowed. North of latitude 35° 19.700' N only: Recreational take of finfish, commercial oyster aquaculture, and storing finfish taken outside of the SMRMA for bait purposes is allowed.

[California Code of Regulations Title 14, Section 632\(b\)\(91\)](#)

Approaching from a distance, the first indication a visitor is near Morro Bay is the appearance of Morro Rock on the horizon. Formed approximately 23 million years ago, Morro Rock stands more than 575 feet tall and is the most visible in a chain of volcanic plugs in the area, remnants of extinct volcanoes.

Situated about 600 feet south of Morro Rock is the beginning of an approximately four-mile-long sandspit that protects Morro Bay from direct exposure to ocean waves. This protection helped to create Morro Bay Estuary, a semi-enclosed body of water that covers 2,300 acres. Cold seawater enters the estuary through a small inlet near Morro Rock and mixes with fresh water from Chorro and Los Osos creeks. The mix of fresh and salt water creates unique habitats including beaches, tidal flats, marshes and eelgrass beds. Morro Bay's eelgrass beds moderate currents and wave action, and filter and decontaminate the bay's water.

While Morro Bay serves as an important resting and foraging ground for migratory birds, it is also a year-round home for many animals that rely on the sheltered waters for food and breeding grounds. California Brown Pelicans search for fish, rafts of Southern Sea OTters float on their backs with pups on their bellies, and Bat Rays glide over the shallow mudflats at high tide. Invertebrates such as Pacific Oysters, Washington and Gaper Clams, Ghost Shrimp, and Shore Crabs inhabit the mudflats. Fishes including Topsmelt, Shiner Perch, Bay Pipefish, and Pacific Staghorn Sculpin also make their homes here. The dense meadows of eelgrass found within the SMR and the SMRMA are nursery grounds for Rockfish, fFatfish, and a variety of invertebrates, and serve as an important resting and foraging area for the Black Brant, a small goose that feeds on eelgrass. Morro Bay Estuary is also home to more than a dozen threatened or endangered species such as the Moro Shoulder Band Snail, California Red-legged Frog, and California Black Rail.

Morro Bay Harbor is also the home of The Morro Bay Heron Rookery at Windy Cove and, according to The Morro Coast Audubon Society:

Visit the Heron Rookery in Morro Bay State Park to view the cutest babies in Morro Bay. Egrets, Herons and Cormorants are in various stages of their nesting cycle. Adults are in their magnificent breeding plumage and nestlings are visible and active. The Rookery is located between Windy Cove and The Inn at Morro Bay (60 State Park Road). Windy Cove is located just north of the State Park Museum.

The Egrets, Herons and Cormorants nest and feed from the Morro Bay Harbor. These waters must remain clean and a suitable habitat in order for the wildlife and birds that find protection and safe feeding there to nest and raise their young. This Heron Rookery is a Natural Preserve.

The California Watchable Wildlife ad: **Morro Bay State Park - Site # 141**

Morro Bay State Park's most prominent landmark is Morro Rock

This rich estuary includes creek-side wetlands, salt marsh sloughs, open water, eel grass beds, and Morro Rock, a reserve for endangered peregrine falcons. The park museum offers views of thousands of migratory loons, buffleheads, wigeons, and northern pintails, resident cormorants, American white pelicans, and brown pelicans are mixed among the group. More than 10,000 wintering brant feed in the eel grass, a haven for fish such as halibut and jacksmelt. Harbor seals, sea lions, and southern sea otters appear along the bay. Gulls and terns circle over mudflats with legions of sanderlings, willets, and other shorebirds. Watch for great blue herons, great egrets, and black-crowned night herons at the nature preserve; nesting herons share nearby eucalyptus trees with monarch butterflies, hummingbirds, and even red-shouldered hawks. The park incorporates interpretive displays, hiking trails, and the Morro Bay State Park Museum of Natural History to enhance the visitors' overall park experience.

In addition, the Morro Bay National Estuary Program says:

Here are some important reasons to care about sea otters.

- They are recovering from a species-level disaster. Sea otters globally were nearly extirpated because humans coveted their fur. As they recover their former range, we have it in our power to help or hinder their return.
- As they re-colonize, revitalization of coastal ecosystems follows. Sea otters are a keystone species and exert an influence on their ecosystem that is disproportionate to their small size. We are only in the early chapters of understanding the extent to which their hearty appetites benefit the places we live, play, and find food on California's coast.
- They are vulnerable. Characteristics that make them unique among marine mammals also make them especially sensitive to oil spills, pollution, changes in food supply, and human disturbance.

- We can make a difference. It can sometimes be difficult to see how our actions help the planet or its residents but, particularly regarding disturbance to sea otters by our recreation, there are simple things we can do to make their world safer and more peaceful.
- Finally, sea otters are your neighbors. I encourage you to reconsider your definition of your community. All the creatures around you are your neighbors. If you live on the Central California coast, you are part of our coastal ecosystem and sea otters are your neighbors. Show them the respect and care all neighbors deserve.

I Ask that the draft EIR be rewritten and recirculated for another period of public comment, as it failed to adequately inform us of the impacts of the project. Examples of comments to make are:

The BESS plant is not a coastal-dependent industry, is unsafe for people and wildlife, and is contrary to the Coastal Act priorities. The project location is a tourist area, in a flood zone, and is the wrong location for battery storage.

If the applicant plans to switch from the current project to alternative #5, the Enclosure alternative this is a significant change. The applicant should withdraw the current application and submit one for the new plan, starting the entire process over from the beginning, or at least submit new plans and a supplemental EIR. The city must recirculate the EIR because they did not identify and address the thermal runaway battery fires as a potential impact, and did not address the risk created from having the project site in a flood and tsunami zone. Saltwater exposure to lithium-ion batteries makes them combustible; but the draft EIR did not discuss this, nor what would happen if the BESS is flooded. There are endangered southern sea otters and their nurseries in Morro Bay, nesting peregrine falcons and Great Blue Herons, and many sensitive species. The otter pupping can happen all year long, and their nurseries can be impacted by construction noise and vibrations even if there is no fire. There will be significant impacts for any of the sensitive species in the Morro Bay national estuary that were not addressed by the EIR and may be unavoidable in the proposed project site.

The city improperly deferred the fire safety analysis to a consultant hired by the fire department, DNV Energy USA, Inc. who has not yet performed the work. The draft EIR should be rewritten and recirculated after all of the impact and mitigation analysis is done, so the public can be properly informed and comment.

Sincerely,

DAVID L. YOHE
Resident of Morro Bay

Public comment to draft EIR for battery storage proposal

Liz O'Hara <[REDACTED]>

Tue 5/21/2024 2:50 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>; Council <Council@morrobayca.gov>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, CA 93442

Re: Public comment to draft EIR for battery storage proposal

May 21, 2024

Dear Ms. Fowler,

Perhaps the most literal argument against the proposed BESS project is the decaying and hulking PGE power plant, proposed site for the BESS facility. The plant went online in the late 1950s early 1960s and was 4th largest in the PGE system in generating electricity. Technologies changed, and the "stacks" and supporting infrastructure stopped producing electricity in 2014. Can we not see into the future and expect that the battery storage facility, too, will outlive its technology and leave another toxic environmental wasteland? Technologies face obsolescence, more and more rapidly in our profit- and consumer-obsessed world. Surely a technology that depends on mined lithium and is notoriously prone to spontaneous combustion will be relegated to the landfill along with all the other innovations of the 20th and 21st centuries.

Is this not the dawn of the era of artificial intelligence? Will we not be employing AI to suggest ever more efficient and environmentally sound solutions to climate change than what Vistra is pushing for with this facility? We must consider the future of potential energy sources, and we must strive to protect the ecologic systems that have operated so perfectly over millions of years. How often do we all invoke the platitude "another day in paradise" as we enjoy the privilege of our natural environment. Sustaining nature's upper hand in this precious earthly domain must be the legacy we leave to our descendants, our future. There will be significant impacts for any of the sensitive species in the Morro Bay estuary that were not addressed in the EIR and may be unavoidable in the proposed project site.

The safety shortcomings of the proposed BESS project cannot be overstated. This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible.

If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

Sincerely,

Elizabeth O'Hara and John Geever
Morro Bay

cc: City of Morro Bay; Attn: Mayor and City Council
Morro Bay Planning Commission; Attn: Chairman and Commissioners
California Coastal Commission; Attn: Sarah MacGregor, Coastal Planner

RE: Bess Project

beachingcat@aol.com <[REDACTED]>

Tue 5/21/2024 3:37 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are residents and visitors of Morro Bay and the surrounding communities. We are opposed to the BESS project proposed for Morro Bay and ask you to not certify the Environmental Impact Report (EIR), and ask you to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. Impacts to this community will be significant, and effective mitigation will not be feasible.

BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay. The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

If the BESS project is implemented, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long time visitors may start avoiding Morro Bay due to the unpleasant noise.

Lithium ion batteries have a history of spontaneous ignition and releases of toxic and corrosive gasses. This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide.

Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. Our school staff, teachers and children will not be safe.

BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger. BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk.

Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic "Morro Rock," at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The "rock" and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact either. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

You will be putting our firefighters in danger as these fires are unpredictable. Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. An analysis of lithium-ion battery fire hazards and toxic chemicals must be included in the EIR, not submitted separately. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay.

A BESS fire recently broke out in Otay Mesa, releasing toxic gasses in a radius at least 600 feet, and a much larger area was ordered to evacuate or shelter-in-place. A day or two after the fire was believed to be extinguished, it reignited itself and then reignited itself three days later as well. As of now, the fire is in thermal runaway. In Morro Bay, 600 feet includes residences, tourists, restaurants and wildlife.

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site.

Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that they now support an alternative design, which is a substantially different project. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,
Cathy Reitz

Otay Mesa battery facility fire could take weeks to put out entirely

Jeffrey Heller <[REDACTED]>

Wed 5/22/2024 7:56 AM

To: Jeffrey Heller <jeffheller3@gmail.com>; KERRY HELLER <kerry.heller@yahoo.com>; Planning Commission <planningcommission@morrobayca.gov>

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Just one reason I oppose the BESS. The other is a land use issue. I support our recent California Coastal Commission certified General Plan/IP/LCP. Visitor Serving Commercial. With the right developer the soils can be cleaned up and residential with some affordable housing can go there. This is what the majority of residents want there. Allowing the parcel to remain zoned for Light Industrial will probably lead to further degradation of this important, 107 acre coastal site.

Thank you all for your hard work.

Please do not "reply all"—though I am sure you all know that by now!

Jeff and Kerry Heller

Otay Mesa battery facility fire could take weeks to put out entirely

https://fox5sandiego.com/news/local_news/otay_mesa_battery_facility_fire_could_take_weeks_to_put_out_entirely/

DEIR for the BESS Project - Comments

susan ifsusan.com <[REDACTED]>

Tue 5/21/2024 9:31 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 1 attachments (1,021 KB)

Morro Bay BESS project 5 21 2024.pdf;

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Dear Ms. Jacinth – Please find attached our comments on the BESS DEIR.

Please contact me if you have any questions.

Thank you for the opportunity to comment.

Regards,
Susan Harvey, President
North County Watch

Susan Harvey
[REDACTED]

“Pay attention. Someday, you’ll be the last one who remembers.”
Virginia Trimble, Astrophysicist



North County Watch

Looking Out Today For Tomorrow

Ms. Cindy Jacinth
City of Morro Bay
Community Development Department
955 Shasta Avenue
Morro Bay, Ca 93442

May 21, 2024

Sent Via Email: BESScomments@morrobayca.gov

RE: DEIR for the BESS Project

Dear Ms. Jacinth,

I am submitting this comment on the Draft Environmental Impact Report for the Morro Bay Battery Energy Storage System Project on behalf of North County Watch. In the Draft EIR, under mitigation measure BIO-1(e) "Avoidance, Minimization, and/or Mitigation Measures for the California Red-legged Frog," the DEIR proposes that "A City-approved biologist shall survey the Project Site no more than 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins." Further, "the City-approved biologist shall designate a monitor to document on-site compliance with all measures."

Per the [Stanford Conservation Program](#), the CRLF is nocturnal, i.e. it is seen out in the open primarily at night, "at which time the frogs tend to leave their hiding places and position themselves in areas where they are more likely to encounter prey."

As RLFs on site are unlikely to be seen during the day, the Final EIR should directly stipulate that surveys and monitoring must take place at night. If this is not stipulated, efforts to locate and remove the majority of any CRLF on site are likely to fail. Without this stipulation, the DEIR's assertion that "Implementation of required mitigation would reduce this impact to a less than significant level" cannot be supported, as surveys and monitoring will likely take place in daylight hours, the majority of CRLFs on site will go undetected and the unlawful take of an endangered species will result.

Page 1 of 2

North County Watch P.O. Box 455 Templeton, CA 93465
501(c)(3) nonprofit corporation (77-0576955)

We are aware of the provision of BIO-1(e) that "the City-approved biologist will ensure that the monitor receives appropriate training in the identification of CRLFs." It will not be sufficient to cite this provision in response to this comment. The potential difference in outcome and impacts is too great to rely on an individual who, whether through oversight or a desire to spare all concerned the additional level of difficulty and expense, may not choose to include this instruction in the monitor's "appropriate training." In order to conform with CEQA, night surveys and monitoring must be a condition of the project and spelled out in BIO-1(e).

Thank you for this opportunity to comment,

Regards,

A handwritten signature in black ink, appearing to read 'SAH', with a long horizontal flourish extending to the right.

Susan Harvey, President
North County Watch
P.O. Box 455
Templeton, CA 93465

BESS project objection

Michele King <[REDACTED]>

Wed 5/22/2024 8:36 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>;

PlanniingCommission@morrobay.ca.gov <PlanniingCommission@morrobay.ca.gov>

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City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue Morro Bay, California 93442

Dear Ms. Fowler,

I am a forty year resident of Los Osos, which is a mere five miles or so from Morro Bay, the proposed site of the BESS project, to which I am strongly opposed. Please do not certify the Environmental Impact Report (EIR). The draft EIR is inadequate in identifying the potential impacts to our community and environment. Impacts to this community will be significant. BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay. The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines the vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." This vision does not include battery storage. I do not know anyone who wants to visit a battery storage facility

I frequently am in the area that is proposed for the construction of this battery storage site and it is completely incongruent with the area. Morro Bay and surrounds abound with wildlife; sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, many endangered species. The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact either. Los Osos contains Sweet Springs Nature Preserve, a protected area for over two hundred permanent and migratory birds, including a pair of bald eagles, and will be potentially impacted if (and probably when) there is a fire, which happens at these battery sites. Sweet Springs is part of the national estuary in the Back Bay of Los Osos. Please notify the agencies responsible for the protection of sensitive habitat so they can honor their obligations to protect these species.

The site in Morro Bay is extremely close to not just wildlife but businesses, fishing fleet and the High School. It is incomprehensible that this is even being considered due to it's proximity to all life. The Embarcadero is a vibrant and fiscally important part of Morro Bay's economy. I would never vacation or even take a walk near something of this type.

The actual construction will be years of noise, disruption and general obtrusiveness should this go forward. I am sure it will impact the property values of home and business owners. BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act. The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic Morro Rock, currently a peregrine falcon sanctuary. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not. You will be putting our firefighters in danger as these fires are unpredictable. Last I heard, firefighters will not put out a Tesla that is on fire since the battery can explode. Fire protection and emergency response strategies were not addressed in the draft EIR . According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. An analysis of lithium-ion battery fire hazards and toxic chemicals must be included in the EIR, not submitted separately. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay.

Sincerely,

Michele King
Los Osos

RECEIVED

May 17, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Ave.
Morro Bay, Ca 93442

MAY 22 2024

City of Morro Bay
Community Development Dept.

Dear Ms. MacGreggor:

I am a resident of Morro Bay. I am opposed to the BESS Project proposed for Morro Bay for the following reasons:

1.- It is a well known fact that the EIR regarding the BESS project was prepared by Rincon, who was paid by Vistra- the BESS developers. This is a clear cut case of "conflict of interest." Even a cursory reading of the EIR reveals it to be vague at best, negligent and misleading at worst. How can the City of Morro Bay possibly think Rincon provided an objective, accurate and well researched EIR? Most items are deemed "Not Significant" or the mitigation suggested is vague and ambiguous. I would strongly recommend that the City hire an impartial, scientific firm to do a new, accurate, in-depth objective EIR so that we, the public, can have access to the facts. And that all mitigations are described in accurate detail and backed by facts from concerned agencies such as: Cal/EPA, Dept. of Fish and Game, California Coastal Commission, California Fish and Wildlife, just to name a few.

2.- This project is not site-specific to the Central Coast. A BESS project can be built in numerous geographical locations where there is a much less chance of environmental impact. Morro Bay is a unique environment: an active fishing port, protected estuary and watershed, active organic oyster farming, home to several protected species such as: peregrine falcons nesting on Morro Rock, as well as a fragile, recovering sea otter population. Tourists come from all over the US and the world, to enjoy our pristine coastline, friendly small town atmosphere and breathe clean, sea air. If a BESS project were to be built here, it would certainly deflect concerned tourists, which would directly affect Morro Bay's economy. Since a BESS project can be installed anywhere, why risk the very things that support Morro Bay with an industry that would certainly threaten our wildlife, air quality and our citizen's health and wellbeing?

3. - California Environmental Quality Act (CEQA) Appendix G, provides a specific checklist form outlining criteria needed to open an industrial site study. It states: "If there is substantial evidence that one or more Potentially Significant Impacts are likely, then an EIR is required." CEQA lists all categories which must be addressed BEFORE any industrial facility is even considered for a location that would exist barely 100 yards from the ocean. Here are some that apply directly to the proposed BESS site:

I- Aesthetics- Evaluate Biological resources, land use planning, nearby populations

II Air Quality Geology, soil, water quality and safety, recreation, conflict with existing zoning, air pollution control, cumulative effects of polluting emissions adding to ozone precursors, all of which may affect nearby humans and wildlife

IV- Biological Resources: will the project have substantial adverse effect directly or indirectly through habitat modifications on any species identified as "Sensitive or Special Status Species" under protection and regulation by California Dept of Fish and Game, US Fish and Wildlife that would cause conflict with Habitat Conservation.

VIII- Hazardous Materials- will any Hazardous Materials be released into the environment affecting the public or wildlife? Either through accident or involuntary release into water sources, green space environment, such as run off from Chemical Fire cleanup into the ocean or riparian habitat, within flood or tsunami zones, or cause conflict with current land use zoning.

XII- Noise- excessive or continuous ground borne vibrations, either temporary or periodic noise levels that will adversely affect humans or wildlife. (Note: some fragile animal populations like Morro Bay sea otters, need long periods of quiet to sleep, eat and reproduce. High noise levels devastate that balance.)

XVIII- Mandatory Findings of Significance- Potential to degrade quality of environment, substantial habitat loss of fish or wildlife species, causing their population to decline, which threatens or eliminates the animal community directly or indirectly.

4. MOU-California Marine Life Protection Act: all involved agencies need to be notified in writing as to: the exact nature of the projects, its objectives/plans/mitigations, stated in a factual manner backed by accurate, current scientific data. Then those agencies need a specific time period to respond and question any specific areas of concern. Those agencies are: Ocean Protection Council (OPC), Cal/EPA, Dept. Fish and Game, California Fish and Wildlife, BLM, US Coast Guard, California Coastal Commission, California Coastal Conservancy, to name a few. Several of these agencies have stated they have not been contacted for their essential input to approve or deny such an installation.

In view of the above criteria listed by CEQA, it is blatantly obvious Rincon's EIR did NOT address the CEQA guidelines in any depth by their repeated notes that most concerns were "Insignificant." How could such an industrial complex not affect local: human and wildlife populations, riparian habitat, air quality and the ocean itself? Interestingly enough, the current EIR never mentions the runaway CHEMICAL FIRES where local residents in those locations had to shelter in place while toxic fumes covered their town. Can you imagine what such an incident would do to our tourism economy? As recently as Sept. 18, 2023 the Valley Center Energy Storage in San Diego caught fire. This was the SECOND FIRE since April 2022. And the Moss Landing facility also had a fire the same month. Obviously, this is not a rare occurrence. What was the damage done to their respective environments, both of which are on the coast? We need to see the factual reports of the long term effects the fire had on: the local children, vulnerable populations, wildlife and habitat. Do we want that kind of common scenario of CHEMICAL FIRES endangering Morro Bay? Who will want to visit a toxic industrial area with compromised air quality, damaged environment and decimation of the very sea otters that people travel hundreds or even thousands of miles to see?

Due to the proposed BESS location being less than 100 yards from: the ocean, peregrine falcons, seals, birds, sea otters, residential areas, restaurants and schools; I cannot think of a WORSE location for an industry with a horrendous track record of exposing communities to their numerous toxic hazards. I say: STOP all forward movement on this project until an OBJECTIVE non-partisan new EIR is performed. The Citizens of Morro Bay need to know all the facts before any development begins. Please value and protect this rare gem of the Central Coast that is Morro Bay for us and future generations to come.

Sincerely,

Kenna Morris

CC: Mayor Wixom and Morro Bay City Council, Planning Chair and Commissioners, Sarah MacGreggor, Coastal Planner, California Coastal Commission

FW: CEQA - Land Use Component not part of BESS DEIR?

Michael Codron <MCodron@morrobayca.gov>

Wed 5/22/2024 10:26 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

From: Christopher Neumeyer <cneumeyer@awattorneys.com>
Sent: Wednesday, May 22, 2024 9:10 AM
To: Michael Codron <MCodron@morrobayca.gov>
Subject: FW: CEQA - Land Use Component not part of BESS DEIR?

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fyi



Chris F. Neumeyer | Partner

Aleshire & Wynder, LLP | 1 Park Plaza, Suite 1000, Irvine, CA 92614

Tel: (949) 223-1170 | Dir: (949) 250-5406 | cneumeyer@awattorneys.com | awattorneys.com

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From: Jeffrey Heller <[REDACTED]>
Sent: Wednesday, May 22, 2024 8:18 AM
To: Council <council@morrobayca.gov>
Subject: CEQA - Land Use Component not part of BESS DEIR?

*** EXTERNAL SENDER ***

Why??? Since Vistra is requesting a change in Land Use & Zoning--shouldn't this section be part of the CEQA? I genuinely don't know the answer to this.....

Do not reply all. I just couldn't resist typing this in here as I was routinely warned of this when I was on council.

Irritating isn't it? 😊😊😊

Have a great Wednesday!

[CEQA and Land Use](#)

Proposed BESS project

Nancy Foley <[REDACTED]>

Wed 5/22/2024 11:55 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Ave.
Morro Bay,, California 93442
BESScomments@morrobayca.gov

Dear Ms Fowler,

I am a resident of Morro Bay and have lived in this area for over 35 years. When I first heard about the BESS project I thought it sounded like it might be a good green environmental facility. I was not informed. I have since learned that it is definitely not good for the Embarcadero of Morro Bay. Therefore, I am very much opposed to the BESS project for some of the following reasons I learned about.

Firstly and most importantly, lithium ion batteries have a history of spontaneous ignition and should be located in an industrial location far away from people, wild life and sensitive environments to operate safely. This project, proposed to be the largest in the world, would decimate the town, ocean and wildlife with toxic fumes when it catches fire. And it will catch fire. It is only a matter of when not if. Recently there was a thermal runaway fire in a facility in Otay Mesa, California on May 15th that reignited over six days spewing toxic fumes to the area. Morro Bay could not sustain such a disaster.

Secondly, it will also be located in a tsunami zone which is another potential disaster by exposing lithium batteries to saltwater intrusion and extreme fire risk. Safe evacuation from such a fire would be impossible.

Thirdly, the project would be in conflict with the California Coastal Act that requires new coastal development to minimize adverse effects in areas of high geologic flood and fire activity. This project would amplify these risks. In addition, under the Coastal Act new development shall protect special communities with unique characteristics that are popular visitor destinations of which Morro Bay is such a place. Also, the Coastal Act prioritizes coastal-dependent development which a battery storage is not.

Lastly, fire and emergency response were not addressed in the draft EIR. By law all impact and mitigation analysis must be included in draft EIR.

The draft EIR as written does not inform us of the hazards of lithium battery fires and the threats to our wildlife and community. The DEIR must be rewritten and circulated for our comments. Once the true impacts of this location for-this project are revealed to our community I believe the agencies responsible will not certify this draft EIR or approve battery storage in Morro Bay.

It seems to me that a BESS built here on the Embarcadero would destroy our peace of mind, safety and all that the residents and visitors love about Morro Bay. It needs to go somewhere else.

Sincerely,
Nancy Foley

Sent from my iPad

RECEIVED

May 22, 2024

MAY 22 2024

City of Morro Bay
Community Development Dept

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Ave.
Morro Bay, CA 93442

Re: My public comment to Draft EIR for BESS
Dear Ms. Fowler,

I am a resident of Morro Bay. I am opposed to the BESS project proposed for Morro Bay for the following reasons:

1. The draft EIR is inadequate in identifying the potential impacts of our community and environment. Please do not certify it. The Draft EIR needs to be recirculated³. It did not mention the issue of thermal runaway and³ toxic gas distribution greater than 600', affecting thousands of tourists and citizens who live here and attend school.
4. Water does not extinguish any possible fire or
5. Explosion due to terrorist attack, i.e. Noise disruption to wildlife i.e. peregrine falcons, otters, migrating birds.
2. The applicant did not disclose enough information re: high risk liquefaction.
Too many issues that negatively impact

our community, environment and wildlife remain unanswered or undisclosed by the applicant in the EIR. We, as residents and citizens, have been uninformed of these potential hazards and deserve to be allowed to participate in the decision to accept or deny any target this project would impose on our community.

Please do not certify the EIR as it does not adequately inform.

The Draft EIR needs to be recirculated to allow more information to be disclosed on the issues mentioned above and to give more access to our community of the impact or potential impact of the project. The BESS project should not be allowed to impact our community.

Sincerely,
Sharilyn Swadener Pettit

[REDACTED]
Mono Bay, CA 93442

City of Morro Bay
Attn: Mayor and City Council
995 Shasta Avenue
Morro Bay, CA 93442
BESScomments@morrobayca.gov

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City of Morro Bay

MAY 22 2024

Administration

Dear Mayor and Council Members.

I do not think the author of the BESS EIR fire hazard report is a neutral party. Ramboll LLC is a huge foundation run Danish conglomerate that has been buying up American consulting assets as a growth venture. Ramboll's BESS fire evaluation only reflects their own corporate goals, not the safety for our small town residents. Their EIR document on fire safety is seriously flawed. It needs to be returned for revision and authored by a more neutral third party with firefighting and hazmat experience. Here is why.

- 1) Ramboll underestimates the hazard of a fire in the worst possible case which is a tsunami that inundates the entire battery field aggressive Saltwater intrusion starts all the battery banks in thermal runaway. There have been four tsunamis on record that have inundated this site since 1812.
- 2) Ramboll underestimates the volume of toxic air created in their scenario.
- 3) Ramboll uses the EPA's AERSCREEN software that was not designed to model toxic runaway battery fire pollutants. There is no specific software designed to model thermal runaway battery fires and that is admitted in their own EIR documentation. Hence the modeling is speculative and unscientific.
- 4) Ramboll evades the problem of off-site pollution and recovery by saying a 36 cubic mile toxic cloud generated by the volume of the storage contaminants is contained on site! (using AERSCREEN software not designed for toxic battery fires).
- 5) Ramboll leaves out the issue of groundwater degradation from contaminated water used in fire suppression. No study, no modeling.
- 6) If you go to Ramboll's website: [Navigating the complex landscape of regulatory requirements for green fuels - Ramboll Group](#) You can see their bias seems to be towards underestimating toxic runaway battery fires to meet their own ESG goals. This bias is part of their client interface for dealing with governmental laws. BESS fires become merely 'environmental hurdles' that Ramboll can solve. I think feedback from the fire suppression community like hazmatandrescue.com needs to be added to this EIR document (see Attached). Please read that document. It's frightening!
- 7) Ramboll ignores environmentally safer energy storage like Liquid Air Energy Storage that has no risk of large scale air and water pollution. LAES would not require an evacuation plan as socially and financially catastrophic as a true BESS fire plan. That is why Ramboll seeks to sell you on a minor runaway thermal event as the site maximum. It is not.

First, Ramboll, the EIR contractor, decided to use EPA's AERSCREEN to computer model the results of a BESS fire. I downloaded the PDF User's Guide for AERSCREEN. Then I searched for any mention of 'thermal runaway' and 'battery fires' in the PDF user's software guide. The PDF search engine came up with zero word results. Check yourself:

https://gaftp.epa.gov/Air/aqmg/SCRAM/models/screening/aerscreen/aerscreen_userguide.pdf#page=26.35

Further, Ramboll's choice to use AERSCREEN software was somewhat random. I quote from their report: "A fire will result in an elevated plume with some heat associated with it. ALOHA is not designed to handle fires outside of the specific scenarios contained in the program, which does not include battery fires. PHAST does not have a battery fire module and, as a proprietary model, is less

appropriate for use in a public-facing evaluation. SCREEN3 and AERSCREEN can both be appropriate for use in this analysis, but AERSCREEN is more recent and is being continually updated. Accordingly, we are using AERSCREEN for this analysis."

By Ramboll's estimate A battery fire at BESS would release 1,145,592 grams(24 hours times 47,733g/hr) or 2500 Lbs. per event of toxic HF and toxic LI nanoparticles. A lethal dose for HF is 0.0139 g/m³ (170 ppm) So how many cubic meters of toxic gas is created that contains a lethal dose of HF from a modeled BESS fire in Morro Bay? According to chatGBT, the amount of square meters of atmosphere containing a lethal dose of HF is 82,371,230.22 square meters! So if you breathed one cubic meter of this air you would have received one lethal dose. This is the equivalent of 31 square miles of fire smoke that contains toxic levels of lethal HF gas not to mention other constituents of the battery components that are fully consumed in thermal runaway. Yet we are expected to believe that most of these toxins and contaminated air are contained on site?

AERSCREEN software is more commonly used by EPA clients to model the dispersion of Nox and No2 not toxic gasses. As Ramboll admits, they do not have simulation resources that model BESS 'thermal runaway' battery pollutants and arbitrarily picks 24 hours as the maximum period of toxic exposure.

A better source for understanding toxic battery fires can be found at <https://www.hazmatandrescue.com> It is an organization that specializes in hazmat Battery fire training. I enclose a 18 page PDF that was used at a presentation by them for their annual symposium. (see attached). I have also attached a copy where the hyperlinks enclosed are accessible. Introductory paragraph from their symposium:

"Hello WA Hazmat Symposium - This handout contains some good stuff on Li-ion batteries as well as white papers for our discussion about toxicity to include the metal problem that is rarely discussed. I briefly covered a few of these in the presentation (briefly), but this format will allow you to look for yourself. Do your own searches and you will find many more. As stated, I have far more questions than answers!" (by Todd Smith)

Ramboll takes guesswork to a new level of obtrusive complexity where people who actually have to fight battery fires are entirely fearful of these new technologies. Also there is no evaluation of groundwater contamination from massive amounts of firewater being mixed with the toxic stew of thermal runaway constituents that are un-dousable. Firewater cannot stop battery thermal runaway. That firewater to groundwater contamination has not been adequately studied to develop industry standards making the bay and coastal habitat actual environmental guinea pigs if this portion of the EIR is approved.

Ramboll's extreme BESS fire case does not take into consideration the site being fully engulfed in an aggressive tsunami that would cause the thermal runaway of multiple structures or multiple battery pack units due to violent salt water intrusion. There have been several tsunamis that have inundated this site in the historical record since 1812.

The risk is higher than claimed in the EIR. The American Geophysical Union, Fall Meeting 2009, abstract id. NH31B-1113 exposed the following factual narratives about local tsunamis that have impacted the subject site and California like sites at equivalent sea levels for the last 200 years. I Quote from the conclusions of that meeting:

"These reports of historic tsunamis represent wave elevations significantly higher than the 1964 Alaska earthquake tsunami that is typically used for emergency planning for tsunami inundation in California. Since it appears, 4 much larger tsunamis occurred in the Central Coast area in 1812, 1878, 1907 and 1913; it appears we may have become complacent during this recent period of tsunami quiescence. Emergency planning for Central Coast tsunamis should be anticipating tsunami waves in the 50 to 100 feet elevation range. "

Yet there are safer options for energy storage. The most environmentally benign energy storage project would be a grid-scale Liquid Air Energy Storage (LAES) plant. Where liquified air is the electrical storage medium. This is where windmill energy is used to cool air into a liquid state and store the energy in the phase change state from air to water and back, to create peak load energy balancing with off the shelf turbine technology. Further, an LAES plant could be scaled to sell waste heat to the residential and commercial components of the Morro Bay Plan North Embarcadero element to raise the LAES project efficiency to 75% with *no toxic fire or groundwater contamination risk*. A review of LAES industry can be found here:

<https://www.sciencedirect.com/science/article/pii/S2666792421000391#!>

https://highviewpower.com/news_announcement/world-first-liquid-air-energy-storage-plant/

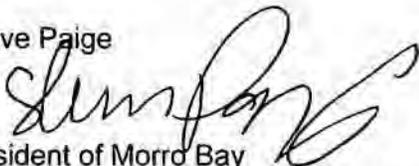
<https://www.mdpi.com/1996-1073/16/17/6216>

Using off the shelf industrial components this method of energy storage is not only safe for the environment but has less up front carbon footprint costs and half the financial up front inputs. Ramboll has again not even mentioned this technology in its BESS EIR. There is of course, the potential for tsunami destruction but LAES has no large scale toxic release component because the LAES plant energy is stored in liquified air at one atmosphere pressure. This is the environmentally safe solution for our ecologically sensitive coastal habitat.

Batteries are not the solution here. The wind farms at sea are well proven. Giant battery storage plants, like BESS Morro Bay, are unmodeled and experimental technologies with high potential social costs due to fire contaminants. LAES plants are also experimental but they don't have any contamination risk. If an expected catastrophic tsunami caused LAES energy release, it would be merely clean air released into the atmosphere. This option should be included in the BESS EIR. Clean air and water should be a goal in the entire catastrophic evaluation. Otherwise, it's not truly a green project.

Your friend,

Steve Paige



Resident of Morro Bay

Past member of the Morro Bay Water Advisory Board

Past elected member of Los Osos Community Advisory Council

Hard Copy delivered to 995 Shasta Avenue.

ATTACHMENT 1

Hello WA Hazmat Symposium - This handout contains some good stuff on Li-ion batteries as well as white papers for our discussion about toxicity to include the metal problem that is rarely discussed. I briefly covered a few of these in the presentation (briefly), but this format will allow you to look for yourself. Do your own searches and you will find many more. As stated, I have far more questions than answers!

I cannot vouch for all of the content so if something is wrong, please let me know. I believe the other presentations also had some valuable links and resources such as UL FSRI, RISE, NFPA, etc, that I encourage you to look at as well.

If you want to dive deeper into the white papers and various lectures they are here (and there are many more). Usually, the abstracts or conclusions are enough to get the relevance without diving too deep in the weeds, but don't take my word for this – look at it yourself. Control click the link and you are off and running.

Most importantly, please be safe and keep those around you safe!

Again, full disclosure, I am not a toxicologist, doctor, engineer, or industrial hygienist. I am a fire and explosion investigator on the tail end of a 30 year career in law enforcement. I also have a keen interest in this subject born out of my shock when we conducted our own testing when my original interest was how can I tell if a battery caused the fire or was a fire victim.

My opinions are mine and not those of my employer.

My understanding is that the immediate toxic by-products produced during a Li-ion battery (LIB) fire will depend slightly on which of the 6 main LIB chemistries is involved. Suppression water, SOC (state of charge), size of the battery system, type of batteries, geometry of the batteries within the pack, the type of containment, confined space, etc., can all impact what is produced during either venting or combustion. These things will also influence the subsequent fire behavior and the potential for a rekindle if suppression is successful.

The gases produced, both asphyxiants and irritants, are nasty, but many of these appear to dissipate quickly so the threat posed by them is more immediate to the incident so staying out of the plume, direct smoke, and remaining upwind while wearing good PPE and protecting our respiratory system should provide good protection. I know this is not always possible so if you are exposed like this please be mindful of gear contamination, consider writing an exposure report, and also consider getting blood testing from your health department or provider.

This brings us to the metals and my concerns. Keep in mind that the same recommendations to prevent hazardous exposures apply to this threat. The metals will be more persistent as particulates and may pose the larger threat in or on the burned appliance, at the fire seat, and downwind of the fire seat in the event of a fire. Remember that some of these particles can be quite small. Nanoparticles or particles less than 10 micrometers are more easily absorbed, ingested, breathed, or possibly ionized (highly reactive). Here are a few papers if you wish to look and I have included excerpts and highlighted relevant portions.

As stated, there is much we do not know about exposures or contamination of our PPE or to the scene but the amounts observed in the few published studies far exceed permissible limits. As we scale up the size of the battery system (best measured in kWh), it is reasonable to believe the threat scales up as well. I am not as concerned about smaller batteries unless you are in a confined space, vape (direct exposure), or you encounter a fire with dozens of them (add up the kWh) but caution is always our friend.

Due to the expense of testing, we are currently left with “theoretical yields” or suspicion of the same for large systems, but we are following our hazmat training to recognize this threat!

There is some research on the toxicity of cobalt dusts but very little research into how these materials behave at temperatures as high as 4000 degrees F (according to some but usually 2k or better) or in the presence of other volatile compounds such as the solvent chemistries. Manufacturers are just trying to design a better battery and not much thought is given to possible toxic combustion by-products and their impact on human health because they are designed to store energy, not for combustion. The industry is very focused on energy density and economics so don't assume they have looked at this subject comprehensively or that they would publish the information.

*side note – if these links do not open or give you access to the full paper copy the title and look it up on google, you should be able to access the full copy if all you get is a summary or excerpts – some sites charge and others do not but you can usually find it and I have access to some you may not. There are many dozens of published (peer-reviewed) white papers on this subject as you will see if you simply google lithium-ion battery toxicity, etc.

[Experimental determination of metals generated during the thermal failure of lithium ion batteries - Energy Advances \(RSC Publishing\) DOI:10.1039/D2YA00279E](https://doi.org/10.1039/D2YA00279E)

Here are excerpts from this study published in January 2023 that directly reference metal particulates as toxins produced in these fires:

“Metal residues must also be considered as a source of exposure following a battery release; potential routes of exposure could occur through both dermal uptake and any inhalation or ingestion of metals as a result of direct or indirect transfers.”

“Each metal determined in this study has its own associated hazard. Nickel and cobalt are known sensitizers, both are known to cause respiratory issues including ‘asthma like’ allergic reactions. In addition, nickel and nickel compounds are classified Group 1 carcinogens as defined by IARC and nickel can cause skin irritation and allergic dermatitis at sometimes low concentrations.³²

Elevated exposure to cobalt can affect heart, thyroid, liver, and kidneys. Repeated exposure to cobalt dust can cause scarring of the lungs (fibrosis) even if no symptoms are noticed.

Aluminium compounds have been linked to asthma, obstructive pulmonary disease, and heart disease, however it is better known for causing adverse neurological effects.³³

With manganese compounds the central nervous system is the primary target of manganese toxicity, specifically causing detrimental neurological effects, since inhaled manganese is often transported directly to the brain before it is metabolised by the liver.

“The methods of analysis used here do not allow the comprehensive determination of the metal containing compounds/species; this is the subject of further work. However, it is not unreasonable to expect metal oxides to be formed from a combustion event, and some of the oxides of cobalt, manganese and in particular nickel are known to be hazardous to human health. The health impact of such an exposure depends not only on the species present, but also to the bioavailability of the compounds, influenced by solubility and, for inhaled absorption, particle size. Certainly, initial effects from exposure to the aforementioned metal oxides would present as skin and inhalation irritations. More long-term health effects can include cancer and neurological issues.”

*some of these metals if inhaled can stay in your lungs for months or even years according to some toxicologists and papers (again, doublecheck anything I say if you question it), but we don't seem to have good answers on this or any understanding of potential bio-accumulation from multiple exposures.

Here is another paper from 2020 that specifically looks at LiFePO_4 (LFP) or lithium iron phosphate with excerpts (the current favorite chemistry for larger systems such as EV's or ESS). Sadly, I don't think we are far ahead in our understanding than we were in 2020 when this was published and it does NOT focus on the metal particulates -

[A comprehensive investigation on the thermal and toxic hazards of large format lithium-ion batteries with \$\text{LiFePO}_4\$ cathode - ScienceDirect](#)

“Toxic gases released from lithium-ion battery (LIB) fires pose a very large threat to human health, yet they are poorly studied, and the knowledge of LIB fire toxicity is limited...

“The major toxic gases detected from the online analysis are CO, HF, SO₂, NO₂, NO and HCl.”

“Results show that the effects of irritant gases are much more significant than those of asphyxiant gases. HF and SO₂ have much greater toxicity than the other fire gases. The maximum FEC value is approaching the critical threshold in such fire scenarios.”

“Until now, few studies have been done on evaluating the fire effluents of LIB and the knowledge of their toxicity is very limited. “

*Fractional Effective Dose (FEC) is basically the dose at which really bad stuff happens to human beings – see this link for further understanding: [130_A2016_FKT-AAA_CIRreport.pdf \(nfp.org\)](#) – i.e. - we use this for fatal fires for CO or HCN when we get victim bloodwork back.

*Here is a 2017 paper on toxicity specifically looking at Cobalt – as we discussed cobalt is a key ingredient in the most popular battery chemistry NMC (nickel manganese cobalt) and two other

primary chemistries nickel cobalt aluminum (NCA) and lithium cobalt oxide (LCO) with excerpts. I don't mean to pick on cobalt because nickel, manganese, titanium, iron, aluminum, and the rest also have toxicological profiles. Again, OSHA/NIOSH and the Euros generally reference permissible limits of these metals for "dusts" and those are much larger particles than you will find in batteries. Again, the smaller the particle the more toxic it is to humans (more easily absorbed).

[Cobalt toxicity in humans Leyssens et al Toxicology 2017.pdf \(imperial.ac.uk\)](#)

"Although cobalt has a biologically necessary role as metal constituent of vitamin B12, excessive exposure has been shown to induce various adverse health effects."

"The systemic health effects are characterized by a complex clinical syndrome, mainly including neurological (e.g. hearing and visual impairment), cardiovascular and endocrine deficits.

"toxic reactions at lower doses have been described in several cases of malfunctioning MoM hip implants, which may be explained by certain underlying pathologies that increase the individual susceptibility for Co-induced systemic toxicity. This may be associated with a decrease in Co bound to serum proteins and an increase in free ionic Co²⁺. As the latter is believed to be the primary toxic form, monitoring of the free fraction of Co²⁺ might be advisable for future risk assessment.

*MoM refers to metal on metal joint replacements – a source of lots of class action lawsuits right now for adverse outcomes. I included a link at the end for a Ted Talk by Dr. Tower talking about his experience with a cobalt hip. It is very interesting, but keep in mind his exposure (and others) was very direct.

*a few notes here about this 56 pages of text – it is NOT specifically looking at lithium-ion batteries, only other exposures to "cobalt". The last quoted excerpt above is the scariest because these are LITHIUM-ION batteries so would it not be possible that we might have ionized cobalt emitted from the battery during venting (pre-fire) and combustion? I don't know, but it should be studied further and remember as we discussed an EV battery may contain 5, 10, 15, or more kg of cobalt along with other ingredients that have toxicological concerns such as nickel, manganese, aluminum, copper, iron, etc. There can be over 150kg of metals in the larger batteries for EV's and we now have ESS that are the equivalent of 40 EV batteries inside one vented Conex style box with buses or other appliances such as heavy equipment that will equal 5 or more large EV batteries. It is not common and best practice to evacuate downwind for these larger incidents.

***I will repeat this again, keep in mind that most of the toxicology studies are for dusts in a manufacturing setting and not ionized particles (possibly) or nanoparticles that may be encountered in a fire or present afterwards so it is reasonable to assume that metal particulates from a battery fire will be worse than metal dusts in an industrial setting.**

*Here is another paper from 2022 that looked at "contamination" post-fire. It is relevant although it's not directly applicable to contamination of humans specifically as that was not the goal of the research. This corroborates my assertion and fear that the dusts or soot (post-fire and

during the fire) are something to be concerned about. I disagree with their assertion that an ICE and EV vehicle burn at the same temperatures, but that is an argument that continues (most researchers believe it burns hotter).

*On a good note, it looks like the auto industry is beginning to engineer better separation and insulation between modules within a pack to minimize rapid fire progression with some good effect so this might reduce previously observed temperatures and rapid/violent fires.

The key take-away for me from this paper as I presented is:

Thermal runaway and fire of electric vehicle lithium-ion battery and contamination of infrastructure facility - ScienceDirect

“The results of experiment 3 indicate that with active ventilation, soot is transported over long distances and is deposited on surfaces. The amounts of soot found were much lower e.g. about 0.5 g/m^2 at 100 m distance compared to $17\text{--}20 \text{ g/m}^2$ in the enclosed space of experiment. However, the quantities of the heavy metals nickel, cobalt and manganese as well as lithium are still high, which is why professional decontamination is also required here.”

“3.1.1. Contamination of infrastructure and textiles (*PPE or turn-outs?*)

“Inorganic pollutants which are toxicological and corrosion chemical relevance were present in the form of large amounts of the elements Co, Ni and Mn, each amounting to approximately $150\text{--}400 \text{ }\mu\text{g/cm}^2$, and of the element Li amounting to around $30\text{--}70 \text{ }\mu\text{g/cm}^2$, see Table 5. Water-soluble fluorides in amounts of $40\text{--}52 \text{ }\mu\text{g/cm}^2$ were detected on the collector plates and textile, see Table 6. Therefore, the usual background levels for non-contaminated surfaces are exceeded by factors up to approximately 2000–4000 (Co, Ni), 500–700 (Mn), 400–700 (Li) and 50 (fluorides).

“Conclusion Using the scalable experimental design, a contamination with soot in the range of 20 g/m^2 can be expected when a lithium-ion battery of 32 kWh capacity burns down in an enclosed parking space for 30 cars. Thermal runaway and fire of a battery of type NMC 111 produced soot consisting mainly of heavy metal-oxides of nickel, manganese and cobalt (each 18–20% by mass) as well as, to a lesser extent, of lithium (3–4% by mass), fluorides (appr. 2.5% by mass) and chlorides (appr. 0.2% by mass).”

*30 car garage? What about a two-car garage? We don't know, but these are very high numbers for permissible exposure limits or PEL as we discussed. I will include some SDS sheets if you want to look at them below or look up your own. They don't always tell you what the exact chemistry of the battery is (proprietary special sauce).

Remember, combustion of LIB's may also cause other compounds to be formed so don't assume these are high school chemistry class questions that follow typical oxidation-reduction formulas. Again, we really don't know enough about this stuff or the long-term health consequences of exposures or contamination.

Firefighters PPE contamination PV (solar) and EV -
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9566750/>

It also contains test results showing that firefighters' clothes accumulate harmful substances after fighting these types of fires. Pilot tests for the presence of polycyclic aromatic hydrocarbons (PAHs) and formaldehyde showed that levels exceeded limits in all clothing samples. For example, the cobalt level was 24 times higher than that considered safe in the test carried out with car battery fire. Although it is recognized that liquid carbon dioxide (LCO₂) methods of cleaning may be more effective than traditional water washing, further research on cleaning efficiency for clothing containing substances emitted from car battery and PV modules fires is required.

Here is an old but decent representation of the "content" of a 60kWh EV battery pack (NMC chemistry) but keep in mind that the amounts of materials vary. Tesla is trying to get away from cobalt and it may contain very little but other manufacturers use more cobalt.

Visualizing an EV battery <https://elements.visualcapitalist.com/the-key-minerals-in-an-ev-battery/>

SDS for lithium nickel manganese cobalt oxide
<https://www.sigmaaldrich.com/US/en/sds/aldrich/761001>

SDS for lithium nickel cobalt aluminum oxide <https://loradchemical.com/data/sds/SDS-Lithium-Nickel-Cobalt-Aluminium-Oxide.pdf>

SDS for lithium nickel oxide <https://www.ltschem.com/msds/LiNiO2.pdf>

6 most common lithium battery types <https://dragonflyenergy.com/types-of-lithium-batteries-guide/>

Look these up yourself simply by searching things like lithium cobalt oxide SDS – .02mg per cubic meter TWA for PEL

<https://www.fishersci.com/store/msds?partNumber=AA4209022&productDescription=LITH+CBLT%28III%29+OXID+99.5%25+100G&vendorId=VN00024248&countryCode=US&language=en>

*Iron is used in LFP batteries (lithium ferrous phosphate or LiFePO₄) – Iron is "less toxic" than other cathode metals for LIB's but as I stated, we don't really know much about nanoparticle toxicity and most reference "not studied" when you read a straight SDS for Lithium Iron Oxide or Iron Oxide (rust) and there is possibly a threat of iron fume similar to what welders may experience. The last paper I link at the very bottom of this book states that combustion may produce other hazardous compounds with even higher toxicity, but we don't know.
https://www.continentalbattery.com/assets/Lithium_Safety_Data_Sheet.pdf

* Let us break this “soot” down further from the testing above with what we discussed about SDS and OSHA/NIOSH limits.... .5g/m² is well over .02g per cubic meter and this was measured at 100m away (! Think about the old guys like me NOT on SCBA at the end of the driveway) with 17-20g per meter squared in the enclosure for 30 cars. It is logical that this might be far worse in a two-car garage or in a smaller semi-confined space. Not to make a math lesson about this, but if permissible limits of dusts are .1mg, 5g, .02mg, .05mg per cubic meter over a 40 hour work week, that is a LONG way from 17g per square meter! As the “plume” (containing these metals) cools the particulates will drop to the ground or on you, your PPE, and your apparatus. This is the contamination that will remain present post-fire in and around the fire seat, on the appliance or container, and on our PPE. Remember, average size EV is around 60kWh and these measurements were in a far larger space than a garage so 20g per sq meter may be far lower than an incident you might respond to or less in an open parking lot.

Remember, these things are fully expelled with little to no copper or aluminum left (often just empty battery casings) so all of this stuff goes somewhere!

Another from 2017 - [Toxic fluoride gas emissions from lithium-ion battery fires - PMC \(nih.gov\)](#)

“Lithium-ion battery fires generate intense heat and considerable amounts of gas and smoke. Although the emission of toxic gases can be a larger threat than the heat, the knowledge of such emissions is limited.”

“While the fire itself and the heat it generates may be a serious threat in many situations, the risks associated with gas and smoke emissions from malfunctioning lithium-ion batteries may in some circumstances be a **larger threat**, especially in confined environments where people are present, such as in an aircraft, a submarine, a mine shaft, a spacecraft or in a home equipped with a battery energy storage system.

[Full article: Lithium-ion battery explosion aerosols: Morphology and elemental composition \(tandfonline.com\)](#)

“Aerosols emitted by the explosion of lithium-ion batteries were characterized to assess potential exposures. The explosions were initiated by activating thermal runaway in three commercial batteries: (1) lithium nickel manganese cobalt oxide (NMC), (2) lithium iron phosphate (LFP), and (3) lithium titanate oxide (LTO).”

“The abundance of elements from the anode, cathode, and separator in respirable aerosols underscored the need for the selection of low-toxicity battery materials due to potential exposures in the event of battery thermal runaway.”

“Aerosols emitted by lithium-ion battery thermal runaway have not been characterized to the authors’ knowledge. In particular, information is lacking on the size, composition and morphology of explosion aerosols in the respirable size range (e.g., $\leq 4 \mu\text{m}$). However, the powder deposited after lithium-ion battery thermal runaway has been studied for 8.5–300 μm particles (Chen, Wang, and Yan Citation²⁰²⁰). The study was carried out for a single battery type with an NMC cathode and showed that powder samples contained carbon, organic compounds, carbonates, and transition metals. The transition metal content of mixed aerosols can especially influence toxicity. In mixtures with carbonaceous particles, transition metals mediate the

production of reactive oxygen species that cause oxidative damage, such as **DNA strand breaks** and inflammation”

*Full disclosure, I am not a doctor, but DNA strand breaks are NOT good and we are now in the realm of cancer, birth defects, and a whole list of other bad stuff. As stated in the presentation, we don't know but until we do.....

One of my favorite papers that I referenced because it focuses on the metal particulates - Full article: Detailed characterization of particle emissions from battery fires (tandfonline.com)

“Lithium-ion (Li-ion) batteries that are becoming ubiquitous in various applications may be susceptible to thermal runaway when subjected to certain abuse factors. Fire ensuing from such a thermal runaway event results in significant release of gaseous and particle emissions that **pose a critical safety risk to human health.**”

“there have been limited studies reported in the literature that examine particulate emission characteristics in detail”

“Thermal runaway resulted in very high particle emissions.”

- “Battery fires emanating from thermal runaway events can result in significant particle and gaseous emissions. Both overcharge tests of LFP modules, and the nail penetration test of the NMC module resulted in PM_{2.5} emissions exceeding 375 g/h and total PN emissions of the order of $2E + 17$ part./h. These emission rates are 5 to 6 orders of magnitude higher than those typically emitted from the exhaust of a modern heavy-duty diesel engine. It is to be noted that the aforementioned statement is primarily to provide a contextual comparison with a well-documented particle emitter.

* my note - particles are metal particulates, oxides, etc as discussed above – gases are generally asphyxiants and irritants. Not to bore anyone with statistics but an “order of magnitude” is generally 10x more than the subject of comparison so we are talking about 50-60 times the particulates that are emitted from a diesel exhaust. Diesel can be nasty but remember that they are designed to reduce particulate emissions from the exhaust and those particulates are NOT as toxic nor are they in the same quantities (especially for metals) as batteries. My opinion.

Nickel toxicity and environmental concerns – nickel is often the main metal cathode ingredient in NMC batteries – - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7037090/>

Human exposure to highly nickel-polluted environments may cause a variety of pathological effects [34,35]. Accumulation of nickel and nickel compounds in the body through chronic exposure may be responsible for a variety of adverse effects on the health of human beings, such as lung fibrosis, kidney and cardiovascular diseases and cancer of the respiratory tract [36,37]. High incidence of nasal and lung cancer in workers exposed to nickel and nickel compounds was observed [37,38,39,40,41,42]. A small fraction of nickel is dermally absorbed, and Ni²⁺ ions and nickel particles penetrate the skin at sweat ducts and hair follicles. Moreover, dermal absorption of this metal is affected by solubilizing agents, such as detergents, and clothes and gloves that behave as a barrier to the skin.

*Remember, the warmer the particle the more easily it is absorbed through your skin.

Nickel nanoparticles are associated with reproductive toxicity.

Potential toxicity of nickel and nickel compounds is dependent on their physico-chemical characteristics, as well as the amount, duration of contact and route of exposure. Nickel can enter the body via inhalation, ingestion with food and dermal absorption; however, the route for this element to enter cells is determined by its chemical form. The riskiest route of exposure to nickel is by inhalation.

Insoluble nickel sulfide (Ni_2S_3) is a carcinogen agent for the respiratory tract: When it is inhaled, particles of nickel sulfide accommodate themselves in the lungs of human beings, where they remain in contact with epithelial cells. These nickel particles are removed by macrophages in the digestive tract. Under high exposure to nickel, the macrophage activity of removal could be perturbed, and Ni_2S_3 particles may be taken into epithelial cells by endocytosis. In this way, nickel particles are delivered to the nucleus of lung epithelial cells, causing a heritable change in chromosomes, inducing lesions of both double- and single-stranded DNA in cultured human cells.

Here are the random articles, YouTube videos, and other stuff you may find interesting and educational.

A MUST WATCH is Dr. Christensen's presentation (up top). He has trained hundreds or thousands of firefighters in Europe and Australia and he specifically talks about the vapors NOT being smoke and VCE's or vapor cloud explosions being a threat like Captain Clare shared with us in the two incidents he presented. The amount of gas produced by these things is scary and I believe he now puts that at 500-3000L per kWh (I think this older presentation states 300L-3000L of gas per kWh). The potential of major explosions (like that in AZ) is definitely real!

I recommend that your family watch this too so they recognize a vapor cloud, hissing, and the sound of pressure relief caps popping.

For reference, many e-mobility devices are .5 kWh or 1 kWh, Residential ESS systems can be 10-40 kWh, and EV's and larger grid or industrial ESS systems can be much larger. He also points believes the black smoke from initial venting of the cell(s) are the cathode metals and these do NOT dissipate so we are at risk of contamination, inhalation, or ingestion while conducting a scene exam, during a fire, or post-fire.

You may see references to carbon black or black carbon in the batteries (instead of graphite) – look it up – it's also a suspected carcinogen. Yes, I am a joy to have at dinner.

Something new I learned – a CO detector may well react to a venting battery that is heating but has not or does not catch fire because CO is a big part of the vapor cloud put out to relieve pressure inside the cell when thermal runaway begins. Keep this in mind if you are running a

truck and answer a CO alarm or a witness references a CO alarm activation prior to the fire. If you have batteries in your house I would have a CO detector even if you don't have gas appliances. You should always have a smoke detector in your garage. Just a recommendation from a fire investigator!

29 minute version:

SWFRS webinar with Prof Paul Christensen. Lithium-Ion Batteries and electric vehicles - YouTube

<https://www.youtube.com/watch?v=rvRCz-2zcmM> 41 minute version of same presentation (mostly)

Christensen video – “the new asbestos” – 13 minutes – he makes some great points about the lack of regulations <https://www.youtube.com/watch?v=GfZPNSOGjgE&t=10s>

What is a lithium-ion battery? Dr. Billy Wu – great introduction and overall view of the technology - <https://www.youtube.com/watch?v=DBLHaLhyo2w&t=24s>

Why do they catch fire? Dr. Billy Wu – I showed part of this during the presentation but it is very good and it is not long, you can forward through the graph portion where he talks about combustion properties of specific batteries so probably 9 minutes worth and watch the conclusion - <https://www.youtube.com/watch?v=VWMfesevbt4&t=689s>

YT – ABC Australia EV fires – references cobalt poisoning and vapor barrier and this is where the union president mentions firefighters medically retired from exposures (to cobalt). Australia is having a lot of battery fires. <https://www.youtube.com/watch?v=NWvIIdaNil>

YT – EV fire in garage – newer model loaner Mercedes totals a house (it was NOT charging) and I am still impressed with the knockdown on this fire - <https://www.youtube.com/watch?v=SIpXkOhq1ps>

YT – EV fire in driveway with not a single SCBA being used – this kills me! <https://www.youtube.com/watch?v=rItu9FIBsKE>

YT – E-bike battery catches fire on video in garage - <https://www.youtube.com/watch?v=2ex7Qf0j7Rw>

YT – Phoenix Fire puts Tesla in container with wet sand – this is not an endorsement, but just throwing it out there in case you are interested but few fire agencies have as much experience as Phoenix with these fires – batteries don't like warm temperatures? https://www.youtube.com/watch?v=LUGu30hR_kU

YT – fire blanket news story - <https://www.youtube.com/watch?v=3db6WyI9CSQ>

YT – EVFireSafe – EV van on fire in London – good educational presentation <https://www.youtube.com/watch?v=mIIdMkwKLP4>

YT – EV fire blanket demo – short https://www.youtube.com/watch?v=n_JINtx08iA

Toxic fluoride gases from fires – white paper -
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5577247/>

Cobalt toxicity in humans – white paper - <https://pubmed.ncbi.nlm.nih.gov/28572025/>

Lithium ion battery research – storage systems – ORNL – good stuff -
<https://www.osti.gov/servlets/purl/1963149>

ECHA SDS cobalt oxide – Europeans believe it to be a carcinogen and impact reproductive health and lungs? - <https://echa.europa.eu/substance-information/-/substanceinfo/100.013.777>

CDC report on manganese toxicity - <https://www.atsdr.cdc.gov/toxprofiles/tp151-c2.pdf>

Comprehensive investigation of thermal and toxic hazards LIBs -
<https://www.sciencedirect.com/science/article/abs/pii/S0304389419308696>

Toxic gas emissions from damaged LIBs - <https://www.mdpi.com/2313-0105/2/1/5>

Ecotoxicity of extinguishment water – always consider aquatic toxicity as a major threat to your community. We have to do what we have to do, but may come in handy to explain to the public why you chose to let it burn rather than flow a lot of water -
<https://pubs.acs.org/doi/10.1021/acs.est.2c08581>

Particle emissions from battery fires -
<https://www.tandfonline.com/doi/full/10.1080/02786826.2021.2018399>

LIB explosion hazards/aerosols -
<https://www.tandfonline.com/doi/full/10.1080/02786826.2021.1938966?src=recsys>

Thermal runaway and EV contamination -
https://www.dora.lib4ri.ch/empa/islandora/object/empa%3A29507/datastream/PDF/Held-2022-Thermal_runaway_and_fire_of-%28published_version%29.pdf

<https://www.youtube.com/watch?v=rvdblce7hGo> – StacheD M18 battery burns down truck – this is a good one to be aware of because tool pack battery fires happen and we are moving away from 2-cycle gas powered lawn equipment or snowblowers to battery powered equipment and that is very hard usage often with temperature extremes during use or storage. We will see more fires from these in the future and most of the time these are found in the garage.

Headline – 2 firefighters killed in China <https://www.pv-magazine.com/2021/04/21/two-firefighters-killed-and-one-missing-after-beijing-battery-blaze/>

Rivian Factory – 3 fires in a year (believe its 4 now) for local fire dept -
<https://insideevs.com/news/589006/rivian-normal-fire-battery-pack/>

Scooter fire and explosion – BBC - <https://www.bbc.com/news/uk-england-leeds-64881631>

Recall fire for vacuum battery off Amazon - <https://www.nbcchicago.com/consumer/explosions-fires-and-injuries-know-the-risks-behind-lithium-ion-batteries/3133300/>

AZ ESS explosion and legal fights - <https://spectrum.ieee.org/dispute-erupts-over-what-sparked-an-explosive-liion-energy-storage-accident>

Fire investigators have battery explode during investigation – a good one to be aware of!
<https://www.denver7.com/news/local-news/close-call-lithium-ion-battery-explodes-in-adams-county-fire-investigators-face>

EV in China explodes during suppression <https://www.dailymotion.com/video/x7vpbz1>

Australia 2 firefighters cobalt poisoned <https://7news.com.au/lifestyle/motoring/firefighters-union-calls-for-government-action-on-ev-fire-risks-c-8827258>

Australia original source for 2 firefighters..... https://www.carexpert.com.au/car-news/firefighters-union-calls-for-government-action-on-ev-fire-risks#article_comments

*Again, I don't know what happened to these firefighters but the source of this is the President of their firefighters union and he has never retracted or corrected the quote which has been widely used in the media. I really fear stories like this may become MORE common because of a lack of training and awareness within the fire service.

Scooter battery blows out wall into hallway
<https://www.linkedin.com/feed/update/urn:li:activity:7108327644307353601/>

Tesla into garage FF in smoke and one on the roof -
<https://www.nbcnews.com/business/autos/federal-regulators-warn-risks-firefighters-electrical-vehicle-fires-n1271084>

Overall news story good stuff <https://www.youtube.com/watch?v=WKBDNtMIRfI>

Toxicity of cobalt and nickel nanoparticles
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3501377/>

Heavy metals and cancer - <https://www.intechopen.com/chapters/76911>

Cobalt exposure white paper - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7410254/> talks about inhalation hazard and dermal absorption

Ebikes Australia rekindle <https://www.youtube.com/watch?v=fyY-tnohLiY>

Mutagenity/carcinogenity of cobalt dust and oxides - <https://pubmed.ncbi.nlm.nih.gov/2195331/>

45000g of water for a Nissan Leaf? - <https://www.wkrn.com/news/local-news/electric-vehicle-fire-in-franklin-requires-thousands-of-gallons-of-water/?ipid=inline-link>

Followup story talks about the US Fire Admin - <https://www.wkrn.com/news/local-news/electric-vehicle-fires-continue-to-fuel-concerns-among-first-responders/>

Pollution in Congo – Spina Bifida and limb abnormalities - <https://www.theguardian.com/global-development/2020/may/06/pollution-causing-birth-defects-in-children-of-drc-cobalt-miners-study>

UK report on e-mobility fires – good product -

https://www.electricalsafetyfirst.org.uk/media/sgyikuwb/esf_batterybreakdown_report_2023_v7-final.pdf

Waste and Recycle Fires - https://www.linkedin.com/pulse/waste-recycling-fire-report-achieving-best-case-from-ryan?trk=news-guest_share-article

Thermal imaging of overcharge failure -

<https://www.youtube.com/watch?v=RedHpzZesPs&t=4s>

Professor Guillermo Rein Twitter thread on innovation blind spots and stats – he has some good stuff on YouTube and I will try to link others -

<https://twitter.com/GuillermoRein/status/1552812305242521600>

Recent lecture on LIB's by Professor Rein - <https://www.youtube.com/watch?v=BUVw85SZciU>

E-scooter fire on London subway BBC - <https://www.youtube.com/watch?v=m24ZQ0SjriQ>

Tesla First Responders Guide to ESS - <https://www.tesla.com/firstresponders/industrial-energy-emergency-response-video>

Energy Wall Fires Oct 23 – Recalls – Europe - <https://www.pv-magazine.com/2023/10/10/germany-austria-hit-by-multiple-solar-battery-fires-in-september/>

Recall on LG ESS Oct 23 - <https://www.news.com.au/technology/accc-urgent-recall-on-lg-solar-storage-system-battery/news-story/283a4eb58dc011ababf2da6c687fb4e9>

BESS fire problem – San Diego Oct 23 -

<https://www.sandiegouniontribune.com/business/story/2023-10-11/battery-storage-is-a-key-piece-of-californias-clean-energy-transition-but-theres-a-problem-with-fires>

Update on fighting EV fires Denmark – new design and recommendations - <https://cfpa-e.eu/new-knowledge-about-battery-fires-in-electric-cars-on-ferries/#:~:text=Jul%202022-DBI%20%E2%80%93%20The%20Danish%20Institute%20of%20Fire%20and%20Security%20Technology%20has,consisting%20of%2040%2Dfoot%20containers>

Electric buses under high rise apts Europe – bad idea? - <https://www.telegraph.co.uk/money/net-zero/electric-bus-fire-threat-risks-tower-blocks-volcano/>

CPSC recall on 550 sets of pajamas for flammability risks – irony? -

<https://www.cpsc.gov/Recalls/2023/Childrens-Pajamas-and-Nightdresses-Recalled-Due-to-Violation-of-Federal-Flammability-Standards-and-Burn-Hazard-Imported-by-Little-Cotton-Clothes-Recall-Alert>

*I include this recall because this is the standard we have established to keep children safe from fire(s) so this goes directly to the risk/benefit analysis of school buses or mass transit. The failure can be quite sudden and violent, the venting can generate large vapor clouds of metal particulates, and an explosion or violent fire can occur. It is reasonable to believe that airplanes, submarines, ships, and other people movers greatly increase the risk of catastrophe with this

technology from an explosion, fire, or toxic exposure regardless of “how” or “why” a fire is started. These things should require the most stringent safety engineering to prevent venting into the passenger compartment as well as stringent maintenance and monitoring.

San Diego writing local codes after losing 4 trash trucks and for BESS -

<https://www.activistpost.com/2023/10/city-to-write-laws-for-regulating-storage-disposal-of-lithium-ion-batteries-for-evs-etc-after-losing-4-trash-trucks-to-fires-many-injuries.html>

White paper on lithium battery contents -

<https://www.sciencedirect.com/science/article/pii/S2405844019347012>

French LIB submarine – bad idea? - <https://www.navalnews.com/naval-news/2023/10/france-offers-new-scorpene-evolved-li-ion-submarine-to-indonesia>

20 ton electric excavator with batteries by Proterra - <https://www.mequipment.ro/en/noi-excavatoare-electrice-komatsu-cu-baterii-in-clasa-20-de-tone/>

Proterra bankruptcy filed – the battery management system is apparently being updated by the company that took that portion over and I hope that continues –

<https://techcrunch.com/2023/08/09/what-led-to-ev-darling-proterras-bankruptcy/> This is a real concern because quality manufacturers often update the BMS to make them safer, but if a company goes bankrupt the engineers are not working on this (think transit or school buses) so if a problem exists within the BMS the software remains the same

FDNY commissioner letter to Amazon for only UL or certified products sold – this is really becoming a big problem because the discount or knock-off market is not regulated for safety with no UL testing on products. Please always pay close attention to these products in your home and follow best practices!

<https://twitter.com/FDNYFC/status/1712949020379803937/photo/1>

Aqueous rechargeable batteries – a solution? – no flammable electrolyte – I include this because you constantly hear about new battery tech that will change the game and lower risks. This is an example as are the solid state batteries, sodium ion, silicon, and others. I think we will get there eventually, but not any time soon as it often takes a long time to field new chemistries

<https://thedebrief.org/lithium-ion-batteries-could-soon-be-replaced-by-new-green-aqueous-rechargeable-batteries/>

IPO listing for 2022 stats – 65% growth in demand – NMC vs LFP -

<https://twitter.com/IPOACADEMY01/status/1713860353413759041>

NSW – scooter fire with video of aftermath – blew out window -

<https://www.fire.nsw.gov.au/incident.php?record=rec3hvFSdo2qjZKyh>

Gulf clubhouse burns down – cart batteries? - <https://www.youtube.com/watch?v=GekYcU-s9YI>

Best study on cobalt toxicity? Jan 23 – Agency for Toxic Substances (CDC) - [tp33.pdf \(cdc.gov\)](https://www.cdc.gov/tp33.pdf)

Cobalt toxicity and ionized cobalt – 2012 - [Cobalt metabolism and toxicology--a brief update - PubMed \(nih.gov\)](https://pubmed.ncbi.nlm.nih.gov/)

Scooter battery explodes on Madrid subway - <https://batteriesnews.com/explosion-madrid-metro-carriage-left-destroyed-after-faulty-e-scooter-battery-causes-blast/>

Francesco Retuccia lithium battery fires lecture –
<https://www.youtube.com/watch?v=rIsoWD0J7bQ&t=522s>

Lithium batteries a clear and present danger to CT with stats -
<https://ctbythenumbers.news/ctnews/lithium-ion-batteries-a-clear-and-present-danger-in-connecticut>

Francesco Retuccia – Fire Science Show - <https://www.firescienceshow.com/118-different-batteries-different-challenges-with-francesco-restuccia/>

Why Tesla, GM And Other EV Companies Have A Fire Problem – CNBC
<https://www.youtube.com/watch?v=XWq-Mq1Uqpw>

Science and technology of battery fire safety from Imperial College – some really good stuff on this one. Discusses the importance of heat dissipation and how that impacts larger scale systems AND the FACT that most research on battery fires have been done with single cells. Behavior (and risks) change as the packs become larger and this is VERY important to understand. The bigger the battery the higher the risks due to heat dissipation influence and more failure points?
<https://www.youtube.com/watch?v=LVSPbbXFd5g>

Cobalt hip transplant failure/poisoning? This is the one I mention above. He also references the epidemic of cobalt in beer foam in the 60's (this really happened to beer drinkers). It's an interesting Ted Talk - <https://www.youtube.com/watch?v=ksuFfbic6tA>

Mike Abraham's (ATF electrical engineer) presentation on DCARI (great YouTube channel for fire investigators by the way) – let's get his hits up there!
<https://www.youtube.com/watch?v=ZWc0Gf07MU8>

London Fire Brigade scooter - <https://www.youtube.com/watch?v=Ka2hMktqoCY>

UL testing of scooter in news story with rapid flash and explosion -
<https://www.youtube.com/watch?v=cC0t7foqr8k&t=29s>

“It scares the daylight out of me:’ Florida’s top firefighter fears more lithium-ion battery fires” -
<https://www.youtube.com/watch?v=CC0KyXkJPIA>

<https://www.youtube.com/@evfiresafe7330/videos> link to the EV Fire Safe videos on YouTube

Electric bus fire in downtown Paris – this is crazy. From other sources it sounds like the bus driver thankfully reacted to warnings and he evacuated the bus earlier to the bus behind this one in the video – There were over 100 of these very expensive buses that were pulled from service after this fire and one other (I believe from other sources) – I believe they are now back in service - <https://www.youtube.com/watch?v=uA7SoM2DWuM>

2 mechanics hurt after VTA bus fire (Proterra) – they dispute that it was the batteries but that is not what is important – fires will happen - <https://www.youtube.com/watch?v=VmK8NpstKi0>

Electric bus crash in Italy – media does not use word electric, but witnesses who rescued survivors were unable to get to survivors who were screaming due to the subsequent fire – any bus can catch fire and they do, but a LIB bus may pose some unique challenges
<https://www.youtube.com/watch?v=Id2CvnUVtBk>

Chinese parked buses catch fire – we showed this one in presentation – consider this if you have e-buses in a bus barn or parked next to one another – rapid spread but remember this video is sped up a bit https://www.youtube.com/watch?v=T71cVhxG_v4

CT transit bus fire news story – we showed this during presentation -
https://www.youtube.com/watch?v=_8YClwsWTyU

Bus fire in China that we showed – it's not funny but try to count how many people were on the bus! - <https://www.youtube.com/watch?v=wzwqLekgDSc>

Another bus barn fire that could have been much worse!
<https://www.youtube.com/watch?v=O8p4JUwb680>

Lithium battery fire in a backpack – a lot of backpacks now contain charging banks of questionable quality (see how cheap they are on Amazon) or people are getting on planes with charging banks - <https://www.youtube.com/watch?v=2cKVgaynEuA>

Battery storage system fire in Idaho recently – these are happening more frequently as the number of these systems greatly increase and more are in transportation -
https://www.youtube.com/watch?v=wmVCc_nKNu8

Battery fires in London and the UK – it's not just in NYC that is having many more of these -
<https://www.youtube.com/watch?v=9OvkNbbHGnQ>

Lithium battery fire in a hostel in Australia - https://www.youtube.com/watch?v=j15GowW5f_g

Hotel fire caused by charging battery - https://www.youtube.com/watch?v=Ho_e6cDyivQ

Great video showing how much gas these things can put out – Australia again, New South Wales Fire is estimating 1/3 fires they run on now are batteries – remember, these are ignitable vapors!
<https://www.youtube.com/watch?v=2AvBs3Cl8pg&t=36s>

Firefighter cancer report Canada – this is an excellent product -
<https://www.occupationalcancer.ca/wp-content/uploads/2024/01/FFCRPW-Report-Jan-2024.pdf>

How are EV batteries recycled - <https://blog.ucsusa.org/jessica-dunn/how-are-ev-batteries-actually-recycled/>

Concerns about e-mobility fires – very good <https://www.youtube.com/watch?v=G665T8eGAn8>

Toxicity of metallic nano-particles paper -
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9822575/>

Li-ion batteries cause scrapyard fire - <https://www.newshub.co.nz/home/new-zealand/2024/02/lithium-batteries-may-have-caused-large-t-huhu-scrap-yard-fire.html>

Carbon black and cancer - <https://www.ncbi.nlm.nih.gov/books/NBK326509/>

Metals generated during thermal failure -
<https://pubs.rsc.org/en/content/articlehtml/2023/ya/d2ya00279e>

ESS trends global 2023/2024 - <https://www.energytrend.com/research/20231218-41985.html>

Toxicity, Emissions and Structural Damage from Lithium-Ion Battery Thermal Runaway

<https://www.mdpi.com/2313-0105/9/6/308>

GC-MS was used to qualitatively detect and analyze the thermal runaway gaseous products of the battery. Dozens of toxic substances can be detected in thermal runaway products of LIBs with different cathode materials and SOC, among which six very toxic substances such as 2-propenal, methyl vinyl ketone, propanedinitrile, propanenitrile, 1,2-dimethyl-hydrazine and thiocyanic acid ethyl ester could be detected and analyzed. For NMC and LCO, high-SOC batteries had more types of products than low-SOC batteries. For LFP, most types of toxic products were detected in 30% SOC battery samples. At the same time, it was found that certain substances used as electrolyte solvents or additives may react with electrode materials or thermal runaway products during the thermal runaway process, **generating new products with higher toxicity**. Therefore, when choosing electrolyte solvents and various functional additives containing elements such as N, S, Cl, etc., more serious concern is needed.

*Academics are the best source we have right now to define the possible threats to health and safety, but as we saw in our EV battery burn and testing you can measure a lot of stuff but it does not tell you how much is present. However, we need to demand testing to quantify our exposures and the best source may be our PPE, bloodwork, and health. The statement that is bolded above is the biggest problem I see with these batteries.

Respiratory hazards of LIB's -

https://dial.uclouvain.be/pr/boreal/object/boreal%3A196570/datastream/PDF_01/view

Janus Electric converted 16 semi-trucks to electric with 2 fires -

<https://bigrigs.com.au/2023/12/18/why-electric-truck-caught-fire-on-the-west-gate-freeway/>

Nikolai Trucks in Phoenix – semi's – 209 built with 4 fires and now recalled

<https://electrek.co/2023/09/08/nikola-trucks-cant-stop-catching-fire-4th/>

Hummer fire on I-405 while we were at symposium – this is a very large battery for an EV (246kWh NMCA battery or about 4 average EV's)

<https://www.king5.com/video/news/local/hit-and-run-crash-causes-hummer-ev-to-reignite-three-times/281-45bcf6f3-6667-47b4-b8f7-a8bb0198d919>

Morris, IL (talked about in EPA presentation) accumulator mixed battery fire suspected to be between 100-200 tons abandoned in a warehouse. EPA cleanup still active I believe.

<https://www.nbcchicago.com/news/local/nearly-100-tons-of-lithium-batteries-involved-in-large-morris-industrial-fire/2543694/>

Battery recycling fire in France. Fires are not uncommon at these facilities that take in large amounts of unknown and possibly damaged batteries. 900 tons present allegedly

<https://www.reuters.com/world/europe/french-recycling-plant-fire-housing-900-tonnes-lithium-batteries-2024-02-18/>

Toronto e-bike fire on the subway – good points from the Chief about codes and regulations

<https://www.youtube.com/watch?v=J22mbd70DxU>

Another e-bike fire and explosion that will really get your attention!

<https://www.youtube.com/watch?v=vJ4ODDLhjvI>

Lithium battery fire in Harlem high-rise kills young man – rope rescue

<https://www.youtube.com/watch?v=s356Y0hX6P8>

The next asbestos or PFAS? <https://www.pbs.org/newshour/show/what-we-know-about-toxic-forever-chemicals-and-how-to-reduce-our-exposure>

Firefighters exposure to PFAS -

<https://www.frontiersin.org/articles/10.3389/fmats.2023.1143411/full>

This is not all inclusive, but I hope you take what you learn(ed) and pass it on to others and I apologize for sounding like Dr. Doom but we deserve better answers about these things and all of us (and our families) should be very careful until we get some.

*Again, all *opinions* are mine and not those of ATF but I sincerely hope you develop your own “informed” opinions and ideas based on credible science and not the prevailing narratives or “tradition”. This is new technology and it is going to take us a while to get our feet under us with it. We need to keep pushing for answers because this is important!

Feel free to reach out if you have any specific questions and if you come across something interesting, I always appreciate a note about it or a link! I will keep my phone number when I retire if the email does not work.

Stay safe and best wishes!

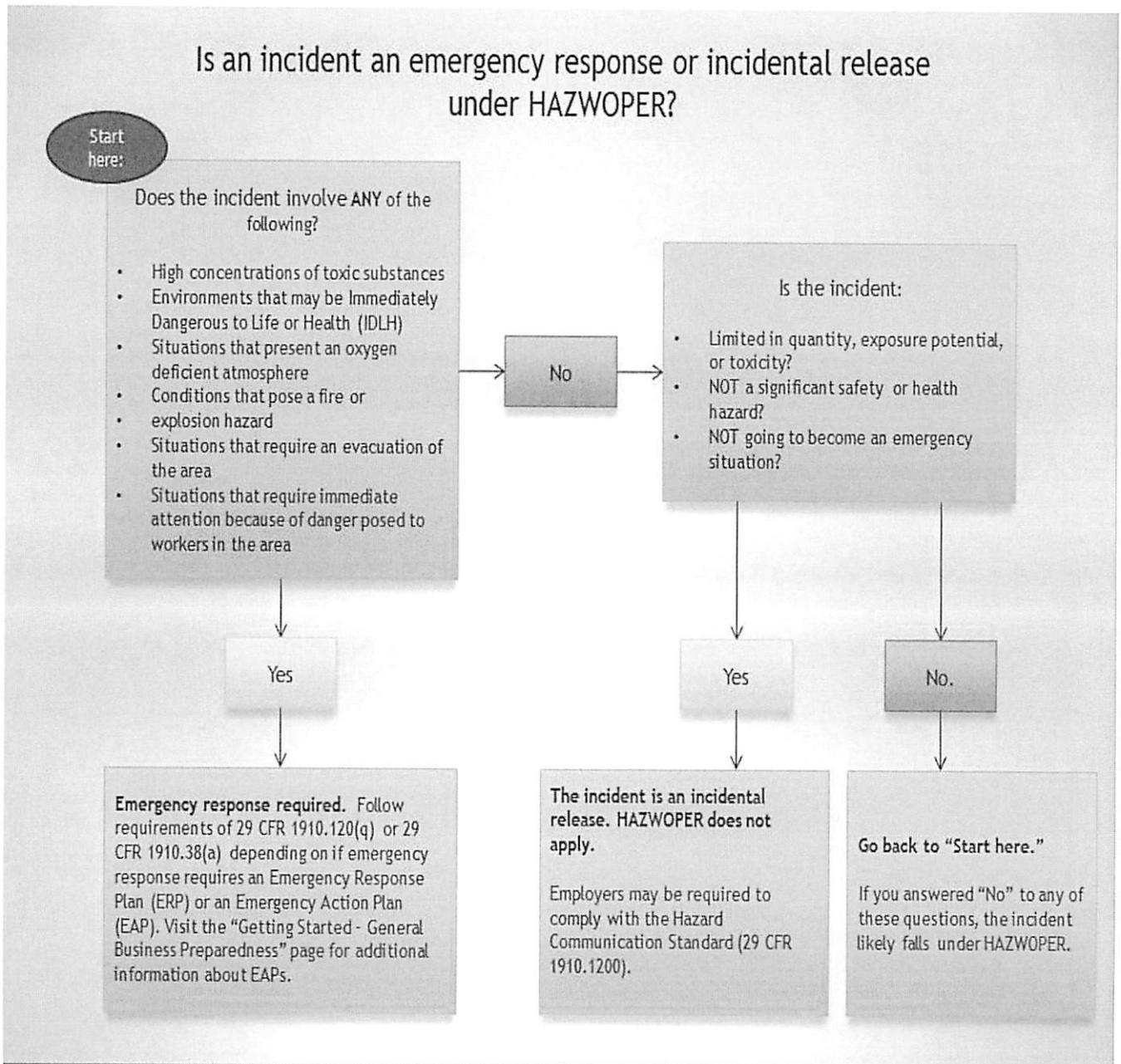
C. Todd Smith

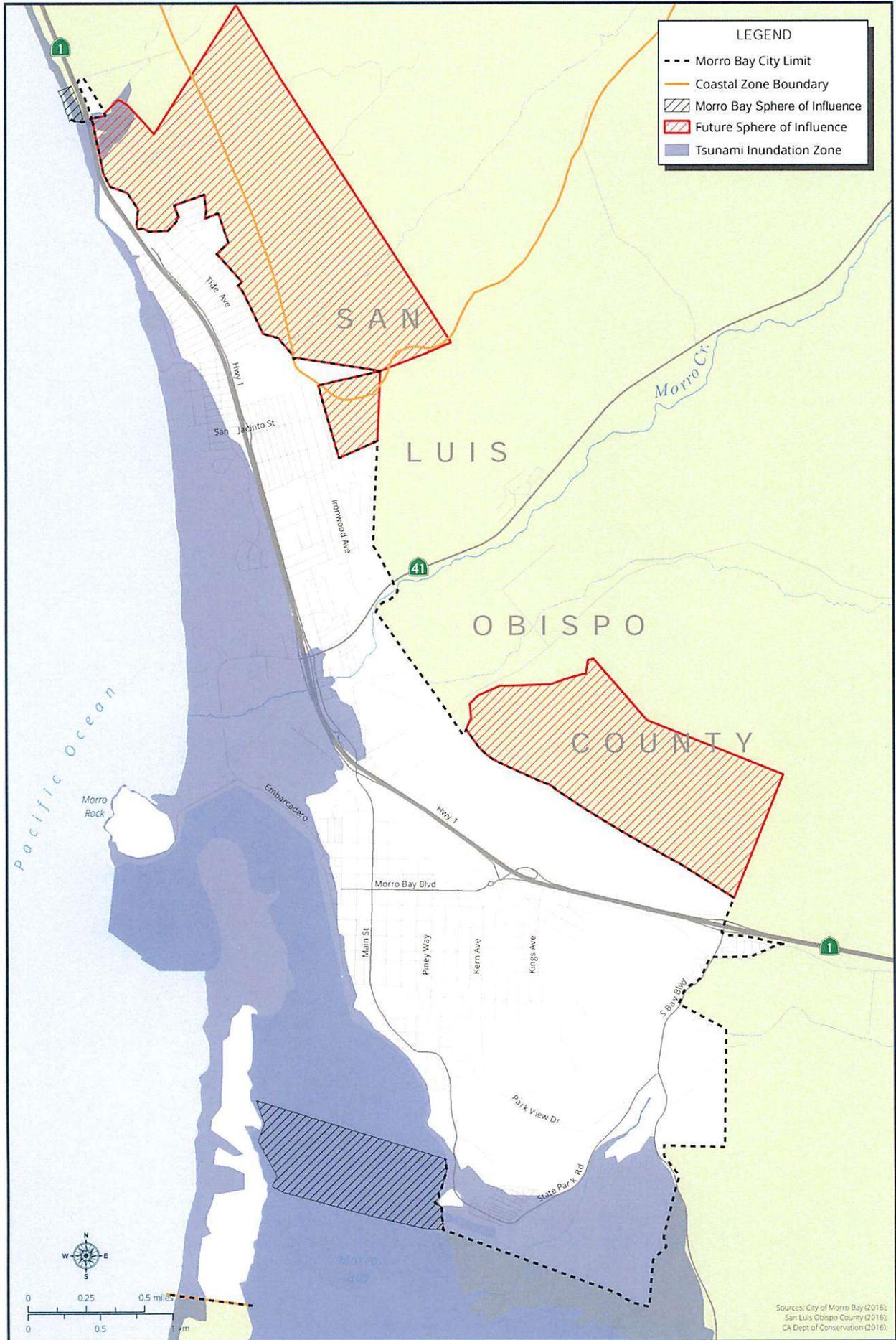
Christopher.smith@atf.gov

509-342-0652

“I would rather have questions that can't be answered than answers that can't be questioned.” —
Richard P. Feynman

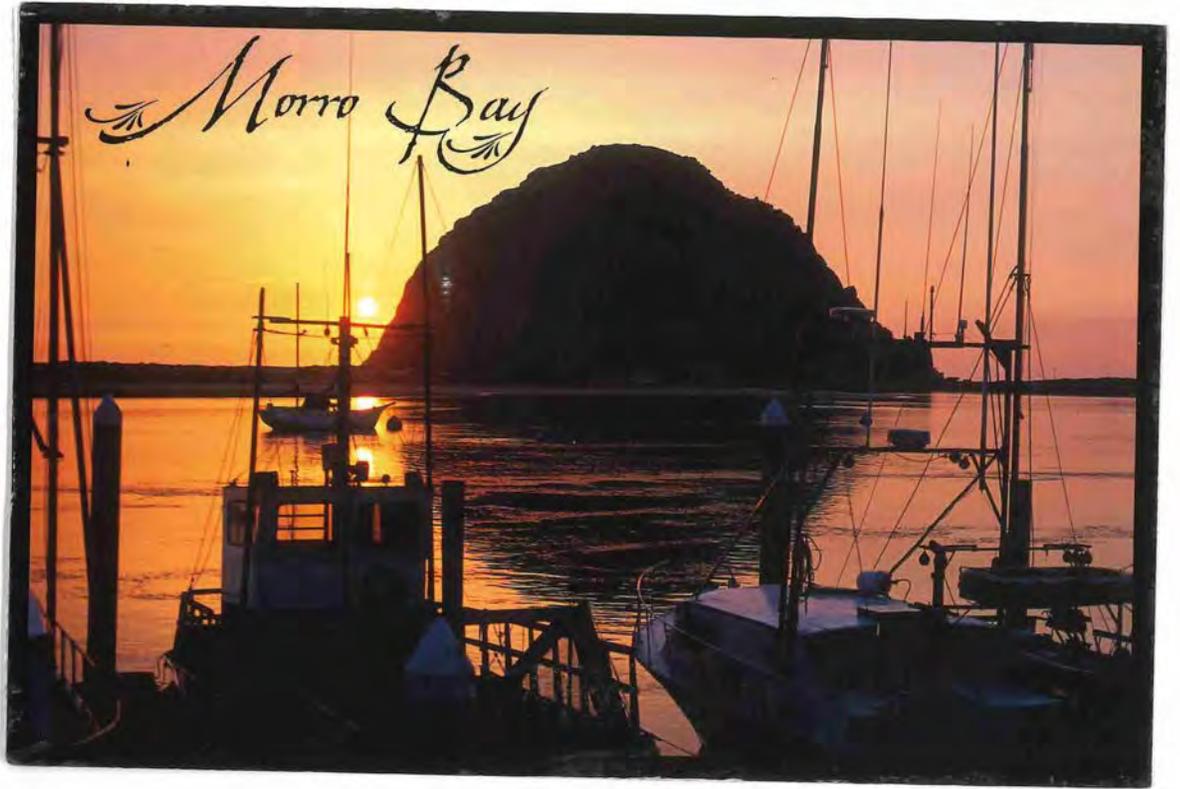
Where is your battery fire?





Sources: City of Morro Bay (2016);
San Luis Obispo County (2016);
CA Dept of Conservation (2016).

w:\GIS\Layout\MorroBay\Planning\Plan Morro Bay\Figures\Febuary 2020\Public Safety\PS-6 Tsunami Inundation Zone.mxd (3/3/2020)



Given, that the majority of the equipment, to demolish the P.G.&E. plant, will run on diesel fuel. Plus, trucks hauling off the debris, will run on diesel fuel. How many 1000's of trips? What is the plan for protecting, local air quality? Just wait, for the daily onshore flow, to blow diesel exhaust and debris dust, down the Highway 1 corridor; add on to San Luis Obispo's layer of smog? How much road damage will be done, by heavy trucks coming/going? Who will pay for this damage? Will this be another group of drivers in Morro Bay, that believe stop sign laws, do not apply to them. The above, will be followed, by the same equipment and trucks paving over the site. Because humans, have to make a buck off the site. Instead of letting it go back to sand dunes. Does Morro Bay Fire Dept., have the equipment and training to fight a lithium/sodium battery fire? Sincerely Sylvia Stevensen

SANTA CLARITA CA 913
16 MAY 2024 PM 2 L



Morro Bay City Council
595 Harbor Street
Morro Bay
California

93442 RECEIVED
City of Morro Bay

MAY 22 2024

Administration

93442-18099

BESS comments

Bob Mastro <[REDACTED]>

Wed 5/22/2024 3:46 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: council@morrobay.gov <council@morrobay.gov>; sara.macgregor@coastal.ca.gov <sara.macgregor@coastal.ca.gov>;

Planning Commission <planningcommission@morrobayca.gov>

 1 attachments (25 KB)

Bess Letter to City.odt;

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Dear Kim Fowler, please see attached letter.

Thank you,

Bob Mastro

[REDACTED]

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: Public comment for Draft EIR, Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are residents of Morro Bay and think that the draft EIR is inadequate and insufficient in identifying the potential impacts to our community and the environment. **Impacts to this community will be significant!** Therefore we are opposed to the BESS project proposed for Morro Bay.

At the end of the day these reports are just the best guesses and opinions from so called experts, but in reality anything can happen. There are ways to minimize the risk though and it starts with selecting the most appropriate site. You have heard most of the reasons and arguments for and against this project so I'm not going to repeat them in a detailed letter. What I do want to express and echo are the common sense reasons we and our fellow residents and neighbors are opposed to having the BESS in our backyard and home town. We understand that battery storage is an important part of renewable energy, and in the proper location would become an important part of the grid infrastructure, but **this is not a safe location!**

Just because Vistra owns the property is not reason enough to put our citizens in a potentially harms way situation. Just because there is easy access to the grid is not enough reason to construct a massive battery storage facility next to the pacific ocean when we're in a historic time of climate change. There are just not enough reasons to construct a fairly new highly volatile technology facility in a thriving populated coastal community. Why would the city even consider the chaos and risks involved to change our wonderful town from a charming historic fishing village and tourist destination to another industrial city? Morro Bay is doing just fine and doesn't need this facility here. It's hard to understand why we had to spend millions of dollars to move the sewer to a location farther from the coastline, but considering allowing a billion dollar facility to be constructed in the same tsunami zone? Something doesn't add up.

There are plenty of other lower risk locations that would be better suited for a BESS. We ask you not to certify the Environmental Impact Report (EIR), and to deny the project. We hope you will consider and respect the wishes and concerns of the majority of our citizens who live here.

Additionally I ask you to evaluate the Otay Mesa battery facility now on fire in San Diego.

Thank you,
Bob & Betsy Mastro
582 Zanzibar St.
Morro Bay, Ca. 93442 bobmastro2@gmail.com

Public comments to Draft EIR for Proposed BESS project in Morro Bay

Leslie Wyss <[REDACTED]>

Wed 5/22/2024 4:16 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>; sarah.MacGregor@coastal.ca.gov <sarah.MacGregor@coastal.ca.gov>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: Public comments to Draft EIR for Proposed BESS project in Morro Bay

Dear Ms. Fowler,

I am very happy to be a resident of Morro Bay. I am a native Californian, born on the Central Coast. My husband and I moved to San Luis Obispo County in 2000. It was our dream to move to Morro Bay one day and we were able to buy a home and move two years ago. Our experience living here has far exceeded our expectations. I treasure and care for this community. My comments on the Draft EIR follow. This DEIR does not adequately address the problems that will result from the construction and operation of a BESS in the old power plant location. I am in opposition to the project and ask that you do not certify this Draft EIR.

The developer has not selected the design of the facility.

My first and foremost concern is that the developer has not finalized the design. The Proposed Project as detailed in the Draft EIR is for batteries stored in three buildings. An alternative is referred to in Section 5.2.5 "Enclosure-Based BESS Facility". This alternative termed Alternative 5, is a fundamentally different design from the proposed project.

The document "Offsite Consequence Analysis", section 1.2, page 34, states there are two principal layouts for the proposed BESS and that the "specific design of the facility has not yet been selected". How can a project be adequately evaluated when the design has not yet been selected? If the applicant wants to change the proposed project they must withdraw the current application and submit a new EIR for the revised design. CEQA guidelines state that there is only one project per EIR. Consequently, this draft must be recirculated and resubmitted to include all of the potential impacts to humans, wildlife and the environment resulting from the project as described in Alternative 5.

Offsite Consequences Analysis (OCA)

Items from the OCA are significant and should be covered in the draft EIR, Specifically as it refers to consequences of fire and the potential spread of toxic emissions. Why is the applicant allowed to address these issues independently in this OCA? These issues must be covered in the DEIR where they are subject to CEQA guidelines.

Fire Hazard & Emergency Evacuation Issues

The news this week of the BESS fire in Otay Mesa, CA should be evidence enough that a BESS in an urban area represents significant danger to the local environment and our citizens. This fire is being described as a classic "thermal runaway" and is still burning today, the sixth day since the outbreak. The draft EIR does not adequately address the impacts from a fire of this length or severity. The September 2022 fire at the Vistra Moss Landing Facility is another example of potential fire danger from a BESS. Information on the danger of fire and resulting toxic emissions are widespread and well known. Our community should not be exposed to these risks. The DEIR does not address enhanced fire danger due to salt water exposure, and the fact that the project is located in a flood and tsunami zone.

Fire protection and emergency response are not adequately addressed in the DEIR. According to the document, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. As stated in CEQA, mitigation analysis must be included in the DEIR, not deferred to a later date. In order to evaluate the requirements the BESS presents to the City of Morro Bay, we need to know the cost. The burden of supplying an enhanced level of emergency services should not be the responsibility of Morro Bay citizens alone.

As a resident of North Morro Bay, we are well aware of the access issues during flooding. Our access to emergency services was cut off while Highway 1 was closed during the winter of 2023. The access to the BESS site is a dead end road. Emergency evacuation is already challenging in this area. The DEIR says mitigation is not necessary because the impact of this project is less than significant. The potential hazards and negative impact of this project in a tourist area, a flood zone, and in a USGS

Tsunami zone can't be overstated. Simply put, the old power plant site is the wrong location for a battery storage. This is exactly why the City wisely relocated the Morro Bay WasteWater Treatment from this area. No mitigation can correct these realities.

A BESS Facility is Not Coastal Dependent

The California Coastal Act goals (300001.5 d & b) for the coastal zone include:

Assure priority for coastal-dependent and coastal-related development over other development on the coast. Assure orderly, balanced utilization and conservation of the coastal zone resources taking into account the social and economic needs of the people of the state.

Battery storage does not need to be located on the coast. Especially in close proximity to an "Environmentally Sensitive Habitat Area".

A BESS would be better situated in proximity to a large solar power facility which also has up to date connection to the power grid. This BESS is projected to power 450,000 homes. It does not need to be situated in Morro Bay with only 6,000 homes. Stored power is needed in larger urban centers. Morro Bay will bear too large of the burden of risk presented by this facility.

Morro Bay should not certify this DEIR. The California Coastal Commission will likely require a different location for this type of project. The California Coastal Act will demand it, based on Section 30253, "Minimization of Adverse Impacts". The City of Morro Bay should rely on the judgment of the Coastal Commission and defer approval until the Commission has reviewed it. We can make better use of this prime oceanfront land.

Respectfully submitted,
Leslie Wyss
Resident, Morro Bay

CC: Morro Bay City Council Members
Attn: Mayor and City Council
595 Harbor St., Morro Bay CA 93442
council@morrobayca.gov

Morro Bay Planning Commission, Attn: Chairman and Commissioners
955 Shasta Avenue, Morro Bay, CA 93442
planningcommission@morrobayca.gov

Sarah MacGregor, CA Coastal Commission, Coastal Planner
725 Front St., Suite #300, Santa Cruz 95060
sarah.MacGregor@coastal.ca.gov

BESS Comments

Bill and Joyce Cockrill <[REDACTED]>

Wed 5/22/2024 7:07 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Bill Cockrill <bjcockrill@att.net>

[You don't often get email from [REDACTED]. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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May 22, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

Dear Ms. Fowler,

We are 20 year residents of Morro Bay and 55 year residents in the County of San Luis Obispo. We are deeply opposed to the Bess project that is proposed for Morro Bay for the following reasons:

1. General Location of the proposed BESS Facilities in the Heart of Our Community:

After years of work, the City's General Plan has rezoned the old PG&E Plant from an industrial zone to one of commerce and fishing. Why would we as a community want to return to industrializing the heart of our town, once again, by rezoning it back for the proposed BESS Facilities. The proposed BESS Facilities are located right at the base of Morro Rock, our iconic namesake and sacred site for our local first peoples, the Chumash. The 30 foot tall proposed buildings and 30 foot tall proposed berm surrounding the Facility will certainly detract from the view of The Rock and our community which is built upon a hill. This proposed Facility is right on our waterfront in the Maritime Zone. In 2024 why would we return to a 1955's mentality (when the PG&E Plant was originally built) by placing a Battery Storage (BESS) in the heart of our City? Certainly we have learned more about the health and safety of our peoples and our environment in last 69 years than return to an era when this was not a consideration. 1955 - think of DDT, think of above ground nuclear Bomb testing... Haven't we learned enough from those experiments gone bad? We're proposing placing this Facility right on the ocean and in the middle of our town.

2. Safety Concerns and Mitigated Risk with the Location of the proposed BESS Facilities:

Although testing and research results in the EIR state that the Risk Factors for the proposed BESS Facilities are inside safety limits for fire, Tsunami, and noxious gas emissions, and therefore safe to build in the heart of our community and on the ocean, these test results are based upon algorithms for mitigated risk. This means that accidents can happen but the Risk level is inside what is deemed acceptable. The problem is that algorithms cannot guarantee that an accident won't happen. Nature doesn't abide by man's rules. We cannot tame and rule nature because we deem a mitigated probability

safe. Earthquakes and Tsunamis happen around the globe regularly; the San Andres Fault is geologically in our backyard. Example: Fukushima Nuclear power plant was built earthquake and Tsunami proof until it wasn't in March 2011. Have we learned nothing? And what about the predicted sea level rise we hear about daily in the news, how can this ocean location even be a consideration?

We are concerned if a Tsunami were to breach the 30 foot berm that surrounds the proposed BESS Facilities it would become a large swimming pool drowning the battery storage in salt water. This event would be catastrophic. Imagine our community dealing with a natural disaster along with the effects of the proposed BESS Facilities. Where would emergency services be directed first?

We are concerned that Morro Bay High School is in immediate proximity to the proposed BESS Facilities.

We are concerned that even with the proposed additional support given our local fire and police departments by VISTRA, that the proposed BESS Facilities will place a heavy burden on services since all security and fire suppression is the responsibility of our local departments. A BESS Facility of 600 megawatts has never been built inside the heart of a city. Do WE want to be the experiment? This proposed facility will be the largest in the world and a potential terrorist threat. Who and exactly how will it be kept safe for us and the environment? Will the access to Morro Rock eventually be covered with razor wire and no public access as is the PG&E Nuclear Power Plant Gate located in Avila Beach?.

We are concerned that, in the event of a BESS mishap, the SAFE evacuation from Morro Bay will be impeded by the small surface roads and resulting traffic jams.

We are concerned that the 1.3 million dollars in revenue that the City receives yearly, and over time, is minor compared to the long term negative effects of this proposed BESS Facility on our public health, environmental health, and our public image as a small coastal town and fishing village.

In conclusion, We are concerned that we are putting ourselves and the natural environment at extreme risk if we allow the proposed BESS Facilities to be built in the current proposed location right next to the ocean and in the middle of our town. This kind of Mitigated Risk is not something that we want to live with. The BESS Facilities need to be located along the power grid in a different location where the mitigated risk to fragile marine life and a large human population is not a factor. Surely there must be other places for the location of the BESS Facilities that are more safe. The power hub that is located here at the old PG&E Plant is still available to send the excess power along the grid to a new and more safe location for battery storage.

Please do not approve the proposed BESS Facilities.

Your consideration of our concerns is appreciated.

Sincerely,

Joyce Hunter

Bill Cockrill

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners: Sara MacGregor, Coastal Planner, California Coastal Commission

more on BESS proje

Alex Beattie <[REDACTED]>

Thu 5/23/2024 10:31 AM

To: Planning Commission <planningcommission@morrobayca.gov>

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Greetings again,

In my previous letter I failed to mention an additional omission in the EIR for the BESS project. While not as significant as ignoring the possibility of remediation of the site, the applicant failed to note where its source of energy was coming from. Not much renewable energy, my guess is that it comes from their plant at Moss Landing or Diablo Canyon. It makes a difference to me and perhaps others. I asked them by email but no response. I think they should be required to do.

Thanks,

Alex Beattie

MAY 23 2024

Comments Regarding the Draft EIR for a Proposed Battery Storage PlantAlternative LocationsCity of Morro Bay
Community Development Dept.

Vistra Energy's proposal to build the world's largest battery storage plant in the middle of Morro Bay is a bad idea.

A battery plant is not coastal-dependent therefore it does not need to be located on the Morro Bay Estuary, just a few hundred feet from the Native American sacred site of Morro Rock. And for safety reasons, such a huge battery plant should not be built in the middle of densely populated areas. It would be extremely difficult to evacuate students, tourists, and residents if/when an accident occurs at a plant situated in such close proximity to the high school, to motels and restaurants, and to the center of town. This would be especially difficult during winter storms when many roads are often flooded and closed due to mudslides.

A preferred location for a battery plant would be away from a Native American sacred site, away from schools, away from motels and restaurants, and away from a town center. In any well-planned business venture, alternatives are identified. We request that Vistra embrace truth and transparency to both the public and to the governing agencies.

Please inform us as to where Vistra's alternative battery plant locations are other than in Morro Bay.

Noise Pollution

In the report, noise levels were measured one day at two locations. Hourly average decibel levels were discussed and compared to standards suggested in the General Plan. But average decibel levels are not the only aspect of noise that is of concern. Just because loud noise is not sustained at a certain hourly average decibel level, it does not follow that construction noise would not be heard throughout town and would not be disruptive to Morro Bay for years.

Sound travels quite a distance across the bay and across the town. The sound of waves, sea lions, and buoys at sea can be heard miles from their source. Construction noise would significantly interfere with hearing these peaceful coastal sounds and it would rob residents and visitors of the ability to enjoy the area. It would indeed create a significant, negative impact.

The jarring sound of pile drivers and jack hammers, and the nails-on-the-blackboard sound of metal saws and drills may be heard throughout town and throughout the Estuary. Even at a distance, these sounds would not be described as pleasing, but would more likely be described as disturbing, annoying, irritating, extremely bothersome, nerve-wracking, torture to the ears, jarring, vexing, irksome, grating, painful, or even pestiferous if it were a Monty Python sketch.

For illustrative purposes, if a new neighbor moves in to your neighborhood and they have a loud motorcycle which they start up and idle for a few minutes each hour of the day, five days a week, 52 weeks a year for 5 years, the noise may not significantly increase the hourly average decibel level, but it certainly would negatively impact the enjoyment of your neighborhood and may very well motivate you to start perusing the listings on Zillow.

The kelp bed where sea otters live, the Rock and surrounding areas are noise-sensitive sea and land use areas. The noise produced by pile driving and jack hammering should be considered events of significant acoustical impact and surely would negatively affect these environmentally sensitive areas.

So the question is not only how loud the noise is, but what type of noise it is, where and how far away it is heard, and for how many weeks, months or years it is to be endured.

How would the noise from construction of the largest battery plant in the world affect Morro Bay's tourism industry? Would the years of pestiferous noise induce visitors to avoid Morro Bay for their next vacation and instead choose a motel or Air B&B in Avila, Pismo, or Cambria?

Light Pollution

Light pollution is a growing concern throughout the world. The negative impact of light pollution on bird migration has been studied extensively. The Audubon Society considers Morro Bay an important bird area and it is an internationally recognized migratory bird destination along the Pacific Flyway. Each year the city hosts one of the most successful Winter Bird Festivals in the country. Morro Bay is a federally recognized National Estuary. It is an ecotourism destination where visitors travel from around the world to enjoy the area's natural beauty.

How much light would be generated both during construction and operation of a plant?

What hours would light be emitted during construction and operation?

How would this additional light affect the migratory bird population?

How would this additional light affect the local bird population?

Specifically, how would this additional light affect roosting and nesting herons and egrets in the nearby eucalyptus grove and how would it affect the once endangered peregrine falcons nesting on Morro Rock?

Also, how would this additional light affect other wildlife in the area?

Increased levels of light not only affect migrating birds but light pollution has also been shown to negatively affect other wildlife and even humans. Highway 1 is designated a State Scenic Highway and would be affected by additional light pollution. The neighborhoods in the hills surrounding Morro Bay are light sensitive areas as they are

more profoundly affected by light emitted from lower elevations. Light from a huge battery plant would be in their direct line of sight.

How far away would light emitted from a plant be visible?

Would the light affect the Hillcrest/Radcliffe Avenue area? Would it affect the Nutmeg/Maple/ Laurel Avenue area? How much would it affect State Scenic Highway 1 travelling south from Cambria, Hearst Castle, and Cayucos?

Watching the sunset is a popular activity for both residents and tourists.

How would plant lighting interfere with viewing of the sunset in any of the above locations or at the Rock, or at the restaurants and motels on the Embarcadero?

Would glare from the expansive buildings affect Morro Bay's popular hiking destination of Black Hill?

Would glare affect the Hillcrest/Radcliffe Avenue area or the Nutmeg/Maple/Laurel Avenue area?

Visual Aesthetics

Only a few visual simulations of a battery plant were presented in the report while most were from locations at ground level or slightly above. The view of Morro Bay from Black Hill could be affected by a sprawling battery plant. Also, the view from many neighborhoods on the hills surrounding the site could be affected by such an expansive industrial plant.

Please show visual simulations of what the site would look like from Black Hill, from Hillcrest Drive in the Radcliffe neighborhood, from Nutmeg / Laurel Avenues, and from Panorama Drive in North Morro Bay. Important: Please include visual simulations of a battery storage site both with and without the smoke stacks.

Emergency Response Times

Main Street at Quintana and the on and off ramps at Main Street and Highway 1 are vital intersections connecting North Morro Bay and South Morro Bay. The ambulance station is located to the north of this area and the fire station is located to the south.

Please assess the impact on emergency crews of truck traffic in the Main Street/Highway1/Quintana area during the 4-5 years of construction.

How much would slow moving trucks both on Main Street and on Highway 1 affect response times to fires and medical emergencies?

How much would the construction traffic affect travel times when transporting patients to hospitals in San Luis Obispo?

Increased Traffic Accidents

It is difficult for heavy trucks to adequately accelerate up the steep onramp from Main Street onto southbound Highway 1.

How many traffic accidents will be caused by the slow moving heavy trucks trying to accelerate up the onramp and merge with fast moving highway traffic?

There will soon be construction of a roundabout at the intersection of Main Street and Highway 41 which will affect the Highway 1 on and off ramps.

How will slow moving trucks trying to merge from Main Street onto northbound Highway 1 affect the flow of traffic exiting onto Highway 41 and Atascadero Road?

Conclusion

Vistra Energy's proposal to build the world's largest battery storage plant in the middle of Morro Bay is a bad idea.

Pat Johnston
Morro Bay

RECEIVED

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California, 93442

MAY 23 2024

City of Morro Bay
Community Development Dept.

Re: Public comment to draft EIR for battery storage proposal
May 20,2024

Dear Ms. Fowler,

I am a resident of Morro Bay and I am vehemently opposed to the BESS project proposed for Morro Bay.

I purchased a home in the Morro Heights neighborhood over 20 years ago because of the beauty and natural landscapes that define this small coastal town. As a veterinarian, I am dedicated to protecting animals and the environment. Without maintaining a safe harbor for the sensitive wildlife (otters, sea lions, herons), local residents and the tourists that visit Morro Bay, the economy of this town and its' unique identity will be severely damaged.

The EIR for the BESS facility in Morro Bay failed to adequately inform MB residents of the impacts of this project on their town. Let's make it clear that the BESS plant is not a coastal-dependent industry. The location of this project, adjacent to the bay that sustains nature and the Morro Bay economy, is unsafe for both tourists and the native wildlife. How does a tourist area and flood zone make sense for battery storage?

The city must recirculate the EIR because it did not identify and address the thermal runaway battery fires as a potential impact nor did it address the risk of having the project site in a flood and tsunami zone. Saltwater exposure to lithium-ion batteries makes them combustible. If the BESS project is flooded, the potential for

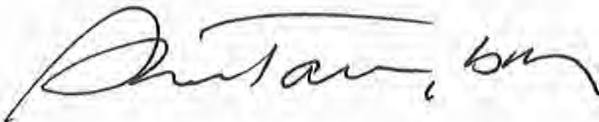
explosive fires creating plumes of smoke and toxic gases will be great. Endangered and sensitive species will be gravely affected and the way of life in Morro Bay as we know it will be over.

The city improperly deferred the fire safety analysis to a consultant, DNV Energy USA, inc. who was hired by the fire department. The analysis has not yet been performed and therefore the draft EIR needs to be rewritten and recirculated after ALL of the impact and mitigation analysis is done.

By the way, the city voted against building the new water reclamation plant along the coast because of the risk of flooding and it being in a tsunami zone. Makes one wonder.

Take care of the residents, protect the tourist economy and the native species that make Morro Bay a unique and beloved coastal town.

Sincerely,

A handwritten signature in black ink, appearing to read "Sharon Torrisi" with a stylized flourish at the end.

Sharon Torrisi, DVM
Morro Bay

CC:

The Morro Bay City Council and Mayor Wixom
The Morro Bay Planning Commission
Sarah MacGregor, Coastal Planner, California Coastal
Commission

RECEIVED

MAY 23 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, CA 93442

City of Morro Bay
Community Development Dept

email: BESScomments@morrobayca.gov

Re: Public comment to draft EIR for battery storage proposal
May 21, 2024

Dear Ms Fowler,

I am a resident of Morro Bay. I am opposed to the BESS project proposed for Morro Bay.

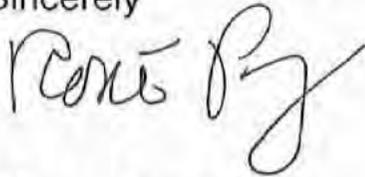
I ask that the draft EIR be rewritten and recirculated for another period of public comment, as it failed to adequately inform us of the impacts of the project.

-The BESS plant is not a coastal-dependent industry, is unsafe for people and wildlife, and is contrary to the Coastal Act priorities. The project location is a tourist area, in a flood zone and is the wrong location for battery storage.

—The draft EIR should be rewritten and recirculated after all of the impact and mitigation analysis is done, so the public can be properly informed and comment.

Thank you for your consideration.

Sincerely



Rone Prinz

[REDACTED]
Morro Bay, CA. 93442

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, CA 93442

email: BESScomments@morrobayca.gov

Re: Public comment to draft EIR for battery storage proposal

May 21, 2024

Dear Ms Fowler,

I am a resident of Morro Bay. I am opposed to the BESS project proposed for Morro Bay.

I ask that the draft EIR be rewritten and recirculated for another period of public comment, as it failed to adequately inform us of the impacts of the project.

—The BESS plant is not a coastal-dependent industry, is unsafe for people and wildlife, and is contrary to the Coastal Act priorities. The project location is a tourist area, in a flood zone and is the wrong location for battery storage.

—The draft EIR should be rewritten and recirculated after all of the impact and mitigation analysis is done, so the public can be properly informed and comment.

Thank you for your consideration.

Sincerely,



Brad Grew

[REDACTED]
Morro Bay, CA 93442

RECEIVED

MAY 23 2024

City of Morro Bay
Community Development Dept.

Opposition to Bess Project

Dana Hixson <[REDACTED]>

Thu 5/23/2024 3:57 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>; California Coastal Commission <Sarah.MacGregor@coastal.ca.gov>

 1 attachments (50 KB)

Copy of EIR Public Response Letter Template.pdf;

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Thank you for your consideration

Sent from my iPad

May 23, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

I am a longtime resident of Morro Bay and attended Morro Bay High school. I am highly opposed to and frankly frightened of the BESS project proposed for Morro Bay. My husband and I have felt extremely lucky to call Morro Bay our home and now our home and our lives are being threatened. Should this project move forward Morro Bay would also become a target for terrorism. It makes zero sense to place something so highly toxic and extremely dangerous in close proximity to its residents, schools and our beautiful bay with its endangered animals like the sea otters. The proposed site is also in a flood zone, With global warming this is a greater possibility. As witnessed in Moss Landing and now Otay Mesa, It is not "if" there will be a fire but when. Lithium-ion batteries easily overheat and can cause spontaneous combustion causing Thermal Runaway. This would release highly toxic, lethal gasses into our atmosphere and can burn and reignite for weeks. According to Vistra this would only be a danger for 24 hrs. This has continually been proven wrong.

The EIR that Vistra released is also highly suspect. They say they are still not sure of the configuration of the plant or exactly what kind of battery will be stored in this facility. Yet they assure us there will be no danger. How can they make that assurance? The noise and light pollution alone will be a constant irritant to the residents and inhabitants of Morro Bay.

To propose putting the largest battery storage facility in the world in the middle Morro Bay is preposterous. Morro Bay is a tourist destination. The city brings in roughly 100 million in annual revenue from tourist dollars. The projected benefit to Morro Bay does not pencil out. It also goes against the general plan for Morro Bay as established in 2014 when the zoning was changed to Visitor Serving/Commercial.

Please do not consider this location for the Bess Project. I believe in Renewable energy but this is not the right location. Our beautiful Morro Bay needs to be protected.

Sincerely

Dana Kim Hixson

To	 Person  Person  Person
Cc	

Sierra Club comment letter

Jim Miers <[REDACTED]>

Thu 5/23/2024 4:58 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 1 attachments (4 MB)

Sierra Club, Santa Lucia Chapter - Morro Bay BESS DEIR comments (3).docx;

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To: Cindy Jacinth, Planning Manager,
City of Morro Bay Community Development Department

Re: Comment on Vistra Corp.'s Proposed Morro Bay Battery Energy Storage System
Project Draft Environmental Impact Report

Hello Cindy,

Attached is the comment letter from the Sierra Club Santa Lucia Chapter.

If you have any questions, please feel free to email or call.

Thanks for the excellent work your department did on this.

Best

Jim Miers
Chair, Climate and Clean Energy Committee
Santa Lucia Chapter, Sierra Club
[REDACTED]



SIERRA CLUB

SANTA LUCIA

To: Cindy Jacinth, Planning Manager,
City of Morro Bay Community Development Department

Emailed to: besscomments@morrobayca.gov

Re: Comment on Vistra Corp.'s Proposed Morro Bay Battery Energy Storage System
Project Draft Environmental Impact Report

Date: May 20, 2024

Dear Ms. Jacinth:

On behalf of the Santa Lucia Chapter of the Sierra Club, we offer the comments below on the Morro Bay Battery Energy Storage System (BESS) Draft Environmental Impact Report (DEIR). Thanks to your Department and Rincon Consultants for the thoroughness and hard work that went into the Report.

I. Legal Requirements to Consider Environmental Benefits

The DEIR does not properly describe the benefits of the BESS project, particularly the avoided greenhouse gas and criteria pollutants by displacing power generation from gas plants across the state.

State law requires environmental benefits to be considered in a CEQA-mandated Environmental Impact Report including: effects of the project on local and regional energy supplies and on requirements for additional capacity; effects of the project on peak and base period demands for electricity and other forms of energy; and effects of the project on energy resources.¹ State law also requires that a lead agency determine a project's greenhouse gas emissions and "*should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change.*"² A lead agency is also required to consider the following factors:

- (1) *The extent to which the project may increase **or reduce** greenhouse gas emissions as compared to the existing environmental setting;*
- (3) *The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or*

¹ See Public Resources Code section 21100(b)(3), and Appendix F of the California Code of Regulations Title 14.

² Cal. Code Regs. Tit. 14, § 15064.4(b)

mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). . . . In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies

The DEIR failed to meet these requirements because it did not analyze the avoided greenhouse gas emissions that the project would likely produce. Section 5.3.2 of the DEIR for the Morro Bay Battery Energy Storage System (BESS) project states that the No Project alternative is the environmentally superior alternative "because no change to existing conditions would occur." However, the No Project Alternative does not include the projected greenhouse gas and criteria pollutant emissions that would likely occur without the proposed project. Section 5.2.1.2 of the DEIR states: "Although the No Project Alternative would reduce or eliminate the adverse environmental impacts of the proposed project, this alternative would not achieve any of the Project Objectives described in Section 2.7, Project Objectives" including:

1. Reduce the amount of fossil fuels consumed during peak hours and maximize usage of energy from renewable sources such as wind and solar facilities that may not be able to produce energy during times of peak demand.
2. Assist California utilities in meeting their obligations under the CPUC's Energy Storage Framework and Design Program, which includes the procurement of locally sited energy storage systems.
3. Realize economies of scale inherent in constructing a large-scale storage facility on contiguous lands in the immediate vicinity of a high-voltage interconnection to the California Independent System Operator (CAISO) controlled grid.
4. Site the BESS Facility to minimize environmental and social impacts by being located on land that has historically been used for power generation. The BESS Facility will take advantage of existing infrastructure and not create impacts to undisturbed areas of the City of Morro Bay.

Since the Project Objectives involve environmental benefits, those benefits must be balanced against the potential adverse environmental impacts of the proposed Project. In particular, the DEIR needs to include the extent of avoided greenhouse gas emissions that the project would likely produce.

BESS plants reduce greenhouse gas emissions by replacing or pre-empting gas peaker plants that would otherwise be the primary means of supplying peak electricity demands. This is an environmental benefit of the Morro Bay BESS that offsets potential adverse environmental impacts of the proposed Project. We urge the City of Morro Bay Community Development Department to work with sister agencies, such as the California Public Utilities Commission and the California Energy Commission to approximate the avoided gas plant dispatch and associated emissions that the BESS is likely to avoid. This is a critical part of the Department's responsibility under CEQA to balance the potential impacts of the proposed project against the No Project Alternative.

II. Federal and State Targets Require that California Reduce Greenhouse Gas Emissions

The DEIR does not properly describe the BESS project's potential benefits of advancing state and federal climate targets.

The federal and California governments have taken some steps to address the climate crisis, and many parties recognize the potential of BESS plants to displace carbon emitting sources. There are currently 23 states (including California) that have 100% clean energy goals in place. Energy storage can play a significant role in achieving these goals by serving as a "non-wires alternative" that can provide added reliability and grid services and reduce the use of and retire gas power plants. California was the first state to adopt an energy storage procurement target and initially mandated that the state's investor-owned utilities procure 1,325 MW of energy storage by 2020,³ before adding 500 MW of distributed storage to the goal for a total of 1,825 MW by 2020.⁴ In addition, California separately has multiple climate laws that are described in detail in the 21 pages of the DEIR devoted to Greenhouse gas emissions.⁵

The climate crisis has battered California in recent years with wildfires, heat waves, drought, flooding, and storm surges, with no sign of abatement. Record levels of carbon dioxide in the atmosphere have been broken time and again in recent months, and California ranks in the top five states suffering the greatest economic effects from climate-related natural disasters. The crisis requires urgent action by every level of society, including the federal, state, and local governments.

III. Environmental Benefits of BESS Facility

The Department must fully determine the full environmental impacts of the proposed project, including all of the associated environmental benefits. As more renewable energy technology is brought online, it becomes easier to reduce the use of and retire gas power plants that contaminate California's air and water while also contributing heavily to poor public health, climate change, and extreme weather. BESS facilities would benefit communities across California who are impacted by the air and water pollution from fossil fuel power plants. The U.S. energy grid has disproportionately harmed people of color and low-income neighborhoods with the negative health impacts that come from living near gas power plants. Nearly 75 percent of California's gas plants are sited in or near disadvantaged communities.⁶

³ AB 2514 (2013)

⁴ AB 2868 (2016).

⁵ DEIR Section 4.6.

⁶ Brightline Def., *Cal. Offshore Wind: Winding Up for Econ. Growth & Env't Equity* at 13 (Dec. 2020), available at <https://static1.squarespace.com/static/62a3cf9943d092298cc7dec6/t/637c124e877a1774bd66c8dc/1669075544016/Brightline-OffshoreWind-Report-12-6-2020.pdf>.

Accordingly, Sierra Club urges the Morro Bay staff to incorporate the positive impacts of BESS Facility development into the FEIR including:

- Advancing state carbon and renewable energy goals and reducing greenhouse gas emissions;
- Providing air quality and cost benefits with particular benefits to frontline communities;
- Producing quantifiable benefits of avoiding climate change impacts through use of and potential retirement of gas power plants, as well as the associated reductions in greenhouse gas and criteria pollutant emissions.

Both California and President Biden have ambitious and urgent goals to utilize renewable energy to address these harms, and Sierra Club supports these efforts. We recommend estimating costs and physical impacts of emissions from gas plants that will be avoided by bringing the BESS Facility online and balancing these quantifiable benefits against the potential adverse environmental impacts of the proposed Project.

California has faced unsafe levels of air pollution for decades, with most of the state's counties in nonattainment status ranging from marginal to extreme—the most dangerous category analyzed by the EPA.⁷ Communities in and near greater Los Angeles and the Central Valley face some of the most excessive air pollution in the country. Ventura County is in serious nonattainment for ozone levels. Los Angeles County communities face severe to extreme nonattainment status for ozone. Kern and San Bernardino Counties both face serious nonattainment status for particulate matter and severe to extreme levels of ozone. Even coastal communities on the Central Coast face unhealthy levels of air pollution. For example, San Luis Obispo County is currently in marginal nonattainment status for ozone. Dangerous air pollution is a widespread health crisis in California, and no community is immune.

Global climate disruption is accelerating due to the rapid buildup of greenhouse warming gasses in the atmosphere. [A May 2024 survey](#) of hundreds of the world's leading climate scientists revealed they expect global temperatures to rise to at least 2.5C (4.5F) this century, "blasting past internationally agreed targets and causing catastrophic consequences for humanity and the planet." Already climate change is causing ever greater damage to our biosphere and shrinking the human sustainability niche. Multiple organizations (including NOAA) confirm [2023 as the warmest year on record with temperature increases around 1.45°C to 1.54°C](#) compared to pre-industrial levels. This important global warming threshold arrived **7-39 years ahead of 2018 IPCC estimates**, which predicted this milestone would be reached in 2040. Alarming, this significantly moves up the timelines for major tipping points such as ice sheet collapse, coral reef and other marine wildlife die-offs, permafrost thaw, rainforest diebacks, desertification of farmlands, and disruption of ocean and atmospheric currents that play crucial roles in regulating global climate and marine ecosystems. Climate change is a global crisis, and action is urgently needed to address it.

⁷ U.S. Env't Prot. Agency, Green Book, *Current Nonattainment Counties for All Criteria Pollutants*, available at <https://www3.epa.gov/airquality/greenbook/ancl.html> (last visited Feb. 20, 2024).

Climate change is having a profound and far-reaching impact on our planet. Here is a breakdown of some major categories of impacts across various spheres:

- Extreme weather events: Heatwaves, droughts, floods, wildfires, and storms are becoming more frequent and intense, impacting people, infrastructure, and ecosystems.
- Biological losses: Climate change is driving species extinction and disrupting ecosystems, impacting food webs, natural carbon sequestration, the spread of pests and diseases, agriculture, forests, and human health
- Economic losses: Climate change damages infrastructure, disrupts industries (agriculture, tourism), and increases insurance costs, leading to significant economic losses.
- Food and water security: Changes in precipitation patterns, heat stress, and pests threaten agricultural productivity, impacting food and water security and nutrition, particularly in vulnerable communities.
- Mass displacement: Extreme weather events and sea level rise displace people from their homes and communities, leading to humanitarian crises and social unrest.
- Marine heatwaves and ocean acidification: More frequent and intense marine heatwaves are causing mass coral bleaching and impacting fisheries, shellfish, and plankton production. They even contribute to creating oxygen-deprived [ocean dead zones](#) where many species of marine life cannot survive.

Sierra Club urges the Department to incorporate into the FEIR both the quantifiable and qualitative impacts that the BESS Facility is reasonably likely to produce. Clean energy projects generate conservation benefits that far outweigh localized environmental impacts by avoiding the pollution and climate change impacts of emissions of fossil fuel power plants. Using advanced climate impact assessment models (IAMs), it is now possible to project future climate impacts per ton of carbon emitted. In evaluating a clean energy project, the avoidance of such future impacts are benefits that are required by law to be weighed against potential negative local impacts of the project.

IV. The Greenhouse Gas Emissions Avoided by the BESS Facility Will Have Quantifiable Benefits

The beneficial impacts of reducing carbon emissions go beyond meeting climate targets and complying with state law. Clean energy projects like BESS facilities produce benefits through their basic operation because they reduce the need for carbon emitting energy resources and the resulting profusion of environmental impacts. This project is critical for meeting California's clean energy transition goals, and understanding its benefits is a critical part of the evaluation process.

Sophisticated climate impact assessment models are now available to project the dollar-denominated value of projected social, economic, and physical costs of carbon emissions. The U.S. Environmental Protection Agency recently raised their Social Cost of Carbon figure from \$50 to \$200, which substantially increases the environmental impact assessment of fossil fuel projects. It can also be used to increase the environmental benefit assessment of

the carbon avoidance from clean energy projects. Most importantly, the Mortality Cost of Carbon (MCC) model also [Bressler] calculates actual physical impacts as opposed to just economic costs. It can project the number of human mortalities avoided per ton of CO2 emissions. Avoided emissions can be calculated using the EPA AVERT (Avoided Emissions and geneRation Tool) to arrive at expected mortalities to be avoided by the proposed BESS Facility. Here is a [link to a technical memorandum detailing these calculations](#). Carbon emissions avoided over the expected life of this project is projected to generate the benefits below:

SLO County Project	Humans Saved from Heat-Related Mortality Through 2100
MB BESS	700

More immediate benefits also come from the fact that **these projects will replace energy that would have been provided by fossil fuel plants**. For example, The BESS Facility will produce as much energy as 2.8 gas plants or 3.1 coal plants, and its addition to the grid precludes the need for these polluting plants, which are often located in disadvantaged communities. This will dramatically reduce the health issues caused by gas plant emissions including lung, heart, nervous system, and other chronic and fatal conditions. Gas plants dramatically increase the hardships felt by frontline communities. The Sierra Club and the California Environmental Justice Alliance (CEJA) have a joint initiative that is advocating for an urgent transition off of gas that prioritizes vulnerable working families in these areas. For more information, see: <https://regeneratecalifornia.org/>.

Another way to grasp the benefits of clean energy projects is to use EPA methods to calculate the annual emission reduction equivalencies. For example, each year of BESS Facility operation will prevent the CO2 emissions equivalent to 97,518 cars, 55,215 homes, and the combustion of 2,415 railroad cars of coal or 1,018,265 million barrels of oil. BESS Facility would have the same annual decarbonization benefit as 521,255 million acres of forest with additional pollution prevention benefits since forests only sequester carbon after its accompanying emissions have caused damage as toxic air pollution.

Appendix

Benefit Calculations

Benefit calculations based on the [Dynamic Integrated Climate-Economy](#) (DICE) Model, by William Nordhaus (used by the IPCC) and the Mortality Cost of Carbon extension of DICE, which calculates mortality resulting from carbon's effects on the environment. See Bressler, Bressler, R.D. [The mortality cost of carbon](#). *Nat Commun* 12, 4467 (2021).

Comparison of BESS Facility to Typical California Power Plants

We use the emission reduction factors generated by the [EPA AVERT program](#) to calculate the carbon emission offset of renewable energy projects. Below we compare the estimated annual power output of several California RE projects against the average annual output of typical California coal, oil, and methane power plants as well as the average acre of California utility photovoltaics.

Project	Annual Power Generation (kWh/year)	Percent of California's Annual Electricity Consumption	Average Coal Plants	Average Oil Plants	Average Natural Gas Plants	Average Acres of Solar
Morro Bay BESS	876,017,520	0.3%	5.8	3.1	2.0	2,190.0

Emission Reduction Equivalencies

We use the [EPA Greenhouse Gas Equivalency Calculator](#) to convert emissions data to the equivalent amount of carbon dioxide (CO2) emissions from using that amount. The calculator translates abstract measurements into concrete terms, such as the annual emissions from cars, households, or power plants. The information below uses updated input variables more recently made available by the EPA.

Project	Combusted Gallons of Gas	Gas Powered Cars Per Year	Railcars of Coal Burned	Barrels of Oil Burned	Household Yearly Energy Use	Forestry Acres Annual Emission Sequestering
Morro Bay BESS	49,269,048	97,518	2,415	1,018,265	55,215	521,255

Thank you for considering our comments on the BESS DEIR. The DEIR needs to be updated to provide complete information about project benefits in order comply with state law. The Department and the public need this additional analysis to fully evaluate how the project's benefits weigh against potential adverse environmental impacts.

Sincerely,

Mila Vujovich-Barr
 Chair of Executive Committee
 Sierra Club, Santa Lucia Chapter

Jim Miers
 Chair of Climate and Clean Energy Committee
 Sierra Club, Santa Lucia Chapter

Comments/Morro Bay BESS Project

Alex Mintzer <[REDACTED]>

Thu 5/23/2024 5:33 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Gianna Patchen <gianna.patchen@sierraclub.org>; Kathy Dervin <dervin.kathy@gmail.com>; Mila Vujovich-LaBarre <milavu@hotmail.com>; Jim Miers <miers.jim@gmail.com>; Jim Stewart <drjimstewart@gmail.com>; Blake Fixler <bfixler@co.slo.ca.us>; Justin Bradshaw <justin@sloclimatecoalition.org>

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To: Cindy Jacinth, Planning Manager,
City of Morro Bay Community Development Department

CC: Kathy Dervin, Gianna Patchen, Jim Stewart, Jim Miers, Blake Fixler, Justin Bradshaw
Email: besscomments@morrobayca.gov

Re: Comment on Vistra Corp.'s Proposed Morro Bay Battery Energy Storage System
Project Draft Environmental Impact Report (DEIR)

Date: May 23, 2024

Dear Ms. Jacinth:

I offer the comments below on the Morro Bay (MB) Battery Energy Storage System (BESS) Draft Environmental Impact Report (DEIR). Thank you to the Department and Rincon Consultants for the thoroughness and hard work that went into the Report.

The MB BESS project will avoid greenhouse gas and criteria pollutants by displacing power generation from gas plants across the state. CA State law requires environmental benefits to be considered in a CEQA-mandated Environmental Impact Report including: effects of the project on local and regional energy supplies and on requirements for additional capacity; effects of the project on peak and base period demands for electricity and other forms of energy; and effects of the project on energy resources. BESS plants reduce greenhouse gas emissions by replacing natural gas fueled 'peaker' plants that would otherwise be the primary means of supplying peak energy demands.

The DEIR failed to address these requirements because it did not analyze the reduced/avoided greenhouse gas emissions that the BESS project would likely produce. Section 5.3.2 of the DEIR for the MB BESS project states that the *No Project Alternative* is the environmentally superior alternative "because no change to existing conditions would occur." However, the *No Project Alternative* does not include the projected greenhouse gas and criteria pollutant emissions that would likely occur without the proposed project. Section 5.2.1.2 of the DEIR states: "Although the No Project Alternative would reduce or eliminate the adverse environmental impacts of the proposed project, this alternative would not achieve any of the Project Objectives described in Section 2.7, Project Objectives" including:

1. Locate the BESS Facility to minimize environmental and social impacts by being located on land that has historically been used for power generation
2. Reduce the amount of fossil fuels consumed during peak hours and maximize usage of energy from renewable sources such as wind and solar
3. Realize economies of scale inherent in constructing a large-scale storage facility on contiguous lands in the immediate vicinity of a high-voltage transmission line

Because the Project Objectives involve environmental benefits, those benefits must be balanced against the potential adverse environmental impacts of the proposed Project.

The DEIR does not properly describe the BESS project's potential benefits of advancing state and federal climate targets. Global climate disruption is accelerating due to the rapid buildup of greenhouse warming gasses in the atmosphere. California ranks in the top five states suffering the greatest economic effects from climate-related natural disasters. The climate crisis requires urgent action by every level of society, including the federal, state, and local governments. The federal and California governments have taken some steps to address the climate crisis, and many parties recognize the potential of BESS plants to displace carbon emitting sources. There are currently 23 states (including California) that have 100% clean energy goals in place. Energy storage can play a significant role in achieving these goals by serving as a "non-wires alternative" that can provide added reliability and grid services and reduce the use of and retire gas power plants.

Dangerous air pollution is a widespread health crisis in California, and no community is immune. California has faced unsafe levels of air pollution for decades, with most of the state's counties in nonattainment status ranging from marginal to extreme—the most dangerous category analyzed by the EPA. Communities in and near greater Los Angeles and the Central Valley face some of the most excessive air pollution in the country. Even coastal communities on the Central Coast face unhealthy levels of air pollution. For example, San Luis Obispo County is currently in marginal nonattainment status for ozone.

In conclusion, I urge your planning department to incorporate into the Final EIR both the quantifiable and qualitative impacts that the BESS Facility is reasonably likely to produce. Clean energy projects generate conservation benefits that far outweigh localized environmental impacts by avoiding the pollution and climate change impacts of emissions of fossil fuel power plants.

Sincerely,

/s/Alex Mintzer, Ph.D.

[REDACTED] Los Osos, CA 93402

Public Comment for draft EIR for BESS

jude <[REDACTED]>

Thu 5/23/2024 6:12 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>; Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>

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May 23, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

I am a resident of Los Osos and I live on Morro Bay. I volunteer for the Morro Bay Estuary Project and Friends of the Elephant Seals. I am a member of Morro Coast Audubon and I paddle with the Central Coast Dragon Boat Association in the bay several times a week. I care deeply about the health of our natural environment and its inhabitants, and consider myself privileged to live in a community that has traditionally cherished and fought for the natural beauty that we all enjoy.

I strongly oppose the BESS project proposed for Morro Bay and ask that you not certify the draft EIR, which is wholly inadequate in identifying potential hazards and impacts to the environment and the community. The draft EIR must be rewritten and recirculated as many critical elements of the project were not included. More importantly, I ask that you deny the project. It does not belong in the center of a small seaside town known for (and economically dependent upon) its tourism appeal, adjacent to sensitive habitat, endangered species and a National Estuary, to say nothing of a high school.

The BESS would be in conflict with the California Coastal Act of 1976, which requires that any new coastal development minimize adverse impacts in areas of high geologic, flood and fire activity. The project site is located in the coastal zone, as well as a flood and tsunami zone. Saltwater exposure to lithium-ion batteries makes them combustible, creating extreme fire risk. The draft EIR failed to discuss this risk or how a fire or flood at the BESS would be mitigated or handled when one begins.

The Coastal Act mandates that new development protect special communities and neighborhoods with unique characteristics that are popular visitor destinations for recreational use. The Rock, the Embarcadero, the working fishing harbor and its resident otter population and adjacent beaches all fall under this characterization.

The Coastal Act prioritizes coastal-dependent development. The BESS is not a coastal dependent industry. The project is in a tourist area, a flood zone, and is the wrong location for battery storage.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species, and the draft EIR failed to discuss this impact. The sea otters that live in Morro Bay are classified as Endangered by the Federal Endangered Species Act and protected under the Marine Mammal Protection Act. It takes very little to disrupt the healthy feeding cycle of a mother otter, and the potential damage to the population from four years of industrial pile drivers and their noise and vibrations is unthinkable, as well as the noise and vibrations of the plant after construction. The possibility of toxic chemical releases into the air - hydrogen chloride, hydrogen cyanide, hydrogen fluoride and carbon monoxide - and into the water from run off during a fire event would be a disaster, not only to this protected population but to the seals and sea lions who are also protected under the Marine Mammal Protection Act. The Estuary serves as a nursery for many species of fish upon which our fishing industry depends, and yet the draft EIR makes no reference to any of these issues.

One only has to look at the fire disaster unfolding at the battery storage facility at Otay Mesa as I type this letter (currently in its eighth day) to understand that the impacts of a project of this nature extend far beyond the footprint of the plant itself. That fire is in a thermal runaway, the possibility of which is another issue that was not addressed in the draft EIR.

Marine mammals are not the only ones at risk. Resident populations of Blue Herons, Great Egrets, Double Crested Cormorants and others nest on the shores of the bay, and Peregrine Falcons nest on the Rock. Thousands of birds and dozens of species travel to this bay along the Pacific Flyway, and are protected under the Migratory Bird Treaty Act. Any toxic chemical release would put them all in danger and is unacceptable. The draft EIR neglects to address this potential hazard. I ask that the city notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

Obviously the toxic chemical release risks are hazardous to the health of the local population as well. Morro Bay High School is a mere 1000 yards from the proposed site. What responsible city government would knowingly subject children to these risks? Or its citizens?

The draft EIR fails to address fire protection and emergency response strategies, instead deferring to a consultant. That work has not been completed and must be included in any rewritten EIR. By law, all impact and mitigation analysis MUST be included in the draft EIR, not deferred until after the EIR is published. These issues are the crux of the matter!

Morro Bay and its surrounding area is a gem on the coast of California. I believe we need to engage new technology to support alternative energy generation, but to site this massive industrial battery facility on the edge of a bay, a bird sanctuary and a National Estuary where endangered animals thrive, in the recreational heart of a small town with a strong tourism industry, near a high school, is pure folly. The risks to our environment, our children and our neighbors are far too great.

Please, demand that the draft EIR be rewritten to include all the risks that we as a community face, along with detailed mitigation strategies. I do not believe that it is possible to mitigate them sufficiently for this precious location, and therefore ask that you deny the project in entirety.

Thank you.

Judy Clement


Los Osos, CA 93402

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor,
Coastal Planner, California Coastal Commission

FW: BESS Project

Dana Swanson <dswanson@morrobayca.gov>

Fri 5/24/2024 7:43 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

From: Alex Beattie <[REDACTED]>
Sent: Thursday, May 23, 2024 7:02 PM
To: Council <Council@morrobayca.gov>
Subject: BESS Project

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Greetings members of the Morro Bay City Council

I have previously sent you a note expressing my concerns about the EIR on the BESS project submitted by Rincon on behalf of Vistra. Upon further research, I have developed additional concerns that I would like to share with you. The document ignores certain facts and embellishes the project's achievements. Not surprising given that Rincon was paid by Vistra.

One example is displayed by one the project's objectives is to "assist" the CPUC to achieve its goal for energy storage". In 2013, the CUPC set a goal for 1340 MW of storage by the end of 2024. In Oct. 2023 the California Energy Commission announced that it expected to have about 8500 MW of storage by the end of 2024. No assist needed, so BESS is not needed!!!

Another example is the claim that this project will improve the view corridor using land that is basically useless for anything else. A 91,000 SF 35 foot high concrete building surrounded by a chain link fence may be better than the existing power plant building (barely) but there must be numerous other viable projects that will improve the view even more. This site has potential. In addition, the applicant's statement that the parcel the project is to be built upon can only be used for industrial purposes is an overstatement. While it is true that the State has imposed deed restrictions on the parcel but they can be removed by remediation. A similar situation occurred at the Union Oil site in Avila Beach which was more highly contaminated than the one for the BESS site. Think of what Avila Beach looks like now. I would also like to know where the energy is coming from - Not much renewable available. Probably from their plant in Moss Landing or Diablo Canyon.

These examples, plus several others, display bias and a lack of objectivity in the EIR and the necessity of BESS. There are better uses for this site. I urge you to uphold our LCP or at least, require them to submit a more complete document.

Thanks for reading this far,

Alex Beattie

BESS Draft EIR is Inadequate

Linda Van Fleet <[REDACTED]>

Fri 5/24/2024 11:14 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 1 attachments (2 MB)

BESS refute to draft EIR 5-21-24.pdf;

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Ms. Fowler,

Attached is a letter from my 93-year-old mother (resident of Morro Bay) and from me (resident of Cayucos) regarding the Draft EIR for the BESS in Morro Bay.

--Linda Van Fleet

May 21, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

BESScomments@morrobayca.gov

Dear Ms. Fowler,

My 93-year-old mother is a resident of Morro Bay, living alone near downtown, and who does not drive. I am a resident of Cayucos, and we are both NITBY's. What does that mean?



“NOT IN THEIR BACKYARD!”

- (1) We are opposed to the BESS project proposed for Morro Bay because of its location at the edge of the Morro Bay Estuary, an Endangered Species Habitat Area (ESHA). There are only 3,000 endangered California Sea Otters remaining, and two of their nurseries are located across the street from the proposed BESS site. According to the **Sea Otter Project at UC Davis** “... **pollutants can affect otters in many ways. They can damage otters’ nervous systems, affect pregnancy and fetal health, and lower the otters’ immune system defenses against diseases.**” In the event of a fire at the BESS, the airborne pollutants will injure these sensitive animals. Even without a fire, the noise, vibration, and dust during the 3-4 year construction period and then during normal operations will disturb these sensitive animals in their nurseries. There are no adequate mitigation measures that can be proposed to eliminate the risk to this ESHA. **Under CEQA, this risk suffices as automatic denial of the project.** Per CEQA, this location also falls within

a "popular visitor site," and requires extra protection. No wonder, since many tourists come to see the otter nurseries.

- (2) The BESS is located in a flood/tsunami inundation zone. Saltwater exposure degrades lithium batteries and creates an extreme fire risk. The idea presented in the draft EIR is that a fire would send fumes straight up, as if this is good. But another common scenario is that there is wind, and the fumes will spread far beyond the 600-foot anticipated evacuation area, maybe to the Embarcadero shopping or the high school that is less than a third of a mile away. Another common scenario is that Morro Bay is covered in fog, creating an encapsulation of toxic fumes under a dome of fog that would be concentrated above the town. And then, where do the students go? And my elderly mother? We would not be allowed to reach them.

- (3) We must also point out that the scenario in the Draft EIR supposes that a fire event would **last only one day**, but that is **absolutely not a realistic assumption**. As of today, the fire at the Otay Mesa Battery Storage facility outside of San Diego may have just ended after six days of burning, resulting in the destruction of the roof of their 16,000 square foot building. Cal Fire continues to monitor the site as of today, watching for re-ignition, which is common with lithium batteries.

Best of luck to the residents of Otay Mesa and to Moss Landing, both locations where battery storage facility fires have taken place in California. We can only hope that the City of Morro Bay will have their residents in mind when they vote to protect them from such a dangerous facility in their city.

We ask that the Draft EIR be rewritten and recirculated because it does not contain an adequate project description (what is the actual building design, what batteries are proposed with what chemical composition?) nor a complete explanation of the many mitigation measures to reduce concerns to a level of "Less Than Significant," if that is even possible.

Sincerely,



Linda Van Fleet
Cayucos, CA



Mae Belle Wunderlin
Morro Bay, CA

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Opposition to the Proposed Battery Storage Facility

Marie Delarios <[REDACTED]>

Fri 5/24/2024 11:35 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

Sarah.MacGregor@coastalca.gov <Sarah.MacGregor@coastalca.gov>

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Dear Ms. Fowler,

We are residents of Morro Bay, Luis and Marie DeLarios, and we are hugely opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and deny the project. The draft EIR needs to be rewritten and recirculated for another period of public comment.

We live in the Cloisters and are close to the beach and Morro Bay High School. Morro Bay is a tourist destination and many of our relatives and friends come here to enjoy the beauty of our harbor and spend money in our town. A battery plant near the harbor would not only adversely impact the tourist trade, but **it is an environmental disaster waiting to happen**. Just like the one in Moss Landing and the Otay Mesa Fire which is continuing to cause damage and is an evacuation nightmare. Evacuation would be a nightmare here too, especially for the high school.

A battery plant at the proposed site near the harbor and close to the high school is absolutely the worst use of this location. If the City of Morro Bay wants a Battery Storage Facility, the City must find another location away from the harbor/beach/high school and the residential areas of our town. It is a ridiculous and dangerous idea to put a battery storage plant on a large lot right next to the waterfront and in a flood zone. That large lot should and can be developed to enrich our harbor/embarcadero, which in the long term will vastly increase our city revenues. How about a conference center on the site like the one at Asilomar and more shops, hotels and restaurants.

The BESS plant is not a coastal-dependent industry, is unsafe for people and wildlife, and is contrary to the Coastal Act priorities. The project location is a tourist area, in a flood zone, and is the wrong location for battery storage. It appears that the only one who will benefit from a battery storage facility on this particular site is BESS...certainly not the citizens of Morro Bay nor the City Government!!!

Please recirculate my letter.

**Marie and Luis DeLarios
Morro Bay**

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Public comments to Draft EIR for Proposed BESS project in Morro Bay

mitch wyss <[REDACTED]>

Fri 5/24/2024 12:52 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

sarah.MacGregor@coastal.ca.gov <sarah.MacGregor@coastal.ca.gov>

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City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: Public comments to Draft EIR for Proposed BESS project in Morro Bay

Dear Ms. Fowler,

I am a proud resident of Morro Bay. After working and living in North County for 20+ years, my wife & I followed our dream and purchased a home in this beautiful town. We love Morro Bay, respect the history of the place and the natural beauty. I have been a bird watcher my entire adult life and appreciate the fact that Morro Bay is a Bird Sanctuary. As a concerned citizen, I urge you not to certify the draft EIR for the proposed BESS at the old power plant. Today the power plant would never be approved in that location, and neither should this battery storage. If the project moves forward, it will go before the California Coastal Commission which operates under the guidelines of the California Coastal Act. A BESS in the proposed location does not conform to this act. These sections of the Act are especially pertinent:

The Coastal Act (30001.5) declares that the basic goals of the state for the coastal zone are to: (d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.

A battery storage facility is not coastal dependent. It can be built in different location.

The Coastal Act (30240) includes special protection for Environmentally Sensitive Habitat Areas, often referred to as ESHA. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

A BESS on the Embarcadero in Morro Bay is in conflict with the California Coastal Act. The language could not be more clear. In addition, the proposed project site borders the National Marine Estuary and overlaps with ESHA designated areas. The bay and surrounding watershed is home to many protected species, both plants and animals, the most well recognized being the Southern Sea Otter. On September 19, 2023, The U.S. Fish and Wildlife Service announced that southern sea otters will retain their status as a threatened species under the Endangered Species Act. Following an in-depth review of the species' status, including information provided by species experts, USFWS has rejected a petition to remove protection for the southern sea otter. If the otters' sleep, feeding, breeding success, or any behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful.

These possibilities are an unavoidable significant impact. Southern sea otters occupy only about 13 percent of their historical range. Morro Bay is a year round sanctuary for these mammals. These popular creatures also contribute positively to the visitor experience.

In addition, multi-year construction of a BESS will impact many nesting and migratory birds, but the draft EIR does not identify this as a significant impact, nor can this impact be mitigated. The DEIR discounts the threats to our wildlife and our community. Boilerplate mitigation measures cited in the Draft EIR will not be enough protection for species that are already under grave threat. The risks this project carries are too great to be borne by our community.

Despite my intent to primarily keep this letter to the subject of endangered species. I must mention the fire at the Otay Mesa BESS. To quote Fox News SD “An alarming lithium-ion battery fire is in thermal runaway... Otay Mesa fire has had 40 firefighters working 24/7 to keep it from spreading further, and their efforts have failed. Dangerous toxic gasses have been detected for a week...” Still burning today (May 24) since it started on May 15, the evidence is clear. Fire danger represents a **Significant Unavoidable Impact**. This project must be denied.

This week I've been watching a beautiful *Harlequin Duck* on the rocky shoreline near the rock and a *Long Tail Duck* at the mouth of the bay. Both of these sea ducks are very uncommon in our region. I wonder, what other rarities exist in our environment? There is so much we do not know. We must err on the side of caution. Please, do your civic duty. Do not certify this DEIR.

Sincerely,
Mitch Wyss
Morro Bay Resident

CC: Morro Bay City Council Members Attn: Mayor and City Council
595 Harbor St., Morro Bay CA 93442 council@morrobayca.gov

Morro Bay Planning Commission, Attn: Chairman and Commissioners 955 Shasta Avenue, Morro Bay, CA 93442
planningcommission@morrobayca.gov

Sarah MacGregor, CA Coastal Commission, Coastal Planner 725 Front St., Suite #300, Santa Cruz 95060
sarah.MacGregor@coastal.ca.gov

May 23, 2024

City of Morro Bay Attn: Kim Fowler, Interim Planning Manager 955 Shasta Avenue Morro Bay, California 93442 BESScomments@morrobayca.gov

Dear Ms. Fowler,

I am a resident of Morro Bay since 2018. I am highly opposed to and frankly frightened of the BESS project proposed for Morro Bay. I feel extremely lucky to call Morro Bay my home and now our home and our lives are being threatened. Should this project move forward Morro Bay would also become a target for terrorism. It makes zero sense to place something so highly toxic and extremely dangerous in close proximity to its residents, schools and our beautiful bay with its endangered animals like the sea otters. The proposed site is also in a flood zone, with global warming this is a greater possibility. As witnessed in Moss Landing and now Otay Mesa, It is not "if" there will be a fire but when. Lithium-ion batteries easily overheat and can cause spontaneous combustion causing Thermal Runaway. This would release highly toxic, lethal gasses into our atmosphere and can burn and reignite for weeks. According to Vistra this would only be a danger for 24 hrs. This has continually been proven wrong.

The EIR that Vistra released is also highly suspect. They say they are still not sure of the configuration of the plant or exactly what kind of battery will be stored in this facility. Yet they assure us there will be no danger. How can they make that assurance? The noise and light pollution alone will be a constant irritant to the residents and inhabitants of Morro Bay.

To propose putting the largest battery storage facility in the world in the middle Morro Bay is preposterous. Morro Bay is a tourist destination. The city brings in roughly 100 million in annual revenue from tourist dollars. The projected benefit to Morro Bay does not pencil out. It also goes against the general plan for Morro Bay as established in 2014 when the zoning was changed to Visitor Serving/Commercial.

Please do not consider this location for the Bess Project. I believe in Renewable energy but this is not the right location. Our beautiful Morro Bay needs to be protected.

Sincerely

Dave Boyd [REDACTED]

Comments on Selling to the Battery Plant or Any Other Industrialized business -- along with some ways to build and save the Morro Bay Community

Frances Leitch <[REDACTED]>

Fri 5/24/2024 9:07 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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What is your goal? – to destroy the beauty of the bay and the feeling of community in Morro Bay?

This isn't 1960. We are aware that we need to preserve our wonderful coastal communities or we will lose them -- which has already happened in most of southern coastal California.

A battery plant is worse than another PG&E plant. It's huge presence will ruin the waterfront area.

May I suggest: These Steps -- for selling this land to anyone and everyone.

- * The Power Plant MUST come down.....at the very least the STACKS
 - a) No paying a fine and leaving them: MUST BE TAKEN DOWN
- * The acreage along the waterfront area, and where the powerplant and stacks now are – and 5 acres behind should be made into a park for the city.
- * After that – the area and other areas that aren't so much an aspect of Morro Bay's personality, and so extremely noticeable -- could be developed by the battery plant or another potential owner.
- * PLEASE THINK ABOUT THE NEGATIVE EFFECTS OF INDUSTRIALIZING MORRO BAY – DESTROYING IDENTITY * HAPPINESS * AND MEANING TO RESIDENTS AND VISITORS – Keep the Rock of Life -- in this uniquely wonderful Morro Bay Community.

Frances Leitch

No BESS in Morro Bay

David Drenick <[REDACTED]>

Sat 5/25/2024 6:09 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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City of Morro Bay
Attn: Kim Fowler
Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

While the need for energy storage is not in dispute, I oppose the installation of a BESS at the proposed location in Morro Bay for several reasons.

- 1) The proposed location is a clear danger to the town in the event of a fire. There are enough dangerous, toxic fires at other modern BESS plants to justify denying the construction at a location that would impact so much of our small town.
- 2) As population grows in SLO County, the demand for coastal recreational property increases. The Morro Bay Power Plant's highest and best use is visitor serving and marine recreational facilities.
- 3) There is no doubt that the seas are rising, and possibly much faster than anybody anticipated. It's utter folly to believe a sand berm will insulate a lithium battery plant from seawater. Hurricane strength events are moving further north as the oceans warm. A substantial storm combined with a rising sea level could cause a sudden breach of a sand berm. Lithium batteries inundated in sea water would likely require the evacuation of much of Morro Bay.

Build the BESS at a safe elevation away from town center.

David Drenick|

[REDACTED]
Morro Bay, CA 93442

BESS PROJECT

L. Goodyear <[REDACTED]>

Sat 5/25/2024 2:50 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are residents and visitors of Morro Bay and the surrounding communities, and we are opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and ask you to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants. We are very concerned and our fears are justified by what is happening now at the Gateway BESS facility in Otay Mesa, California.

On May 15, 2024, a module of lithium-ion batteries ignited in a 250 MW BESS "Gateway" facility in Otay Mesa, near San Diego. Firefighters barricaded a 600 foot perimeter as they detected toxic, corrosive gasses, including hydrofluoric acid, in that area. A HAZMAT team and bomb squad were dispatched, and 40 firefighters have been working around the clock to keep the fire contained. The fire was believed to be extinguished, but it reignited itself multiple times over the next week and is still burning. The Otay Mesa BESS situation is a textbook thermal runaway and an example of what could happen here, except that in Morro Bay it would be an unmitigated disaster due to the location of the project site.

Robert Rezende, battalion chief and the Alternative Energy Emergency Response Coordinator for the San Diego Fire-Rescue Department, said he wasn't surprised the fire keeps reigniting because that's common with lithium-ion batteries and the fires can last for an undetermined amount of time. The company that owns and operates the Gateway BESS facility, Rev Renewables, indicated this type of thermal runaway event was not unexpected. The evacuation order for some commercial businesses (Otay Mesa Gateway facility is not in a residential area) was for a larger area, and stated:

"This evacuation order requires immediate movement out of the affected area due to an imminent threat to life. All persons in the impacted area should prepare to evacuate. Evacuation order means there is extreme danger in your area. You must leave now; do not wait. Contact your neighbors and share information."

Cal Fire Capt. Brent Pascua stated that these thermal runaway events can last anywhere from seven days to a couple of weeks, but firefighters are planning for *two to four weeks*, and then they will “reevaluate.”

Lucinda Goodyear



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Public Comment BESS Morro Bay

Kathleen McCollum <[REDACTED]>

Sat 5/25/2024 10:27 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: sarah.MacGregor@coastal.ca.gov <sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>; Council <Council@morrobayca.gov>

 1 attachments (125 KB)

EIR Public Response Letter.pdf;

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Hello Kim Fowler,

Attached is my public comment response letter in regards to the Draft EIR for the BESS- Morro Bay. I am in opposition of this project, which I outline clearly in my letter. Thank you for taking the time to review.

If it is possible, I would appreciate confirmation that you have received this.

Kind Regards,

Kathleen McCollum
Resident of Cambria, California.

May 25, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

I am a resident of Cambria. I am opposed to the BESS project proposed for Morro Bay for the following reasons.

In reviewing the Draft EIR I believe that the threat this project poses to wildlife and human health and surrounding environment has not been adequately presented. For example: issues regarding air quality, thermal runaway, biological resources, noise pollution, project being inconsistent with Plan Morro Bay, and the impacts to southern sea otters have not been adequately addressed. Furthermore, there are non-mitigation measures in the event of a spill of hazardous materials into the watershed and ocean, and the consequences for these fragile ecosystems in the event this would happen. An ecosystem that Plan Morro Bay has specifically stated is to be treasured and protected from threats to its wellbeing. This project is a threat.

Fails to meet the requirements as stated in CEQA 15121

According to CEQA 15121 Informational Document, A EIR is a document that is supposed to inform public agency decision makers and the public generally of the significant environmental effects of a project, discuss mitigation measures and alternatives. In the following letter I will provide reasons that this distinction of an EIR is not met with the Draft EIR proposed for the Morro Battery Storage System.

Air Quality:

Section 4-2-20 in Draft EIR states that there is cancer risk to exposed individuals (table 4.2-7) No mitigation measures for this issue are provided. The EIR analyzes cancer risk from demolition and construction activities (4.2-20 to 23) however, it is concludes that offsite consequences will be insignificant and in 4.2-25 states that emissions would not effect a significant number of people, so no mitigation measures are needed? Since when is a cancer diagnosis of a community member due to the toxic dust insignificant?

Thermal Runaway:

Lithium batteries pose serious threat to thermal runaway. Lithium batteries are also combustible when exposed to salt water, which is not addressed in the Draft EIR at all. Morro is a foggy coastal community. Salt has been shown on numerous occasions to be a catalyst to instigate combustion and chemical fires. The risk of fire, combustion and chemical emission has not been mentioned in the draft EIR. Therein, the draft EIR is insufficient to inform decision makers the risks. Shouldn't this be important information for decision makers to be presented with? Studies of BESS fires in the U.S alone have been recorded to go as long as 14 days. Which was addressed in the OCA table 4-1(Offsite Consequences Analysis). This is not addressed in the Draft EIR. Toxic plumes from battery fires that release hydrofluoric acid, hydrogen cyanide, hydrogen chloride, and carbon monoxide as well as other chemicals would be emitted from

extended fires. The severity of these issues and their impacts to environmental health and human health are simply not addressed.

There is no mention of the potential for a multi-day fire, where toxic gas plumes will be uncontrollably entering into the environment and community. There is no mention of the mitigation measures of what will be done to remediate the damaged environment and health of person/s who may be impacted by a fire event. There is no plan mentioned of in the event of a serious combustion issue what the evacuation protocol would be and the implications of evacuation the potential event of disaster.

Biological Resources

Section 4.3 in the Draft EIR is also insufficient as to present the risks to the environment. In addressing impacts to fish, the project declares in section 4.3 that no fish are found on the project site, as well as marine mammals. Thereby no mitigation measures are mentioned. When this site is near a stream and estuary that feeds into the ocean, and is very near the waters edge and the protected harbor to one side and the ocean to the other. This fails to adequately address the threats this project could have on the ocean life. There is no mention of mitigation measures in the instance where toxic substances leach into the ocean.

There is no mention in the Draft EIR that birds are sensitive to electromagnetic radiation. There is no mention of the impact of Electromagnetic radiation of the proposed BESS.

Otters are a threatened species and are very sensitive to their environment. In the instance of a Battery leakage into the harbor, the result could be catastrophic for the otter, their sources of food and numerous other species that call this habitat their home. There is no mention what the catastrophic effects would be if there was a spill into the harbor when hundreds of species would be at risk of death. And the degradation of the harbor could ensue.

Noise

Section 4.8 in the Draft EIR discusses noise. Table 4.8-5 indicates separate noise impacts of each type of equipment, not cumulative at one point. There is no mention the effects of construction on the threatened sea otter who needs to sleep 11 hours a day, right across the street from the proposed project site. It has been discussed that Kayaks in Morro bay are a disturbance to otters; and changes may need to be implemented. And this project is going to declare it won't have a negative effect on these sensitive and protected species? How has it proven that otters will not be disturbed and perish due to a 3-4 year construction disturbance to their sanctuary? The southern sea otter is an endangered species under the Endangered Species Act and are protected under the Marine Mammal Protection Act. They are also a species of the State Marine Reserve. The implications of this proposed construction and operation of the BESS, could result in illegal taking of these species by impairing their ability to rest, eat, breed and birth. It is unacceptable to not only not address these issues in this Draft EIR, but to move forward with this project.

Furthermore, noise and vibrations could also cause birds to abandon their nests in violation of the Migratory Bird Treaty Act.

Plan Morro Bay

I think it is important for the decision makers to respect the plans that have been declared as priorities for the community of Morro Bay. **Policy C-1.2: Development in ESHA** as defined in Policy C-1.1 and Coastal Act Section 30107.5: shall be limited to uses dependent on the resource (e.g., habitat restoration, scientific research, and low-intensity public access and recreation), as well as the uses specified in Coastal Act Sections 30233 and 30236 for wetlands and streams, respectively. All allowable development in ESHA shall be sited and designed to protect against significant disruption of habitat values, including to rare and endangered species. Development in areas adjacent to ESHA shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitats.”

The proposed BESS storage facility is simply not in alignment with the values stated in this policy.

As a deeply concerned citizen, I declare that this proposal must be recirculated. This draft does not present information in a comprehensive way to inform decision makers of threats. I have to wonder if there has been an intention when drafting this document to leave out information that would prevent this project from being approved or simply characterize it as insignificant when that conclusion is not proven?

For the above reasons stated in this letter, I conclude that the Draft EIR fails to present information in a truthful and informative way, to provide an honest picture of the threat to the community and wildlife in this document. This project poses serious threat to the health of the community and wildlife.

Sincerely,

Kathleen McCollum
Cambria

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

My public comment to the proposed BESS project in Morro Bay

Jeanne Marie Colby <[REDACTED]>

Fri 5/24/2024 2:45 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>; Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

 1 attachments (19 MB)

Jeanne Marie Colby comment letter to DEIR 5_24_2024.pdf;

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May 24, 2024

To Kim Fowler, interim Planning Manager

Dear Ms. Fowler,

Attached I submit a PDF of my comment letter to the BESS project proposed for Morro Bay.

Thank you for your attention to this matter.

Jeanne Marie Colby

To the city of Morro Bay
Re: Public comment to draft EIR for battery storage proposal
May 24, 2024
From: Jeanne Marie Colby

The project site, the city of Morro Bay and a precious National Estuary.



City of Morro Bay
Attn: Senior Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
Email: BESScomments@morrobayca.gov

Cc: City Council and Mayor Wixom
Planning Chair and Commissioners
California Coastal Commission
Dawn Addis, Assemblymember 30th district

Re: Public comment to draft EIR for battery storage proposal
May 24, 2024

Dear Ms. Fowler,

I am a resident of Morro Bay, and have lived here for two years. I love this town, the friendly people, the beaches and the estuary with its richly diverse wildlife. Along with many other devoted residents here, I am fighting to keep Morro Bay from industrializing. Hugged by Morro Rock and the sandspit, the national estuary is a haven for wildlife, with thousands of species of fish, birds and marine mammals breeding, nesting and overwintering here. People visit or move to Morro Bay to get away from all the noise and the rat race of metropolitan areas. Morro Bay harbor is so highly protected that a young gray whale came in and swam around the harbor, and back out to sea, day after day for about two weeks during April of this year. We want our community and harbor to stay safe for humans and wildlife. An unsafe facility such as the proposed BESS is not acceptable to this community.

The draft EIR is inadequate in that it failed to acknowledge the single most common and dangerous impact; thermal runaway, and the hazardous toxic fumes that are released from the fires that result. These thermal runaway incidents are so common there is a database for them,¹ and a BESS plant in Otay Mesa, California is on day 8 of thermal runaway. The failure to identify the impacts and the hazardous materials releases that will follow thermal runaway is a fatal flaw requiring recirculation.

On May 15, 2024, a module of lithium-ion batteries ignited in a 250 MW BESS facility in Otay Mesa, near San Diego. Firefighters barricaded a 600 foot perimeter as they detected toxic gasses in that area. The fire was believed to be extinguished after 22 hours, but it reignited itself multiple times in a six day period. The Otay Mesa BESS

¹ [BESS Failure Event Database - EPRI Storage Wiki](#)

situation is a textbook thermal runaway and an example of what could happen here, except in Morro Bay it would be an unmitigated disaster because of the fragile environment and proximity to residential neighborhoods, downtown and recreational areas.

Robert Rezende, battalion chief and the Alternative Energy Emergency Response Coordinator for the San Diego Fire-Rescue Department, was at the storage facility Friday. Rezende said he wasn't surprised the fire keeps reigniting because that's common with lithium-ion batteries. "You might stop the original fire, but then you may have damage to neighboring batteries that might take two, three, four hours before they start going into thermal runaway," Rezende said. "You end up having these kind of cascading events for an undetermined amount of time ... " ² "While unfortunate, this development was not unexpected." Rev Renewables, a subsidiary of LS Power that owns and operates the Gateway facility said.

Describing the expected duration of the thermal runaway in Otay Mesa, Cal Fire Capt. Brent Pascua stated, "Speaking with the experts, in the past they've had situations like these and it's anywhere from seven days to a couple of weeks," Pascua said a few days ago. The stubborn fire has 40 firefighters and 5 engines working to extinguish it.³ Days later, on May 21, Capt. Brent Pascua stated, "We're preparing for the worst and making plans to be here for a long time, *two to four weeks* and we will reevaluate then."⁴ As of now, the whole building is in flames and they just hope it does not spread to another building.

If the Otay Mesa BESS runaway fire were in Morro Bay it would have devastating consequences. In Morro Bay, within the vicinity of the project site are homes, numerous restaurants and shops, residential areas, tourists walking around, riding bikes, paddling and surfing; the endangered sea otter nurseries, steelhead trout in Morro Creek, the endangered western snowy plover and other nesting birds, and many protected species.⁵ As the fire reignites over a period of many days or weeks, most of the city would be evacuated for an extended period. Wildlife would be killed, nests abandoned, and tourists gone for good. Firefighting assistance from neighboring jurisdictions may not be able to access the facility due to gridlock during evacuation. Residents and visitors may be sickened from the toxic fumes. All of this would be due to the location of the project.

Otay Mesa raises some important questions. What will those toxic fumes do to a small community, visitors and the wildlife? How will we evacuate from Morro Rock and

² [Fire flares up again at battery storage facility in Otay Mesa - The San Diego Union-Tribune.pdf](#)

³ [Otay Mesa fire keeps reigniting](#)

⁴ [Otay Mesa battery facility fire could take weeks to put out entirely.pdf](#)

⁵ [Firefighters battling blaze at battery storage facility in Otay Mesa, - The San Diego Union-Tribune....](#)

the Embarcadero and where will we go for several weeks? How much water does it take for fire suppression for a thermal runaway event that lasts for several weeks? Where is that water going to come from? Where does the contaminated water go after it is used for fire suppression? If Otay Mesa needs 40 firefighters for 250 MW, and we have 600 MW here, will we need 100 firefighters and where are they going to come from? If the barricaded perimeter in Otay Mesa in which toxic, corrosive gasses were detected is 600 feet, what would the barricaded area in Morro Bay need to be for a facility almost 3 times the size?

Otay Mesa battery facility fire could take weeks to put out entirely

Kasia Gregorczyk

20 hours ago



SAN DIEGO (FOX 5/KUSI) — A [stubborn fire at a battery storage site](#) in Otay Mesa is burning for a sixth day. Fire officials are preparing for it to potentially

The sprinklers inside the BESS facility are reportedly using 350 gallons per minute (GPM) of water. That equals 504,000 gallons for a 24 hour period just for the sprinklers in the building. For the exterior of a burning commercial structure, an uninterrupted flow of 500 GPM from three hose lines with each handline flowing a minimum of 150 GPM is required. ⁶ That is 720,000 gallons per 24 hour period. The total amount of water used for both interior and exterior fire suppression, is estimated at 1,224,000 gallons per day. For a two week period that will be approximately 17,136,000 gallons.

The Offsite Consequences Analysis is a flawed document.

Nine days after the Draft EIR was published, a document was published that was erroneously excluded from the CEQA process. Rincon knew or should have known of the document; they used Figure 02 from Ramboll, the authors of the “Offsite Consequence Analysis” (OCA) . The OCA was the first acknowledgement there might be a thermal runaway exposing Morro Bay to toxic and corrosive fumes, but most of the public and agencies who review the project will not see this document as it is not referenced in the EIR. The OCA was inexplicably excluded from the CEQA process in a letter from Vistra to the city dated May 7, 2024. ⁷

Ramboll identifies toxic gas exposure to humans nearby as an impact but discounts it as “less than significant.” The analysis is based on flawed assumptions including: (1) that exposures will only be for 24 hours, an arbitrary “lowball” figure, as the Otay Mesa thermal runaway has been ongoing for six days now, reigniting itself, and many of these incidents last for days; (2) that only one container of batteries would ignite (Otay Mesa has had several modules of batteries ignite and burn in thermal runaway) and (3) that only BESS fires in the U.S. should be studied ⁸

Thermal runaway fires and the toxic, corrosive gasses that result are an impact that can result in exposure to toxic, corrosive fumes to humans and wildlife. It can also cause explosions. The failure to discuss this in the DEIR itself is a fatal flaw requiring a rewrite and recirculation of the DEIR.⁹

⁶ [Fire Service Hose-Lines and NFPA 14 Requirements](#)

⁷ [May 7 Vistra letter](#)

⁸ [Vistra/Ramboll OCA analysis](#)

⁹ As the Supreme Court in Banning Ranch, at p. 25-26, cited above, indicated, “...a fragmented presentation is inadequate. Readers of an EIR must not be required to “ferret out” an unreferenced discussion in related material ... The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the project. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435 (*Vineyard*).)”

Thermal runaway fires keep happening in the battery storage industry, despite all the marketing claims that technology has made great strides.¹⁰ But the extent of the draft EIR analysis on the BESS fire danger is “we cannot be assured there will not be a fire,” on the last page. This is grossly inadequate.

Here are some of the reported BESS thermal runaway events/fires in recent years:

- A BESS thermal runaway May 15, 2024 in Otay Mesa, near San Diego, that was thought to be extinguished after 22 hours but reignited several times and continues as I submit this letter;
- two Vistra BESS fire incidents at Moss Landing in 2021 and 2022;
- one Moss Landing PG&E BESS fire;¹¹
- a lithium-ion battery fire at the port of Oakland, May 12 of this year;
- a BESS fire in Germany, April 27 of this year;
- 900 tons of li-ion batteries burning in Viviez, France February 18, 2024;
- a BESS fire in Surprise AZ, with an explosion blowing the doors off the facility and causing permanent injuries to trained HAZMAT team members,¹²
- a BESS fire in Flagstaff AZ;
- a 14 day BESS fire in Chandler AZ;
- a fire at the “Big Bessie” in Australia in 2023,
- at least four BESS fires in NY leading to moratoriums and proposed legislation;
- a BESS fire in Valley Center, California, 2023;
- over 30 BESS fires in South Korea;
- a 2020 BESS fire in Liverpool, UK;
- a BESS fire database indicates there have been at least 86 BESS fires reported.¹³

The project site is in the coastal zone, governed by the Coastal Act of 1976 which is codified in the California Public Resources Code, starting at Section 30000. The main goals of the Coastal Act include to “protect, maintain,” “enhance and restore” the quality of the coastal zone environment. Section 30001.5 states that the Coastal Act will prioritize “coastal-dependent” development. Coastal dependent uses are those which require a location on or adjacent to the sea in order to function at all, and are highly

¹⁰ A number of insurers have withdrawn from the market on the back of fires at BESS facilities around the world. [Fire risk at battery energy storage systems | Gallagher UK](#)

¹¹ This fire resulted in a shelter-in-place several miles across with a hazardous materials warning.

¹² A deflagration event in the Surprise, Arizona incident resulted in a jet flame that extended at least 75 ft outward and an estimated 20 ft vertically; all four HAZMAT team members lost consciousness; injuries included traumatic brain injury, chemical burns, broken bones and a collapsed lung. [Four Firefighters Injured In Lithium-Ion Battery Energy Storage System Explosion - Arizona](#)

¹³ [BESS Failure Event Database - EPRI Storage Wiki](#)

protected by the Coastal Act and the City of Morro Bay. These are uses such as commercial fishing and boating, and aquaculture facilities. ¹⁴ Battery storage does not require a coastal location and is an inappropriate use for such precious property.

The project site borders the Morro Bay National Estuary, which has a “Comprehensive Conservation and Management Plan.” Morro Bay hosts one of the most significant and least disturbed wetland systems on the central and southern California coast. It serves as a vital stopover and wintering ground for migratory birds and is home to a diverse assembly of habitats and plant and wildlife species, “many of which are not found anywhere else in the world.” ¹⁵ The national estuary has been completely ignored in this CEQA administrative process, and the National Estuary Program (NEP) was not notified of the proposed project by the city.

Residents and visitors will be subjected to toxic air contaminants during construction as well as high levels of noise and vibration. The construction phase creates potential impacts to wildlife that will be significant, unavoidable and so widespread that effective mitigation may not be feasible. It would require teams of biologists in the field to monitor nests and nurseries 24/7, and still they would not be able to protect the nesting birds, fish and sea otters from the cumulative construction impacts from noise and vibrations.

Any decision makers need to know that lithium-ion batteries are prone to thermal runaway leading to the release of toxic gasses. The DEIR should be recirculated with a heavy focus on the environmental impact of the harmful chemicals, the lithium compounds, the toxic air contaminants, the toxic plumes from thermal runaway, the heavy metals, and how they will impact humans and wildlife. The DEIR does not adequately inform decision makers and the public of the toxins we will be exposed to. ¹⁶ Decision making agencies and the public need to be informed of the engineering design features in order to review and respond in a meaningful way.

On top of the inherent dangers from lithium-ion battery storage, the project site is subject to “acts of God” such as flooding, tsunamis and earthquakes. The BESS would be a high risk industry in a high risk area.

The new applications of battery containers that “vent” the explosions and toxic fumes upward, such as alternative #5, give me great concern that these chemical releases will not be deemed an “incident” and not reported, even though toxic, corrosive gasses are released. Industry experts may value ventilation, but with lithium-ion

¹⁴ [Plan Morro Bay](#), p. 3-29

¹⁵ [2022 Update Prepared by: Morro Bay National Estuary Program Morro Bay, California](#)

¹⁶ [Toxic fluoride gas emissions from lithium-ion battery fires](#)

batteries placed near humans and wildlife, “ventilation” is dangerous and containment is crucial.

The city hired Rincon and failed to insist that the scope of the EIR include a fully independent analysis of potential thermal runaway impacts. The city allowed this DEIR to be published despite its failure to identify impacts and mitigations. Since the Offsite Consequence Analysis, the only document that acknowledges toxic exposures, is not part of the CEQA process, agencies that must make decisions and issue permits have not been adequately informed. I am learning far more about BESS hazards from my own research and community members sharing, than from the Rincon DEIR.

These thermal runaways can smolder for days and send toxic, corrosive fumes into nearby areas. BESS incidents have been a huge concern of communities near BESS plants, leading to a global uprising of citizens against BESS facilities in their neighborhoods and near their schools, many moratoriums on building BESS, and even legislation introduced to prohibit BESS near residential areas or schools (New York). As I write this and Otay Mesa burns and spews toxic fumes, a proposed project in Escondido is protested and its residents are justifiably fearful.

The Coastal Act §30253 (a) provides that new development *shall* “minimize risks to life and property in areas of high geologic, flood and fire hazards.” The developers’ project violates this section by exposing us to an extreme risk of toxic gasses resulting from thermal runaway, in a flood and tsunami zone. The risk is amplified by potential saltwater exposure to the batteries.

The Coastal Act §30253 (e) states that new development on the coast *shall*, where appropriate, *protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*” (emphasis mine). Morro Bay is a special community with unique characteristics that are popular visitor destination points, and the city is required to protect it from high risk industrial development.

Any installation of lithium-ion batteries at the project site will not protect this unique coastal property adjacent to Morro Rock, a sacred indigenous cultural resource and visitor attraction. The proposed installation at 600 MW is expected to power 450,000 homes when other sources of energy are not available. This is 75 times more power than the amount Morro Bay will need with our 6,000 homes. The batteries will benefit the LA area and the Bay Area, not Morro Bay; and will place a disproportionate burden on this small community that is not outweighed by any claimed benefit to the city. In fact, it is a detriment to a tourism based economy. If the estuary is destroyed, the economy in Morro Bay will be destroyed.

PMB policy LU-8.7 states, “In the Embarcadero area ... development shall include all feasible measures to avoid, or if avoidance is infeasible, to mitigate against coastal hazard threats and potential impacts to coastal resources.” PMB, p. 3-56. Introducing a new and unnecessary threat to the coast and Embarcadero with unpredictable fire hazards, is directly contrary to this policy.

Even if the lead agency does allow the process to move forward on one project while the applicant switches to another, the draft EIR is still so fundamentally flawed and basically inadequate and conclusory that meaningful public review and comment are precluded. Pursuant to CEQA §15088.5 (4), for the reasons set forth below, the city must rewrite the draft EIR for recirculation. (Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043).

Further, the DEIR is inadequate because proper notice of the project has not been provided to all trustee and responsible agencies. As a project bordering a national estuary, the Department of US Fish and Wildlife should have been notified at the NOP stage. The National Estuary Program (NEP) should also have been notified. Additional numerous state and federal agencies that made commitments to enforce the Marine Protected Areas (MPAs) set forth in section 4.3, also must be notified when the EIR is rewritten. The U.S. Coast Guard should have been notified.

THE EIR MUST BE REWRITTEN AND RECIRCULATED

1. Alternative #5 is a new project requiring a new EIR.

Mid-stream in the DEIR process, in a letter dated May 7, 2024; addressed to the planning commission, Vistra indicated they “fully support” the enclosures alternative, which is alternative #5.¹⁷ This announcement was in a letter, not the DEIR, so agencies and the public are mostly unaware of it. Yet the applicant and city knew because a document known as the “Offsite Consequence Analysis” (OCA) was published 9 days after the DEIR, containing the first acknowledgement that we will be exposed to toxic gasses when there is thermal runaway. The OCA also favors alternative #5. Why did the city not delay publishing the DEIR and revise it to include information from the OCA that favored the enclosures alternative and revealed the toxic gas impacts?

The DEIR lacks transparency and does not pass muster under CEQA, as this separate but important document identifying toxic hazards was withheld from the CEQA

¹⁷ [May 7 Vistra letter](#)

process. While a discussion of the alternatives is important, a substantial difference in the alternative chosen requires a new EIR. Alternative #5 is substantially different.

Alternative #5 will include 174 containers instead of 3 large warehouses as set forth in the original application.¹⁸ Due to the presence of hazardous materials onsite at a lithium-ion battery storage facility, and the potential for toxic plumes from a battery fire, the exact engineering design of the project under review as well as the type of materials used, MUST be selected and submitted with an application before the draft EIR process begins. It is crucial that all relevant information be included in the EIR for review.

The DEIR doesn't inform us what toxic gasses will be "off-gassing." This venting process was discussed at the Vistra community meeting as if it were a mitigation measure, but it is in fact a significant impact. Venting toxic, corrosive gasses into the environment likely requires an Environmental Protection Agency (EPA) permit and approval, which may not be possible to obtain. The DEIR should discuss whether these chemicals are ozone depleters as well.

The current project, as set forth in the project application, involves 3 large warehouses filled with batteries. Agencies and the public are relying on the DEIR for that project. *When trustee and responsible agencies must comply with CEQA for the same project, the document prepared by the lead agency must be used by these other agencies to fulfill their CEQA obligations, with some limited exceptions. For the purpose of clarity to all of these agencies and the public, there must be only one project per DEIR.*¹⁹

The issues regarding containment of hazardous materials will be vastly different depending on the project under review. Impacts due to the presence of lithium compounds, heavy metals, toxic plumes, corrosive toxic gasses, particulate matter, and acidic compounds that could enter the environment, and harm humans and wildlife will be different depending on the project selected. They need to be addressed in the recirculated DEIR for our review.²⁰ Agencies and the public cannot review the impacts until we have been adequately informed of the design of the project itself.

2. Pursuant to CEQA §15126.4 (b), "formulation of mitigation measures shall not be deferred until some future time" yet that is exactly what the DEIR does.

¹⁸ [Original application plans for the project](#)

¹⁹ [CEQA Portal Topic Paper Mitigation Measures](#)

²⁰ The May 7, 2024 Vistra letter states that the technical report entitled "Offsite Consequence Analysis" is "unrelated to the CEQA process." It is inexplicable that this technical report, the only acknowledgment of serious impacts from lithium-ion thermal runaway and toxic plumes, is excluded from the DEIR.

The DEIR for the BESS project in Morro Bay wholly fails to properly inform the public as required by CEQA §15121. This is unacceptable and fails to comply with §15121, requiring a do-over and recirculation. The following important mitigation measures were among those deferred, but need to be addressed in the DEIR:

- The city outsourced the fire hazard analysis to DNV Energy USA, Inc., a consultant hired by the Morro Bay Fire Department (MBFD), who will conduct a “hazard assessment/quantitative risk analysis including thermal runaway and smoke plume modeling to provide recommendations for engineered hazard mitigation design features” *after* the DEIR process.
- A realistic, detailed health and safety plan (HASP), p. 2-22 which should include worse case scenarios;
- A site specific Fire Prevention Plan (FPP), p.2-24;²¹
- A BESS facility emergency and evacuation plan; this is particularly important given the geographic location of the project site;
- A Construction Monitoring Treatment Plan;
- A Soil Management Plan;
- A Habitat Mitigation and Monitoring Plan;
- A Stormwater Pollution and Prevention Plan;
- A Traffic Management Plan;
- A Reclamation and Decommissioning Plan and a fund to cover decommissioning;
- A Hazardous Materials Business Emergency Plan.

It’s even more important in a fragile environment with a high density of residents and tourists nearby, that mitigation measures are disclosed in the DEIR so they can be reviewed by the public and responsible agencies. Deferring this until after the EIR process is not acceptable.

3. The DEIR did not acknowledge the single most important and dangerous impact from lithium-ion battery storage, thermal runaway.

A search for the term “thermal runaway” in the DEIR resulted in zero hits. I still cannot grasp how this DEIR was published without a thorough review of the thermal runaway hazard and toxic gas exposure. The inherent nature of this technology itself makes these batteries prone to thermal runaway; but add mechanical failure, human error, and “acts of God” such as floods, tsunami, or earthquakes, and this is a high risk project in a high risk location.

²¹ See *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1394-1395 [43 Cal.Rptr.2d 170], which in turn discussed two earlier cases involving claims of improperly deferred mitigation: *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296 [248 Cal.Rptr. 352] and *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011 [280 Cal.Rptr. 478] (SOCA).

The DEIR treatment of impacts to human life and wildlife is severely deficient. The proposed project will be in the middle of a small, densely populated tourist town, bordering a national estuary, State Marine Reserve and overlapping and surrounded by ESHA. Its potential onsite and offsite impacts to wildlife will be dramatic and widespread. The developer should not be permitted to experiment on this town and its wildlife. The DEIR fails to provide evidence that impacts are less than significant or can be effectively mitigated.

ENVIRONMENTAL IMPACTS: CHAPTER 4

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number of restrict the range of an endangered, rare, or threatened species.

Due to the project location, implementation of the project will have significant impacts pursuant to CEQA 15065(a).

The DIER is a conclusory document replete with boilerplate language and vague, unsupported reassurances or promises to “minimize” impacts leading to a conclusion that impacts are therefore less than significant.

The DEIR does not adequately assess offsite impacts. The project will violate the Coastal Act and many goals and policies of Plan Morro Bay, and will have far-reaching environmental impacts and mitigation that will not be effective or feasible.

The project site is uniquely vulnerable to an accelerated rate of flooding events from climate change.²² The EPA website describes coastal flooding: “the average number of flood events per year has progressively accelerated across decades since 1950.” On the north side of the project site is Morro Creek, which floods from runoff that comes from the hills during rainstorms, and it can flood up from the ocean during king tides. When those events are combined, the danger will be amplified. The east side is an area of Main St., route 1 and Quintana Rd. that can flood as a result of rainwater from the hills. Last year that area was referred to as “Radcliffe Lake.” Significant FEMA funds were expended twice in the last two years to remediate the flood damage. This area is just behind the project site.

²² [Evidence - NASA Science](#)

In an article by the KMB Design Group dated April 11, 2023, the choice of a safe location for battery storage was discussed. *The site must be located in an area that is not sensitive to environmental impacts, such as wetlands or endangered species habitats. The site should also be located in an area that is not prone to flooding or other natural disasters.* The project fails these requirements.

“Non-negotiables” included the following, “soil at a site must be able to support the weight of the BESS and the associated equipment. Soil should also be free of contaminants that could damage the system; the site must be located in areas that are not subject to extreme weather conditions, such as flooding, high winds, or earthquakes. This project fails that test; the site must be zoned for industrial or commercial use, and it must comply with all applicable zoning and permitting requirements.”²³ This project fails these tests.

In a letter dated March 4, Dawn Addis, Assemblymember, 30th District; and Monique Limon, Chair, Assemblymember, 19th District requested additional budget resources to address climate change and sea level rise challenges facing the central coast of California. In that letter Addis wrote,

“According to the California Energy Commission in its 2018 report, sea-level rise (SLR) will have “widespread adverse consequences for California’s coastal resources including coastal flooding and erosion that will affect built structures, coastal agriculture, wetland habitat, sandy beaches, tidal marshes, and estuaries *with these impacts increasing over time.*” With erosion threatening 70% of California’s beaches, accelerating SLR combined with a lack of ample sediment in the system will drive the landward erosion of beaches, “effectively drowning them between the rising ocean and the backing cliffs and/or urban hardscape.”²⁴

The project site is vulnerable to tsunami danger (see photo below). At the April 24, 2024 community meeting with Vistra, I asked about the increased danger from lithium-ion batteries in a flood and tsunami zone. The answer was to downplay the chance of a flood and strangely indicate that a tsunami would strike from a southerly direction, with the sandspit and rock buffering the project site. This is absurd.

Even the DEIR acknowledges that “Coastal flooding has occurred on occasion in the past and strong storm events may become more frequent and/or more severe in Morro Bay.” (DEIR 4.7-11) The photo below shows that the project site is vulnerable to a tsunami from any direction, and the sandspit will definitely not protect it. This should be enough reason alone to find another location for the project.

²³ [Battery Energy Storage System \(BESS\) Site Requirements You Need To Consider | KMB](#)

²⁴ [Dawn Addis letter to Budget Chairs.pdf](#)

Effective mitigation will not be feasible.

Mitigation measures that might work for a battery storage project in another location, will simply not be effective or feasible due to the location of the project. Lithium-ion batteries are prone to thermal runaway and the release of toxic, corrosive gasses which is not acceptable in a tourist town with nearby residences and schools, and on a national estuary. Recent thermal runaway events at Otay Mesa and other facilities show they are impossible to prevent, and firefighters are unable to extinguish them. The following map shows the vulnerability of the site to flooding and tsunami danger.



4.1 Aesthetics/Visual Resources

The project will have a substantial adverse effect on a scenic vista, would substantially damage scenic resources, and would substantially degrade the existing visual character of the site and surroundings.²⁵

²⁵[CEQA appendix G: environmental checklist form](#)

Impacts AE 5.1-5.4 are all addressed in the DEIR by asserting that compliance with Plan Morro Bay (“PMB”) policies, goals and Title 17 of the Morro Bay Municipal Code would ensure that these impacts would be “less than significant.” This statement defies credulity. The project can only proceed if there’s an amendment to PMB changing the land use to industrial, allowing for the resulting degradation of views and visual resources, which means that the project will NOT comply with PMB as currently written to effect this community’s intent. Any photos of BESS facilities tell the truth about the impact they will have on Morro Bay views. This view of the Moss Landing facility cannot be mitigated and is not “visitor serving.”



A retired natural gas plant in Moss Landing, California, now houses banks of batteries and associated infrastructure to back up the electric grid. PHOTOGRAPH: CARLOS AVILA GONZALEZ/THE SAN FRANCISCO CHRONICLE/GETTY IMAGES

The degradation of views as seen from the photo of the Moss Landing facility above, is a significant impact that the draft EIR failed to acknowledge. With transmission lines, batteries and substations, the views will not integrate with any coexisting visitor serving development that Morro Bay residents envision on the power plant property.

The project site is in a tourist area, along a promenade where many visitors walk to the seafood restaurants, the otter viewing area, and down to Morro Rock. Directly across the street from the project site are beloved seafood restaurants: Tognazzini’s Dockside, Harbor Hut, and the Great American Seafood Company along with many other businesses. Across the street is “mother’s beach,” a recreational area with kayaking, stand up paddleboards, and open water swimming. A popular surf spot with

many competitions is a short distance away on Morro Rock beach. Hazardous industrial land uses like battery storage are incompatible with tourist and recreational areas.

The proposed project will violate Plan Morro Bay's Policy C-9.2, to protect views along the coast, and C-9.9, and encourage infrastructure that does not block or detract from views. The city's conclusion that "No mitigation would be required because the impact(s) would be less than significant" is unwarranted and should be rejected.

4.2 Air Quality

Appendix G to CEQA sets forth the following thresholds. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Yes, the project would conflict with PMB policies set forth below.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? Yes, from both construction impacts and a potentially lengthy thermal runaway event, spewing large amounts of toxic, corrosive gasses into the environment. Either project design could result in an extended thermal runaway lasting days or weeks. It defies logic that battery modules only ten feet apart will not overheat from a neighboring module on fire and go into thermal runaway.

Recent information about design features of battery enclosures indicates they "vent" toxic fumes out the top, which is not safe in a densely populated tourist town. This is a new significant impact, not mitigation. The impacts and EPA requirements for venting poisonous gasses need to be addressed for a reasonably foreseeable scenario like the one happening right now in Otay Mesa, that could go on for "weeks." The DEIR should address these EPA requirements when it is recirculated.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? See answer to (b) above.

d) Expose sensitive receptors to substantial pollutant concentrations?

Yes, there are many school children and elderly people in Morro Bay and they are "sensitive receptors." In addition, they may not be able to easily evacuate. While the impacts are not limited to sensitive receptors and the toxic gasses emitted during thermal runaway will poison all humans and wildlife, CEQA recommends avoiding land

uses that expose sensitive receptors to a potential source of accidental releases of hazardous materials.

A thermal runaway event would certainly fail all of the above thresholds, given that toxic, corrosive gasses are released. Since these thermal runaway events often last days to weeks, any claim that air quality standards would be met is flawed.

The project would violate Plan Morro Bay goals and policies in its air quality plan:

POLICY C-3.3: Pollutant Sites. Identify opportunities to locate new air pollutant sources away from the general population. The project would create a new source of air pollution close to the general population.

*POLICY C-3.6: Air Quality in Sensitive Land Uses. Minimize exposure of sensitive land uses to toxic air contaminants by locating new pollutant sources away from sensitive uses such as schools, hospitals, parks, playgrounds, residential areas, and natural and open space areas.*²⁶ During construction the project would not minimize, but would maximize, exposure of toxic air contaminants near schools, residential areas, playgrounds and open spaces (Lila Keiser park, Morro Rock, Coleman park and beach, possibly all parks in the city). Post-construction potential impacts include toxic plumes contaminating the air at sensitive uses including numerous playgrounds, parks and schools in Morro Bay, Coleman beach less than 200 feet away, Morro Rock and the beach and multi-use path in that area, and residential areas very close by.

As required by CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. The above impacts are significant and the mitigation measures proposed inadequate.

To the extent air quality issues are addressed in the DEIR, it is only with respect to the potential impacts from construction activities during the BESS construction and power plant demolition. In Table 4.2-7, it is concluded that the lifetime excess cancer risk is exceeded by the project construction and demolition.²⁷ As to cancer risks from toxic gasses released during thermal runaway, the DEIR did not address this, but should do so when recirculated.

²⁶ [Plan Morro Bay](#), p. 4-30.

²⁷ However, since Vistra is switching projects this impact is now unknown.

The excess cancer risk for the maximally exposed individual receptor due to construction and demolition activities is shown in Table 4.2-7. As shown, BESS Facility construction activities have the potential to expose sensitive receptors to pollutant concentrations that exceed the applicable screening threshold for health risks, requiring mitigation.

Table 4.2-7 Demolition and Construction Health Risks

Source	Lifetime Excess Cancer Risk (in a million) ¹
Demolition	0.3
Construction	77.3
Total	77.7
Significance Threshold	10
Threshold Exceeded?	Yes

¹ Excess lifetime cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a unitless probability. The cancer risk attributed to the emissions associated with the project was calculated based on the modeled annual average DPM concentration, the intake factor for a resident child, the Cancer Potency Factors for DPM, and the Age Sensitivity Factors.
Source: Ramboll 2023 (Appendix B)

Mitigation measures include AQ-1(a) SLOAPCD Standard Mitigation Measures for Construction Equipment. Measures described in DEIR 4.2-18 include: maintain construction equipment; use proper fuels, use construction equipment that is compliant with regulations, use certified diesel equipment, do not idle equipment for over 3 minutes, no diesel idling within 1000 feet of sensitive receptors, no staging and queueing within 1000 feet of sensitive receptors, use electric or alternative powered equipment in lieu of diesel, and follow standard mitigation measures for construction equipment.

The DEIR concludes that the risk of cancer after these measures will not exceed any threshold, and is less than significant, but it fails to provide sufficient detail or the nexus necessary to reach that conclusion. Further, it will be difficult or impossible to comply with the “1000 feet” limit from sensitive receptors for diesel fuel idling, staging and queueing. Within that 1000 foot radius from the project site; tourists including children and the elderly live, surf, paddle, play at parks, and eat at restaurants.

The DEIR on the topic of air quality fails to identify the potential for release of hazardous toxic fumes released after a thermal runaway event or during “venting.” Mitigation measures would apparently be to blow the toxic plume out of the top of the container, and instruct residents to close their windows and turn off their ventilation systems (as Moss Landing residents were instructed to do). This is not mitigation; it is another significant and unmitigable impact. A comprehensive review of the potential impact on air quality of a BESS thermal runaway should include research from this potentially catastrophic hazard, including studies that were done in Arizona after the

BESS thermal runaway that injured firefighters; and in South Korea, and the recent ongoing Otay Mesa incident in which air quality data is collected by robots and drones.

An article written June 5, 2021 entitled, Safety of Grid Scale Lithium-ion Battery Energy Storage Systems, describes the details of the hazard. ²⁸

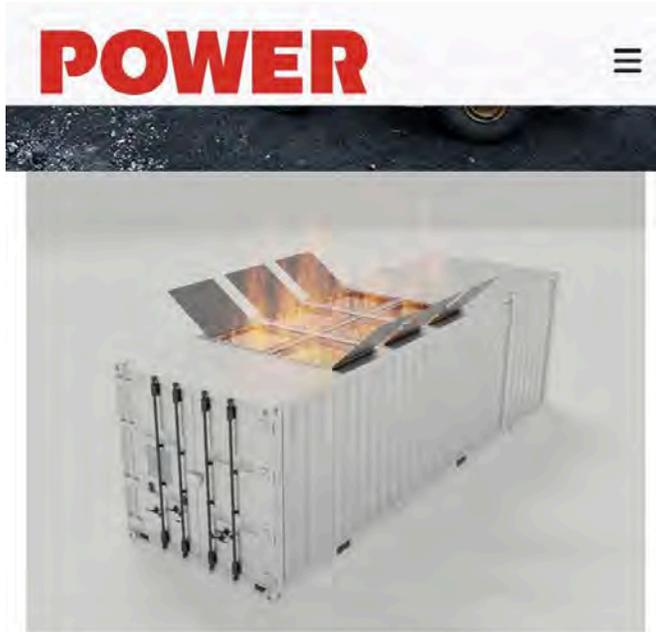
Li-ion batteries can fail by “thermal runaway” where overheating in a single faulty cell can propagate to neighbors with energy releases popularly known as “battery fires”. These are not strictly “fires” at all, requiring no oxygen to propagate. They are uncontrollable except by extravagant water cooling. They evolve toxic gasses such as Hydrogen Fluoride (HF) and highly flammable toxic gasses including Hydrogen (H₂), Methane (CH₄), Ethylene (C₂H₄) and Carbon Monoxide (CO). These in turn may cause further explosions or fires upon ignition. The chemical energy then released can be up to 20 times the stored electrotoxic energy.

No existing engineering standards address thermal runaway adequately, or require measures (such as those already used in EV batteries) to pre-empt propagation of runaway events.

Lacking oversight... the entire responsibility for major accident planning currently lies with local Fire and Rescue Services. Current plans may be inadequate in respect of water supplies, or for protection of the local public against toxic plumes.

The scale of Li-ion BESS energy storage envisioned at “mega scale” energy farms is unprecedented and requires urgent review. The explosion potential and the lack of engineering standards to prevent thermal runaway may put control of “battery fires” beyond the knowledge, experience and capabilities of local Fire and Rescue Services. BESS presents special hazards to fire-fighters; four sustained life-limiting injuries in the Arizona incident.

²⁸[\(PDF\) Safety of Grid Scale Lithium-ion Battery Energy Storage Systems](#)



2. Explosion vent panels are installed on the top of battery energy storage system shipping containers to safely direct an explosion upward, away from people and property. Courtesy: Fike Corp.

Explosion Protection. To protect against the worst-case scenario of the shipping container exploding, Fike recommends that all BESSs are protected with explosion vent panels (Figure 2).

Image of the latest technology from “Power” magazine.

In a July 20, 2021 article from [Powermag.com](https://www.powermag.com), *Protecting Battery Energy Storage Systems from Fire and Explosion Hazards*, it was acknowledged that “[t]here are serious risks associated with lithium-ion battery storage systems but indicated the container design contains vents on the top to “safely” direct an explosion upward...”²⁹ This is not encouraging and would likely require an EPA permit.³⁰

In the April 24 meeting materials, Vistra presented a similar design approach including “M-dampers” that release heat and gas to minimize propagation, and “deflagration panels” that automatically open with predetermined pressure to prevent explosion similar to the above design in “Power” magazine. These images are disturbing and provide even more evidence that the facility should not be near humans or wildlife.

²⁹[Protecting Battery Energy Storage Systems from Fire and Explosion Hazards](https://www.powermag.com)

³⁰ Vistra’s April 23 presentation included images of a similar venting system for toxic smoke.

§4.3 Biological Resources

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. Implementation of the project may have a significant adverse impact if it would do any of the following:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? Yes, see below.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? Yes, see ESHA section below.
3. Have a substantial adverse effect on state or federally protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Yes, in the national estuary.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? Yes, including sea otter nurseries, harbor seal pupping, nesting bird sites; see otter section below as well as discussion of nesting and migrating birds.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Yes, see discussions regarding Plan Morro Bay policies violated.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?³¹ Yes, among others, the National Estuary Comprehensive Conservation and Management Plan, in which preserving biodiversity and reducing toxic pollutants are priorities.³²

The DEIR, studying only the wildlife onsite or within 50 feet, is severely deficient in discounting the potential impacts to fish and wildlife. The Otay Mesa firefighters used equipment to detect toxic fumes within a 600 foot perimeter, barricaded that area and a much larger area was evacuated. The area barricaded and evacuated would likely be much larger in Morro Bay. But inside a 600 foot perimeter in Morro Bay, are many

³¹ [CEQA appendix G: environmental checklist form](#)

³² [2022 Update Prepared by: Morro Bay National Estuary Program Morro Bay, California](#)

species of birds that nest or overwinter nearby and there is a significant risk mothers will abandon their nests. The Migratory Bird Treaty Act protects local cormorants, hawks, falcons, osprey, great blue herons, egrets, pelicans, loons and more. The sea otter population with their nurseries directly across the street, up and down their primary habitat from Morro Rock to the south T-pier are thriving in Morro Bay, but still threatened overall. California Fish and Wildlife has indicated their overall population is still threatened. The project has the potential for direct mortality or disturbance to the sea otters and other species, resulting in an unlawful “taking.”

Effective mitigation for the abundant wildlife will not be feasible in Morro Bay.

The number and density of nesting birds in a realistic impact zone (from cumulative construction impacts and toxic fumes from thermal runaway) is too many to monitor and prevent impacts. The reason we have the laws provided in the national estuary, Marine Mammal Protection Act, the State Marine Reserve, the Endangered Species Act, the Migratory Bird Treaty Act, the NEP Comprehensive Conservation and Management Plan, among others...is to protect this wildlife and their habitat. Thermal runaway release of toxic, corrosive gasses could kill wildlife and events such as tsunamis, floods, and earthquakes increase the risk that a large number of containers will ignite.

When imposing mitigation, lead agencies must ensure there is a “nexus” and “rough proportionality” between the measure and the significant impacts of the project. (CEQA Guidelines § 15126.4, subd. (a)(4)(A)–(B), citing Nollan v. Ca. Coastal Commission (1987) 483 U.S. 825, Dolan v. City of Tigard (1994) 512 U.S. 374.) All mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. (CEQA Guidelines, § 15041.)³³

Under the Coastal Act, the Commission is required to protect the coastal zone's delicately balanced ecosystem. (§ 30001, subds.(a)-(c); § 30001.5, subd. (a); City of San Diego v. California Coastal Com. (1981) 119 Cal.App.3d 228, 233, 174 Cal.Rptr. 5; Sierra Club v. California Coastal Com. (1993) 12 Cal.App.4th 602, 611, 15 Cal.Rptr.2d 779 (Pygmy Forest).)

In terms of the general protection the Coastal Act provides for the coastal environment, it is analogized to the California Environmental Quality Act (CEQA) (§§ 21000-21174). “The courts are enjoined to construe the statute liberally in light of its beneficent purposes. The highest priority must be given to environmental consideration in interpreting the statute.” Bolsa Chica Land Trust v. Superior Court of San Diego County, 71 Cal. App. 4th 493, 83 Cal. Rptr. 2d 850 (1999).

³³ [CEQA Portal Topic Paper Mitigation Measures](#), p. 1

Morro Bay is a State Marine Reserve (SMR). Any disturbance of marine resources could constitute harassment and result in an unlawful taking. The SMR is remarkable in its rich variety and density of wildlife, yet the draft EIR treatment of impacts to the many sensitive species, endangered species, and nesting birds is severely deficient. The draft EIR should have not only addressed potential impacts to wildlife on the project site or in the vicinity, but should have anticipated impacts to wildlife due to toxic gasses emitted during thermal runaway.

Thermal runaway at a 600 MW facility is going to produce toxic, corrosive fumes that will likely cause significant impacts to the entire national estuary and Environmentally Sensitive Habitat Areas (ESHA). The proposed BESS “vicinity” (using Rincon’s terminology) for potential impacts from a thermal runaway would be the entire city, the entire estuary and Morro Rock, an area much greater than Figure 02, the blue circle map or the purple Moss Landing shelter in place map. The DEIR failed to do this important analysis.³⁴

The Atlas of Sensitive Species for Morro Bay, prepared by the NEP and the California Department of Parks and Recreation, describes 95 sensitive species. For the few species that are identified in the EIR, the conclusion is always the same... that there will be no significant impact or that it can be mitigated by education, surveys and monitoring.

The Environmentally Sensitive Habitat Areas

Special-status species and habitats of the Project site are afforded protection under the California Coastal Act and through enforcement of goals and policies contained in the City of Morro Bay’s LCP. To address Environmentally Sensitive Habitat Areas (ESHAs) consistent with the CCA, the Local Coastal Plan applies the following criteria for designating ESHAs:

- Unique, rare or fragile communities which should be preserved to ensure their survival in the future;
- Rare and endangered species habitats that are also protected by state and federal laws;
- Specialized wildlife habitat which are vital to species survival;

³⁴ Draft EIR at p. 4.3-7. No marine mammals or reptiles were observed during the field surveys conducted on the Power Plant Property. The Project Site is situated within approximately 220 feet of Morro Bay but does not include marine or shoreline habitats with the potential to support marine mammals or reptiles (Appendix C).

- Outstanding representative natural communities which have an unusual variety or diversity of plant and animal species;
- Areas with outstanding educational values that should be protected for scientific research and education uses now and in the future. (Morro Bay, 1982).

Morro Bay has all of the above in the vicinity of the project site. The “rock” provides homes for nesting and overwintering bird populations. Peregrine falcons do not build nests, but nest near water on ledges of rocky cliffs ... they scrape a small depression in the ledge and often return to the same spot year after year. Other unique resources include the sandspit dunes, the southern sea otters with their habitat bordering the project site, the snowy plover nesting in the nearby dunes, the great blue heron rookeries, the sea lion raft, pelicans of both types, osprey, and many others in the ESHA, State Marine Reserve and national estuary. Habitats for all of them can be found in the vicinity of the project site and their breeding and nesting sites are likely to be impacted by construction noise and vibrations.

In addition, bald eagles and osprey nest in the vicinity of the project site. Night herons nest in eucalyptus trees near the stacks; great blue herons, great egrets, double crested cormorants and swallows nest nearby at the Fairbanks point rookery, and numerous raptors nest in the tall eucalyptus and cypress lining the shores all along the waterfront. Many California sea lions stay most of the year, harbor seals pup in the vicinity, and the snowy plover nest on the sandspit and nearby dunes. Numerous protected species winter over in the vicinity. The southern sea otter habitat is right across the Embarcadero from the project site. Their habitat covers the area from Morro Rock to the back bay; the sea otter is discussed further below.

If these habitats and their wildlife survive three to four years of construction, they could be killed by toxic fumes from fires due to thermal runaway.

A Biological Assessment consultant noted the project may disrupt wildlife, displace breeding and nesting, and cause mortality to wildlife.

In 2022, Padre Associates, Inc, (“Padre”), a consulting group of engineers, geologists and environmental scientists, was hired by the city to do a Biological Assessment Report for the project site and vicinity. The report was updated in 2023. Padre biologists conducted field surveys including the eelgrass habitat around Coleman Beach and the T-piers (§3-2). The DEIR referenced the Padre reports, so they are part of the CEQA process. Padre acknowledged direct impacts from construction, but failed to identify impacts from toxic gasses released during thermal runaway. Padre stated,

“...construction equipment used during Project implementation will temporarily increase noise, increase the potential for vehicle strikes, and may

disrupt wildlife behavior. Ground disturbance has the potential to result in injury or death of wildlife and/or destruction of bird nests. Steel piling driving may produce noise levels that would disturb or displace wildlife breeding or nesting in the Project vicinity.”³⁵

“Effects on biological resources in the Project site area have the potential to be short-term (temporary) and long-term (permanent). Initial Project activities (staging, grading, demolition, and construction) will temporarily alter the natural movement and behavior of wildlife, and potentially occurring special-status species (if present), within the Project site area. Further, initial Project activities may cause mortalities to existing wildlife and special-status wildlife species (if present) due to equipment and vehicle strikes. Project activities also have the potential to cause temporary indirect impacts such as erosion and sedimentation to Morro Creek, thereby indirectly impacting potentially occurring special-status fish species (i.e.; tidewater goby and South-central California coast steelhead).

There is the potential for long-term loss of wildlife habitat and special-status botanical resources, ESHA, and potential mortalities to special-status wildlife species due to Project grading, demolition, and construction activities, and development of above ground facilities, infrastructure, and impervious surfaces. The permanent loss of habitat may reduce the available suitable habitat for special-status wildlife including obscure bumblebee, Morro Bay blue butterfly, coast horned lizard, silvery legless lizard, migratory birds and raptors, California red-legged frog, pallid bat, Townsend’s big-eared bat, and big free-tailed bat. The Project development will permanently remove special-status botanical resources including Silver bush lupine scrub vegetation community, Blochman’s leafy daisy, Monterey cypress and Monterey pine trees, and bird rookeries and Back Dune/Dune Scrub ESHAs.

Short and long-term impacts would be avoided or minimized to the extent feasible with implementation of applicant proposed mitigation measures provided above.”³⁶

“To the extent feasible” is qualifying language that requires a critical analysis. The above description just mentioned killing protected wildlife and destroying sensitive habitat, against the provisions of the Coastal Act, CEQA standards, the ESA, the Marine Mammal Protection Act, the National Estuary Program, the Marine Life Protection Act

³⁵ [Padres Bio Assessment 2023](#), §5-3

³⁶ [Padres Bio Assessment 2023](#), §5-6

the California Supreme Court rulings, all related implementing regulations, and then said the developer will minimize impacts “to the extent feasible.”

The proffered mitigation will not be feasible, *but what is feasible is another location for the project*. Southern sea otters are in the project vicinity; in plain sight all day, but the Padre field biologist somehow overlooked them even though they noted the Shallow Bay/Mudflat/Eelgrass habitat in which the otters live. (The California Natural Diversity Database occurrence records have been updated to show the southern sea otter habitat in Morro Bay.) Padre acknowledged the impacts from construction noise and vibrations and how they can disturb or displace wildlife breeding or nesting; it is the sea otters and their nurseries, (among other species) that will be disturbed.

Many species that will be adversely impacted by toxic, corrosive gasses from thermal runaway are further than 50 feet away but still inside a realistic perimeter where toxic gasses will be detected based on what we are learning from Otay Mesa. The area of impact would likely be much larger for a thermal runaway in Morro Bay due to the size of the facility.

The density and extent of wildlife in Morro Bay is incomparable to anything I’ve seen before. Many guests and visitors have made the same observation. Teams of biologists would be required to monitor the nesting and otter nurseries, but the damage control would not be enough to mitigate the adverse impacts and prevent disturbances and unlawful takings.

“When imposing mitigation, lead agencies must ensure there is a “nexus” and “rough proportionality” between the measure and the significant impacts of the project. (CEQA Guidelines § 15126.4, subd. (a)(4)(A)–(B), citing Nollan v. Ca. Coastal Commission (1987) 483 U.S. 825, Dolan v. City of Tigard (1994) 512 U.S. 374.) All mitigation must be *feasible* and fully enforceable.” (emphasis mine).³⁷

Mitigation Measures BIO-1(a) through BIO-1(j), set forth in the DEIR at p. 4.3-26-4.3-31 are only designed to protect species on the project site or the vicinity (EIR p. 4.3-27). Measures such as a “worker environmental awareness program,” “surveys” and “monitoring” lack the nexus to the impacts and will not save the wildlife in the estuary when those toxic, corrosive fumes are released.

The Biological Assessment failed to identify offsite impacts from the project.

Section 4.4.2 of the Padre report describes the ESHA referred to as Shallow Bay/Mudflat/and Eelgrass Potential mapped within the water off the Coleman Park Beach area (Rincon, 2018). The Morro Bay harbor and estuary supports areas of

³⁷ [CEQA Portal Topic Paper Mitigation Measures](#)

seagrass beds comprised of eelgrass (*Zostera marina*) that are considered to be a valuable coastal habitat worldwide (Morro Bay Estuary Program, 2021). The report then indicated that the project site is located approximately 150 feet east of the harbor, therefore there will be no impacts. However, pile driving noise and vibrations can be felt and heard from great distances, as the DEIR indicates, and certainly within the otter habitat and habitat for the nesting birds nearby.

Toxic fumes from thermal runaway will significantly impact and likely destroy parts of the ESHA. These battery “fires” are unplanned and when they occur, it will be too late for mitigation. The aquatic resources and wetland habitats, the breeding and overwintering sites at the rock, the dunes, and trees, and the other sensitive natural communities will be severely impacted. These impacts were not addressed in the DEIR.

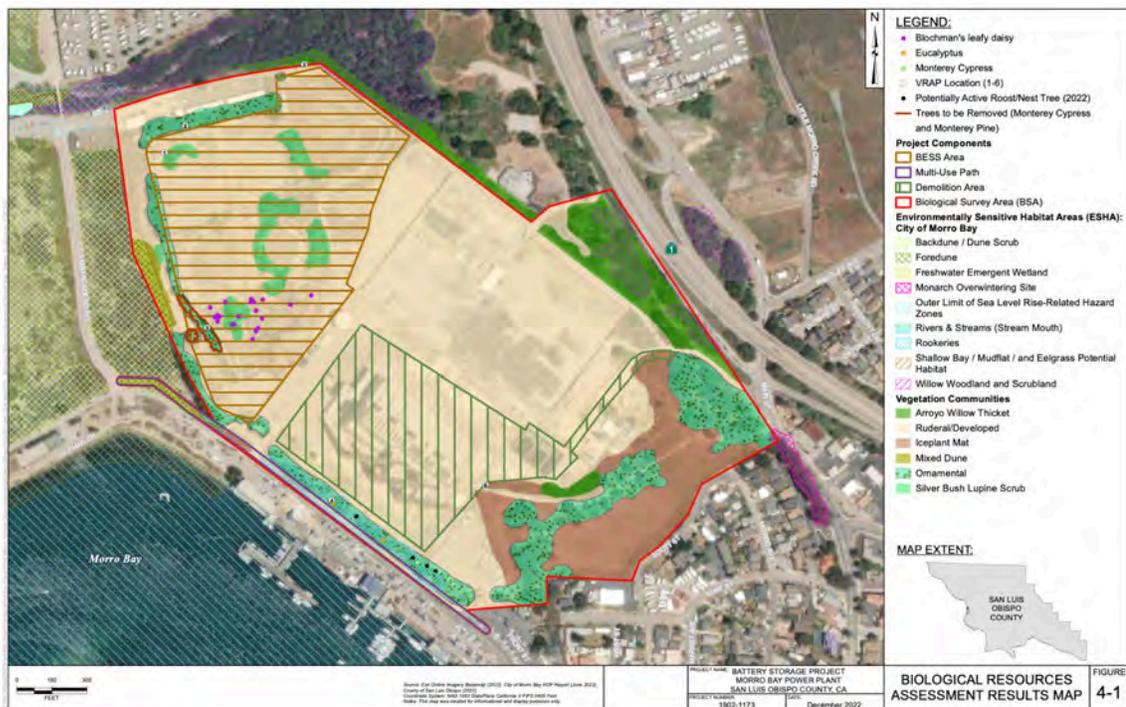


Figure 4-1 identifies some of the ESHA that may be impacted, but it is flawed in that the study area is too small and excludes habitat for many species that could be adversely impacted, particularly in view of the foreseeable thermal runaway that could last weeks.

Padre acknowledged the potential impacts to many species as set forth in §5-1 to 5-6; but depending upon the species, I disagree with any inference that 3 to 4 years of construction activities is “temporary,” for wildlife. Each species is different.

The project is contrary to PMB Goal C-1 and related policies

Goal C-1 of PMB states: Sensitive habitats are protected from potential negative impacts of land use and development. Policy C-1.1 states, “[p]rotect Environmentally Sensitive Habitat Areas, which could be easily disturbed or degraded by human activities and developments. The ensuing policies in PMB are designed to carry out the above goal of protecting the ESHAs. “Buffers” are minimums, only apply if they protect the ESHAs, and cannot be used to shield a developer from compliance when the primary goal is to protect the ESHAs.

Policies C-1.3 to C-1.17 : The project site and its vicinity include many ESHA. The foreseeable impacts from construction and operation of the BESS, including potential li-ion battery fires, will encroach on the ESHA and result in unmitigable impacts. The project will violate all of the above policies.

Battery storage is not coastal dependent, and is not compatible with the ESHA.

In Banning Ranch Conservancy v. the City of Newport Beach, 2 Cal.5th 918, 216 Cal. Rptr. 3d 306, 392 P.3d 455 (Cal. 2017), the California Supreme Court addressed treatment of ESHAs in an EIR. In that case, the city of Newport Beach had omitted any identification of the ESHAs, but the language and holdings in the case are instructive.

In Banning Ranch, Coastal Commission staff pointed out that under the Coastal Act, development must avoid impacts to ESHA, indicating that CEQA §30240 does not permit “non-resource dependent impacts to an ESHA area.” §30240 states that development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas *shall* be sited and designed to prevent impacts which would significantly degrade those areas, and *shall* be compatible with the continuance of those habitat and recreation areas.

“CEQA guideline §15125(c) states: Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are *rare or unique* to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context. (Emphasis mine).

The Supreme Court in Banning Ranch held that the EIR was insufficient, because it failed to account for the Coastal Act ESHA protections. “The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR’s function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental

consequences and, equally important, that the public is assured those consequences have been taken into account. (Laurel Heights I, supra, 47 Cal.3d at pp. 391-392.)” (Vineyard, supra, 40 Cal.4th at p. 449; see Concerned Citizens, supra, 42 Cal.3d at pp. 935-936.)

The Supreme Court in Banning Ranch ultimately found that by certifying an inadequate EIR, the City abused its discretion. “[F]ailure to disclose information called for by CEQA may be prejudicial, regardless of whether a different outcome would have resulted if the public agency had complied” with the law (§ 21005, subd. (a)).” (Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439, 463.)

The project conflicts with Plan Morro Bay policies and the Coastal Act. The city of Morro Bay has a General Plan and Local Coastal Plan, known as “Plan Morro Bay,” which has been certified by the Coastal Commission. Plan Morro Bay, p. 4-12 to 4-27, sets forth its goals and policies, including Policy C-1.2:

*Development in ESHA (as defined in Policy C-1.1 and Coastal Act Section 30107.5) shall be limited to uses dependent on the resource (e.g., habitat restoration, scientific research, and low-intensity public access and recreation), as well as the uses specified in Coastal Act Sections 30233 and 30236 for wetlands and streams, respectively. All allowable development in ESHA shall be sited and designed to protect against significant disruption of habitat values, including to rare and endangered species. The analysis should also consider potential effects on off-site overwintering and nesting sites, if applicable. Development in areas adjacent to ESHA shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitats.*³⁸

Consistent with this policy and the rest of Plan Morro Bay are the other policies that are related to protecting the ESHA, policies C-1.1 to C-1.17. Construction and operation of a lithium-ion battery storage facility is not consistent with the continuance of the ESHA habitats, and will degrade these areas.

³⁸ [Plan Morro Bay](#)



In this case, the DEIR treatment of ESHAs was grossly inadequate because it failed to address the ESHA impacts in the vicinity of the project, which could result from construction noise and vibrations or toxic thermal runaway.

The Supreme Court in Banning Ranch stated that “by definition, projects with substantial impacts in the coastal zone are regionally significant.” *Id.* at 19. The city of Morro Bay and the proposed project site are therefore regionally significant, but in addition, the list of environmental resources that require protection as they are “rare or unique” in Morro Bay is long. This includes Morro Rock as a cultural resource, a geologic feature and as a habitat.

The DEIR for the BESS in Morro Bay, instead of construing the language of the Coastal Act as it is intended, to protect the ESHA, fabricates a narrow application of the Act by (1) ignoring the cumulative impacts from heavy machinery resulting in noise and vibrations during construction; likely impacting the nesting birds, sea otters and other

sensitive species; (2) ignoring the foreseeable thermal runaway releasing toxic plumes that will significantly impact ESHA and wildlife in the vicinity (3) relying on narrow buffers to avoid addressing the issues in (1) and (2) above, as if all of the possible impacts from a 600 MW battery storage facility will remain on site. This approach is not realistic and is contrary to the protective provisions of the Coastal Act and the holding in Banning Ranch.

The endangered Southern Sea Otter was once believed to be extinct.

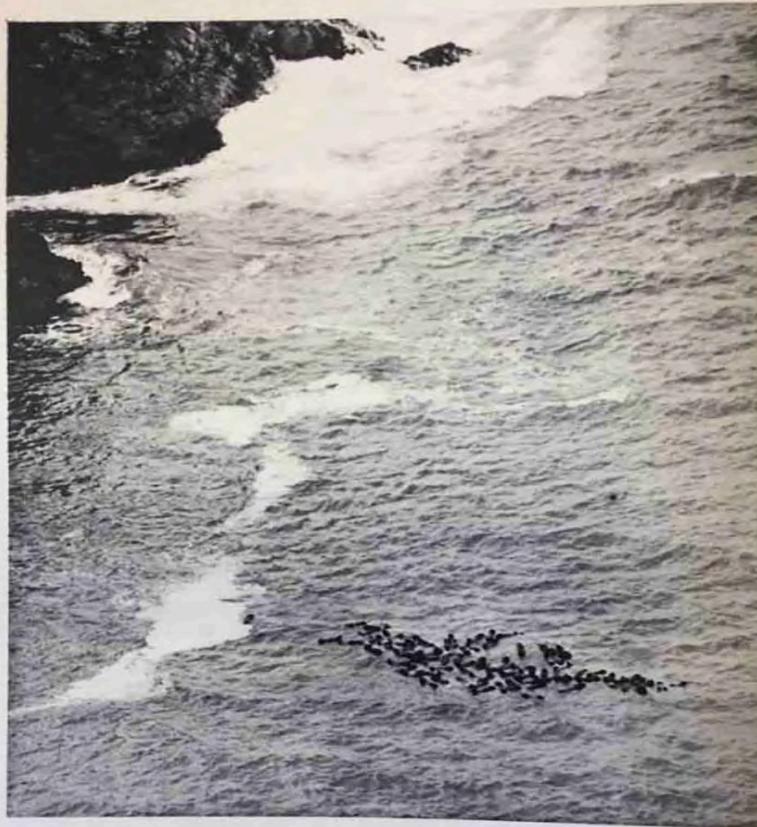
In a letter to the California Department of Fish and Game dated February 2nd, 1915, lighthouse keeper John W. Astrom reported on a small southern sea otter population off the coast of Big Sur. At that time the sea otters were believed to be extinct, but Mr. Astrom did not know that his observations would help launch one of the greatest and most iconic conservation success stories in history.



Prior to the arrival of fur trappers and merchants along the Pacific Coast of North America, there were 150–300,000 sea otters living along the coasts. Like all sea otters along the North Pacific rim, southern sea otters were hunted to near extinction during the fur trade of the 1700s and 1800s. ³⁹ By the time they were rediscovered, laws had been enacted to protect the otters from further hunting, namely the Fur Seal Treaty of

³⁹ [The Fall and Rise... and Fall Again of Sea Otters](#)

1911 and state protections in 1913. Later the United States congress would pass further legislation protecting sea otters and other vulnerable animals through the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. These pieces of legislation have been the catalyst for sea otter recovery.⁴⁰



THE "EXTINCT" SEA OTTER SWIMS BACK TO LIFE

This is one of the rarest sights in the world—a herd of more than half a hundred sea otters. Since 1913 the sea otter, despite protection by the governments of the U. S., Japan, Russia and Great Britain, has been practically extinct. About five pelts a year are sold by the U. S. Government at St. Louis, taken from dead animals or by poachers. The retail price of one pelt may reach \$1,400.

This picture, taken May 16 by Paul Fair from a 200-ft. cliff near Monterey on the coast of California,

shows the sea otters lying on their backs in the warmish shallows. Each is from 5 to 6 ft. long, covered with a dense, short, soft blue-grey-golden fur speckled with white hairs.

The sea otter is heavier than the fresh-water otter, which is a cousin of the skunk. It has enormously broad hind feet and enlarged premaxillary teeth for cracking shells. It feeds on clams, mussels, sea urchins and crabs, can dive to great depths, sleeps on kelp beds at sea and only comes ashore to breed. It

commutes from the Bering Sea southward along the coasts of the Pacific. It was a great feat for the sea otter to breed itself back from near-extinction because, like the seal, it has but one pup a year. It carries its pup under one arm while swimming. Its decimation began when the Russians on the Vitus Bering in 1742 used sea otter skins to stuff the chairs in their cabins, sold them in China for \$200 a skin, leading to great otter-hunting expeditions and Russia's annexation of Alaska. The sea otter is now very scarce.

The sea otters survived because a few dozen animals eluded hunters off the rugged coast of Big Sur. In 1937, people traveling on California's newly built Highway 1 saw something astonishing. Far below them at the edge of the Big Sur cliffs, tossed on rough waters, was a cluster of bobbing sea otters. On June 20, 1938, Life magazine published a photo of what it called "one of the rarest sights on earth"—a large raft of

⁴⁰ [Sea Otters Return](#)

several dozen sea otters near Bixby Bridge. Its headline proclaimed, “The ‘extinct’ sea otter swims back to life.”⁴¹

The sea otter population slowly grew back to around 3,000 but has remained at that level and its only habitat is the central coast between Monterey and Santa Barbara. On September 19, 2023, after a challenge to their status, the US Department of Fish and Wildlife announced that the southern sea otters will retain Endangered Species Act protections.

“Southern sea otters occupy only about 13 percent of their historical range. They once ranged from Oregon to Baja California, Mexico. Today, they inhabit portions of the central California coast from San Mateo County to Santa Barbara County and the waters surrounding San Nicolas Island in Ventura County.

Southern sea otters are now protected under the ESA, Marine Mammal Protection Act (MMPA) and California state law as a species of special concern. The southern sea otter population has grown slowly since receiving federal protections in the 1970s, fluctuating around 3,000 in recent years.

Sea otters play a fundamental role in the ecological health of nearshore ecosystems. Their presence in the ocean enhances biodiversity, increases carbon sequestration by kelp and seagrass, and makes the ecosystem more resilient to the effects of climate change. They are a well-known keystone species.

"While southern sea otters have made strides toward recovery after coming back from the brink of extinction in our recent history, they continue to face significant threats from climate change, shark-bite mortality, and limited range," said Steve Henry, field supervisor for the U.S. Fish and Wildlife Service in Ventura. "Based on scientific projections of future conditions for the species, these threats will continue to impact southern sea otter abundance and connectivity between populations in ways that will most likely reduce the ability of the species to sustain itself in the future."⁴²

Impacts to the southern sea otters in Morro Bay will be profound and unmitigated.

The uniquely calm, protected harbor in Morro Bay harbor is home to 45 adult sea otters, and 11 pups as of February, 2024.⁴³ There are not many estuaries in the southern sea otter habitat that offer this protection for these nurseries that Morro Bay has against

⁴¹ [Searching for the Southern Sea Otter - Lost & Found - Positive Conservation Storytelling](#)

⁴² [U.S. Fish and Wildlife Service announces southern sea otters will retain Endangered Species Act protections](#)

⁴³ This information is per Sea Otter Survey, an organization that conducts monthly counts in Morro Bay estuary. [Sea Otter Savvy letter- otter count.pdf](#)

predators and challenging ocean conditions. Their habitat is directly across from the project site. Section 4.3 of the DEIR compares the otters to pinnipeds (walruses, seals, sea lions, and elephant seals) and downgrades the impact to otters from construction noise and vibration to “less than significant.” §4.3-24. This assessment is a major failure of the draft EIR, which did not address the impacts to the sea otter’s daily requirements for sleep, ability to feed, and reproduce.

Construction and battery fires have the potential to interfere with the otters’ sleeping, breeding, and eating, and will constitute a significant impact pursuant to CEQA Guidelines Section 15065(a)(1). The project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. With respect to the sea otter in particular; the project, has the potential to adversely impact the sea otter population in any or all of the three categories outlined in §15065(a).

When a sea otter becomes pregnant, the implantation and development of the embryo often stops, and the embryo may not implant for several months. Gestation is many months, depending on the time of implantation of the egg in the uterus.⁴⁴ Scientists believe the purpose of delayed implantation in sea otters is to allow for the birth of pups when environmental conditions and food supplies are most favorable.

“The gestation period for sea otters is immensely longer than other otters, lasting between 4 and 12 months. After fertilization takes place, the sea otters go through a phase called delayed implantation and development is suspended. This phase usually lasts between two and three months. Sea otters give birth to their pup in the water and very rarely ever give birth on land.

“Newborn otters are extremely helpless because they are blind and not very mobile. The growth rate of the otter is very slow. The first swimming attempts take place at about three months, but diving takes more time. After four months they follow the female on nightly travels for food. About 8 months after birth the pup begins to go out on its own and begins to take care of itself.”⁴⁵

“Females devote a considerable amount of energy to pup rearing, while males provide no parental care. By the end of the pup dependency period, females may be expending twice as much energy producing milk, sharing prey, and caring for their pups as they would during periods without a pup. This can result in seriously compromised health and body condition of the female at the time of pup weaning, particularly in populations where sea otters are present at high densities and the food supply is limited.

⁴⁴ [Southern Sea Otter | Online Learning Center | Aquarium of the Pacific](#)

⁴⁵ [Sea Otter Reproduction](#)

During this time, female sea otters may be particularly vulnerable to changes in prey abundance, aggressive males, disease and “chronic disturbance.”⁴⁶

For the southern sea otters, pupping happens year round in Morro Bay, and in between pupping the gestation period and weakening strength of the mother otters are sensitive periods that must be protected. Construction impacts for sensitive wildlife will be unmitigable. The timing and duration of potential impacts from thermal runaway toxic fumes cannot be predicted and are also therefore unmitigable.

Interference with marine mammal breeding, and “pupping” is an unlawful taking. In April of 2022, harbor seals in Pacific Grove were so disturbed by nearby road construction that it interfered with their pupping season. Construction was halted for the remainder of pupping season, but it was too late. According to Thom Akeman, a long-time volunteer with the Monterey Bay National Marine Sanctuary Network’s Bay Net docent group, Pacific Grove beaches saw 60 successful harbor seal births this year — and 29 losses. That’s a loss rate of about 33% percent.⁴⁷

Akeman attributed the difference to noise from roadwork. To lose a third of the pregnancies is very abnormal,” he said. “It was all due to miscarriages. Pregnant seals on the beaches get disturbed, ... they’re hypersensitive and get nervous.”

Akeman said 23 of the 29 losses occurred during the eight weeks of Pacific Grove’s initial street repair attempt on Ocean View Boulevard. The question is, can the city of Morro Bay learn from this and prevent a calamity from this foreseeable danger to sleeping, breeding and feeding of the southern sea otter, the nesting birds, the harbor seals in Morro Bay? Interference with the otters’ daily sleep needs alone may result in reduced reproductive success, reduction in health, and direct mortality to the otters, who have pups year round.

In response to a question at the April 24, 2023 Vistra meeting about impacts to wildlife from unplanned chemical releases, Dr. Shari Libicki candidly answered:

These ecological studies, offsite consequence analyses are in their infancy in terms of their ability to do things and its primarily because people don't understand for each species, for humans there are all of these studies to determine what does hydrogen fluoride do for people and you can imagine how much more difficult it is to look at all the various species and determine what the hydrogen fluoride is doing for them so, the short answer is "no" and the slightly longer answer is we just don't have the data. 1:22

⁴⁶ [Natural History of the Southern Sea Otter](#)

⁴⁷ [Pacific Grove to Protect Harbor Seal](#)

This is alarming. If road construction was enough to interfere with harbor seal pupping in Pacific Grove, a multiple years long construction period for the project will be much worse. Post construction, toxic, corrosive gasses from thermal runaway will harm humans and wildlife, and the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number of or restrict the range of an endangered, rare, or threatened species. These impacts will be significant; and adequate, effective mitigation will not be feasible.

The project will impede the use of native wildlife sea otter nurseries.

The DEIR fails to identify the impact set forth in CEQA Appendix G, chapter IV that the project would (d) “interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.”

The preferred sea otter habitat at its closest point is the harbor, 220 feet from the project site as set forth in the DEIR §4.3-7 but their nurseries are mostly at the T-pier and Morro Rock, a short distance away. They are present in the “back bay” near Los Osos as well. Shops along the Embarcadero sell postcards and T-shirts with cute sea otter mom and pup images, as well as stuffed otters. The otters are a major part of our tourist economy.

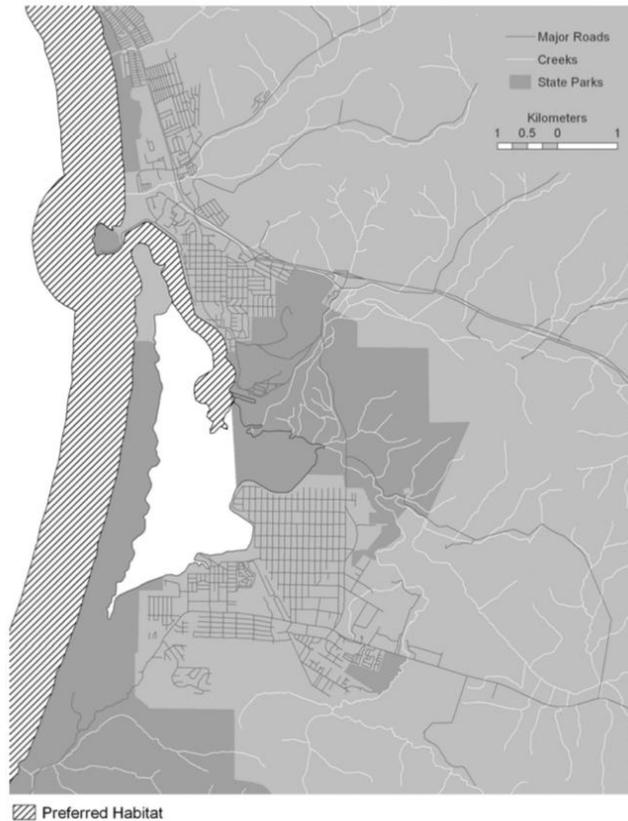
The DEIR fails to address these construction impacts or how the city could mitigate the hazard of toxic fumes for the otters and their pups, short of building a dome over the battery installation. The DEIR fails to specify a plan to mitigate the hazard of contaminated runoff water to the endangered steelhead trout in Morro Creek, the peregrine falcons hatching in their nests at the rock and the many other sensitive species in the national estuary. (See the Atlas of sensitive species for Morro Bay).

The two photos below show common locations to see “rafts” of sea otters in Morro Bay, but they are seen all over the harbor and back bay. These photos are followed by a map from the “Atlas of Sensitive Species of Morro Bay,” showing the preferred habitat of the sea otter, which borders the project site.

Sea Otters at the Morro Bay T-Pier and Morro Rock



DISTRIBUTION of SOUTHERN SEA OTTER (*Enhydra lutris nereis*)



[Atlas of Sensitive Species Morro Bay Area](#), p. 194-195

The DEIR “Maximally Exposed Map,” Figure 02, includes sea otter nurseries;

Figure 02 in the DEIR below, shows the consultant’s idea of maximally exposed individual receptor area which includes residential areas next to the project site, the seafood restaurants and shopping center across the street. It also includes part of the sea otter habitat, steelhead trout in the creek, many nesting birds and many other species which were not identified as potentially impacted in the DEIR. Figure 2 underestimates the exposure area, because it does not account for construction noise impacts or toxic fumes from thermal runaway events, which can last for weeks. But even within this area, the DEIR is inadequate in evaluating impacts to the wildlife and habitat which includes the otter nurseries and nesting birds. The “barricaded zone” of toxic gas exposure in Morro Bay would likely be a larger area than that in Otay, Mesa, but either way it would include the otter nurseries.

DEIR chapter 4.8-8 describes the 36-month construction phase of the BESS including sonic booms, blasting and pile driving. The mitigation measures cited in the DEIR would not reduce the impacts to less than significant.



Disturbing sea otters would disrupt normal behaviors and constitute a “taking.”

The DEIR fails to adequately identify the impacts of this noise and vibration to the sea otters and other sensitive species. Building a BESS so close to the endangered sea otter nurseries would result in an unlawful “taking” under the Endangered Species Act. The project has the potential to increase sea otter mortality, as well as to adversely impact their ability to sleep, feed and reproduce successfully.

The DEIR at p. 4.2-24 states: “NMFS has used 90 dB RMS as the in-air disturbance threshold for harbor seals and 120 dB RMS for non-harbor seals (NMFS 2018). For sea otters, similar weighting functions conservatively fit with those used by NMFS (National Marine Fisheries Service) for pinnipeds in air and underwater (U.S. Department of the Interior, Bureau of Ocean Energy Management 2021).” (emphasis mine).

It is absurd that the DEIR is using data about sea lion, elephant seal and walrus noise thresholds to form conclusions about sea otters, a much smaller animal with

different sensory, behavioral and reproductive systems. The developer cannot experiment on protected species. Based on this ridiculous comparison and a failure to discuss cumulative noise impacts in §4.8, the DEIR concludes the project “would not result in a significant impact on marine resources, such as pinnipeds, mustelids, cetaceans, and fish.”

The above is the sum total of the analysis of impacts to the sea otters, and it is severely deficient. Under the Code of Federal Regulations, 50 CFR 17.3, 17.21, 17.31 (Harassment under the Endangered Species Act), it is unlawful to “take” any threatened or endangered species. Take includes harassment. Harassment is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. A “take” could also then include disrupting the normal behavior patterns of sea otters that include sleeping 10-12 hours per day. Otters who are unable to sleep will also be unable to feed and reproduce.

Construction and operation of the BESS so close to endangered sea otters would likely violate the Marine Mammal Protection Act. According to 50 CFR 216.3, 216.11 (Harassment under the Marine Mammal Protection Act), it is unlawful to “take” any marine mammal, which includes harassment.... any act of pursuit, torment, or annoyance which has the potential to injure (Level A) or disturb by causing disruption of behavioral patterns (Level B) a marine mammal or marine mammal in the wild.

According to the California Code of Regulations, 14 CCR 251.1 (Harassment of Animals), it is unlawful to harass, herd or drive any game or non-game bird or mammal or fur bearing mammal. Building a BESS facility in Morro Bay would result in disruption of numerous species' normal behavior patterns, not just the southern sea otter. The peregrine falcons, great blue herons, pelicans and many other species of birds have nests nearby and fly through airspace above the project site. These species were not studied, but an unlawful taking could result from both construction noise and vibrations, toxic air contaminants, heavy metals or particulate matter in the air and water, and toxic fumes or contaminated water from battery fires.

There are many state and federal pertaining to lethal take of wildlife, including the federal Migratory Bird Treaty Act,(MBTA)⁴⁸ National Park regulations, and several state regulations. Causing nest abandonment is illegal under the MBTA. The city needs to inform all of these agencies so they can take action to protect wildlife they are tasked to protect.

⁴⁸ [Migratory Bird Treaty Act of 1918 | U.S. Fish & Wildlife Service](#)

Under the Coastal Act, the Commission is required to protect the coastal zone's delicately balanced ecosystem. The Coastal Act provides heightened protection to ESHAs. Section 30107.5 identifies an ESHA as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.”

The Project does not carefully safeguard the preservation of ESHA in Morro Bay.

The Court of Appeals in Bolsa Chica Land Trust v. Superior Court of San Diego County, 71 Cal. App. 4th 493, 83 Cal. Rptr. 2d 850 (1999) stated that development in adjacent areas (to an ESHA) must carefully safeguard their preservation.”⁴⁹ Placing a BESS in or adjacent to an ESHA is clearly in violation of both the spirit and the letter of the Coastal Act, and is contrary to California Court decisions. Sierra Club v. California Coastal Com. (1993) 12 Cal. App. 4th 602, 611 [15 Cal. Rptr. 2d 779] (Pygmy Forest).

Construction noise and vibrations, toxic air contaminants and smoke from battery fires, as well as contaminated runoff, will likely be unmitigable impacts to the southern sea otter, bird nesting sites, and potentially many species in the national estuary, the ESHA, and the Marine Reserve Area.

Impacts from toxic, corrosive fumes could result in an unlawful taking under the legal protections cited above, due to wildlife exposure to toxic gasses including hydrofluoric acid, hydrogen cyanide, hydrogen chloride, carbon monoxide and phosphoryl fluoride.

Species of Special Concern are protected as Morro Bay is a State Marine Reserve.

Morro Bay is also a State Marine Reserve (SMR). The otters are included in this area, along with harbor seals, sea lions and hundreds of species of birds that nest or migrate here. All “take” of living marine resources is prohibited, and placing a BESS facility so close to an SMR could result in an unlawful taking of many species including marine mammals and night herons, great blue herons, great egrets, double crested cormorants and swallows; a birds that nest at Fairbanks Point by the Inn at Morro Bay, and numerous raptors that nest in the eucalyptus and cypress lining the waterfront.

These species, just some of those listed in the “Atlas,” live in the various ESHA. Some of these species are considered “Special Animals” deserving of protection. This category includes “Species of Special Concern” (SSC) but is broader.⁵⁰ Many of the following have SSC status and are entitled to protection under state law.⁵¹

⁴⁹ [Bolsa Chica Land Trust v. Superior Court \(California Coastal Com.\) \(1999\)](#)

⁵⁰ [Special Animals List](#)

⁵¹ [Species of Special Concern](#)

Many Federal agencies are tasked with protecting migratory birds and should have been notified of this project, given the large number of migratory birds in the vicinity of the project.⁵² In 2001 President Bush signed an executive order to direct federal agencies with carrying out the legislation enacted to protect migratory birds, indicating they “are of great ecological and economic value to this country and to other countries” and “they contribute to biological diversity and bring tremendous enjoyment to millions of Americans who study, watch, feed, or hunt these birds throughout the United States and other countries.” The United States has recognized the critical importance of this shared resource by ratifying international, bilateral conventions for the conservation of migratory birds.”⁵³

The DEIR failed to identify potential offsite impacts in the vicinity from construction activity and toxic plumes caused by thermal runaway to the following birds, some of whom are protected by the Migratory Bird Treaty Act of 1918, and have SSC status. The following species of birds and other wildlife were identified in the “Atlas of Sensitive Species of Morro Bay,” created jointly by the Morro Bay National Estuary Program and the California Department of Parks and Recreation.⁵⁴ Most of these were not adequately addressed in the DEIR, and none of the offsite impacts to these species from toxic fumes were studied.

- The Long-billed Curlew and their habitat; see p. 120-121 of the “Atlas.”
- The Western Snowy Plover, an endangered species, and possible habitat destruction, from construction noise and vibration as well as from toxic fumes caused by thermal runaway; see p. 114-115 of the “Atlas,” snowy plover habitat has been disrupted in Morro Bay by vehicle traffic which will be exacerbated by BESS construction trucks entering and leaving the construction site.
- The Northern Harrier; see p. 96-97 of the “Atlas;” this species has lost much of its nesting and foraging habitat in California due to development.
- The Osprey; see p. 92 of the “Atlas;” this species nests throughout the area.
- The Double-breasted Cormorant; see p.88-89 of the “Atlas.”
- The California Brown Pelican; see p. 86-87 of the “Atlas;” they are no longer endangered but can be threatened by human disturbances.

⁵² the Migratory Bird Treaty Act ([16 U.S.C. 703](#)–711), the Bald and Golden Eagle Protection Acts ([16 U.S.C. 668](#)–668d), the Fish and Wildlife Coordination Act ([16 U.S.C. 661](#)–666c), the Endangered Species Act of 1973 ([16 U.S.C. 1531](#)–1544), the National Environmental Policy Act of 1969 ([42 U.S.C. 4321](#)–4347)

⁵³ [Responsibilities of Federal Agencies To Protect Migratory Birds](#)

⁵⁴ [Atlas of Sensitive Species Morro Bay Area](#)

- The American White Pelican; see p. 84-85 of the “Atlas;” their colonies are extremely concentrated and therefore vulnerable to catastrophic losses. White pelicans are present in Morro Bay.
- The Common Loon; see p. 82-83 of the “Atlas.”
- The Brant; see p. 78-79 of the “Atlas;” this species can easily be disturbed by noise and coastal development.
- The Peregrine Falcon; see p. 108 of the “Atlas.” The American peregrine falcon is listed as a federally endangered species during its nesting season. “This bird of prey species frequently nests near water on ledges of rocky cliffs or buildings, and occasionally will use abandoned nests of other species. Peregrine falcons do not build nests but scrape a small depression in the surface of their nesting site and typically nest year after year in the same locations. American peregrine falcons are fairly uncommon throughout San Luis Obispo County and are generally found along coastal areas. Long-term nest use (over 15 years) has been recorded at the Morro Rock Natural Preserve, approximately less than one mile of the BSA. This is one of only a few sites within the County where nesting peregrines are consistently found, although migrants and winter transients augment wintering populations. Focused surveys were not conducted for American peregrine falcon within the BSA, and this species was not observed during the September 2015 or December 2020 field survey; however, its distribution throughout the region is well documented (Padre, 2015a). Due to the mobility of this species and nearby occurrences, American peregrine falcons have the potential to occur transiently within the Project site during foraging and/or movement throughout the region.”⁵⁵

Other species of wildlife that the project could potentially impact include:

- The Tidewater Goby; see p. 67-68 of the “Atlas;” threatened by loss of habitat due to coastal development.
- The Steelhead Trout, an endangered species; see p. 66-67 of the “Atlas;” the steelhead trout habitat in Morro Creek directly borders the project site and would be impacted by contaminated runoff or chemical condensation due to rain or fog;
- The Harbor Seal; see p. 190-191 of the “Atlas;” harbor seals are extremely vulnerable and sensitive to human disturbances, abandoning their pups if they experience loud noises; they are common in Morro Bay. Construction in Pacific Grove was halted during pupping season for the harbor seals nearby in that area.

⁵⁵ [Padres Bio Assessment 2023](#), 4-38-39.

- The California Sea Lion; their habitat is directly across the Embarcadero from the project site and overlaps the sea otter nurseries; see p. 200-201 of the “Atlas.”
- The Southern Sea Otter, on the federal list of Endangered Species as threatened, and they are discussed separately in this letter.

Morro Rock is a permanent or temporary home to dozens of species of birds. This year alone, 2024, at least 123 species of birds have been observed at the “rock.”⁵⁶

Morro Bay wildlife is protected by the California Marine Life Protection Act

Morro Bay has two protected areas under the California Marine Protection Act; the Morro Bay State Marine Reserve and State Marine Recreational Management Area. Under the California Marine Life Protection Act (MLPA) passed in 1999, California began a historic effort to establish a science-based, statewide network of MPAs through a collaborative effort.⁵⁷ In January of 2010, a Memorandum of Understanding (“MOU”) was reached for the implementation of the Marine Life Protection Act (MLPA, California Fish and Game Code Section 2850 et seq.).

The first ten agencies below were signatories to their commitment to implement the MLPA and for implementation of the state's draft Master Plan for the MLPA. ⁵⁸ The list also includes agencies to be notified for the national estuary and the environment.

- California Ocean Protection Council;
- California Natural Resources Agency;
- the California Environmental Protection Agency;
- California Department of Fish and Game;
- California Department of Parks and Recreation;
- State Water Resources Control Board;
- NOAA Western Regional Collaboration Team United States National Oceanic and Atmospheric Administration;
- Navy Region Southwest DoD Regional Environmental Coordinator;
- Board of Trustees California Ocean Science Trust;
- Resources Legacy Fund Foundation.
- US Fish and Wildlife (not a signatory to this MOU, but should have been notified as the project site borders a national estuary);
- National Estuary Program;
- The U.S. Coast Guard;
- The Environmental Protection Agency

⁵⁶ [Morro Rock bird list](#)

⁵⁷ [State Marine Reserve](#)

⁵⁸ [MOU California Marine Life Protection Act.pdf](#)

These agencies were not notified in the NOP stage of this CEQA process. When this DEIR is recirculated, the city should notify each agency and send them all of the information related to the proposed project including these comment letters.

Mitigation measures proposed will not be effective and are not feasible.

When imposing mitigation, lead agencies must ensure there is a “nexus” and “rough proportionality” between the measure and the significant impacts of the project. (CEQA Guidelines § 15126.4, subd. (a)(4)(A)–(B), citing Nollan v. Ca. Coastal Commission (1987) 483 U.S. 825, Dolan v. City of Tigard (1994) 512 U.S. 374.) All mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. (CEQA Guidelines, § 15041.)

CEQA advises developers to avoid mitigation measures that are intended to solely ‘educate’ which is exactly what the applicant for the project wants to do with its mitigation measure BIO-1(a): “Worker Environmental Awareness Program.”

CEQA advises developers to avoid repeating federal, state, or local legal requirements. If there is already a law that addresses the impact, compliance with the law should be discussed in the analysis but does not need to be a mitigation measure. This type of mitigation measure is just “filler”... compliance with state and federal laws is required anyway.⁵⁹ The repetitive boilerplate “regulatory compliance” promise is used as mitigation throughout the DEIR and inappropriately used to justify downgrading a significant impact to less than significant. What is needed is actual, effective, measurable, feasible mitigation; but that is unlikely in the project location.

BIO-1(b) and (c), best management practices, and surveys, do not truly provide effective mitigation of the impacts to wildlife.

BIO-1(e) -(j), Avoidance, Minimization, and/or Mitigation Measures for Special Status Species, are only described for wildlife observed on the project site. The Special Status Species included are the obscure bumblebee and/or Morro Bay blue butterfly, red-legged frog, the legless lizard and/or coast horned lizard, the pallid bat, Townsend's big-eared bat, and big free-tailed bat and special status or nesting birds. If there are any nesting birds in the trees that border the property, or trees that are planned for removal, they must not be disturbed. However, again, the impacts of this project will go far beyond the project site itself and all special status wildlife, including the above but also the sea otters, fishes and nesting birds in a realistic study area must be protected.

Since the DEIR failed to adequately address any off site impacts to humans or wildlife, the document must be rewritten and recirculated. Offsite impacts include noise

⁵⁹ [CEQA Portal Topic Paper Mitigation Measures](#)

and vibration, traffic, light, toxic plumes from venting thermal runaway incidents, and more. All of this must be studied, disclosed and reviewed.

Chapter 4.5 Geology and Soils

Implementation of the project introduces new hazards to an area with expansive soils and liquefaction risk, adding significant risk to the community. Appendix G to CEQA asks if the project would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

Yes-Liquefaction is a process in which saturated soil temporarily becomes fluid during intense and prolonged ground shaking, or because of a sudden shock or strain. Liquefaction typically occurs in areas with loose sand or silt where groundwater is shallow. See discussion below.

b) Result in substantial soil erosion or the loss of topsoil?

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?"⁶⁰

The answer to all of the above is yes, these impacts are foreseeable and significant, with ineffective mitigation measures proposed. The DEIR at ES-18 notes that the project site is in an area with the potential for ground shaking, which can cause

⁶⁰ [CEQA appendix G: environmental checklist form](#)

liquefaction, settlement, lateral spreading, subsidence, and/or collapse in areas with loose sand or silt where groundwater is shallow. The DEIR then states, “with implementation of mitigation requiring the Project Applicant to implement project-specific design recommendations to treat the Project Site in such a manner as to address seismically induced geologic hazards, this impact would be reduced to a less than significant level.” Implement what recommendations? “Project specific” design recommendations has no meaning when the developer has not yet selected the project design. This could not be more vague.

The project has the potential to expose people or structures to potential substantial adverse effects, including the risk of loss or injury. Given the nature of the industry and history of thermal runaway that often result from damage to the batteries, a project site subject to liquefaction and expansive soils is not the place for lithium-ion batteries.

The DEIR also notes that the project site is in an area with expansive soils with the potential to shrink and swell, which is contrary to section (d) above, but the mitigation measure is a “geotechnical assessment” which will not be effective given the circumstances that damage to lithium-ion batteries leads to thermal runaway.

The project violates Plan Morro Bay goals and policies related to geologic hazards.

POLICY PS-2.9: New Development in High-Risk Areas. Require that new development in areas subject to liquefaction and/or landslide hazards is constructed and located in a manner that will minimize risks to life and property.

POLICY PS-2.13: Additional Standards for Development Subject to Geologic and Seismic Hazards. In addition to other hazard requirements that may apply, development in areas that are potentially subject to geologic hazards, (including Alquist-Priolo earthquake hazard zones and areas subject to landslides, liquefaction, steep slopes averaging greater than 30 percent, and unstable slopes regardless of steepness) shall comply with the seismic safety standards of the Alquist-Priolo Act (California Public Resources Code Sections 2621. et seq.) and all applicable seismic provisions and criteria in the most recent version of State and County codes; shall incorporate siting and design techniques to mitigate any such geologic hazards; and shall not create a hazard or diminish the stability of the area.

As discussed in Section 3.3, the Project Site overlies Quaternary-aged alluvium composed of gravel, sand, and some clay, and the material in the immediate vicinity of the Project Site is beach and dune sands (Figure 2). Areas containing beach and dune sand deposits have a high liquefaction potential (SLO County 1999), and the Site has a

"moderate potential" liquefaction risk (SLO County 2023)....An adjacent site was assessed to have soils that are highly susceptible to liquefaction (Bengal 2014).⁶¹ Based on this information, the Project Site soils are susceptible to liquefaction and associated settlement that may result from a seismic event. According to the DEIR, this impact is potentially significant.

Building a high risk battery storage facility on the project site would be contrary to the Morro Bay Municipal Code, chapter 14, which includes building and construction requirements to reduce hazard potential applicable to new construction. The Morro Bay Local Hazard Mitigation Plan (LHMP) is a plan to improve the resiliency in the community by identifying natural hazards present in Morro Bay, determining the community's vulnerability to each hazard, and identifying development mitigation strategies to reduce vulnerability before emergency situations develop.



Figure PS-3 from PMB shows the project site is moderate to high risk for liquefaction.

The mitigation measure is a “Geotechnical Assessment,” which may not be sufficient or effective considering the type of hazardous materials involved. Assessment

⁶¹ DEIR appendices part 2, Geologic and Soils Hazard evaluation report, p. 28

is important, but does not replace mitigation. Since the impacts are derived from the location of the proposed project, the mitigation is to move the project to a safe location. Implementation of the project is inconsistent with the “Morro Bay Municipal Code and Local Hazard Mitigation Plan,” as the project introduces new hazards to the area, adding significant risk to the community.

Chapter 4.6 Greenhouse Gasses Appendix G requires us to ask, would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? The DEIR does not adequately address this.
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?”⁶²

The DEIR makes the unfounded claim that any environmental impact from the BESS would be less than that from all other visitor-serving commercial uses. *Shops, restaurants, hotels, parks, aquariums and apartments do not experience thermal runaway.*

The DEIR also assumes the area will be heavily developed with high density shopping or housing, (which is not high on the list of options presented in the 2023 survey) and from that assumption draw the baseless conclusion that greenhouse gasses will be higher with any option other than the BESS. It also ignores thermal runaway incidents that could result in an ecological disaster here, contaminating the community and the estuary.

In Morro Bay in a single day, the wind often begins as an offshore breeze, turns to cross-shore, and then onshore from the W/NW or even south. If it’s foggy, the toxic fumes will sit right here in town and over the harbor for the duration of the thermal runaway; “weeks” long now, according to experts cited in the Otay Mesa thermal runaway. The EIR contains no analysis of an actual worst-case scenario involving multiple battery containers in thermal runaway on an average day, that could have fog or wind shifts exposing all of us. Either way the toxic plume will not remain on the project site.

The developer has creatively interpreted each threshold to promote their idea that their project will only serve and benefit the city of Morro Bay. This is seen easily in the “Conflict Analyses” in p. 4.6-17 to 4.6-20. Under policies such as “practice environmental stewardship” and “public safety,” there is no mention of the impacts from lithium-ion thermal runaway events that are happening globally now.

⁶² [CEQA appendix G: environmental checklist form](#)

Venting harmful toxic gasses into the environment is an impact, not mitigation

The off-gassing of toxic gasses through a vent, likely to happen if the developer switches to the “enclosures alternative,” is a potential short or long-term significant impact, but it was discussed as a mitigation measure in the Vistra meeting because the gasses would be “dispersed.” The DEIR fails to identify the off-gassing of hazardous materials through a vent. Instead, they assert they will minimize impacts to the environment with their design, construction and operation, therefore the impact will be insignificant. A promise to “minimize” an impact is too vague to be considered mitigation.

4.7 Hazardous Materials and §6.2.2 Potential Environmental Damage from Accidents

The DEIR failure to address thermal runaway, that can lead to the exposure to toxic chemical releases smoldering for days, is appalling.

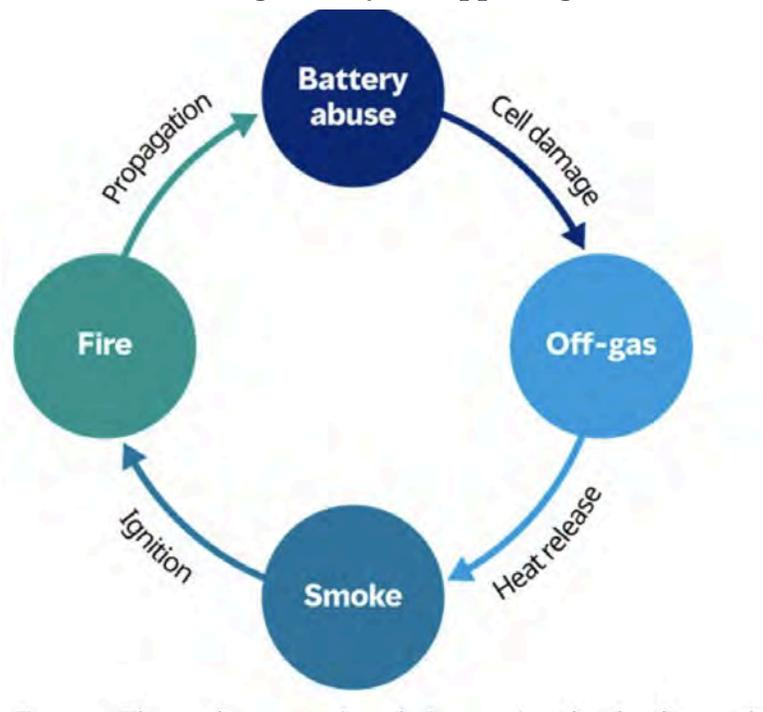


Figure 1: Thermal runaway is a chain reaction that leads to a destructive feedback loop.

The following thresholds of significance are based on Appendix G of the California Environmental Quality Act CEQA Guidelines. For the purposes of this EIR, implementation of the project may have a significant effect on the environment if it would do any of the following:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.⁶³

The toxic and corrosive gasses that will result from thermal runaway are a significant impact that cannot be feasibly mitigated since the firefighting approach is “let it burn.”⁶⁴ Whether the gasses are contained in a building or enter the environment directly from containers, they will be entering the environment. The DEIR at 4.7-26 does not adequately identify potential, reasonably foreseeable impacts set forth in the thresholds of significance. I will be addressing #1, 2,3, and 6 here.

(1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

The DIER failed to adequately address the dangers of transporting the batteries. Lithium-ion batteries can easily be damaged in transport, making them more prone to thermal runaway when they arrive in Morro Bay.

Lithium batteries are dangerous to ship and are highly regulated by the US Department of Transportation, another agency that should be notified when the new project documentation is filed and the EIR rewritten and recirculated. In a DOT bulletin regarding transportation of lithium-ion batteries, the hazards were described.

“The risks posed by lithium cells and batteries are generally a function of type, size, and chemistry. Lithium cells and batteries can present both chemical (e.g., corrosive or flammable electrolytes) and electrical hazards. Unlike standard alkaline

⁶³ [CEQA appendix g: environmental checklist form](#)

⁶⁴ [Recharging the transition: The role of battery energy storage systems](#)

batteries, most lithium batteries manufactured today contain a flammable electrolyte and have an incredibly high energy density. They can overheat and ignite under certain conditions, such as a short circuit, physical damage, improper design, or assembly. Once ignited, lithium cell and thermal runaway can be difficult to extinguish.”⁶⁵

The following threshold relating to §4.7 was not adequately identified in the DEIR.

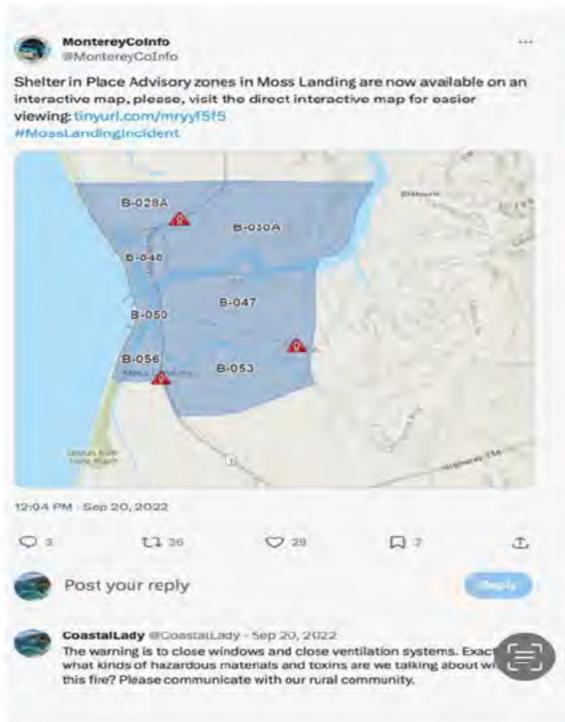
(2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The DEIR fails to address the release of toxic, corrosive gasses that will be an impact of thermal runaway.

The Otay Mesa thermal runaway fire, ongoing now, is entirely foreseeable in Morro Bay and would have devastating impacts here. A realistic impact zone from toxic gasses would include all of Morro Bay and the estuary.

The following map, shaded purple, is the shelter in place “lockdown” map for a PG&E BESS thermal runaway in Moss Landing, in September of 2022. Numerous BESS fires incidents globally have had similar evacuation or shelter-in-place orders. A similar lockdown or evacuation area for a thermal runaway in Morro Bay would include all of downtown, all of the residential neighborhoods of Morro Bay, Morro Bay high school, the entire tourist area at Morro Rock and the Embarcadero, the endangered otter nurseries, the peregrine falcon nesting sites at the rock, the Great Blue Heron rookeries, the sea lion habitat, the ESHA and national estuary with all of its other sensitive species, and areas outside the city limits on route 41. As BESS in Morro Bay will be larger than the PG&E facility in Moss Landing, our evacuation areas and shelter-in-place areas would likely be larger.

⁶⁵ [Transporting Lithium Batteries | PHMSA](#)



There have been three BESS incidents at Moss Landing in a two year period, and at least 86 BESS “fires” globally. A resident of Moss Landing who was present during a shelter-in-place that resulted from the PG&E BESS fire in 2022 indicated they received the following warnings:

*"There is an ongoing hazardous materials incident in Moss Landing. Please shut your windows and turn off your ventilation systems. In the event of changing weather patterns, impacted areas may enlarge."*⁶⁶

A proper analysis of the impacts would include several possibilities, with modern computer modeling and spreadsheets. One of those possibilities is a 14 day thermal runaway such as the one in Chandler, Arizona. Any assumptions for modeling need to be explained by an expert.⁶⁷

Due to its proposed location, there are significant environmental impacts that cannot be avoided or sufficiently mitigated if the project or any lithium-ion battery project is implemented on the proposed site. CEQA §15126.2. The location is located in a tourist area, next to a mobile home park, .31 miles from a high school, within a quarter mile of downtown, and within a few blocks of residential homes. The danger to human

⁶⁶ Rosemarie Barnard letter.pdf

⁶⁷ [Fire crews tend to massive, smoldering battery in Chandler facility](#)

life is great, and the danger to wildlife will likely be unmitigated. When thermal runaway starts, it will be too late to mitigate. Dousing the thermal runaway and developing an evacuation plan are crisis mode efforts to minimize damage, not mitigation measures.

The environmental impacts and the mitigation measures both need to be identified and discussed in detail, “at the earliest feasible stage in the planning process,” otherwise they are in direct conflict with the guidelines implementing CEQA.⁶⁸ California Code of Regulations, title 14, section 15070, subdivision (b)(1).

The DEIR fails to analyze the unique challenges in fighting thermal runaway.

The DEIR indicates that the enclosures will be spaced 10 feet apart from each other, but this is not safe. In the UK, the recommendation is a standard minimum of 6 meters, or over 19 feet distance between BESS units “unless a competent fire engineer creates a design that can safely reduce the distance.”⁶⁹

The extent of Rincon’s impact analysis for thermal runaway hazards is found on the very last page of the EIR, in §6.2.2, when they acknowledge that “while fire risks can be minimized through use of proposed safety systems, fuel reduction, and siting, it cannot be assured that fire hazards could be completely avoided upon implementation and operation of the BESS facility.”

When there is a thermal runaway and toxic fumes are vented, some of the toxic fumes we will be exposed to include the following, as set forth in their Material Safety Data Sheets (“MSDS”):

Hydrogen fluoride (Hydrofluoric acid) :

“Colorless liquid with a pungent, irritating, penetrating odor. Concentrations above 40% fume in air. Will not burn. Cylinders or tanks may rupture and explode if heated. Highly reactive. Contact with metals, such as iron or steel, slowly releases flammable and potentially explosive hydrogen gas. VERY TOXIC. May be fatal if inhaled, absorbed through the skin or swallowed. CORROSIVE to the nose, throat and respiratory tract. Causes lung injury-effects may be delayed. CORROSIVE to the eyes and skin. Causes severe burns. May cause blindness and permanent scarring. Absorbed fluoride can cause metabolic imbalances with irregular heartbeat, nausea, dizziness, vomiting and seizures. Long-term exposure may cause skeletal fluorosis (weakened bone structure). Target Organs: Lungs, teeth, eyes, skin, bone, mucous membranes.”⁷⁰

⁶⁸ [Sundstrom v. County of Mendocino, 202 Cal.App.3d 296 | Casetext Search + Citator](#)

⁶⁹ [Grid-Scale-Battery-Energy-Storage-System-planning-Guidance-for-FRS.pdf](#), p.7.

⁷⁰ [Hydrofluoric Acid MSDS.pdf](#)

Hydrogen Chloride:

“Potential Acute Health Effects: Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant, corrosive), of ingestion, . Slightly hazardous in case of inhalation (lung sensitizer). Non-corrosive for lungs. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of the respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects: Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Hydrochloric acid]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, Circulatory System, teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.”⁷¹

Hydrogen Cyanide:

“...this gas mixture is a colorless gas which is odorless. Hydrogen Cyanide is an extremely toxic gas; even brief over-exposures to relatively low doses may have significant health consequences. Acute low-level exposure can cause symptoms such as cyanosis, headache, dizziness, unsteadiness of gait, a feeling of suffocation and nausea. Additionally, releases of this gas mixture may produce oxygen-deficient atmospheres (especially in confined spaces or other poorly-ventilated environments); individuals in such atmospheres may be asphyxiated.”⁷²

⁷¹ [Hydrochloric acid MSDS](#)

⁷² [Hydrogen Cyanide MSDS](#)

Carbon Monoxide:

“Causes damage to organs through prolonged or repeated exposure; Contains gas under pressure; may explode if heated; extremely flammable gas, may damage fertility or the unborn child, and toxic if inhaled.”⁷³

The containment measures will be significantly different for 174 enclosures, requiring a new DEIR.

Containing the lithium compounds, toxic plumes, heavy metals, particulate matter, etc. will all be significantly different for the new project, alternative #5, indicating the need for a new DEIR for that project. Quantitative measurements of heat release and fluoride gas emissions during thermal runaway for seven different types of commercial lithium-ion batteries were studied in this article, so the EIR needs to specify the batteries that will be used.⁷⁴ Many BESS projects are now using these containers with marketing about how the engineering design will prevent thermal runaway, but these BESS incidents keep happening. Like Vistra, many of these battery storage companies put a huge focus on safety in their marketing materials. Several layers of risk engineering should make li-ion batteries safe, but the battery racks continue to go up in flames and toxic gasses. If the newest technology in fire suppression systems results in a melted fire suppression system, it's worthless to mitigate the impact.

The Uniform Fire Code, Article 80 (Section 80.103 of the Uniform Fire Code as adopted by the State Fire Marshal pursuant to HSC Section 13143.9), includes specific requirements for the safe storage and handling of hazardous materials. These requirements are intended to reduce the potential for a release of hazardous materials and for mixing of incompatible chemicals, and specify the following specific design features to reduce the potential for a release of hazardous materials that could affect public health or the environment (EIR p. 4.7-19):

- Separation of incompatible materials with a noncombustible partition;
- Spill control in all storage, handling, and dispensing areas; and
- Separate secondary containment for each chemical storage system. The secondary containment must hold the entire contents of the tank, plus the volume of water needed to supply the fire suppression system for a period of 20 minutes in the event of a catastrophic spill.

If the city and its consultants don't think thermal runaway is a problem, why does the DEIR mention the fire department 95 times, and keep reassuring us the fire department will be ready?

⁷³ [Carbon Monoxide MSDS](#)

⁷⁴ [Toxic fluoride gas emissions from lithium-ion battery fires | Scientific Reports](#)

Approximately 350 gallons per minute (GPM) of water is used in the interior sprinkler system at Otay Mesa, and 500 GPM for the exterior hose lines. For a 24 hour period the total is 1,224,000 and for two weeks, the total is over 17 million gallons of water. This is a conservative estimate because some exterior hose lines have a much greater capacity. How will they store enough gallons of water to suppress a two week fire, and where is that water coming from? How do you contain that much contaminated water? All of these questions need to be answered.

The DEIR fails to identify how much water will be used to stop a thermal runaway that occurs in a Costco sized building filled with li-ion batteries. The DEIR fails to explain how the area will be sealed so that none of the chemicals from dousing thermal runaway or from toxic gasses will enter the environment, and how compliance will be achieved with all federal and state safety and health laws as well as environmental laws regarding containment. If toxic gasses are vented to be dispersed in the environment, the frequency and the short term and long term impacts were not addressed in the DEIR. Venting toxic gasses are significant impacts requiring EPA permits.

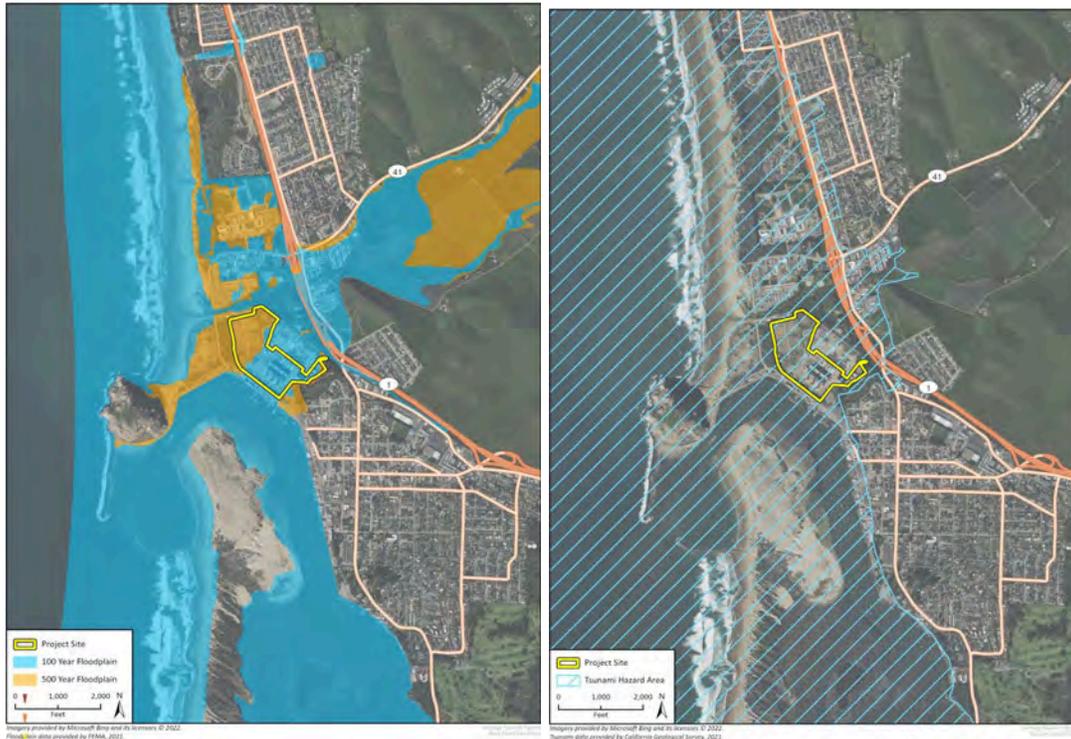
The contaminated water from extinguishing fires, and toxic plumes that condense into the river or estuary, are a severe risk to humans, birds and marine life. In an abstract entitled, [Ecotoxicity Evaluation of Fire-Extinguishing Water from Large-Scale Battery and Battery Electric Vehicle Fire Tests](#), a study reported differences in the environmental impact resulting from fires in lithium-ion battery electric vehicles and internal combustion engine vehicles. In order to control thermal runaway in EVs, it was clear that firefighters must prolong the application of extinguishing water. In this work, extinguishing water from three vehicles and one battery pack fire test were analyzed for inorganic and organic pollutants, including particle-bound polycyclic aromatic hydrocarbons and soot content. The study showed, “....the acute toxicity of the collected extinguishing water on three aquatic species was determined.”⁷⁵

The method of collecting contaminated water into tanks and keeping it out of the environment, and collecting the toxic gasses from thermal runaway, was not identified in the DEIR. The representatives at a Vistra community meeting assured us that water would be contained and treated for safe release, but how that will be accomplished, is not set forth in the DEIR, and it will be different for the project vs. alternative #5. The city of Morro Bay should hire a fully independent chemical engineer to study the containment issues of the project that is submitted, before making any decisions.

⁷⁵ [Ecotoxicity of Extinguishing Water from Battery Fires](#)

Saltwater Makes Li-ion batteries Combustible

Figures 4.7-3 and 4.7-4, from the DEIR make clear the danger to our community from the possible inundation of the project site. Any water damages the batteries and can make them ignite, but saltwater is even more corrosive.



Following hurricanes Ian and Idalis, Florida’s coastal population suffered flooding and was warned “to move their EVs to higher ground because saltwater can trigger spontaneous combustion of LIBs leading to explosions and fire.” They were told “Don’t drive through water.” There were many instances of this happening in Florida. Since saltwater exposure can significantly degrade Li-ion batteries, causing an extreme fire risk, and the Morro Bay project site is in a flood zone, the city should protect its citizens and wildlife, and deny the project.⁷⁶ Thermal runaway can potentially result in an unmitigable and unpredictable series of catastrophic level impacts which are completely avoidable by moving the project to another location.

On March 1, 2024, the “Felicity Ace”, a car carrier carrying nearly 4,000 luxury automobiles off the coast of Portugal, caught fire, allegedly due to a faulty Porsche EV lithium-ion battery. The crew was safely rescued, the fire raged for two weeks, and attempts made to extinguish thermal runaway were unsuccessful. The ship sank and lawsuits are pending.⁷⁷ As a result of this and many other thermal runaway incidents

⁷⁶ [Saltwater Intrusion Causes Damage to Electronic Vehicle Batteries | WorkBoat](#)

⁷⁷ [Extreme fire risk with EV’s exposed to salt water - Coast Guard issues alert to not allow on ships | CTIF](#)

involving saltwater exposure to lithium-ion batteries, the US Coast Guard has issued alerts not to allow these batteries on ships.

The Morro Bay BESS project site is bordered on one side by the ocean and a marine harbor, 220 feet away; and a creek on the other that floods from the ocean and the hills; but there's the added danger of coastal fog on lithium-ion batteries. It is irresponsible to construct a facility to hold lithium-ion batteries in a marine location such as this. Over the twenty year life of the battery storage facility, it is wishful thinking to believe we will be able to avoid saltwater inundation due to floods or tsunamis. Even without flooding or tsunamis, li-ion battery fires are happening regularly and will expose our residents, visitors and wildlife to harmful chemicals.

The DEIR failed to identify the potential impact of our foggy coastal climate on lithium-ion batteries. At the time of the investigation into lithium-ion battery fires in South Korea, there were over 20 fires in BESS installations. Even after their investigation, thermal runaway incidents continued and the most recent count of BESS fires in South Korea is over 30.

The following is a study I found regarding the impact of saltwater mist (fog) on lithium-ion batteries. The BESS facilities in South Korea had so many fires they had an extended moratorium to study the causes of the fires. *“Unraveling the Characteristics of ESS Fires in South Korea: An In-Depth Analysis of ESS Fire Investigation Outcomes,”* an article in the Multidisciplinary Digital Publishing Institute (MDPI) journal from 2023, revealed a multi-phase investigation to determine the causes of ESS fires. One of the issues studied in South Korea is cause for concern in the coastal foggy climate of Morro Bay. The study revealed that lithium-ion batteries exposed to coastal fog can be compromised and are at a higher risk of a thermal runaway event.

“.....In response to the occurrence of 23 ESS fires (now over 30 in South Korea), the government organized a joint investigation committee comprising 20 experts to analyze the causes of these incidents. Despite the lack of definite evidence to explain the ESS fires, the committee utilized a methodology of hypothesis and verification to arrive at potential causes. One of the tests was an experiment conducted to investigate the potential impact of salt water mist on insulation resistance in the ESS. Due to the higher conductivity of salt water compared to pure water, it is easier to compromise insulation resistance. This can lead to a short circuit between the terminals of the ESS and fires...”⁷⁸

⁷⁸ [Unraveling the Characteristics of ESS Fires in South Korea: An In-Depth Analysis of ESS Fire Investigation Outcomes](#)

The following threshold relating to §4.7 was not adequately addressed in the DEIR:

(3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The city should engage in CEQA §15186 notice and consultation provisions due to the project's close proximity to Morro Bay High School.

The project site is .31 from Morro Bay High School (MBHS), and creates a potential hazard for students and faculty. The map in figure O2 produced by Vistra's consultant Ramboll, indicates the maximum exposure area borders close to high school property. Any shelter-in-place area for a 600 MW battery storage facility would certainly include MBHS; this alone should trigger the important notice and consultation process of §15186.

It is doubtful that §15186 was written with battery storage in mind, and that distance of .25 of a mile may not protect students and staff from a toxic plume coming from the largest BESS facility in the world. A hazardous industry for which safety standards are not fully developed should not be built in the vicinity of a school. Since a shelter-in-place boundary for a 600 MW facility would likely include Morro Bay High School, the city should follow the notice and consultation provisions of §15186. The school board, staff, families and school children need to be informed of what is coming, and 6/100 of a mile shouldn't get in the way of that. If there is a two or three week BESS fire, or maybe even a one day fire, the toxic, corrosive fumes will not stop at .25 of a mile. Any schools in Morro Bay should also be notified pursuant to §15186.

Finally, the DEIR failed to adequately address the evacuation problem from the thresholds set forth in Appendix G. This cannot be deferred until a later date. Any plan that includes evacuation and sheltering in place should be disclosed as part of the EIR process particularly since Morro Bay will be uniquely challenging in that regard. How to evacuate nearby schools needs to be addressed in the recirculation of this DEIR as well.

The following appendix G threshold for §4.7 was not addressed in the DEIR:

(6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Morro Bay cannot evacuate safely from a thermal runaway event on the project site.

The DEIR fails to identify the evacuation hazard from having lithium-ion batteries on the proposed project site. The site is located on a dead-end road with tourist attractions on the far end. Subchapter 4.7 mentions that an evacuation plan will be

developed by the fire department sometime in the future, but given the project site location in Morro Bay, that plan is critical and should have been addressed in the EIR. The unique geography of the location creates a blocked artery of traffic in case of emergency, because the only road to Morro Rock is the Embarcadero; a dead-end, two lane road that forks off to Coleman Road, which is another dead-end, two lane road. Thousands of visitors drive, walk or ride bikes to the Rock and the beach parking area by Morro Creek footbridge. ⁷⁹ As all of that traffic attempts to escape the smoke and flames, they will have to drive towards the danger first and pass it before leaving town.



Over two years ago the developer stated, in response to comments to the NOP, that the Morro Bay Fire Department (MBFD) had retained an independent engineering and safety consultant, DNV Energy USA, Inc, to assist with a public safety analysis of the BESS Facility which “would be used by the City and MBFD specifically in making decisions regarding BESS safety element design, emergency planning, and hazard minimization.”(EIR 1-14). The fire safety analysis should not have been deferred. The impacts from a thermal runaway event to nearby residents, tourists and wildlife are serious potential impacts of the BESS once in operation, and identification of the

⁷⁹ Just attending a kite festival can take almost an hour and a half to get out of the parking lot at the rock and drive .8 of a mile when the festival is not even over. Imagine the panic if people saw smoke or flames at the BESS site and were attempting to leave. This is a foreseeable scenario and cannot be mitigated without changing the location of the BESS.

impacts and mitigation measures cannot be deferred until after the EIR is published. As described above, according to CEQA §15121 and §15070, this is unacceptable. All potential impacts must be addressed in the EIR so that the public can be adequately informed.

Also, the draft EIR p. 4.7-31 states “MBFD would be responsible for final review and approval of the project city’s building plans...” A chemical fire from lithium-ion battery storage places our firefighters in danger and they are not equipped to handle the demands of thermal runaway, with an ensuing evacuation crisis. And how do tourists, surfers, and people on bicycles and kayaks shelter in place? We have a potential evacuation nightmare for people visiting Morro Rock and the Embarcadero. It is no wonder people call this proposed project “insane.”

The developer plans to build a bike path along the Embarcadero through that mysterious blue circle, Figure 02 in the DEIR (above), where hundreds (or possibly thousands of visitors if there is an event) will have to travel through the blue circle to escape the fumes. Cars will sit in traffic in that blue circle, gridlocked when there’s thermal runaway. Families and elderly people who may be home-bound will be stuck in that blue circle while thermal runaway emits toxic, corrosive gasses into the neighborhood. But since the blue circle doesn’t seem to have any scientific basis, the consultants need to study a much larger potential impact zone that will be affected by toxic fumes, and the city should hire a truly independent expert consultant to do an analysis.

Fires caused by thermal runaway are becoming more frequent.

“Due to their high energy density, being environmentally friendly, and long cycle life, LIBs have been widely used in mobile communications, transportation, new energy storage, and other fields. However, fire incidents caused by LIBs have become more and more frequent, with TR (thermal runaway) being a significant accident cause.” (highlighting is mine). Research Progress in Thermal Runaway Vent Gas Characteristics of Li-Ion Battery, revised September 2023.⁸⁰

Marsh McLennan, a risk analysis company, writes “Site developers and operators must engage early and establish relationships with local fire services. *In some fire losses involving BESS-where clear protocols were not developed in advance-the immediate actions taken have actually worsened the situation.*”

The article continues, “Even if the fire is suppressed, thermal runaway alone can generate enough heat to damage adjacent cells and propagate the reaction ... Large-scale thermal runaway events have occurred in almost every jurisdiction with BESS

⁸⁰ See also [Public pushback and fears against large lithium based BESS growing | CTIF](#)

deployments over the last few years. For example, South Korea suffered multiple destructive fire events between 2017 and 2019, which led to a government investigation and orders to shut down some units and limit the charge rates of other BESS installations nationwide.

“Despite these changes, other fire events have occurred in South Korea. Additional fires in Europe and North America have highlighted that this failure mode is not unique to a particular manufacturer or design — it’s inherent in the technology.”⁸¹

In sum, the following worse case scenario is entirely feasible: (1) Thermal runaway in Li-ion batteries are damaged from flooding, tsunami, earthquake, or a chunk of the stacks falls on them causing an explosion; (2) thermal runaway ensues and multiple or all battery modules ignite and release toxic, corrosive fumes; (3) an evacuation crisis in the city in which people are trapped and fire trucks cannot gain access; (4) fire smolders for days sending toxic plumes; (5) residents, tourists, wildlife are sickened, injured or die. And of course that would be followed by the fiscal impacts from the dropoff in tourism.

4.8 Noise

According to the DEIR, the City has not adopted specific construction/demolition noise level standards that would apply to the project. §4.8-12. In this situation, with many years of construction and potential demolition, the city should hire independent noise specialists who are not affiliated with energy companies and are not funded by Vistra. Our community cannot afford to allow a construction project of this size to go forward without independent, scientific consultation regarding what the actual effect of three to four years of noise and vibration will be on its residents, visitors and wildlife.

The DEIR sets forth the types of equipment that will be operating: backhoes, concrete saws, cranes and excavators, front end loaders, jackhammers, pavers, pneumatic tools, dozers, pumps, rollers and portable generators, trucks and graders, scrapers and pile drivers.

The DIER indicates the dominant sources of construction vibration will be sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. Other less intense sources of vibration include heavy equipment such as bulldozers/trucks and vibratory rollers. §4.8-10.

The DEIR states on p. 4.8-2, that *in addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long*

⁸¹ [Recharging the transition: The role of battery energy storage systems](#)

period of time are more likely to cause annoyance, direct physical damage, or environmental stress. But then indicates that the noise metric used for duration and sound level is “Leq,” but it is typically “summed over a one-hour period.” I don’t know how this relates to a BESS construction that will take three to four years.

CEQA Guidelines Section 15065 states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means "that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

DEIR Table 4.8-5 indicates separate noise impacts of each type of equipment, but the equipment operators will not be taking turns working. The DEIR fails to calculate the cumulative effects of many of these noise and vibration creating construction activities from different types of equipment operating at once. These heavy construction impacts will be heard all over our densely populated city and tourist area, impacting all of us and the wildlife. The stress on the employees and patrons of Morro Grill, Dockside, Harbor Hut, and all of the other businesses across the street could mean the end of some of those businesses. People come here to listen to the sounds of the birds and ocean waves, not sonic booms, blasting, jackhammers and pile drivers.

Both thresholds of significance set forth below, based on Appendix G of the CEQA guidelines, will be exceeded, meaning that the project will have a significant adverse impact because it will (1) result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies and it will (2) result in generation of excessive groundborne vibration or groundborne noise levels.

The project will violate noise policies and implementation actions of Plan Morro Bay⁸²

The project will violate both of these policies from Plan Morro Bay. POLICY NOI-1.1: Noise Compatibility. Ensure new development is compatible with existing and future noise environments by continuing to use potential noise exposure as a criterion in land use planning.

The project fails to comply with this policy in that temporary and permanent construction and operation noise levels created by the project are not compatible with

⁸² [Plan Morro Bay](#), p. 3-140-3-141

existing noise environments, which include the sounds of marine life, birds, and tourists on holiday.

POLICY NOI-1.2: Noise-Sensitive Land Uses. Maintain acceptable stationary noise levels at existing noise-sensitive land uses.

The project fails to comply with this policy in that it will not maintain acceptable noise levels at existing noise-sensitive land uses.

IMPLEMENTATION ACTION NOI-2: Mitigate noise created by new proposed stationary noise sources, or by existing stationary noise sources which undergo modifications that may increase noise levels, so as not to exceed the noise level standards of Table NOI-5 on lands designated for noise-sensitive land use.

Plan Morro Bay p. 3-129 describes “noise sensitive land uses” to include Morro Bay High School, parks, offices, the library, and Bayside Care Center. The threshold of acceptable noise for these uses is less than 60 dB. The cumulative effect of various heavy machinery operating at once during BESS construction will be far greater than that and will create significant impacts that will be impossible to effectively mitigate. It is a major concern that several schools are nearby, and in particular Morro Bay High School, and the cumulative effects of heavy construction equipment noise could impact the students’ ability to learn.

It appears the city was led to accept a higher noise exposure level for this project. The DEIR states, at 4.8-12, “The City has not adopted specific construction/demolition noise level standards that would apply to the project. The FTA identifies a daytime noise level of 90 dB Leq as a reasonable criterion for construction noise impact assessment (FTA 2006). The FTA guidance states that adverse community reactions may result if this noise level is exceeded during construction/demolition activities. Additionally, the World Health Organization (WHO) recommends that noise exposure levels should not exceed 70 dB over a 24-hour period, and 85 dB Leq over a 1-hour period to avoid hearing impairment (WHO 2022). The 1-hour, 85 dB noise level is the more appropriate threshold for construction noise, as it captures the intermittent aspect of construction noise, without taking into consideration nighttime noise levels and operating restrictions (operation of heavy equipment would only occur during allowable daytime hours). Therefore, the City has elected to use an 85 dB Leq threshold in this analysis to assess the potential for construction and demolition related noise levels to result in significant noise impacts to off-site sensitive receptors in the Project Site vicinity.” If the city has indeed agreed to this higher noise level, it should not have done so without public input. In any case, construction noise is likely to far exceed 85 dB.

Evidence does not support the conclusion that construction noise will be “less than significant.”

DIER Table 4.8-5 shows chart of typical noise levels produced by construction equipment used individually (not used at the same time which would be normal):

Table 4.8-5 Typical Construction Equipment Maximum Noise Levels

Type of Equipment	500 feet	1,000 feet	2,000 feet	3,000 feet
Backhoe	58	52	46	42
Concrete Saw	70	64	58	54
Crane/Excavator	61	55	49	45
Front End Loader	59	53	47	43
Jackhammer	69	63	57	53
Paver	57	51	45	41
Pneumatic Tools	65	59	53	49
Dozer	62	56	50	46
Pumps/Roller/Portable Generator	60	54	48	44
Truck/Grader	66	60	54	50
Scraper	67	61	55	51
Pile Driver	90	84	78	74

Source: Appendix J

Draft Environmental Impact Report

4.8-9

The DEIR fails to provide any details to support the conclusion that the construction noise will be less than significant. The cumulative noise impacts from construction will be many times higher than 85 dB, which does not include cumulative impacts from other construction activities from adjacent construction on the power plant property. The DEIR treatment of these impacts is flawed. The construction of an industry such as the BESS will just be too loud and too close to the nearby residents and visitors in Morro Bay, as well as the wildlife. Further, the DEIR analysis fails to compute cumulative noise impacts from adjoining property construction activity happening at the same time.

But the stress from all that noise and vibration will not end when the BESS is constructed... it will just be different during operation, like the constant buzz of tinnitus. BESS facilities tend to produce high noise levels generated mostly by the compressors and fans in the electrical equipment cooling systems. According to a March 14, 2024 publication in Noise Monitoring Services, BESS are relatively new to the US and the operation of the BESS in communities is becoming “an increasing noise problem.”⁸³ The

⁸³ [Battery Energy Storage System \(BESS\) Noise Challenges and Solutions](#)

DEIR fails to address the BESS operational noise, and how it will affect other development on the property. This will seriously limit any visitor serving development.

4.10 Effects Found Not To Be Significant (according to the DEIR)

The DEIR engaged in some creative analysis to come up with their conclusions of “less than significant” impacts. To the extent not previously addressed, I will comment on them here.

Land Use Planning. From Appendix G to CEQA:

Would the Project:

a) Physically divide an established community? Yes, the project site is between a tourist area along the Embarcadero, and Morro Rock. People will be parked right next to the project site who are using Coleman beach. There is a beach promenade and bike path from the Embarcadero shops and restaurants over to the Rock. The project site is along that route.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental Effect? Yes, the project conflicts with the general plan (Plan Morro Bay) and local coastal program in many respects as discussed in this letter.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan? Yes, the project if implemented will conflict with the National Estuary Comprehensive Conservation and Management Plan.

Public Services. Appendix G asks:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

Yes, the project would result in the “need for new or altered governmental facilities” due to the strain placed on them by the project in this location. A substantial increase in fire and police protection would be necessary, at the minimum. Events such as “Ironman” which was just held in Morro Bay, bring tens of thousands of people to this area. If the batteries exploded or went into thermal runaway emitting toxic gasses, those tens of thousands of people, along with our residents, would be trapped. On most average weekends in the spring, summer and fall, recreational opportunities and festivals bring thousands of visitors to Morro Bay. Even on an average day, there are too many people close by in the neighborhoods, restaurants and on the Embarcadero, a tourist area.

Table 4.6-4 Plan Morro Bay Conflict Analysis

Government Code section 65860, all California cities must set forth their development policies, objectives and standards in a general plan. The general plan is a city's basic planning document and considered the “blueprint” for any city's development. The California Supreme Court held the general plan to be “the constitution for all future development.” (Leshar Communications, Inc. v. City of Walnut Creek (1990) 52 Cal. 3d 531, 540.) The general plan is the city’s single most important planning document and the project lacks general plan consistency.

CEQA Guidelines § 15125(d) requires an EIR to discuss any inconsistencies between a proposed project and applicable general plans, specific plans and regional plans. The project DEIR takes the approach that instead of developing the property in a manner consistent with Plan Morro Bay, Plan Morro Bay will just be amended to be consistent with their energy project; therefore, the project will have general plan consistency.

Table 4.6-4 analysis under each topic is self-serving, conclusory and biased. For example, under “Public Safety,” the Plan Morro Bay policy is to “consider how climate change impacts may change anticipated hazard conditions when planning for emergency response.” Accordingly, the DEIR should address how sea level rise and flooding would increase the likelihood of lithium-ion battery exposure to flooding or saltwater intrusion, and increase the chance of an evacuation crisis and ecological disaster in Morro Bay. Instead the DEIR authors state “the project would improve grid reliability and the availability of energy supply.....” EIR p. 4-6-19.

Since the energy provided by the BESS would go into the grid and support 450,000 homes (OCA, p. 7), the potential positive impacts are *outside* of Morro Bay, but the adverse impacts will be felt *in* Morro Bay, surrounding communities, and the estuary. The use of our city’s resources will be disproportionate and we will suffer the

exposure to toxic fumes from thermal runaway incidents. The real reason for the project is to benefit the developer who will use the project to sell energy to wholesale markets for a profit.

The proposed project violates both the character of our community as set forth in Plan Morro Bay, and the Coastal Act. Policy CD-1.2 of Plan Morro Bay “*require(s) new development projects to be compatible with the character vision for the area in which it is located...*” Plan Morro Bay also states,

The Coastal Act requires the City to prioritize uses that serve important needs for the community and visitors, such as recreation, coastal access, open space, and visitor- serving and coastal-dependent uses. Nearly all of Morro Bay is in the coastal zone. Coastal priority uses range from visitor-serving recreation and services to coastal- dependent businesses such as aquaculture and commercial fishing.

The Coastal Act does not envision battery storage or other industrial uses on coastal lands. Plan Morro Bay highlights the community; our vision includes renewable energy, but we have specifically rejected battery storage (citizen survey, 2023). Renewable energy that is acceptable may be rooftop solar or other alternatives.

The updated Plan Morro Bay was a seven year intentional process that included significant public participation, concluded in 2021 and confirmed by the citizens survey in 2023. Plan Morro Bay reflects the intentions of the residents of Morro Bay. To carry out our vision for Morro Bay, developments need to be consistent with the city’s general plan, the community’s wishes and the Coastal Act.

To simply amend PMB to accommodate an industrial use in the middle of a tourist town, would result in denial of due process to the residents of Morro Bay who were involved in the public participation in developing Plan Morro Bay and decided they did not want industrial development on the property along the Embarcadero. A dangerous industrial facility prone to toxic runaway fires should not be forced on a community that does not want it.

Our vision according to Plan Morro Bay:

In 2040, Morro Bay remains a small oceanfront town and thriving year-round destination, known for its natural beauty, creative people, outdoor recreation, working waterfront, and welcoming community spirit. It is a friendly, safe, resilient, and healthy place where people of all ages and economic levels live, work, play, and visit.

The natural environment and wildlife are cherished and conserved and are essential elements that integrate with and define our urban landscape. Our healthy wetlands, iconic Morro Rock, and bustling harbor are complemented by expansive parks, connected bicycle lanes, safe streets, and pathways that are accessible to people of all ages and abilities.

We have a deep appreciation for nature and honor our native, cultural, and maritime heritage. We maintain and support our working waterfront and carefully preserve our estuary, watershed, natural shoreline, and surrounding open space. We adapt to changes in the climate, economy, and culture without compromising our small-town character.

Our vibrant economy is strengthened by sustainable resource practices, a responsive City government, and leading-edge technology that empowers local business owners and attracts new businesses and investors. We are a diverse, multigenerational community where head-of-household jobs, sustainable living wages, and affordable housing options serve as a foundation that allows people of all ages and income levels to thrive.

Modern, well-maintained public amenities and supportive community services nurture our residents, community organizations, and neighborhood groups. We actively participate in government decisions and take pride in volunteerism. We welcome personal expression and creativity, as reflected in our varied visitor attractions, bustling dining scene, vibrant arts culture, community events, public art, and outdoor activities. Our diverse housing, safe and eclectic neighborhoods, and reliable transit system are enhanced through suitable urban infill and mixed-use development that accommodates modest residential and commercial growth.

Mindful of our rich heritage, we take great pride in our community and work together toward a bright future.

POLICY LU-5.4:

“Vistra Site Master Plan. Create a master plan for the redevelopment of the former Vistra power plant site and surrounding area, which could include reuse of some of the existing buildings. The master plan will be the responsibility of the developer or property owner upon property development. Encourage extensive community participation in the master plan process. Ensure that the land use map identified in Figure LU-4 and development capacity established in Table LU-2 *guide* land use

planning for the site. LU-4, below, shows the project site as “Visitor Serving Commercial.”

The “Visitor Serving - Commercial” land use designation for the power plant property was a significant change from the past. The lead agency is required to ensure that the map in LU-4 guides planning for the site. No developer will want to build “visitor-serving commercial” developments next to a battery storage facility with a history of toxic thermal runaway. It’s a money-loser and will be impossible to insure.



Thermal runaway BESS events are a global problem leading to many moratoriums.

A review of BESS fires helps us understand that our concerns are not unwarranted ... there have been many such events; enough to have a BESS fire database on Wikipedia. Also, there are many moratoriums on BESS storage facility development.

⁸⁴ Here are just a few:

⁸⁴ [Public Pushback Against BESS Growing](#)

- Royalton, NY town board March 4, 2024 approved a moratorium on the development of renewable energy systems that utilize battery storage;
- Southold, NY just extended its' moratorium for an additional year, and legislation is being introduced to ban BESS installations near residential areas and schools;⁸⁵
- Solano County, CA: a moratorium on LIB battery storage was extended to January 26, 2026;
- South Korea: 28 fires out of 30 facilities led to an extended moratorium to conduct an in-depth investigation; now they have had over 30 fires;
- Jefferson County, Tennessee has a moratorium as of July, 2023 after a ruling by county commissioners;
- Duanesberg, Washington;
- Oyster Bay, NY as of March 11, 2024 is considering a moratorium, concerned that *“lithium-ion batteries and electric vehicles are at high fire risk if exposed to salt water, the risk of coastal saltwater for BESS facilities should be fully assessed before permitting these facilities near our shorelines.”*⁸⁶

The most recent example of dangerous thermal runaway is the incident in Otay Mesa, still ongoing as I write this letter. That fire requires far more resources than the city of Morro Bay has. Two weeks of fire suppression from internal sprinklers plus external fire hoses amounts to over 17 million gallons of water. That fire is terrible in its current location but would be far more devastating here with the dense population, tourists, outdoor recreation and fragile marine environment.

The OCA indicates 450,000 homes will have power during an outage (OCA, p.7), but this is 75 times the amount of power needed in Morro Bay for our 6,000 homes. Vistra will benefit from the profit they gain from selling this power, and the larger metropolitan areas and valley will benefit. We do not benefit.

The DEIR should have provided an alternative location.

An alternative location for the project should have been provided, particularly knowing that the location is the major issue of controversy, and extremely problematic from a safety standpoint. The DEIR failed to explain why residents and visitors to Morro Bay should be exposed to any cancer-causing toxic air contaminants, construction noise and the toxic plumes from thermal runaway, when alternative locations would be more suitable. That the applicant “owns the property” is not enough reason to endanger the health and safety of this town.

⁸⁵[Southold Extends Battery Storage Moratorium](#)

⁸⁶[Town Of Oyster Bay Considers Moratorium For Battery Storage Facilities - Anton Media Group](#)

A location for energy storage in which the point of use is close to the point of generation would be ideal, but that location is not Morro Bay. Power stored by this facility will serve hundreds of thousands of homes; homes in metropolitan areas and homes in the valley that run air conditioners 24/7 for half the year. There are remote places where the power stored can directly feed a PG&E transmission system and correspondingly the downstream distribution system, and a location such as this would be ideal. Morro Bay doesn't make sense from any perspective, even before you look at the safety hazards. Large BESS installations should be sited in the valley where air conditioning is needed, or just outside metropolitan L.A. where there are many homes that will need power. In Morro Bay, there are no overriding considerations making the project "worth it."

MANDATORY FINDINGS OF SIGNIFICANCE. CEQA Appendix G asks:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or Prehistory?

Yes, the project will substantially degrade the quality of the environment

CEQA §15065 (a) requires a mandatory finding of significance if the project "has the potential to substantially degrade the quality of the environment." This is the same as CEQA guideline §15382 which considers if the project could cause a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise and objects of historic or aesthetic significance." It is foreseeable that a hazardous industry that transports and stores lithium, and has a history of toxic thermal runaway fires, will degrade the environment. And the DEIR, filled with boilerplate and vague reassurances, does not give us confidence that Vistra will be able to avoid those impacts. Indeed, it may be impossible to avoid them, given the type of industry, the density of residents, visitors and wildlife, and the evacuation issues.

DEIR section 4.10-9 states, "During project operation, runoff would be directed to a combination of the gravel bed and vegetated infiltration areas near the BESS Site perimeter, with overflow directed to onsite storm drains. Storm water collected through the onsite storm drains would be conveyed to the City's existing stormwater management system." Does this also refer to contaminated water from fire suppression?

And if there is a plan to contain the contaminated water, will that include storage for over 17 million gallons?

The DEIR then states that battery fluids and other substances would not be susceptible to spills or release as runoff, because they will comply with the Stormwater Management Guidance Manual, and not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. This is another one of those circular arguments seen throughout the DEIR.... “The project will not create a significant impact because we agree to comply with the law- we will let you know later how we will accomplish that, therefore the impact is less than significant.”

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Yes; the cumulative impacts from construction, BESS operating noise, and thermal runaway will be considerable and were not adequately addressed in the DEIR.
See §4.8 above on noise.

The projects' individual impacts will be significant as well, but DEIR Section 4.10-9 fails to adequately address how the cumulative construction impacts will be considerable. The cumulative noise impact will be unbearable to this little community and will disrupt the wildlife nests and nurseries. The cumulative impact of noise from BESS operation will stress this community to no end.

The DEIR fails to anticipate the foreseeable thermal runaway event that will be doused with water that then becomes severely contaminated, and that contaminated water draining into the ocean, creek and harbor. It fails to anticipate how the toxic plumes will be absorbed into the bay, the ocean and Morro Creek and disrupt ecosystems and wildlife. There are insufficient resources in this small town for firefighting, fire suppression, and emergency evacuations for a thermal runaway event of any size, let alone one like the Otay Mesa Gateway Energy storage facility. These are all cumulatively considerable.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Yes, and the project is already causing undue anxiety and distress to the people of this small coastal city.

The adverse impacts will only be worse when construction noise begins and we suffer from noise during the facility's operation along with the constant threat of exposure to toxic fumes from thermal runaway incidents. The danger to our health and safety is clear from studying the consequences of the Otay Mesa fire if it were here in Morro Bay. Years of toxic air contaminants and construction noise, followed by potentially weeks of toxic fumes while an uncontrolled thermal runaway is poisoning our city and national estuary, will cause substantial adverse effects on the residents and visitors of Morro Bay.

Conclusion

This DEIR for a project that appears to be changing to a different alternative must be withdrawn and rewritten once the design of the project has been selected and plans are drafted and submitted. The developer may not pursue two projects at once and decide later which project to build. The failure to inform the public of the potential for exposure to toxic, corrosive fumes as a result of thermal runaway, is a fatal flaw in the DEIR. Finally, it is improper to defer identification of impacts and mitigation measures until after the EIR process.

The consultants take the "trust us" approach... *trust us to figure out which project design we want, identify the impacts and mitigation measures, and comply with environmental, and health and safety laws; even though we will do this all later, we already know now that the impacts will be less than significant.* Lacking data and a scientific basis, conclusions are repeatedly reached that there will be no significant impact, even though the technical consultant admits that there is not enough data regarding the impact of toxic chemicals on wildlife. The DEIR lacks credibility.

The draft EIR failed to disclose the impacts of the project, and its methodology is flawed. A common theme goes like this: "Compliance with applicable rules, regulations, and policies described above; (or Plan Morro Bay goals and policies; state and federal laws; city regulations; applicable standards; permit requirements etc.), would ensure that any impacts associated with -----(fill in the blank) would remain less than significant. We promise to minimize the impacts, therefore the impacts will be less than significant." This is saying nothing. There is no nexus and it defies logic.

If this project is approved, the character of the town will be destroyed, and the residents, tourists and wildlife will be placed in harm's way. The project site is in a densely populated residential and tourist area with schools nearby, and it is in a flood and tsunami zone. Any agency that would approve such a project without fully independent scientists analyzing its potential impacts in a worse case scenario, is recklessly endangering the health and safety of its residents, visitors and wildlife.

The project proposed is contrary to the Coastal Act, contrary to Plan Morro Bay, contrary to the wishes of the residents of Morro Bay, and this DEIR does not meet the CEQA requirements of informing the public. There is no way to make a battery storage project in Morro Bay safe. The project is a high risk project in a high risk location, with a history of unpreventable and uncontrollable toxic, corrosive runaway fires. The citizens of this city are not willing to take such extreme risks, and this project should be built in a more suitable location. We hope and believe that after recirculation and all of the potential impacts are identified, considered and reviewed, the city will not certify this EIR and will reject the project.

Sincerely,

Jeanne Marie Colby

BESS

Ross Neder <[REDACTED]>

Sun 5/26/2024 3:11 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Greetings,

I have read the relevant Environmental Impact Report sections that address my concern, specifically about flooding and tsunami damage. While the report indicates minimal risk given current climatic conditions, the world is clearly changing. Seas will rise, and the effects of a tsunami will enlarge. I can easily envision the plant's long and uneventful life. At the same time, is it easy to see a disaster if saltwater makes it to the storage facility? Yes, I see the 33' berm mostly encircles the plant, but why take the risk?

Higher ground must be available, and an extension connection to the grid would be relatively cheap compared to the cost of a disaster.

Given the tumultuous nature of climate change, with so many unknowns regarding the severity and scope, why risk it?

Best,
Ross Neder PhD

BESS Concerns

Michael Tannehill <[REDACTED]>

Sun 5/26/2024 8:56 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Dear Members of the City Council,

I am writing to express my significant concerns regarding the proposed Battery Energy Storage System (BESS) plant in Morro Bay. While I fully support the transition to renewable energy, I strongly believe that this BESS plant is not suitable for our community for several critical reasons.

1. Inappropriate Location:

Morro Bay is one of California's most scenic and iconic areas. The proposed site for the BESS plant is in the heart of the Embarcadero, a major tourist attraction and an economic hub for our city. The introduction of an industrial facility in this location would detract from the natural beauty and charm that draw visitors to our area, negatively impacting our tourism-driven economy.

2. Coastal and Environmental Risks:

Placing a BESS plant so close to the low-lying coast is highly problematic. The projected sea-level rise due to climate change poses a significant threat to such facilities. It is counterproductive to place a plant intended to combat climate change in a location vulnerable to its impacts. The Coastal Commission previously mandated the relocation of our water treatment plant due to its proximity to the ocean, and indeed it flooded in 2022. A similar fate could befall the BESS plant, leading to potential environmental disasters and costly relocations.

3. Safety Concerns:

The risk of fire and explosions in BESS facilities is well-documented. For instance:

- In September 2022, a Tesla Mega-pack caught fire at a battery storage facility in Moss Landing, California, leading to significant disruptions and road closures.
- In 2019, an explosion at an energy storage facility in Surprise, Arizona, injured nine first responders.
- Fires at battery storage facilities have also been reported in New York, Australia, and Otay Mesa.

These incidents underscore the potential hazards that could severely impact our local economy and pose a threat to nearby residents, schools, and businesses. The inevitable

release of toxic gases during such incidents further exacerbates the risk to public health and safety.

4. Impact on Property Values:

The presence of a BESS plant could significantly decrease property values in the surrounding areas. Potential home buyers and investors are likely to be deterred by the safety risks and the industrial nature of the facility, leading to economic decline in our community.

5. Lack of Local Involvement and Benefit:

The company proposing the BESS plant, Vistura, is not based in our area and has shown little involvement in our local community. Their primary motivation appears to be financial gain rather than the well-being of Morro Bay residents. This raises concerns about their commitment to maintaining safety and addressing community concerns in the long term.

6. Precedents and Studies:

Multiple studies and incidents have shown that the fire service is often unprepared for the unique challenges posed by BESS fires. These fires can result in cascading thermal runaway events, releasing hot, flammable, and toxic gases that are difficult to manage and extinguish. This lack of preparedness poses an additional risk to our local emergency responders and community safety.

7. Renewable Energy Alternatives:

Our community already benefits from renewable energy sources, notably the Diablo Canyon Nuclear Power Plant. Although it is situated in a vulnerable location due to California's fault lines and earthquake risks, its operations have been extended. This plant provides a significant amount of energy without the immediate risks associated with a BESS plant in our densely populated and environmentally sensitive coastal area.

Considering these points, it is evident that a BESS plant is better suited away from local communities to mitigate potential dangers. The risks associated with fires, explosions, and environmental hazards necessitate a location far removed from residential areas, tourist attractions, and vulnerable coastlines.

In conclusion, while renewable energy is crucial for our future, the proposed BESS plant in Morro Bay is not the right fit for our community. The location, safety risks, potential for environmental disaster, and negative impact on our local economy and property values make this proposal highly unsuitable. I urge the City Council to reconsider this project and explore alternative locations or technologies that would better align with the interests and safety of our residents.

Thank you for considering my concerns. I look forward to your thoughtful deliberation on this matter.

Sincerely,

Michael Tannehill

My public comment to the draft EIR for BESS proposal in Morro Bay

Gillian Burdge <[REDACTED]>

Sun 5/26/2024 3:38 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Dana Swanson <dswanson@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>

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May 26, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: Community Letter in Response to Draft Environmental Impact Report (EIR) for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

I am a resident of Morro Bay and I'm opposed to the BESS project proposed for Morro Bay. The draft EIR is inadequate in identifying the potential impacts to our community and environment. I agree with the following public comments below to the draft EIR submitted by the City and its consultants.

BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay - The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

Construction of BESS will take over 3 years and will negatively impact our community - If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses - This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro

Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal

Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development *shall* protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic “Morro Rock,” at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The “rock” and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and

endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters’ sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. We demand that the agencies responsible for the protection of sensitive habitat, endangered species and special status species honor their obligations and deny the project.

Fire protection and emergency response strategies were not addressed in the draft EIR -

According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. **By law**, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. **All of the “external costs” of the BESS will be borne by the citizens of Morro Bay.**

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written,

does not sufficiently inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. If the developer changes to an alternative project, they must withdraw the current application

and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Gillian Burdge

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

My public comment to the draft EIR for BESS proposal in Morro Bay

Carly Burdge <[REDACTED]>

Sun 5/26/2024 3:43 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Sarah MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>; Dana Swanson <dswanson@morrobayca.gov>

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May 26, 2024

City City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: Community Letter in Response to Draft Environmental Impact Report (EIR) for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are residents and visitors of Morro Bay and the surrounding communities, and we are opposed to the BESS project proposed for Morro Bay. The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants.

BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay - The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

Construction of BESS will take over 3 years and will negatively impact our community - If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses - This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our

community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development *shall* protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic “Morro Rock,” at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The “rock” and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters’ sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. We demand that the agencies responsible for the protection of sensitive habitat, endangered species and special status species honor their obligations and deny the project.

Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. **By law**, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. **All of the “external costs” of the BESS will be borne by the citizens of Morro Bay.**

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not sufficiently inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. If the developer changes to an alternative project, they must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Comment Regarding Battery Storage in Morro Bay , Ca.

Lucy Pierson <[REDACTED]>

Sun 5/26/2024 5:13 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Thank you for receiving comments regarding the planned battery facility for storage in Morro Bay . It is my opinion that a battery storage facility of this magnitude would not be in keeping with the charm created within the area which is now the heart of the tourist industry in this town that is almost completely dependent upon tourists for financial feasibility . Several Costco sized buildings would be an eyesore located between several restaurants , hotels, and the local iconic Morro Rock. I realize that there are convenient transmission lines currently in place by the suggested site , however such an industrial eyesore would not be worth destroying the general focus of maritime charm that the local business owners nurture and tourists treasure . Because of past transgressions of previous power suppliers on this property have rendered the soil polluted for some hospitable projects , however ,there are still multiple uses for the very significantly located piece of property with beautiful views of the Bay , Pacific Ocean, and Morro Rock .

The sensible thing to do would be to emphasize the beauty of the area with a project that brings enjoyment to tourists as well as those who live in the area . Using land elsewhere for the battery charging facility would be much more preferable .

Sincerely ,Lucy Hunt-Pierson
Cayucos

Opposition to BESS

valerie putnam <[REDACTED]>

Sun 5/26/2024 7:02 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Dear Ms. Fowler,

I am writing to express my deep concerns about the proposed Battery Energy Storage System (BESS) plant in Morro Bay. While I fully support the transition to renewable energy, I believe that this particular project is ill-suited for our community due to several critical factors.

1. Inappropriate Location:

Morro Bay is one of California's most scenic areas, and the proposed BESS plant site is right in the middle of the Embarcadero, a major tourist attraction. This location is not only integral to our local economy, driven by tourism, but also a cherished spot for both residents and visitors. The visual and environmental impact of a large industrial facility in this area would be profoundly negative, undermining the natural beauty and appeal of our coastline. Other locations away from the coast, city and population are better suited for such an industrial proposal.

2. Coastal Risks:

Placing a BESS plant so close to the low-lying coast is a significant risk, especially considering the projected sea-level rise due to climate change. It is ironic and counterproductive to build a facility intended to combat climate change in a location vulnerable to its impacts. The Coastal Commission previously mandated the relocation of our water treatment plant due to its proximity to the ocean, and it indeed flooded in 2022. Similar risks could threaten the BESS plant, potentially leading to catastrophic failures and environmental disasters. Morro Bay has experienced in the last 2 years torrential rain events that flooded the area where the proposed plant would be located.

3. Safety Concerns:

The risk of fire and explosions in BESS facilities is well-documented. For instance, in September 2022, a Tesla Mega-pack caught fire at a battery storage facility in Moss Landing, California, leading to significant disruptions and road closures. Similarly, a 2019 explosion at an energy storage facility in Surprise, Arizona, injured nine first responders. Fires at battery storage facilities have also been reported in New York, Australia, and Otay Mesa, underscoring the ongoing safety challenges associated with these systems.

These incidents highlight the potential for hazardous events that could severely impact our local economy, particularly the tourism sector, and pose a threat to nearby residents,

schools, and businesses. The inevitable release of toxic gases during such incidents further exacerbates the risk to public health and safety.

4. Impact on Property Values:

The presence of a BESS plant could significantly decrease property values in the surrounding areas. Potential homebuyers and investors are likely to be deterred by the safety risks and the industrial nature of the facility, leading to economic decline in our community.

5. Lack of Local Involvement and Benefit:

The company proposing the BESS plant, Vistura, is not based in our area and has shown little involvement in our local community. Their primary motivation appears to be financial gain rather than the well-being of Morro Bay residents. This raises concerns about their commitment to maintaining safety and addressing community concerns in the long term.

6. Precedents and Studies:

Multiple studies and incidents have shown that the fire service is often unprepared for the unique challenges posed by BESS fires. These fires can result in cascading thermal runaway events, releasing hot, flammable, and toxic gases that are difficult to manage and extinguish. This lack of preparedness poses an additional risk to our local emergency responders and community safety.

In conclusion, while the advancement of renewable energy is crucial, the proposed BESS plant in Morro Bay is not the right project for our community. The location, safety risks, potential for environmental disaster, and negative impact on our local economy and property values make this proposal highly unsuitable. I urge the City Council to reconsider this project and explore alternative locations or technologies that would better align with the interests and safety of our residents.

Thank you for considering my concerns. I look forward to your thoughtful deliberation on this matter.

Sincerely,

-Valérie Putnam
Morro Bay Resident

Public comment to BESS Environmental Impact Report

Michelle Leicester-Cadaret <[REDACTED]>

Sun 5/26/2024 8:08 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

I am a 20 year resident of Morro Bay and I am adamantly opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and ask you to deny the project.

The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants. We are very concerned and our fears are justified by what is happening now at the Gateway BESS facility in Otay Mesa, California.

On May 15, 2024, a module of lithium-ion batteries ignited in a 250 MW BESS "Gateway" facility in Otay Mesa, near San Diego. Firefighters barricaded a 600 foot perimeter as they detected toxic, corrosive gasses, including hydrofluoric acid, in that area. A HAZMAT team and bomb squad were dispatched, and 40 firefighters have been working around the clock to keep the fire contained. The fire was believed to be extinguished, but it reignited itself multiple times over the next week and is still burning. The Otay Mesa BESS situation is a textbook thermal runaway and an example of what could happen here, except that in Morro Bay it would be an unmitigated disaster due to the location of the project site.

Robert Rezende, battalion chief and the Alternative Energy Emergency Response Coordinator for the San Diego Fire-Rescue Department, said he wasn't surprised the fire keeps reigniting because that's common with lithium-ion batteries and the fires can last for an undetermined amount of time. The company that owns and operates the Gateway BESS facility, Rev Renewables, indicated this type of thermal runaway event was not unexpected. The evacuation order for some commercial businesses (Otay Mesa Gateway facility is not in a residential area) was for a larger area, and stated:

"This evacuation order requires immediate movement out of the affected area due to an imminent threat to life. All persons in the impacted area should prepare to evacuate. Evacuation order means there is extreme danger in your area. You must leave now; do not wait. Contact your neighbors and share information."

Cal Fire Capt. Brent Pascua stated that these thermal runaway events can last anywhere from seven days to a couple of weeks, but firefighters are planning for *two to four weeks*, and then they will "reevaluate."

If the Otay Mesa BESS runaway fire were in Morro Bay, it would have devastating consequences. In Morro Bay, within 600 feet of the project site are homes, numerous restaurants and shops, residents, tourists walking around, riding bikes, paddling and surfing; the endangered sea otter nurseries, the endangered western snowy plover and other nesting birds, and many protected species. An evacuation order would likely encompass the entire city. Wildlife would be killed, nests abandoned, and tourists gone for good. Firefighting assistance from neighboring jurisdictions may not be able to access the facility due to gridlock during evacuation. Residents and visitors may be sickened from the toxic fumes. Elderly residents may have trouble evacuating. All of this would be due to the location of the project and could be avoided if the project were moved to a suitable location.

Otay Mesa, CA. raises some important questions. What will those toxic fumes do to a small community, visitors and the wildlife? How will we evacuate from Morro Rock and the Embarcadero and where will we go for several weeks? How much water does it take to douse a thermal runaway event 24/7 that lasts for several weeks? Where is that water going to come from? Where do school students in high school and elementary school go to learn for several weeks? Where does the contaminated water go after it is used for fire suppression? Where do 40 firefighters come from since we only have a fraction of that number here in Morro Bay? There are many, many more questions.

A BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay - The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." Since 2014, Morro Bay has drawn many thousands of visitors and become a special place for tourists. The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

Construction of the BESS will take over 3 years and will negatively impact our community - If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create

a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses - This facility requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be **recklessly placing the citizens and visitors of Morro Bay in danger.**

A BESS on the Embarcadero in Morro Bay would be in conflict with the **California Coastal Act** - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and state identified tsunami zone, would actually amplify such risk. Also, under the Coastal Act, "**new development shall protect special communities and neighbourhoods with unique characteristics that are popular visitor destination points for recreational uses**". Morro Bay is unique for its iconic "Morro Rock," at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The "Rock" and quiet harbour attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, **which battery storage is not.**

A BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting and migratory birds but the draft EIR does not identify this significant impact. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honour their obligations to protect those species.

Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. **By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the**

EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the “external costs” of the BESS will be borne by the citizens of Morro Bay.

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires, the single most important and dangerous impact. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. Since alternative #5 is a substantially different project with important differences in the impacts, if there is a change to that alternative, the applicant must withdraw the current application and start the process over. For all of these reasons (and many more) **the draft EIR must be rewritten and recirculated for our comments.**

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. After having seen what is happening in Otay Mesa and the true impacts due to the proposed project location having been revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Michelle C.H. Leicester-Cadaret

Public Comment in response to draft EIR - BESS

Jeffrey Heller <[REDACTED]>

Sun 5/26/2024 8:42 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: sarah.macgregor@coastal.ca.gov <sarah.macgregor@coastal.ca.gov>; Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>

 1 attachments (17 MB)

240526-J Heller Final Submittal to Kim Fowler-City of Morro Bay.pdf;

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Dear Kim

Attached is my response to the DEIR for the BESS project. Please let me know if you have any trouble with the transmission or if you want a hard copy for your files.

Thank you for your hard work on this!

Jeff Heller
[REDACTED]

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
Email: kim.fowler@morrobayca.gov

Re: Public comment in response to draft EIR for proposed battery storage project.
5/27/24

Dear Ms. Fowler

I am a resident of Morro Bay and am opposed to the BESS project.

My involvement with planning our Morro Bay's future began in 2016 when I applied for and was appointed to the citizen's General Plan Advisory Committee (GPAC). Our goal was to update our 1988 General Plan as mandated by California law. Thousands of hours of work by City as well as Coastal Commission staff, members of the community, and consultants eventually resulted in a highly vetted Plan Morro Bay draft in 2018.

As a result of my growing interest in local government, I ran for and was elected to the Morro Bay City Council and served from 2018-2022. In 2021—Plan Morro Bay (GP/LCP) was approved by Council and certified by the California Coastal Commission.

The Plan's resulting land use change of the subject 107-acre parcel from "public institutional" to "visitor serving commercial" is arguably the most widely supported revision from the 1988 General Plan. The California Coastal Commission has unanimously agreed.

The GPAC citizen's committee labeled the parcel a "**Waterfront Opportunity Site**". It is exactly that, and the Visitor Serving Commercial Land Use/Zoning Designation complies fully with the Vision of Plan Morro Bay's General Plan as well as the mandates of the Coastal Commission (See Land Use Map: Fig. LU-4).

Some of my objections to the DEIR are listed below and in the attached spreadsheet and figures.

1. The proposed BESS project is not coastal dependent and can in fact be located wherever a suitable connection to the "grid" exists. An ideal location would be inland in a sparsely populated area, rather than adjacent to a busy "visitor serving area" in California's "Coastal Zone". The proposed location is surrounded by a pristine, irreplaceable environment. The 107- acre parcel is the only remaining large "Waterfront Opportunity Site" in Morro Bay. It has enormous potential to develop a world class educational institution, conference center, as well as a wide variety of visitor serving uses. Residential uses become feasible with additional cleanup of the soils. Repurposing the power plant and stacks is also an exciting possibility.

2. The Project Location and Existing Site Characteristics (Pg ES-1) understate the *proximity of surrounding areas subject to environmental impacts*. They are the following: Morro Creek (100 ft. north), RV Park (300 ft. north), “The Pit” parking area (400 ft. north), Morro Bay High School (1,200 ft. north), Pacific Ocean and beaches (350 ft. west), the Rock Parking Lot (300 ft. west), Coleman Rd and Embarcadero restaurants and shops with thousands of weekend visitors (600 ft. south), and Morro Bay, home of National Estuary Program; recreational and fishing boats, sea otters, sea lions, migratory birds, etc., 1,000 ft. to the south. Even if a “battery fire accident and upset condition may not be reasonably foreseeable”, the *cumulative and significant impact of just one occurrence sometime over the next 20 years, could reasonably result in irreversible damage to Morro Bay’s coastal resources. Why should Morro Bay put our pristine and irreplaceable Coastal Resources at even a low risk for an industrial project than can be located away from populations?*

2024-07-01 Mesa 8223 File
3. The Land Use Deed Restriction description at the bottom of page ES-2 is not completely accurate and is somewhat misleading. The restrictions in place are due to the parcel’s contaminated soils, which can be cleaned up by Vistra or a future property owner. This remediation would allow for the Visitor Serving Land Use/Zoning designation (visitor serving and affordable housing, day care centers, etc.) to be applied to the entire parcel (except the existing ESHA areas). Most residents of Morro Bay hope the current property owner will sell the 107- acre parcel to a developer who is interested in cleaning up the soils and developing the property to its highest and best use (Visitor Serving Commercial) as defined in Morro Bay’s General Plan/LCP-2021. Perhaps the plant and stacks can be “repurposed” by following the example of the Portrero Power Plant in San Francisco.
4. Here are some important excerpts from Plan Morro Bay GP/LCP-2021 that support the approved Land Use and Zoning Designation of the proposed project site as Visitor Serving Commercial (VSC) (See Land Use Map Fig.LU-4)

2021-Land Use Section

GOAL LU-1: The community form of Morro Bay reflects its vision and values, promoting a strong economy and high quality of life. (LCP)

POLICY LU-1.1: Land Use Pattern. Maintain the current pattern of Morro Bay’s land use to preserve the distinct character areas and community form, while enhancing and transforming areas with greatest potential for change to improve economic activity and align them with the community vision. The 107 acre parcel was clearly identified by the GPAC as a “Waterfront Opportunity Site”. It is the last large site in Morro Bay that has the capacity to satisfy this important Goal and Policy.

POLICY LU-1.2(LCP): Realistic Development Capacity. Protection of sensitive habitats, natural landforms, scenic resources, and other coastal resources shall be a priority in all City actions and decisions, and all development standards (including with respect to height, setback, density, lot coverage, etc.) shall be interpreted as

maximums (or minimums) that shall be reduced (or increased) to protect and enhance such resources and meet LCP objectives to the maximum extent feasible. Development shall only be authorized when the proposed use is allowed per the applicable land use designation, and when it meets all applicable LCP policies and standards.

POLICY LU-3.4: Infill Development(LCP). Promote infill development on vacant or *underutilized properties* in the city as the preferred strategy for most new development in Morro Bay. The 107 acre site is largely vacant with the exception of the decommissioned power plant and stacks, and is definitely underutilized. The highest and best use for this infill parcel is “Visitor Serving Commercial”.

COASTAL PRIORITY USES(LCP): *The Coastal Act requires the City to prioritize uses that serve important needs for the community and visitors, such as recreation, coastal access, open space, and visitor serving and coastal-dependent uses. Nearly all of Morro Bay is in the coastal zone.* Coastal priority uses range from visitor-serving recreation and services to coastal dependent businesses such as aquaculture and commercial fishing.

“Visitors come to Morro Bay year-round to enjoy the beautiful scenery, the beach, and an eclectic and laid-back vibe. The diverse array of shops, restaurants, and recreation opportunities are an important part of both the economy and personality of Morro Bay, and these uses need to be protected for the enjoyment of visitors and locals alike (Vision: Plan MB/GP/LCP)”. *The Coastal Act also requires that visitor-serving uses be prioritized over most other uses in the coastal zone.*

New development shall be located within, contiguous with, or in close proximity to existing developed areas with adequate public services *and where it will not have significant effects, either individually or cumulatively, on coastal resources. The cumulative significant impacts resulting from locating the BESS at the proposed location will be irreversible and in direct conflict with the Coastal Act as well as Plan Morro Bay’s GP/LCP.*

POLICY LU-4.6: Development Priority(LCP). *Using private lands suitable for visitor-serving commercial or recreational facilities shall have priority over using such lands for private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.*

IMPLEMENTATION ACTION LU-7 (LCP). *As part of the Zoning Code update, maintain land use and zoning that protects visitor-serving and coastal dependent uses, including commercial fishing.(See Land Use Map LU-4)*

POLICY LU-5.4: Vistra Site Master Plan (pg 69 of Plan MB./GP/LCP)

Create a master plan for the redevelopment of the former Vistra Power Plant Site and surrounding area, which could include reuse of some of the existing buildings. The master plan will be the responsibility of the developer or property owner upon property development. Encourage extensive community participation in the master plan process.

Ensure that the land use map identified in Figure LU-4 and development capacity established in Table LU-2 guide land planning for the site. The draft master plan recently submitted by Vistra does not comply with the approved land uses for the site.

See attached spreadsheet for additional potentially significant impacts.

5. AESTHETIC and VISUAL RESOURCES: Degradation of visual resources, particularly with highly probable cumulative future expansion of BESS as well as the PG&E Substation. Most of the photos and visual simulations are far too distant from the site to accurately reflect the visual impacts of the nine(9) proposed 105 foot high poles, transmission lines, etc. Only Figures 4.1.1 and 4.1.8 are close enough to be useful. (See attached Fig. 4.1.7a, b, & c w/comments for pictures taken much closer to the site).
6. AIR QUALITY: Figure 4.2-1 has the boundary for “maximally exposed individual receptor locations”. Does this figure pertain to air quality during construction or during a potential battery fire/thermal runaway event, or both? What was the basis in developing this conceptual boundary? Have the variable Morro Bay wind directions been accounted for when the boundary was developed? (See attached Fig. 4.2-1 and 4.2.1a w/comments).
7. HAZARDS AND HAZARDOUS MATERIALS: Site proximity to heavily occupied and sensitive animal and plant populations, creates an unavoidable significant impact should even a small battery fire/thermal runaway event occur (See attached Fig. 4.7-1, 4.7.-1a. & 4.7-1b w/comments)
8. NOISE: The humming noises associated with high voltage electric transmission as well as air conditioning equipment might be detectable and exceed acceptable levels at the pedestrian/bike path west of, and about 300 feet away from, the proposed BESS development. This location should be tested to determine if effects exist.
9. TRANSPORTATION: I believe significant effects exist relative to adequate emergency access. The cumulative effects of a fire/thermal runaway at the BESS facility coupled with a weekend, holiday, or special event with 10,000 or more visitors in town must be considered significant. See detailed comments in the attached spreadsheet.

Best Regards



Jeff Heller

Cc:

council@morrobayca.gov

PlanningCommission@morrobayca.gov

Sarah.macgregor@coastal.ca.gov

"DEIR IMPACT" ITEM	"ITEM DESCRIPTION"	RESIDENT RESPONSE TO DESCRIPTION	APPLICANT-MITIGATION MEASURE(S)	RESIDENT RESPONSE TO PROPOSED MITIGATION	APPLICANT-RESIDUAL IMPACT	RESIDENT RESPONSE TO RESIDUAL IMPACT
PROJECT DESCRIPTION	PG ES-1-Location and Existing Site Characteristics; and Fig. 2.2 (Parcel and Site Location), and Fig. 2.3 (Existing Features).	<i>Description fails to mention proposed project location is 200 feet from Morro Creek to the north, 300 feet from the RV Park to the north, 1,200 feet from Morro Bay High School to the north, 350 feet to the Pacific Ocean to the West, and 600 feet to Morro Bay to the south (home to a federally recognized National Marine Estuary Program).</i>	None required	GP Policy LU-3B: Industrial uses located on or adjacent to the harbor and beaches shall be regulated to protect the environment and priorities shall be established for coastal dependent uses.	None required.	<i>Disagree: Project is not coastal dependent; project is surrounded by ESHAs, busy tourist district, Rock Parking Lot, RV Park, Morro Creek, Lila Keiser Park, Maritime Museum, pedestrian pathways, Pacific Ocean to the west and pristine Morro Bay (National Estuary Program), with fishing and recreational uses. Visual resources will be degraded, and hazards related to possible lithium fires which will release toxic gases.</i>
	Pg 2.6-DTSC Land Use Restriction	<i>The description of the deed restriction is not accurate. The restriction in place allows for Visitor Serving Commercial uses which has been approved by the DTSC, PG&E, the City of Morro Bay and the California Coastal Commission (GP/LCP). The restriction does not allow housing, hospitals, day care centers, etc. However--this is due to the current level of soil contamination. If/when the soil contamination is remediated, the land uses could include housing, etc. Soil contamination is routinely remediated so land can be used for a higher and better use. VISTRA could clean up the soils, or perhaps sell the parcel to a developer who could do so.</i>	N/A		N/A	
AESTHETICS AND VISUAL RESOURCES						
Impact AES-1	The project would not have a substantial adverse effect on a scenic vista.....etc	<i>Disagree: Morro Bay has no "official" scenic vistas or views. Those indicated in figures C-6 and C-7 of the LUP are only a few and are not intended to be all inclusive. The existing Power Plant/Stacks (as well as "The Rock") are considered by many to be iconic physical structures that identify Morro Bay at a glance. The stacks of the plant (and regrettably the PG&E Substation) can be seen from mile away and from many directions (Highway 41, Highway One, Cayucos, Los Osos, etc.) as well as from the hills of north and south Morro Bay, the entire navigable length of Morro Bay as well as the Pacific Ocean to the horizon. The number of "unofficial" views of the project site and the existing PG&E substation from the coastal terraces throughout the City are immeasurable. The proposed BESS project will degrade the iconic visual resources of the site by adding 24 acres of 40 ft+ high industrial buildings, in addition to multiple transformers, power control centers, and at least NINE (9), 105 ft high Transmission Poles topped with high voltage transmission lines strung across the property to the PG&E substation. If the power plant/stacks are demolished as proposed by the project, it is highly probable the property owner will pursue a second project in the future and install additional BESS units on the 19 acres where the plant currently stands. The cumulative and residual impacts of this probability will result in what will appear as one huge PG&E Substation. All within less than 1500 feet of Morro Bay, the adjacent dunes, the Pacific Ocean and beaches, the RV park to the north, Morro Bay High School, The "Rock" Parking lot, Coleman Road and the many restaurants and shops along it. The degradation of the visual resources of this iconic area of the city will be immeasurable and irreversible. There may also be negative impacts to our tourist based economy as a result of this blight. Visitors from around the world will not like finding a huge industrial substation in the middle of our pristine and spectacular coastal area.</i>	None required	<i>Disagree: The "visual simulations" in the Draft EIR are wholly inadequate. They are fuzzy and vague and don't represent accurate depictions of the existing structures (e.g. PG&E Substation and transmission poles and lines feeding it from the east), or the planned structures. The scale and visual impact of the building heights with possible roof top fencing cannot be evaluated based on what has been submitted. In addition the visual impacts of the nine(9)- oles ft high transmission line poles AND high voltage overhead lines which will connect to the PG&E substation cannot be determined. All visual simulations and/or photos intended to represent the impacts of the project to the visual resources of this iconic site need to be revised with sufficient detail needed for evaluation, and recirculated to the City of Morro Bay and the general public for review and comment.</i>	Less than significant	<i>DISAGREE: The cumulative, residual impacts cannot be fully evaluated until the DEIR visual simulations are revised and recirculated for review, and are supplemented by photos from the east side of Highway one of the PG&E Substation, Transmission Poles and high voltage lines. The cumulative impacts are likely to significantly degrade the existing impacts. e the by the City of Morro Bay and the general public. Greater detail and accurate scaling are needed. The Power Line Transmission Poles and overhead lines need to be clearly identified and scaled, while showing their extension/connection to the existing PG&E substation. Even with improved simulations and added photos, it seems highly probable that the overhead poles/lines will substantially degrade the area. The end result is what will appear to be one large PG&E substation. This is likely to be a significant, unavoidable impact. (Although installing all transmission poles and lines underground might be an acceptable mitigation).</i>

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Impact AES-2	<p>The project would not result in damage to a scenic resource. The Morro Bay Power Plant building and stacks are historic resources pursuant to CEQA, but the Morro Bay Power Plant is not identified as a scenic resource in the San Luis Obispo North Coast Scenic Byway Corridor Plan, which regulates preservation of the scenic quality of SR 1. Compliance with Plan Morro Bay policies and Title 17 of the Morro Bay Municipal Code would ensure that development under the Master Plan would not result in damage to scenic resources. <i>This impact would be less than significant.</i></p>	<p><i>Disagrees: While the Morro Bay Power Plant may not be "officially" identified as a scenic resource in the SLO North Coast Scenic Byway Corridor Plan-which regulates the scenic quality of SR 1 ("Highway One"); it is considered an historic resource per CEQA. Additionally, as noted in the Project Description, the immeasurable "unofficial" visual resources, which make up the character and charm for which Morro Bay is known are equally significant... "Three Stacks & a Rock" shirts are sold in every T-Shirt shop, and there is one brewery with the same name !</i></p>	None required	<p><i>Disagrees: If the local landmark power plant/stacks are demolished as part of this project, the visual resources of the City of Morro Bay as well as surrounding areas in the region (views from Highway 1, Highway 41, the beaches, the bay, the ocean, the hills of Morro Bay, Cayucos, etc.) will be significantly and negatively impacted and degraded. Our tourism economy could be negatively impacted as well. The applicant should consider selling the entire parcel to an investor who could develop the site in accordance with the GP/LCP approved land use: Visitor Serving Commercial.</i></p>		
Impact AES-3	<p>Impact AES-3. Demolition of the Morro Bay Power Plant building and stacks and development of the BESS Facility would alter, but not degrade, the visual character of public views of the Power Plant Property. Compliance with existing standards and Plan Morro Bay goals and policies would ensure that redevelopment or new development under the Master Plan complements the existing visual character and quality of Morro Bay. <i>Therefore, the project would have less than significant impacts on visual character and quality.</i></p>	<p><i>Disagrees: Demolition of the plant/stacks will absolutely degrade the visual character of public views of the power plant property! The stacks of the plant (and regrettably the PG&E Substation) can be seen from many miles away (Highway 41, Highway One, Cayucos, Los Osos, etc.) as well as from the hills of north and south Morro Bay, the entire navigable length of Morro Bay as well as the Pacific Ocean to the horizon. If the power plant/stacks are demolished as proposed by the project, it is highly probable the property owner will replace them with 19 acres of additional BESS units with associated power conversion systems, transformers, 105 foot high Transmission Line Poles, and high voltage transmissions over 100 feet in the air to connect to the PG&E Substation. The end result? The entire site will appear to be one large PG&E Electrical Substation from the Atascadero Road connector on the west, to the substation on the east, and from Coleman Drive on the South to the contiguous RV Park on the north and beyond. That will be the new visual character and quality associated with the public views of Morro Bay and this prominent 107 acre parcel.</i></p>	None required			

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Impact AES-4	Demolition of the Morro Bay Power Plant building and stacks, construction and decommissioning of the BESS, and the Master Plan would not create a new source of substantial light or glare. Operation of the Proposed BESS Facility would result in new sources of light and glare; however, operational levels of light and glare would be minor, similar to existing conditions, and all lighting associated with the project and future development under the Master Plan would be shielded and directed downward in accordance with the goals and policies in Plan Morro Bay and the Morro Bay Municipal Code. This	<i>Disagree: Due to the prominent location of the project, operational night lighting/dark sky issues are unlikely to be "minor". The City reserves the right to revise and update our municipal codes and policies in response to this highly intrusive and impactful industrial project in the midst of our tourist district.</i>	None required			
AIR QUALITY						
Impact AQ-1	The project would be consistent with existing rules and measures contained in the SLOAPCD 2001 Clean Air Plan. Through regulatory compliance, this impact would be less than significant.	<i>Disagree: AQ-1(a); SLOAPCD Standard Mitigation Measures for Construction Equipment. The project shall implement the SLOAPCD's "Standard M manufacturer's specifications; Fuel all off-road and portable diesel powered equipment with CARB certified motor vehicle diesel fuel (non-heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation; Construction or trucking companies with fleets.....etc.</i>	None required	<i>Disagree: Additional Mitigation Measures are Required. 1. Due to the frequently strong winAds at the project, as well as its adjacency to pedestrians at the Rock Parking Lot to the west, the pristine waters of Morro Bay and the National Estuary to the south, the busy tourist areas all along the Embarcadero, and the RV park to the north of the site....additional mitigation measures need to be included. 2. SLOAPCD is an excellent agency with highly qualified and knowledgeable staff. However, like all public agencies their resources are limited. My 45 years of managing construction projects has made me aware that APCD's normally respond on a "complaint driven" basis. In other words, if a member of the public or a member of the project team observes a violation, their only course of action is to contact the APCD and hope they have the resources available to respond. As a result--violations recognized after the fact, at which point the damage has been done. 3. Therefore, due to close proximity of the areas mentioned above--a full time APCD representative or qualified consultant hired by the City of Morro Bay, should be on site during all demolition, construction and decommissioning activities which might impact the air quality at or around the project site. For these reasons I believe this is a significant impact that needs mitigation beyond</i>	None required	<i>DISAGREE: If the air quality per SLO APCD's standards is not monitored continually, and a violation occurs, a potentially significant impact will result. Due to the "complaint driven" nature of enforcement, this additional mitigation requirement is necessary.</i>

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Impact AQ-2	<p>Construction and future decommissioning of the BESS facility and demolition of the Morro Bay Power Plant building and stacks have the potential to generate criteria air pollutant emissions that would exceed SLOAPCD's Tier 1 and Tier 2 thresholds. Implementation of mitigation measures AQ-1(a) and AQ-1(b) would reduce ROG, NOx, and OPM emissions below the applicable SLOAPCD criteria air pollutant emissions thresholds. <u>As a result, this impact would be less than significant with mitigation incorporated.</u></p>	<p>AQ-1(a): SLOAPCD Standard Mitigation Measures for Construction Equipment. The project shall implement the SLOAPCD's "Standard Mitigation Measures for Construction Equipment." These standard measures include: ☐ Maintain all construction equipment in proper tune according to manufacturer's specifications; , etc.....AND, AQ-1(b): SLOAPCD Standard Mitigation Measures for Construction Equipment. Mobile off-road construction equipment (wheeled or tracked) greater than 50 hp used during construction of the project shall meet at least the U.S. EPA Tier 4 final standards. In the event of specialized equipment use where Tier 4 equipment is not commercially available at the time of construction, the equipment shall, at a minimum, meet the Tier 3 standards.....etc.</p>	<p>Less than significant with mitigation required.</p>	<p><i>Disagree: Additional Mitigation Measures are Required. 1. Due to the frequently strong winds at the project, as well as its adjacency to pedestrians at the Rock Parking Lot to the west, the pristine waters of Morro Bay and the National Estuary to the south, the busy tourist areas all along the Embarcadero, and the RV park to the north of the site....additional mitigation measures need to be included. 2. SLOAPCD is an excellent agency with highly qualified and knowledgeable staff. However, like all public agencies their resources are limited. My 45 years of managing construction projects has made me aware that APCD's normally respond on a "complaint driven" basis. In other words, if a member of the public or a member of the project team observes a violation, their only course of action is to contact the APCD and hope they have the resources available to respond. As a result--violations recognized after the fact, at which point the damage has been done. 3. Therefore, due to close proximity of the areas mentioned above--a full time APCD representative or qualified consultant hired by the City of Morro Bay, should be on site during all demolition, construction and decommissioning activities which might impact the air quality at or around the project site. For these reasons I believe this is a significant impact that needs mitigation beyond simply referencing standards.</i></p>	<p>Less than significant</p>	<p><u>DISAGREE: If the air quality per SLOAPCD's standards is not monitored continually, and a violation occurs, a potentially significant impact will result. Due to the "complaint driven" nature of enforcement, this additional mitigation requirement is necessary.</u></p>

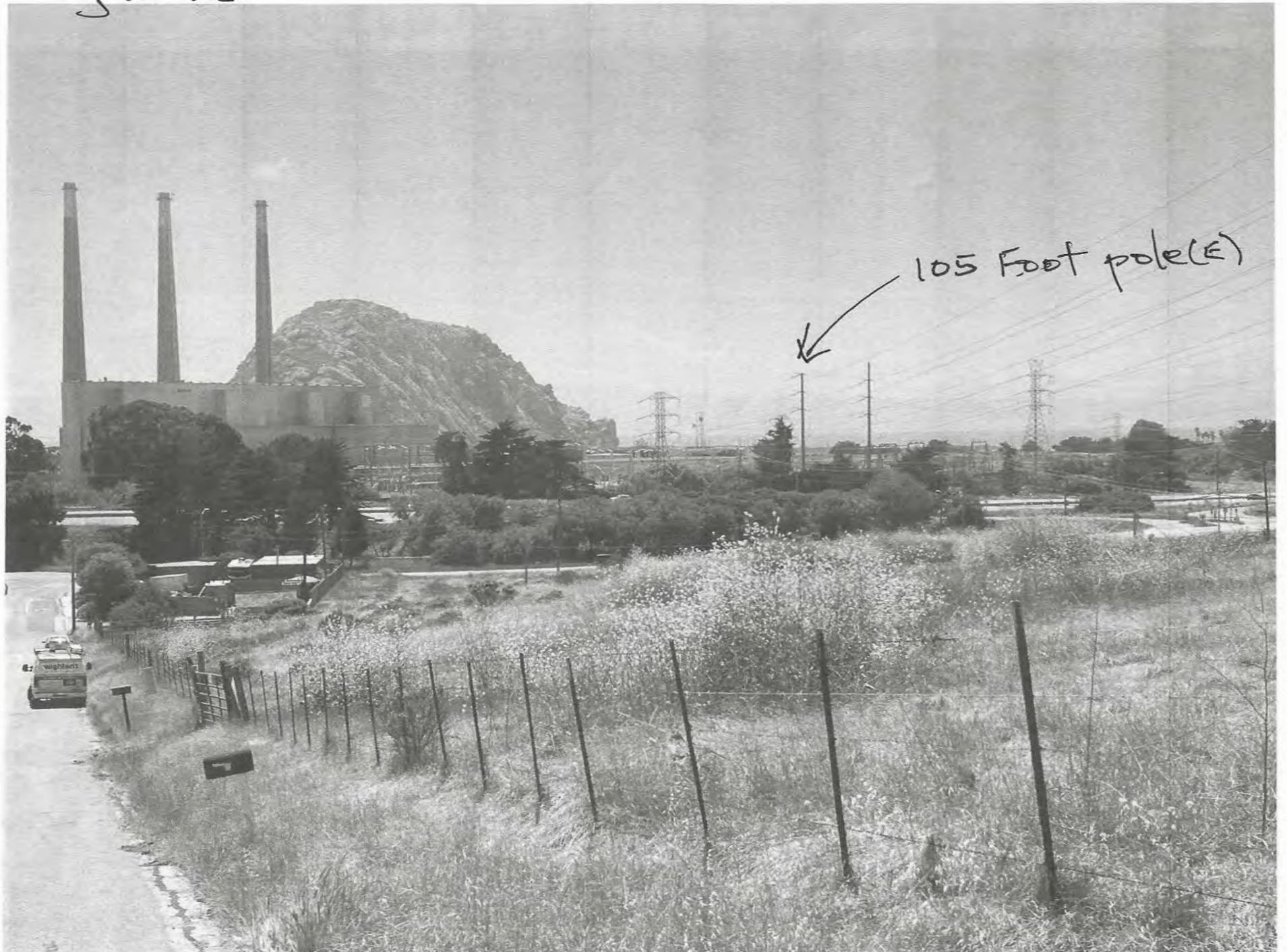
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Impact AQ-3	<p>Construction activities including demolition, site preparation, grading, building construction, paving, and architectural coating have the potential to expose sensitive receptors to substantial criteria air pollutant concentrations. Implementation of Mitigation Measures AQ-1(a) and AQ-1(b) would reduce DPM and TAC emissions below applicable screening thresholds for associated health risks. <i>Therefore, this impact would be less than significant with mitigation incorporated.</i></p>	<p>AQ-1(a): SLOAPCD Standard Mitigation Measures for Construction Equipment. The project shall implement the SLOAPCD's "Standard Mitigation Measures for Construction Equipment." These standard measures include: <input checked="" type="checkbox"/> Maintain all construction equipment in proper tune according to manufacturer's specifications; , etc..... AND, AQ-1(b): SLOAPCD Standard Mitigation Measures for Construction Equipment. Mobile off-road construction equipment (wheeled or tracked) greater than 50 hp used during construction of the project shall meet at least the U.S. EPA Tier 4 final standards. In the event of specialized equipment use where Tier 4 equipment is not commercially available at the time of construction, the equipment shall, at a minimum, meet the Tier 3 standards.....etc.</p>	None required	<p><i>Disagree</i> : Additional Mitigation Measures are Required. 1. Due to the frequently strong winds at the project, as well as its adjacency to pedestrians at the Rock Parking Lot to the west, the pristine waters of Morro Bay and the National Estuary to the south, the busy tourist areas all along the Embarcadero, and the RV park to the north of the site....additional mitigation measures need to be included. 2. SLO APCD is an excellent agency with highly qualified and knowledgeable staff. However, like all public agencies their resources are limited. My 45 years of managing construction projects has made me aware that APCD's normally respond on a "complaint driven" basis. In other words, if a member of the public or a member of the project team observes a violation, their only course of action is to contact the APCD and hope they have the resources available to respond. As a result--violations recognized after the fact, at which point the damage has been done. 3. Therefore, due to close proximity of the areas mentioned above--a full time APCD representative or qualified consultant hired by the City of Morro Bay, should be on site during all demolition, construction and decommissioning activities which might impact the air quality at or around the project site. For these reasons I believe this is a significant impact that needs mitigation beyond simply referencing standards.</p>		<p>DISAGREE: If the air quality per SLO APCD's standards is not monitored continually, and a violation occurs, a potentially significant impact will result. Due to the "complaint driven" nature of enforcement, this additional mitigation requirement is necessary.</p>
Impact AQ-4	<p>The project would not result in other emissions, such as odors or naturally occurring asbestos, that would adversely affect a substantial number of people. Impacts would be less than significant.</p>	<p>So adversely affecting less than "a substantial number of people" is a less than significant impact? Does this section also address the toxic fumes that might result from a battery fire or thermal runaway or?</p>	None required	<p><i>Please clarify the description/scope of odors, etc.</i></p>	Less than significant	<p>DISAGREE: Impact of toxic /gases/chemicals resulting from a potential battery fire or thermal runaway could significantly impact plant and animal life in the area.</p>
HAZARDS and HAZARDOUS MATERIALS						

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Impact Haz-3	Impact HAZ-3. Construction and demolition activities and staging areas would be limited to the Project Site and would not require roadway closures or detours that could affect emergency response and evacuation. Implementation of the proposed BESS Facility safety standards and features, as well as response features required by the MBFD, and compliance with the provisions of the Emergency Response Plan would ensure project construction, operation, and future decommissioning activities would not substantially impair an adopted emergency response or emergency evacuation plan. <i>This impact would be less than significant</i>	<i>Disagree:</i> Since an Emergency Response Plan including an emergency evacuation component has not been implemented as yet, it is premature to label this impact "less than significant". Since there is currently only one primary vehicular/pedestrian/bike access to the project (Coleman Road), as well as to surrounding existing visitor serving uses, substantial road improvements/additions will need to be implemented and constructed prior to the start of any construction on this site. One issue which needs to be recognized and addressed by this DEIR is the daily traffic impact of construction traffic (up to 300 workers at a time), in the context of an emergency at the Rock Parking Lot or other venue along Coleman Drive or Embarcadero Road. On busy holidays including weekdays and weekends, it is not unusual to have large crowds of residents and visitors in these areas. And it is not uncommon to have highly congested traffic from the Parking lot, etc. to the heavily traveled Beach Street/Embarcadero intersection. Significant traffic which can be backed up for an hour or more—with limited access to an emergency response. If such an event were to occur during a shift change when many construction workers or delivery vehicles have added to the congestion on the only ingress/egress road to the project site and tourist attractions, the outcome could be disastrous. This issue is significant and needs mitigation.	None required	<i>Disagree:</i> Additional Mitigation Measures are Required. Proposed Road Improvement Plan needs to be developed and made part of an Emergency Response/Evacuation Plan and submitted by applicant prior to approval of this DEIR. Until such time—this impact must be considered unavoidable and significant.	Less than significant	<i>Disagree:</i> The Land Use Element (PLAN MORRO BAY-2021) regulates how land in the City will be used in a way that maximizes public safety and social well-being, protects coastal resources, and benefits the local economy. That is one reason the current land use for the site is "Visitor Serving Commercial", not "Light Industrial". Regarding hazards—Appendix G of the CEQA guidelines states, "a hazards and hazardous materials impact would be significant if the proposed project would: 3.1b-create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or 3.1c-Emit hazardous emissions..... within 0.25 miles of an existing or proposed school." Whether an "upset and accident condition is reasonably foreseeable" or not, or if the Morro Bay High School is slightly more than 0.25 miles from the site is not the issue. The issue is the project's location. Even if an accident is not "reasonably foreseeable", the cumulative, residual impact resulting from project's close proximity to ESHA areas, a public park (Lila Keiser), heavily
Impact Haz-4	Impact HAZ-4. The Project Site is located in a Tsunami Hazard Area and is subject to flooding risk. However, implementation of the proposed safety standards and features, CBC structural design standards, local, State and federal regulations regarding the use, storage, and disposal of hazardous materials, and the required Tsunami Response Plan, as well as compliance with the provisions of the Emergency Response Plan, would collectively minimize the potential for the project to release pollutants due to project inundation. <i>These impacts would be less than significant.</i>	<i>Disagree:</i> I agree the project site is in a Tsunami Hazard Area. However—I have no knowledge of how a tsunami might impact a grid scale BESS facility. I also have no knowledge of a Tsunami Response Plan or Emergency Response Plan that might address the potentially significant release of toxic chemicals and/or gases that might result from such an event. <i>I have read that saltwater can act as a conductor in Li-Ion BESS facilities when the water evaporates but salt crystals remain and are conductive.</i>	None required	<i>Disagree:</i> Additional information needs to be provided to establish a reasonable impact should a tsunami occur. Perhaps a sample or draft Emergency response plan for BESS facilities located in tsunami hazard zones can be provided for inclusion in a revised DEIR.	Less than significant	DISAGREE: Since an Emergency Response Plan including an emergency evacuation component has not been included in this DEIR, it is premature to label this potentially significant "less than significant". In addition, the California Coastal Commission has guidance principles re: moving critical infrastructure (water and transportation) off the coast in response to projected sea level rise. Perhaps the Commission has similar guiding principles re: BESS facilities located on the California Coast, as many consider this electrical infrastructure to be critical as well. The Land Use Element (PLAN MORRO BAY) regulates how land in the City will be used in a way that maximizes public safety and social well-being, protects coastal resources, and benefits the local economy.
Impact Haz-5	The DEIR has no component which addresses the possible battery fire and/or thermal runaway. Since these events are a primary concern for the residents of Morro Bay, the consultant needs to address this potentially significant impact.	TBD	TBD	TBD	TBD	<i>The project represents a potential unavoidable significant impact, and should be relocated to a site off the coast.</i>

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NOISE	Less than significant?	<p><i>Disagree</i>: BESS units primarily emit noise from their cooling systems, but balance of system (BOS) components like inverters and transformers also produce noise emissions including sustained "humming" that could exceed allowable limits. While the noise evaluation report is thorough—<u>an important location where noise is likely to be detected by the public—was not a location studied</u>. That location is on the pedestrian/bike connector half way between Coleman Road and the bridge spanning Morro Creek. That location is the closest point the general public will ever be to the BESS batteries (about 300 feet away)—<u>and the noise levels there should be studied and made part of a revised report</u>.</p>	Take additional noise readings at the location suggested.	After readings are taken—noise impacts may become significant.	TBD	
TRANSPORTATION	<p>4.9 Transportation This section of the EIR addresses the potential physical environmental effects associated with transportation, circulation, vehicle miles traveled, and multimodal (including transit, roadway, bicycle and pedestrian facilities) transportation, from implementation of the proposed project. The project's potential to result in traffic hazards and inadequate emergency access are addressed in Section 4.10, <i>Effects Found Not to be Significant</i>.</p>	<p>b. Significance Thresholds The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For the purposes of this EIR, implementation of the project may have a significant effect on the environment if it would do any of the following: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment). Result in inadequate emergency access</p>				

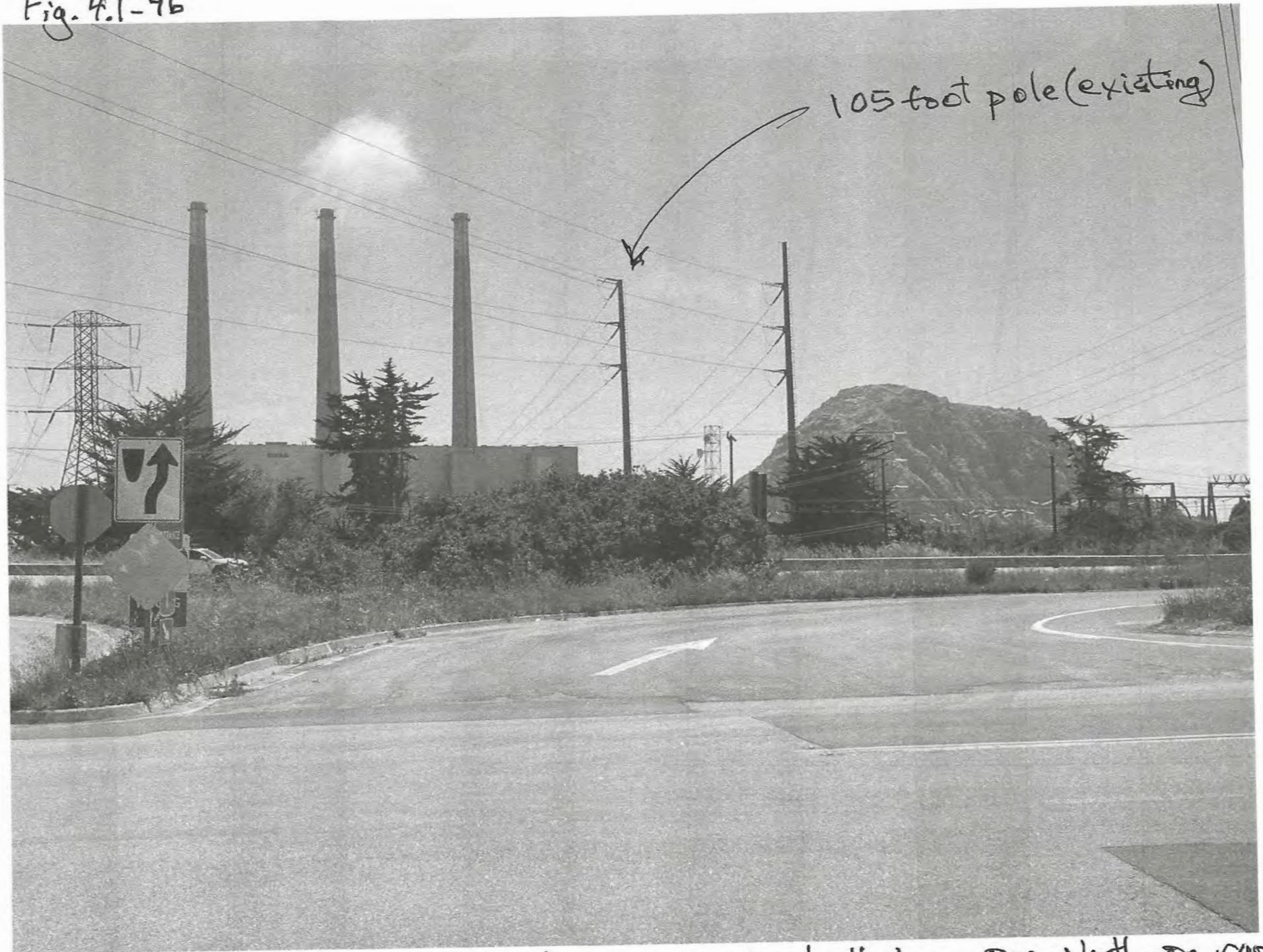
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TRA-2	<p>Impact TRA-2. Operation of the BESS Facility would not result in new vehicle travel that would exceed the applicable vehicle miles travelled (VMT) screening criteria. Future development under the Master Plan would continue to result in long-term VMT, consistent with the conclusions of the 2021 Final EIR for Plan Morro Bay. However, the change to the land use designation of the BESS Site from Visitor Serving Commercial to General (Light) Industrial would substantially reduce long-term increase in VMT associated with future development of the Master Plan area. As a result, <i>this impact would be less than significant.</i></p>	<p>Disagrees. As the number of visitors to Morro Bay increases over time, and the approved Visitor Serving Commercial Land Use is developed, (i.e. "future development") public transportation (e.g. expanded use of the Trolley and bus systems) will reduce VMTs to the site as well as to the Rock Parking Lot another areas of the city. In addition - <i>this DEIR does not include significant traffic impacts resulting from construction traffic</i> (up to 300 workers per day) over the 3-5 year BESS construction/Plant-Stacks demolition timeline.</p>	None Required	<p>Disagree: <i>The significant impacts of construction traffic during the construction of the BESS and demolition of the Plant-Stacks is not accounted for in this DEIR. These impacts will be significant and need to be addressed in the DEIR.</i></p>	Less than significant	<p>DISAGREE: <i>The significant impacts of construction traffic during the construction of the BESS and demolition of the Plant-Stacks, in addition to the added visitor traffic along Coleman Drive and Embarcadero Rd., is not accounted for in this DEIR. These impacts will be significant and need to be mitigated. (Tra-3?) One potential mitigation is expanding/improving the path from Coleman Drive to the bridge over Morro Creek, by making it a vehicular/bike/pedestrian exit route.</i></p>
OTHER CEQA REQUIRED TOPICS	LAND USE ELEMENT	<i>This element needs to be included in the DEIR.</i>				

Fig. 4.1-7a



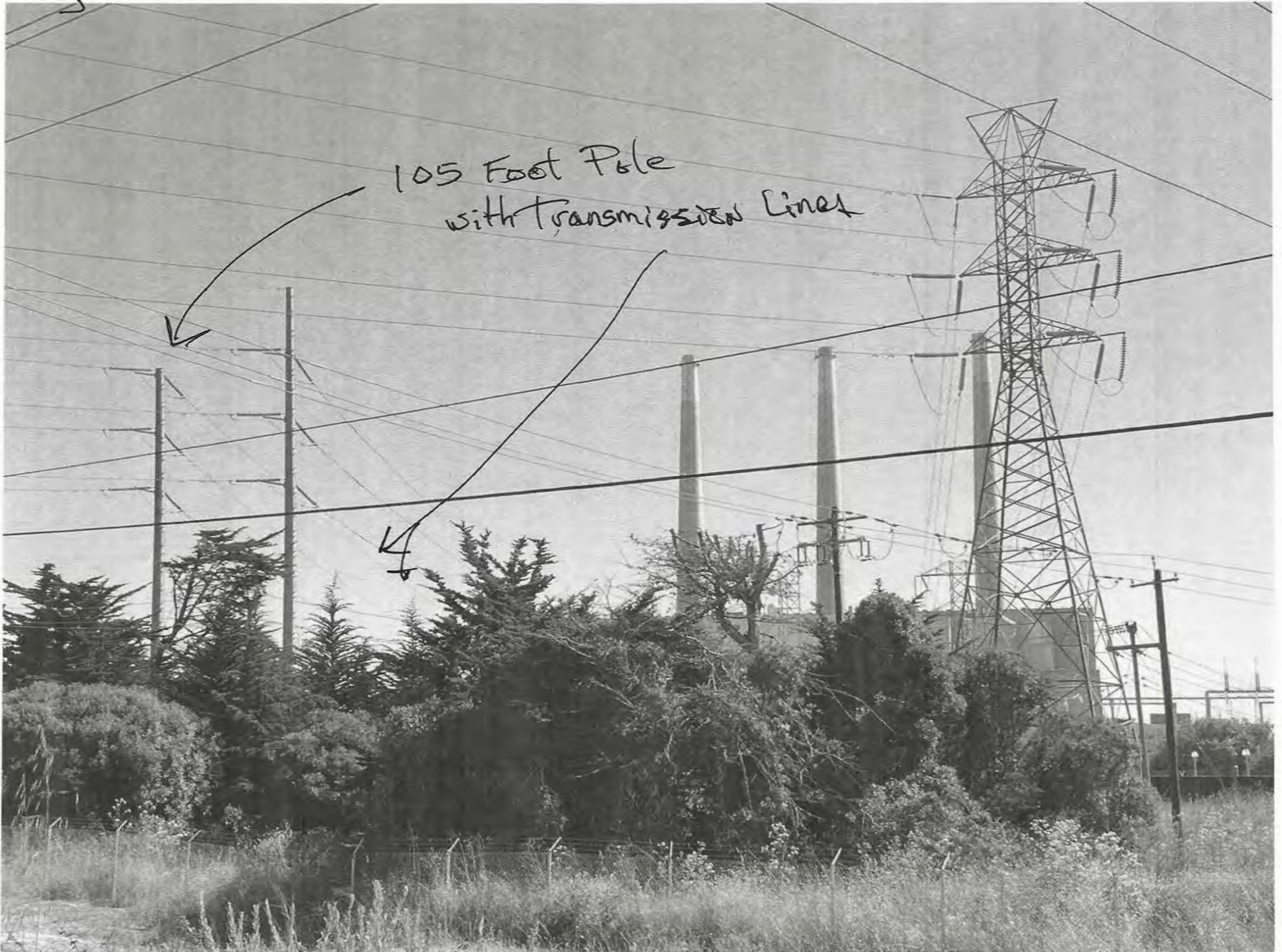
View from Radcliff Dr. looking West

Fig. 4.1-7b



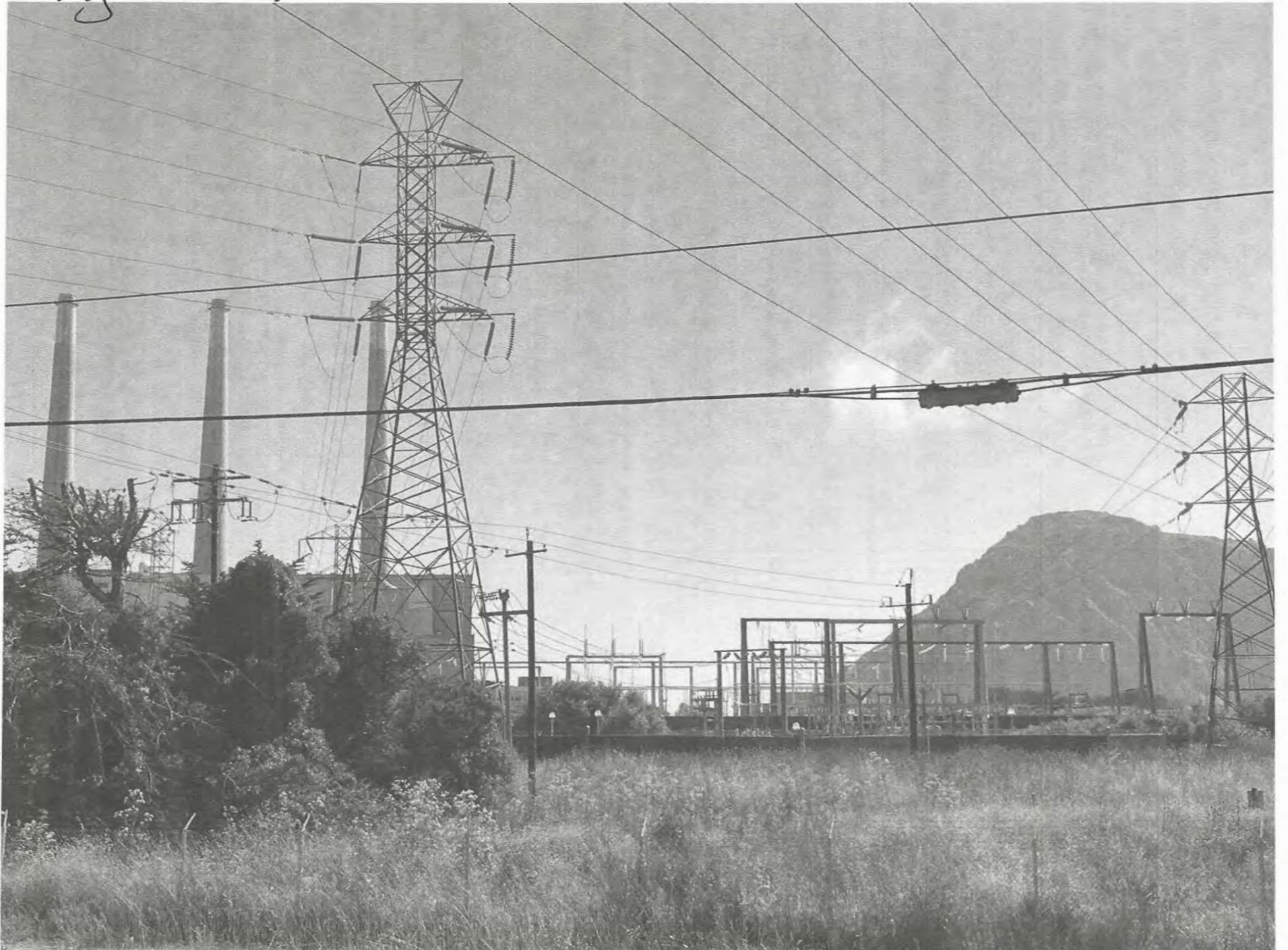
View west from main st. at Highway One North on ramp

Fig 4.1-7c



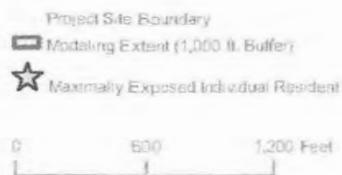
Views south from Bike Path by Highway One

Fig. 4.1-7d



View west from Bike Path - PG&E Substation

Figure 4.2-1 Maximally Exposed Individual Receptor Location



**MAXIMALLY EXPOSED INDIVIDUAL
RECEPTOR LOCATION**

Morro Bay BESS Installation
City of Morro Bay
Morro Bay, California

FIGURE 02

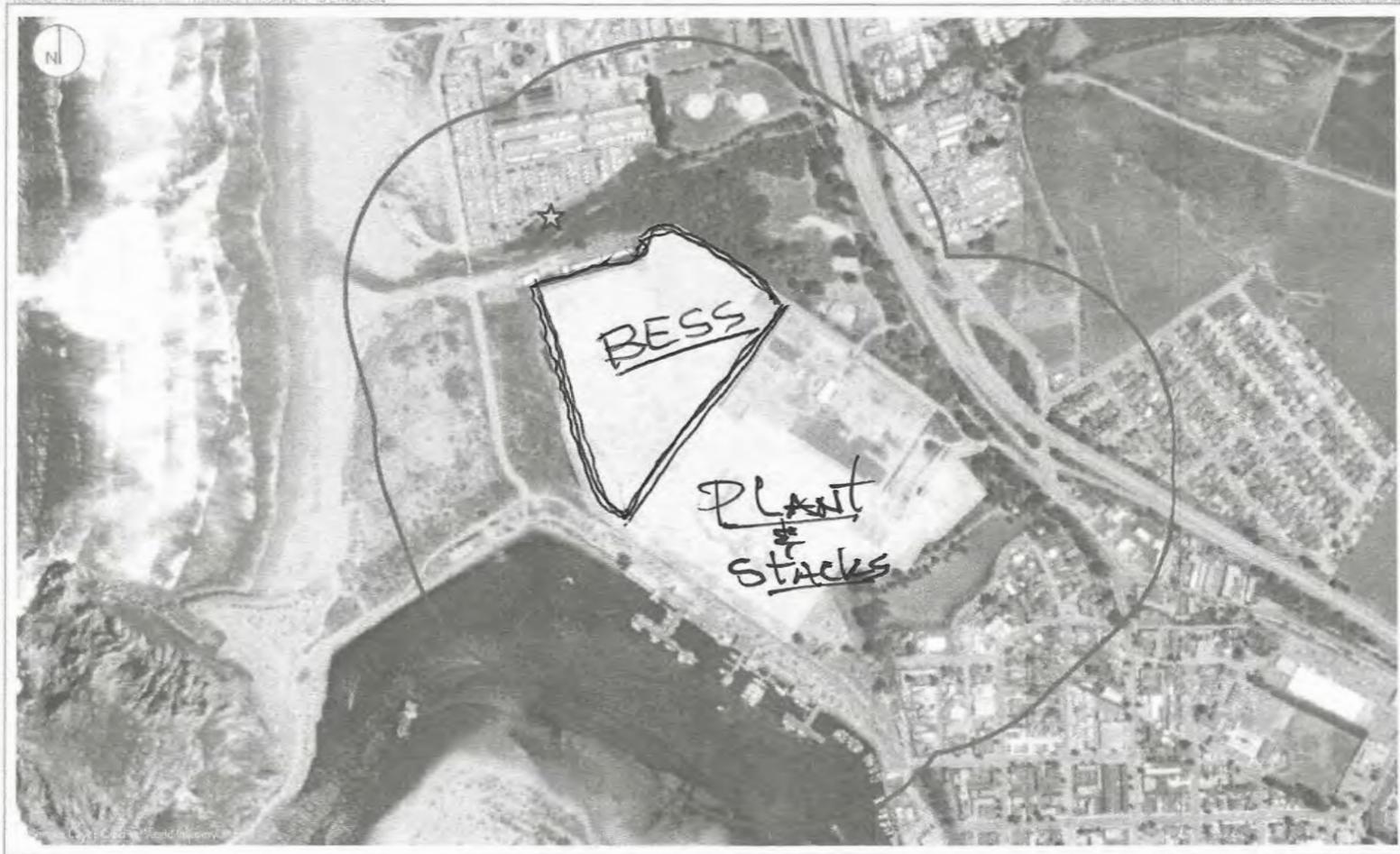
RAMBOLL US CORPORATION
A RAMBOLL COMPANY



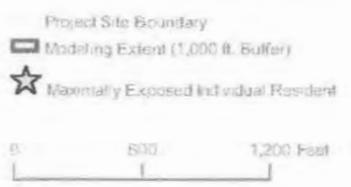
Winds from NW

Wind Directions

Figure 4.2-1a. Maximally Exposed Individual Receptor Location



Winds from East



↑
MAXIMALLY EXPOSED INDIVIDUAL RECEPTOR LOCATION
 Morro Bay Bess Installation
 City of Morro Bay
 Morro Bay, California

FIGURE 02

RAMBOLL US CORPORATION
A RAMBOLL COMPANY



Winds from S & SW

Figure 4.7-1 Areas of Hazardous Materials Concern

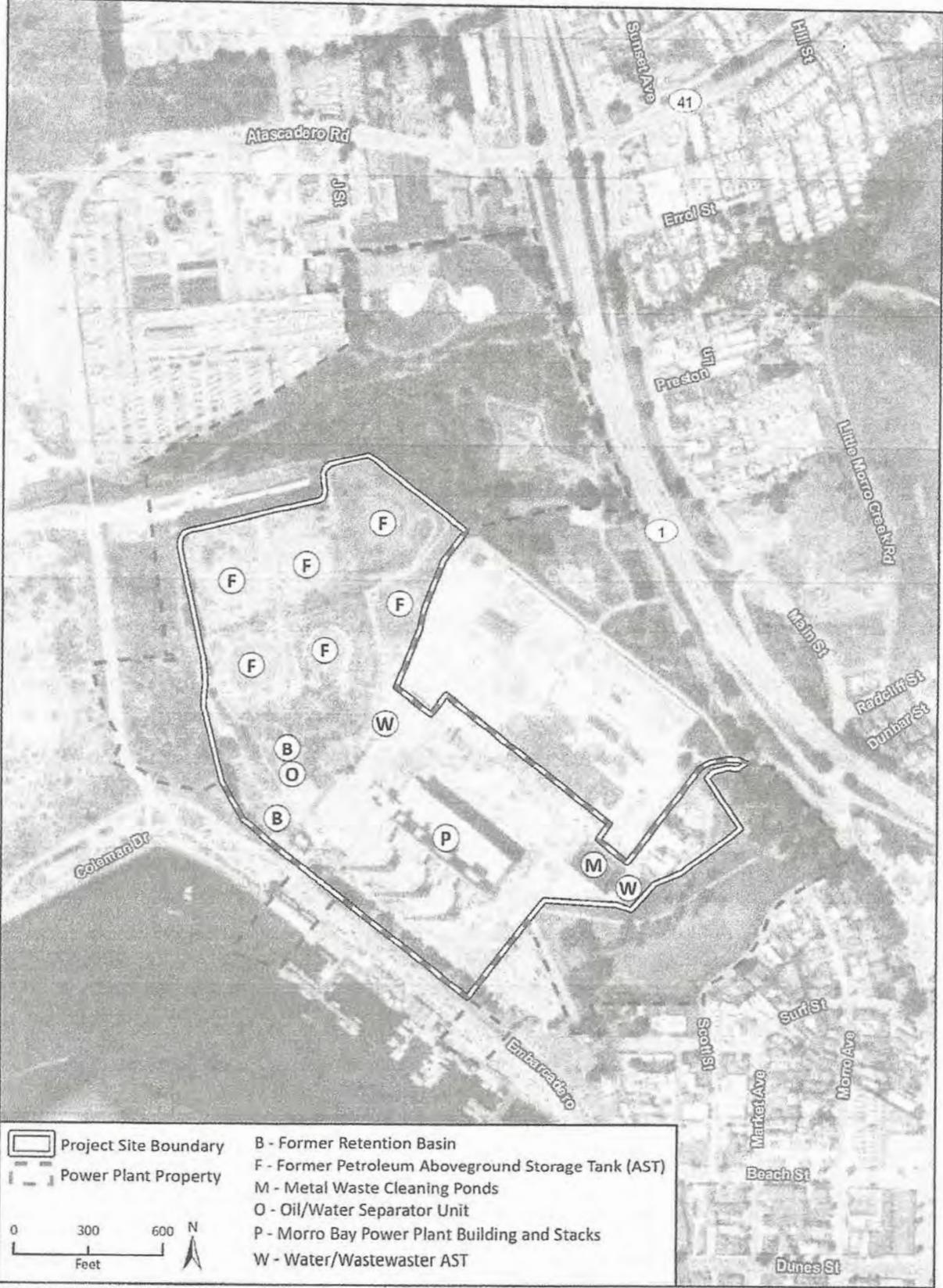
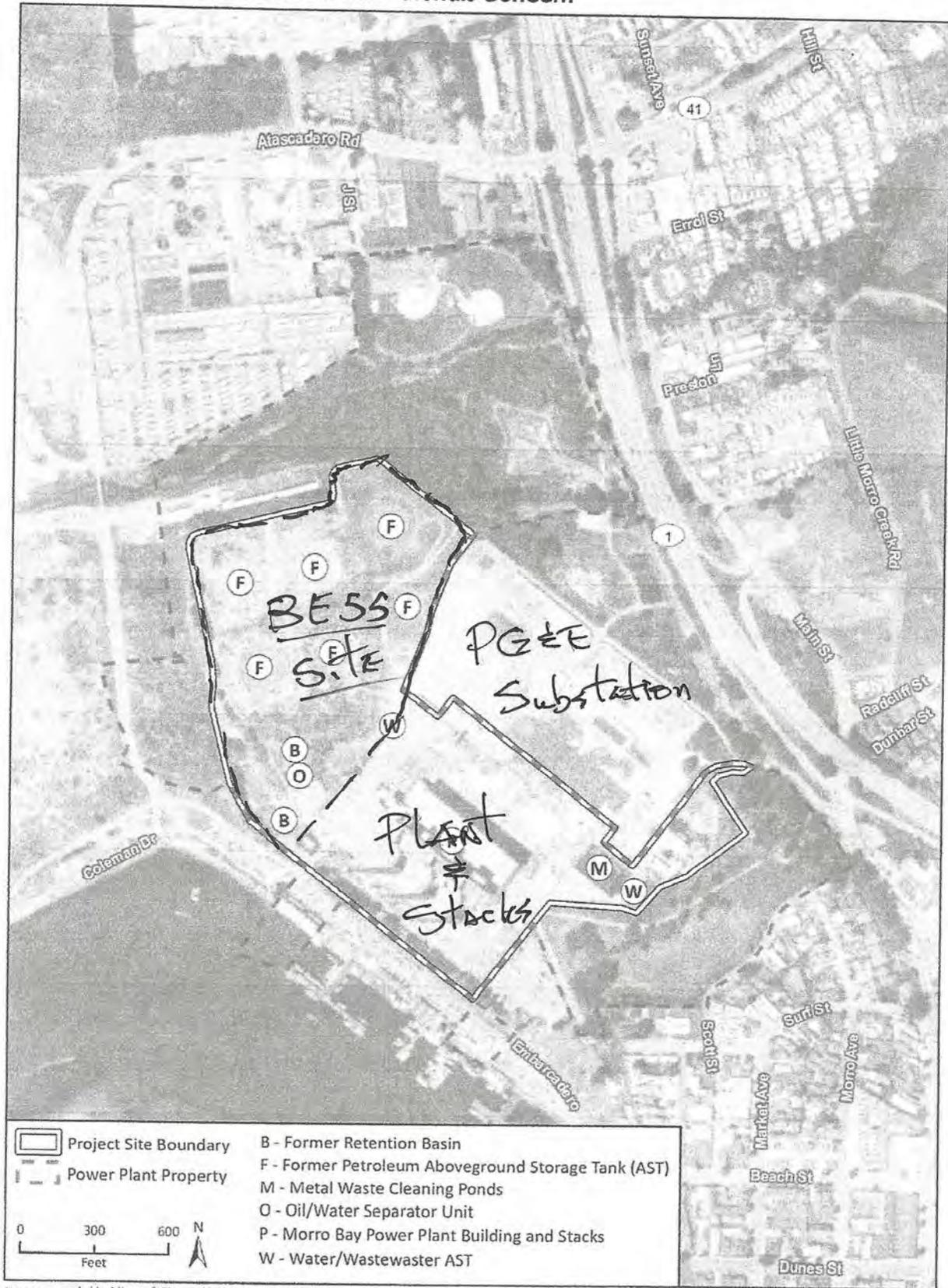
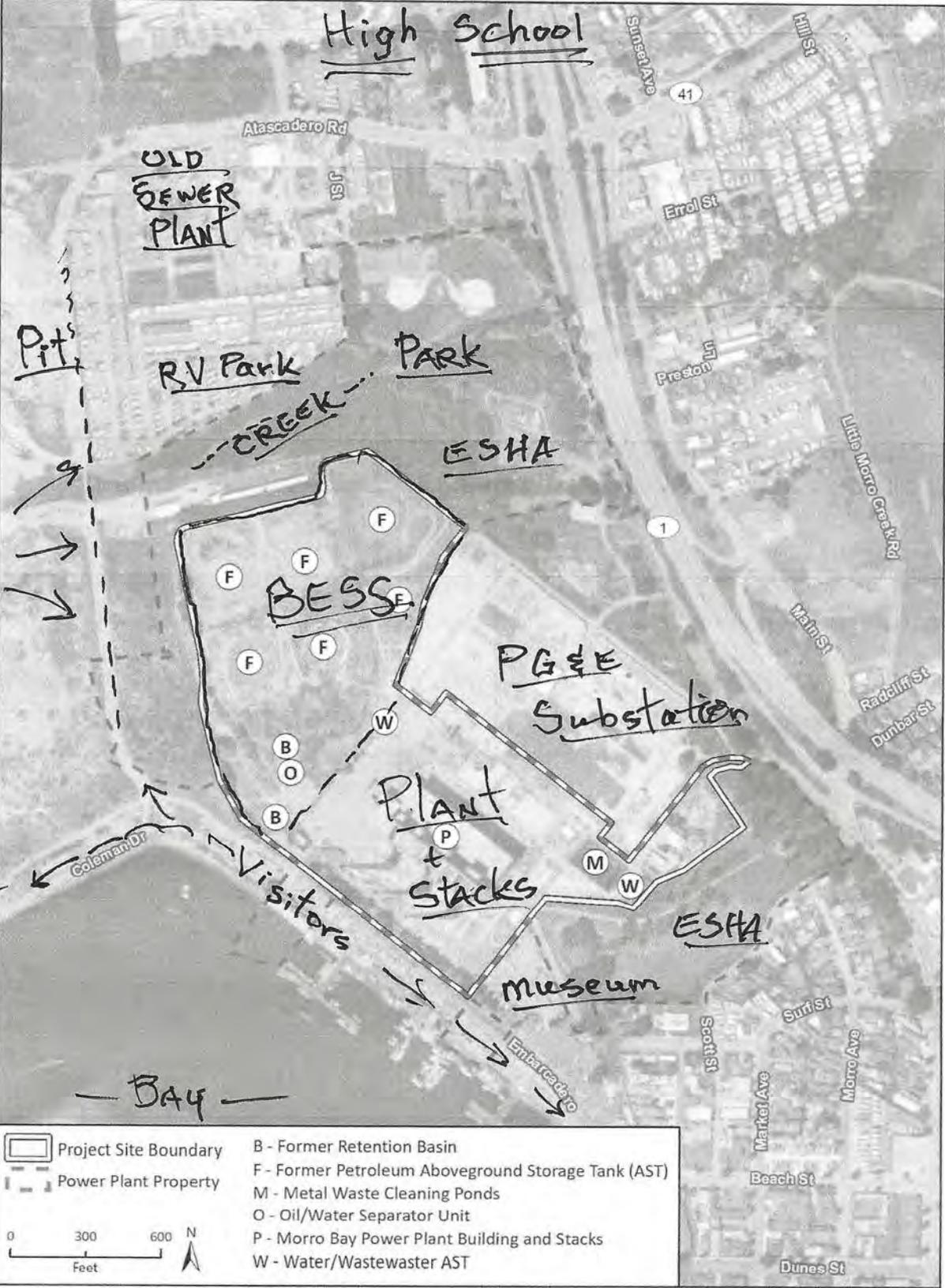


Figure 4.7-1A Areas of Hazardous Materials Concern



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Figure 4.7-1 B Areas of Hazardous Materials Concern



Imagery provided by Microsoft Bing and its licensors © 2023.

Response to Draft EIR re: proposed Morro Bay BESS

Richard Barnard <[REDACTED]>

Sun 5/26/2024 9:08 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

 1 attachments (434 KB)

MorroBay_EIR_responseRB1.pdf;

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Please see the attached PDF for response to the Draft EIR.

I appreciate your time in reading this response.

Sincerely,
Richard Barnard

May 26, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

I own a home in Los Osos (near Morro Bay) which has been in my family for over 30 years. I reside in Monterey County, about 5 miles from the Moss Landing VISTRA BESS. It has come to my attention that Morro Bay is considering a plan to locate a 600MW battery energy storage facility next to the deactivated power plant facility to. This plan has been outlined in the Draft EIR which was made public in March of 2024. I am opposed to the BESS project proposed for Morro Bay due the following concerns that aren't adequately addressed.

- 1. Proximity of the facility to ESHA locations:** There is a high level of possibility that thermal runaway fires can occur in a BESS. When these types of fires occur, hazardous fumes are generated which endanger living organisms including humans, animals, and plants. The proposed location for the Morro Bay BESS has a radius of proximity to a number of designated areas where these hazardous substances can propagate in the event of a thermal runaway fire in the facility. This concern has not been addressed in the EIR in a way which will mitigate significant harmful effects to the surrounding areas. Nowhere in the EIR is the language or discussion of thermal runaway fires to be found. Nor is there disclosure of what hazardous and/or toxic materials are released in the case of thermal runaway fires at battery facilities. Every previous comment presented by the public regarding fire has received the same boiler-plate answer, referring to section 4.7. Section 4.7 does not list any of the specific toxic substances that have been the result of thermal runaway fires in battery facilities. Based on the fires that have been occurring at operational facilities, the public deserves to have the topic of thermal runaway fires discussed in the EIR, as well as a disclosure of toxic and/or hazardous materials that can potentially be discharged into the surrounding environment of the proposed facility. The discussion in the EIR should explain to the public what conditions could cause these thermal runaway fires to occur, as well as a thorough explanation of how such fires can be extinguished, and how the likelihood of such fires can and will be reduced, or prevented in the new proposed facility that will make it different from existing facilities such as Moss Landing, and Otay Mesa/Gateway.
- 2. Proximity of the facility to residences and businesses:** Based on our experience with the Moss Landing BESS facility which came online in 2022, as well as the Otay Mesa/Gateway Energy BESS, there is the high likelihood that the effect of thermal runaway fires WILL continue to occur at Morro Bay BESS and other facilities in the US. In the case of the Moss Landing fires, and Gateway facility fires, large areas had to be evacuated, major highways were closed down, and businesses were required to shut down during the firefighting efforts. It still has not been disclosed to the public what hazardous substances were released that presented a health or environmental threat. In the event of such occurrences as described happening at the Morro Bay facility, businesses in the area of impact would be required to shut down and evacuate due to the discharge of toxic/hazardous materials into the environment surrounding the facility. Residences will also be required to evacuate. Highway 1, which carries constant and major traffic through the area, would also have to be shut down. The economic

impact upon the businesses, and the residences and tourists served is a very significant impact. Morro Bay is highly dependent on local businesses, and tourism for its economic survival. Any event that threatens people's health, or the detracts from the attractive nature of Morro Bay can be considered a very significant NEGATIVE impact. This is not adequately addressed in the Draft EIR

While I appreciate that battery electricity storage is a concept worth considering and possibly pursuing as an alternative to fossil fuels, and the fact that California is legislating in an attempt to hasten a transition away from fossil fuels to alternate forms of energy, the Morro Bay facility EIR proposal is not convincing enough to cause me to think that it is a good idea. At the present time, the hazards this technology presents to the environment, coupled with the high cost of installation and implementation make the Morro Bay site a poor choice for such a large-scale BESS. It is my opinion that it would be much wiser and more responsible to locate the facility in a remote area that doesn't pose such a hazard or threat to a sensitive coastal and tourist region, businesses and residents. A more reasonable choice would be to co-locate BESS facilities with large solar farms such as are already fully operational in some of the high desert areas of California, or areas such as California Flats, Topaz, or Calif. Valley.

Sincerely,

Richard Barnard

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Draft EIR Public Comments

Rosemarie <[REDACTED]>

Sun 5/26/2024 9:43 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

 1 attachments (4 MB)

BESS Best Practices.pdf;

[Some people who received this message don't often get email from [REDACTED]
Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

CAUTION: This is an external email. Please take care when clicking links or opening attachments.

Dear Ms. Fowler,

Please see attached, my comments on the Draft EIR Vistra BESS project, proposed for Morro Bay. Thank you for your time and attention to this important issue.

Kind regards,

Rosemarie Barnard

May 25, 2024
City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: Public comment to Vistra Draft EIR for Battery Storage proposal known as BESS

Dear Ms. Fowler,

The Otay Mesa BESS fire now burning for 10 days in an industrial area just east of San Diego serves as a significant and dramatic backdrop to the most compelling arguments against a BESS facility on the Morro Bay Embarcadero. The small tourist-rich coastal town of Morro Bay will never be appropriate for a BESS facility. The entire idea of the Lithium-Ion storage facility in Morro Bay should be abandoned. Why? There are many reasons. Let's examine two of the issues.

1. The risks outweigh the benefits and the citizens and businesses of Morro Bay do not want it located in their front yard.
2. It violates the law and spirit of the 1976 Coastal Act

1. The risks outweigh the benefits and the citizens and businesses of Morro Bay do not want it located in their front yard.

The citizens and businesses of Morro Bay have said 'NO'. No Lithium-Ion battery storage facilities on their beach-front property. The residents are not saying 'NO' to BESS facilities in general, they are saying it does not belong in Morro Bay on beach-front property in a thriving tourist-rich business and residential environment. Notwithstanding Vistra's desire to use the old PG&E site, the BESS facility should not be located in Morro Bay for numerous reasons. Primarily, thermal runaway fires and the resulting toxic, corrosive gases, pose significant risks to humans, wildlife, as well as vegetation. An analysis of exposure to these harmful fumes and potential explosions were omitted from the Draft EIR. The Draft EIR's omission of a discussion on these hazards is a critical oversight that necessitates a rewrite and recirculation of the document. Allow me to highlight two recent thermal runaway incidents.

Our family lives 5.2 miles from the Moss Landing Vistra Lithium-Ion Battery Storage Facility. Three times in as many years, we have heard this warning from the Monterey County office of Emergency Management, (OEM).

"There is an ongoing hazardous materials incident in Moss Landing. "Please shut your windows and turn off your ventilation systems. In the event of changing weather patterns, impacted areas may enlarge."

Included with the warning was a map with a large circle extended for miles in each direction of the Vistra BESS site in Moss Landing. Dozens of businesses, farm fields, a post office, restaurants, harbors and fishing industry, a major Highway, all of the surrounding surface

streets, and all residents of Moss Landing were impacted by mandated shuttering. How long? Each incident was different, but each lasted hours. In September of 2022 Highway 1 was shut down for 12 hours. The danger? Hydrogen Fluoride exposure and Phosphoryl Fluoride due to fire at the Vistra Battery Storage Facility in Moss Landing. These are the known issues. What are the unknown health risks? They simply do not disclose these risks to the public. Vistra has not named or disclosed any of these known toxins in their Draft EIR for the proposed Morro Bay BESS project.

According to the National Library of Medicine (NLM), we can't afford the health risks of poisoning by these gasses. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5577247/> The results of testing have been validated using two independent measurement techniques and show that large amounts of hydrogen fluoride (HF) may be generated (during battery storage facility fires), ranging between 20 and 200 mg/Wh of nominal battery energy capacity. In addition, 15–22 mg/Wh of another potentially toxic gas, phosphoryl fluoride (POF₃), was measured in some of the fire tests.

In a recent *Wired* article, Guillermo Rein, professor of fire science said, *“Safety measures for these storage facilities are still evolving.” “There are significant gaps in our understanding of how to prevent and lessen the impact of the most catastrophic blazes.” “We’re playing catch-up,”* he said in an interview with *Wired*. *“The risk is unknown, and it has to be measured.”* More time is needed. How much more time? I appeal to you; Do not experiment with the residents, businesses and visitors of Morro Bay.

The article continues: *“Arcs, sparks and flames are a risk in any electrical system. When they occur in or around a battery, the outcome can be disastrous. When flames warm a battery cell, one of the repeating components of a larger battery, beyond a certain temperature, a chemical reaction begins that produces more heat, triggering the same process in neighboring cells. Thermal runaway can take off in just milliseconds before smoke or heat can be detected by any alarm system. The fire spreads first within a cluster of surrounding cells that share electronics, known as a module, and then onto others, until a whole rack of batteries is ablaze.”*

The article referenced the Vistra Lithium-ion Battery storage facility in Moss Landing:

“Battery systems installed by Vistra Energy in a former natural gas plant in Moss Landing, California, were shut down for months after incidents in 2021 and 2022 in which heat-suppression systems, intended to curb thermal runaway, were accidentally triggered, dousing batteries in water that caused arcing and short circuiting.” The result of which spread toxic fumes for miles.

<https://www.wired.com/story/big-grid-batteries-are-booming-so-are-fears-fire/>

The dangers of fire or, thermal runaway, as it is commonly called in the industry, have not been addressed even once in the Morro Bay Draft EIR. Yet, this is the number one concern for those living, working, and visiting Morro Bay. The term ‘thermal runaway’ only relates to Lithium-ion batteries because heat alone will cause combustion leading to uncontrollable fire, shut-down, and evacuation of large areas.

The Draft EIR is 2,052 pages in length. Nearly twice the length of Tolstoy's *War and Peace*. Yet it does not address the real impact on the coastal community when a thermal runaway occurs. In fact, there is no citation for, or mitigation against thermal runaway. Nor does the term 'thermal runaway' or 'thermal fire' in the document. No local evacuation measures are included. No address of compensation to businesses impacted by a shut-down due to toxic gases released, nor does it address evacuation of a tourist rich environment. Instead, the Draft EIR states:

“Emergency response and evacuation procedures are addressed in Section 4.7, Hazards and Hazardous Materials. The MBFD has retained independent engineering and safety consultant to assist with a public safety analysis of the BESS Facility which would be used by the City and MBFD specifically in making decisions regarding BESS safety element design, emergency planning, and hazard minimization.”

However, Section 4.7 refers to a Morro Bay Fire Dept, (MBFD) document that is wholly insufficient to address the issue of thermal runaway. In fact, the cited document was written in 2008, well before the use of any US-based BESS facility. The section simply says:

“The City has adopted a Multi-Hazard Emergency Response Plan, most recently revised in 2008 and developed by the Morro Bay Fire Department (MBFD). The Emergency Response Plan covers City policies and concepts for responding to any and all emergencies that could affect the health, safety, and property of the public within City limits, including earthquakes, hazardous materials, multi-casualty events, storms and floods, wildland fires, terrorism, nuclear power plant events, and tsunamis (City of Morro Bay 2008). Most of the hazards in the response plan are also contained in the LHMP. The policies and general approach to emergency situations delineated in the Response Plan follow a number of widely adopted emergency response standards and operations protocols, including the National Incident Management System, the State Emergency Management System, and the Incident Command System.”

A Good Neighbor?

The standard boilerplate response to the question about evacuation is wholly inadequate to address the real problem of emergency evacuation when people are on the beach and on the Embarcadero. The very real likelihood of a thermal runaway event cannot be underestimated or deemed “insignificant” by someone who is simply checking a box. The insincere act of copy/paste of other state and local documents does not quell the serious nature of questions posed by the residents of Morro Bay, nor does it make a significant question “insignificant”. WHAT is your evacuation plan in the very real, very likely event of thermal fire? To the people who live in Morro Bay, this is a significant concern which deserves a concerted effort in the reply from Vistra. The National Fire Prevention Association, NFPA, has recommendations for ‘Best Practices’ protocol for BESS facility operations, beginning with a pre-incident plan:

<https://www.nfpa.org/About-NFPA>

Pre-Incident Planning

Vistra should develop a pre-incident plan for responding to fires, explosions, and toxic fume discharges as part of the emergency conditions associated with the BESS Draft EIR, and the pre-incident plan should include the following elements:

1. Understanding the procedures included in the facility operation and emergency response plan described
2. Identifying the types of BESS technologies present, the potential hazards associated with the systems, and methods for responding to fires and incidents associated with the particular BESS
3. Identifying the location of all electrical disconnects in the building and understanding that electrical energy stored in BESS equipment cannot always be removed or isolated
4. Understanding the procedures for shutting down and de-energizing or isolating equipment to reduce the risk of fire, electric shock, and personal injury hazards
5. Understanding the procedures for dealing with damaged BESS equipment in a post-fire incident, including the following:
 - a. Recognizing that stranded electrical energy in fire-damaged storage batteries and other BESS has the potential for reignition long after initial extinguishment
 - b. Contacting personnel qualified to safely remove damaged BESS equipment from the facility (This contact information should be included in the facility operation and emergency response plan.)

Emergency Operations Planning

An emergency operations plan should be created as a part of the Draft EIR and should contain elements such as procedures to safely shut down the system, procedures for the removal of damaged BESS, procedures for disposal of contaminated water, general emergency procedures, and annual staff training.

San Diego BESS Thermal Runaway

The following map is a scaled overlay of the evacuated area of the Otay Mesa thermal runaway fire. It is overlaid onto an equally scaled map of Morro Bay. Keep in mind the Otay Mesa BESS is 250MW facility while the proposed Vistra BESS is 600MW. The purple border shows the area of evacuation during the Otay Mesa thermal runaway. Now, the overlay onto a map of Morro Bay. Note the extent of the evacuation area in Morro Bay. It includes the beach, the entire Embarcadero area, residents and businesses, extending east beyond Highway 1.

Figure 2-4 Land Use Restrictions



Source: TerraPhase Engineering, 2022.

Draft Environmental Impact Report

2-7

When asked on Friday May 17 when the fire would be extinguished, Cal Fire representative said: “We’re not sure. We’re preparing for the worst and making plans to be here for a long time, two to four weeks and will reevaluate then,” said Captain Brent Pascua with Cal Fire San Diego. “You have to put water on it to keep the fire confined, but that water damages the batteries also allowing them to arc starting another fire. We’re just trying to keep the public safe and keep the fire contained to the building,” he said. The chain reaction can happen when a lithium-ion battery creates heat faster than it can dissipate. That rapid increase of temperature can then turn to fire.

“The fire began last Wednesday at the Gateway Energy Storage facility and flare-ups over the weekend put evacuations warnings for the surrounding area back in place. Firefighters remain on standby to monitor air quality and water runoff. They will stay on site until it is confirmed there is no longer a threat to public safety,” Cal Fire said.

A road closure is still in place near Camino de la Fuente at Paseo de la Fuente. The road closure as of this writing, has been in place for 10 days. CalFire reports they have used 5,000,000 gallons of water (5Million). What do you do with 5,000,000 gallons of contaminated water? Apparently Vistra also doesn’t know. Although the word ‘Water’ is used 87 times in the Draft EIR it is never used in conjunction with contaminated water drained from thermal runaway.

The following incident reports, issued by CalFire and public warning flyer were sent out to the public.

Please read the Situation Summary on each report. Then imagine for a moment, the thermal fire is on beach front property...imagine a fire of this magnitude on the Morro Bay Embarcadero site but instead of 250MW BESS facility, a 600MW BESS facility is on fire. Instead of an industrial area in Otay Mesa being evacuated, imagine the entire Embarcadero being shut down and evacuated for 10 days. Imagine every business, every hotel being asked to either shelter in place or leave the area immediately. Imagine this happening on a Spring day in May at 3:00 in the afternoon! That is exactly what happened in Otay Mesa Bess facility San Diego CA.

“Firefighters responded to a commercial structure fire involving Hazardous Materials (Lithium-Ion Batteries) in thermal runaway within an Energy Storage Facility in East Otay Mesa on the afternoon of May 15. This is an ongoing incident due to the complexity of the battery system and the harmful gasses making access an issue for firefighters. The building's sprinkler system is currently being supplemented with the use of the existing standpipe system and the fire is still contained to the building of origin. We have hazardous materials teams from the County and City of San Diego as well, as Subject Matter Experts on site to help get this evolving situation under control.” **Fire Incident Report May 17, 2024, 2-days after ignition.**

WARNING

CAL FIRE/San Diego County Fire is at scene of the re-ignited structure fire near 600 Camino De La Fuente, Otay Mesa. The San Diego County Sheriff's Department has issued an Evacuation Order. An Evacuation Order requires immediate movement out of the affected area due to an imminent threat to life. All persons in the impacted area should prepare to evacuate.

Evacuation Order means:

- * There is extreme danger in your area.
 - * You must leave now
 - * Do not wait.
- * Contact your neighbors and share information

An Evacuation Warning has also been issued. An Evacuation Warning requires immediate movement out of the affected area due to an imminent threat to life.

Evacuation Warning means:

- * You may be in danger soon.
 - * Leave now if you need extra time, or do not feel safe.
 - * Call your emergency contacts now if you need help.
 - * Contact your neighbors and share information.
- * Vulnerable populations such as people with disabilities, people with access or functional needs, and/or large animals should leave now.

For all updates, monitor @SDSheriff and @CALFIRESANDIEGO

<https://www.alertsandiego.org/en-us/incident-page.1255.html>

(On May 17, the above warning was issued to all persons known to live, work, and recreate in the evacuation area of the Otay Mesa BESS facility. Please note the road closures, 1-4 miles from the thermal runaway. The entire Morro Bay Embarcadero would be closed down when a thermal runaway fire occurs. BESS facilities do not belong in populated tourist rich environments. They belong in industrial and scarcely populated areas.)



CAMINO FIRE INCIDENT UPDATE

Date: 05/17/2024 Time: 7:00 AM



@CALFIRESANDIEGO



@CALFIRESANDIEGO

INCIDENT FACTS		
Incident Start Date: 05/15/2023		Incident Start Time: 15:46
Incident Type: Commercial Structure Fire		Cause: Under Investigation
Incident Location: 641 Camino de la Fuente		
CAL FIRE Unit: CAL FIRE/San Diego County Fire		
Unified Command Agencies:		
Size: 16,000 sq foot building	Occupancy: Energy Storage	Expected Full Containment:
Civilian Injuries/Fatalities: 0		Firefighter Injuries: 0
Structures Threatened: 0	Structures Destroyed: 0	Structures Damaged: 0

CURRENT SITUATION	
Situation Summary:	<p>Firefighters responded to a commercial structure fire involving Hazardous Materials (Lithium Ion Batteries) in thermal runaway within an Energy Storage Facility in East Otay Mesa on the afternoon of May 15. This is an ongoing incident due to the complexity of the battery system and the harmful gasses making access an issue for firefighters. The building's sprinkler system is currently being supplemented with the use of the existing standpipe system and the fire is still contained to the building of origin.</p> <p>We have hazardous materials teams from the County and City of San Diego as well as Subject Matter Experts on site to help get this evolving situation under control.</p>
Evacuations:	https://www.alertsandiego.org/en-us/incident-page.1255.html
Evacuation Center(s):	None
Road Closures:	Camino de la Fuente at Paseo de la Fuente
Animal Evac. Center(s):	None

ASSIGNED RESOURCES				
Engines: 3	Water Tenders: 0	Trucks: 1	Hazardous Materials: 2	Squads: 1
Other: 1		Total Personnel: 25		
Cooperating Agencies: San Diego County Sheriff's Department, San Diego County Department of Environmental Health – Hazardous Materials Division, and San Diego Fire - Rescue.				



CAMINO FIRE INCIDENT UPDATE

Date: 05/19/2024 Time: 7:00 AM

 @CALFIRESANDIEGO
  @CALFIRESANDIEGO

INCIDENT FACTS		
Incident Start Date: 05/15/2024		Incident Start Time: 3:46 pm
Incident Type: Commercial Structure Fire		Cause: Under Investigation
Incident Location: 641 Camino de la Fuente, San Diego, CA 92154		
CAL FIRE Unit: CAL FIRE/San Diego County Fire		
Unified Command Agencies:		
Size: 16,000 sq foot building	Occupancy: Energy Storage	Expected Full Containment:
Civilian Injuries/Fatalities: 0		Firefighter Injuries: 0
Structures Threatened: 0	Structures Destroyed: 0	Structures Damaged: 1

CURRENT SITUATION	
Situation Summary:	Firefighters continue to mitigate the fire, with only minimal heat remaining. Firefighters are making steady headway, though the potential for thermal runaway (when a battery creates heat faster than it can dissipate, leading to a rapid increase in temperature causing ignition) remains a concern, prompting a cautious yet hopeful outlook.
Evacuations:	Orders: Grid 0436 Northeast and Southeast Corner Warnings: Grid 0437 Entire Grid
Evacuation Center(s):	None
Road Closures:	Camino de la Fuente at Paseo de la Fuente
Animal Evac. Center(s):	None

ASSIGNED RESOURCES				
Engines: 5	Water Tenders: 0	Trucks: 1	Hazardous Materials: 1	Squads: 0
Other: 3		Total Personnel: 40		
Cooperating Agencies: San Diego Fire-Rescue Department, San Diego County Sheriff's Department, San Diego County Department of Environmental Health – Hazardous Materials Division				



CAMINO FIRE INCIDENT UPDATE

Date: 05/23/2024 Time: 7:00 AM



@CALFIRESANDIEGO



@CALFIRESANDIEGO

INCIDENT FACTS		
Incident Start Date: 05/15/2024		Incident Start Time: 3:46 pm
Incident Type: Commercial Structure Fire		Cause: Under Investigation
Incident Location: 641 Camino de la Fuente, San Diego, CA 92154		
CAL FIRE Unit: CAL FIRE/San Diego County Fire		
Unified Command Agencies:		
Size: 13,600 sq foot building	Occupancy: Energy Storage	Expected Full Containment:
Civilian Injuries/Fatalities: 0		Firefighter Injuries: 0
Structures Threatened: 0	Structures Destroyed: 0	Structures Damaged: 1

CURRENT SITUATION	
Situation Summary:	Due to minimal fire activity and reduced water usage, we are beginning to decrease staffing today. Should conditions change, we have the capacity to order additional equipment or personnel as needed.
Evacuations:	Orders: Grid 0436 Northeast and Southeast Corner Warnings: Grid 0437 Entire Grid
Evacuation Center(s):	None
Road Closures:	Camino de la Fuente at Paseo de la Fuente
Animal Evac. Center(s):	None

ASSIGNED RESOURCES				
Engines: 2	Water Tenders: 0	Trucks: 0	Hazardous Materials: 1	Squads: 0
Other: 3		Total Personnel: 20		
Cooperating Agencies: San Diego County Department of Environmental Health – Hazardous Materials Division				

The Draft EIR fails to provide for compliance to the California Environmental Quality Act, (CEQA), which requires public lead agencies to impose feasible mitigation measures as part of the approval of a “project” in order to substantially lessen or avoid the significant adverse effects of the project on the physical environment. California Code of Regulations, Title 14 (CEQA Guidelines), Section 15370 defines “mitigation” as:

- Avoiding the impact altogether,
- Minimizing the impact by limiting its degree or magnitude,
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environmental resource,
- Reducing or eliminating the impact over time, through actions that preserve or maintain the resource, and
- Compensating for the impact by replacing or providing substitute resources or environmental conditions, including through permanent protection of such resources in the form of conservation easements.

In the DEIR, a resident asks: “(Will) the fire department require additional equipment or training to serve the proposed project.”

Answer given: “The fire prevention and suppression technology for the BESS Facility are described in Section 2, *Project Description*. As discussed therein, the safety features required for the BESS Facility would be developed in consultation with the MBFD. The potential for environmental impacts to fire protection services is discussed in Section 4.10, *Effects Found Not to be Significant*. The MBFD has retained independent engineering and safety consultant to assist with a public safety analysis of the BESS Facility which would be used by the City and MBFD specifically in making decisions regarding BESS safety element design, emergency planning, and hazard minimization. “

Yet, the overwhelming evidence for a more thoughtful answer is obvious to the average reader. A closer look at the Camino Fire incident reports of the Otay Mesa BESS fire indicate considerable equipment, manpower and training. At the onset of the fire, five engines and 40 firefighters were deployed, and it took 10 days to bring it under control. This is not to mention that Cal Fire expects to be on site for an additional 2 weeks. To categorize these “*Effects Found Not to be Significant*” is an insincere attempt to address a known risk, thermal runaway. It’s insulting and entirely insufficient for a Draft EIR.

2. It violates the law and spirit of the 1976 Coastal Act - The Morro Bay BESS facility is not coastal dependent and therefore should not be located in populated areas where already exist a concentration of buildings, infrastructure and economic activity. Bess projects should be located away from coastal roads where ingress and egress would be impeded.

<https://www.coastal.ca.gov/coastact.pdf>

The Coastal Commission has been a champion of protecting the California coastline

Background:

The California Coastal Commission was established in response to growing public concern over the development of California's waters and coastlines. The commission's creation was driven by grassroots activism, leading to legislative action and a voter-approved initiative, after the devastation of an oil spill in the waters off the coast of Santa Barbara in 1969. The public outcry was palpable. After the Santa Barbara oil spill, an activist group organized the "Save our Coast" initiative. In fact, the next election cycle became the pivotal moment in the establishment of the California Coastal Commission with the passage of Proposition 20, also known as the Coastal Zone Conservation Act of 1972. Later it became, the California Coastal Act of 1976.

Corporations could no longer reap substantial profits at the expense of pristine coastal property. This legislation then established the California Coastal Commission as a permanent body. The Coastal Act provided the Commission with the authority to plan and regulate land and water uses along the California coast, ensuring public access, and environmental protection. Since the proposed BESS facility is not coastal dependent, building it at the proposed Morro Bay site is in violation of the Coastal Act, because it disregards the following foundational principles:

The Coastal Act recognizes the importance of both the natural environment and economic development that is dependent upon the resources of the coast. Any and all of the proposed BESS projects in Morro Bay deprives the public from the use of the iconic rock and beach along this stretch of the central coast.

The Coastal Act begins with a section (30001) on the importance of the California coast and its ecological balance:

"The Legislature hereby finds and declares:

(a) That the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people and exists as a delicately balanced ecosystem.

(b) That the permanent protection of the state's natural and scenic resources is a paramount concern to present and future residents of the state and nation.

(c) That to promote the public safety, health, and welfare, and to protect public and private property, wildlife, marine fisheries, and other ocean resources, and the natural environment, it is necessary to protect the ecological balance of the coastal zone and prevent its deterioration and destruction.

(d) That existing developed uses, and future developments that are carefully planned and developed consistent with the policies of this division, are essential to the economic and social well-being of the people of this state and especially to working persons employed within the coastal zone. "

Among other guarantees, The Coastal Act promises the people, to prioritize certain types of activities and development over other types, in the coastal zone. "For instance, "visitor-serving

commercial”, recreational facilities designed to enhance public opportunities for coastal recreation are prioritized over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry (30222). Recreational boating and its related facilities are encouraged in the Coastal Act (30224).”

The Morro Bay BESS project site is currently zoned as ‘Visitor-serving Commercial’ according to the Morro Bay General plan. This is a prima facie and undeniable fact. Therefore, any plan to build out a BESS facility in Morro Bay is illegitimate.

Since BESS is not a coastal dependent project, and it possesses an undeniable risk of terrorist sabotage and a high likelihood of thermal runaway, it does not fit the spirit of, or letter of the law.

The Coastal Act (30253) further dictates that new development be designed and sited to minimize adverse impacts to coastal resources, both natural and visitor-serving, as follows:

New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled. (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

The proposed BESS site at Morro Bay does not meet the criteria outlined in the California Coastal Act of 1976.

A lithium-ion battery storage facility on beachfront property could potentially violate both the letter and spirit of the 1976 California Coastal Act in several ways: The Coastal Act emphasizes the protection, enhancement, and restoration of the natural and scenic qualities of the coastal zone. It requires that development be carried out in a manner that minimizes adverse environmental impacts. A lithium-ion battery storage facility could pose risks such as thermal runaway fires, toxic and corrosive gas emissions, and potential explosions, which can harm the coastal environment, including wildlife and plant habitats. The Act mandates that maximum public access to the coast and recreational opportunities be provided. Constructing an industrial facility on beachfront property might limit public access and reduce the recreational value of the coastline. This goes against the Act's provisions that ensure public access and enjoyment of the coast. The Coastal Act requires the protection of marine resources and maintenance of the biological productivity of coastal waters. Potential leaks, spills, or other incidents from a lithium-ion battery storage facility could pollute the coastal waters, harming marine life and ecosystems, thereby violating the provisions aimed at protecting the marine environment.

The Coastal Act is a safeguard for the Preservation of Scenic and Visual Coastal Qualities:

The spirit of the Coastal Act includes preserving the scenic and visual qualities of coastal areas for public enjoyment. An industrial facility could significantly alter the natural beauty of the beachfront, undermining the aesthetic and recreational values cherished by the public. The Coastal Act promotes development that is consistent with the preservation and sustainable use of coastal resources. The risks associated with lithium-ion battery storage, such as potential environmental hazards and safety issues, contradict the sustainable and careful use of coastal resources that the Act envisions.

The establishment of a lithium-ion battery storage facility on beachfront property is likely to contravene both the legal requirements and the underlying principles of the 1976 Coastal Act. These include protecting coastal resources, ensuring public access and enjoyment, safeguarding marine environments, and maintaining the scenic and sustainable use of coastal zones. To comply with the Coastal Act, such facilities should ideally be located away from sensitive coastal areas to prevent environmental degradation and preserve public access and enjoyment of the coast.

The following provisions are set forth in the Coastal Act:

- (a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.
- (b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.
- (c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- (d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.
- (e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

The Coastal Commission shall prioritize the public's right to access the shoreline (30210 to 30214): Maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. Coastal development should not impede existing rights of access: Development shall not interfere with the public's right of access to the sea, where acquired through use or legislative authorization.

When thermal runaway occurs, Vistra will be required to set aside the Coastal Act for days, weeks, or longer. This is what happened in Moss Landing with the closure of Highway 1. This is what would have happened in Otay Mesa if the facility had been located on the coast.

Because the Morro Bay BESS facility is proposed for beach front property, it is vulnerable to terrorist attack. Yet the Draft EIR does not address mitigation against terrorist strikes. Electric Infrastructure, (EI) and their exposure to terrorist attacks are discussed in detail on several internet websites. EI and terrorist attacks have become a common theme in government reports, industry journals, and academic articles. The Center for the Study of the Presidency and Congress reports that EI is “an obvious target to a range of actors who would seek to strike at the U.S. homeland.”

<https://www.hstoday.us/subject-matter-areas/counterterrorism/how-terrorists-could-proceed-with-the-next-physical-attack-on-energy-infrastructure/>

The Draft EIR has not addressed any worst-case scenarios, and has simply rubber-stamped the questions “found to be insignificant”. The Draft EIR does not offer mitigation for thermal runaway, toxic and corrosive fumes, (which are not named or disclosed). The Draft EIR has no plan for safely evacuating thousands of people, shuttering hundreds of businesses and moving people off the ocean and out of the surf. The Draft EIR does not include mitigation for a terrorist attack on the facility. The Draft EIR does not address the impacts to environmentally sensitive habitat for sensitive endangered species; ESHA, (The Morro Bay harbor is ideally conducive to the life of otters because of the shallow waters).

The Draft EIR does not address the necessary evacuation of Morro Bay High School, which is 3.1 miles away, and it doesn’t address evacuation of the children’s park which lies on their property. The Draft EIR does not disclose the fact that the BESS facility is NOT coastal dependent and is therefore ineligible for the Embarcadero site. The Draft EIR does not cite the conflict between the current zoning designation “visitor-serving commercial” and the contentious fight to re-zone, which they hope will save their project.

The Draft EIR does not acknowledge the role of the California Coastal Commission in their authority to prioritize coastal recreation, commercial and industrial uses that need a waterfront location. The proposed Morro Bay BESS facility fails on this point alone.

Vistra officials have openly admitted they haven't yet decided on a definitive project design to implement. With only one project permissible at a time, the developer's indecision—wavering between the “project” in the application and “alternative #5”—is unacceptable. If Vistra wishes to change the design, they must withdraw the current application and start over with a new Environmental Impact Report (EIR), as required by CEQA 15088.5 (4).

The Draft EIR is fundamentally and egregiously inadequate, preventing meaningful public review and comment, a clear violation of CEQA 15088.5. This is not just a bureaucratic misstep—it's a blatant disregard for the community's right to a transparent and thorough environmental review.

The fire hazard analysis and safety protocols, irresponsibly outsourced to DNV Energy, USA through the MB Fire Department, are to be addressed later. However, CEQA 15126.4 (b) explicitly states that the formulation of mitigation measures shall not be deferred. This negligence jeopardizes public safety and environmental integrity.

The community deserves better than this dismissive and reckless approach. Vistra's actions undermine the EIR process's integrity and threaten public safety. It is imperative for the developer to comply with legal requirements, ensuring transparency and accountability by starting the process anew. This is why I must demand the Draft EIR be Recirculated.

While I am grateful, and thank Vistra for their interest in, and commitment to reducing the overall carbon footprint, and for their willingness to develop and acquire low or no carbon assets. In my mind, the push to industrialize the Morro Bay coastline with their enormous 600MW Lithium-ion battery storage facility is eerily similar to Union Oil's contract to drill for oil off the California Coast of Santa Barbara. It will all work well... until it doesn't. If we have learned one thing it has been to plan for, and expect the worst. Vistra, in their Draft EIR has failed to plan for thermal runaway and the inevitable toxic poison fumes that will follow. It is irresponsible. They simply leave it up to the Morro Bay Fire Department's 2008 policy and protocol for emergency thermal runaway fire. This is not good enough for the people of Morro Bay. Simply put, our community believes the proposed Vistra BESS facility is unequivocally wrong for our neighbors and our community.

Finally, the most salient reason to shut down this proposed project is because the good people of Morro Bay have shouted a resounding "NO"! "Not in our front yard". As elected officials, these are the people you made a commitment to serve. These are the residents who want to feel safe in their community. They are your top priority. Vistra makes the claim that they want to be good neighbors. For this pledge, the residents of Morro Bay applaud, but also hasten to say, you don't go into a neighbor's front yard without consent. We do not consent.

Sincerely,

Rosemarie Barnard
Monterey County

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Public comment for Draft EIR for battery storage proposal

Patrice Promack <[REDACTED]>

Sun 5/26/2024 11:56 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

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Dear Ms. Fowler,

As a Los Osos resident who visits Morro Bay often, I feel very connected to the beautiful Morro Bay estuary as well as the city. I am opposed to the BESS project proposed for Morro Bay. This location is a truly inappropriate choice for this project. Morro Bay is a special place; and needs to be protected from all the significant, unmitigable impacts that this project would have on tourism, recreational use, and the area's residents (both human residents and wildlife).

Furthermore, the draft EIR is inadequate. For many reasons (see below), it needs to be rewritten, then recirculated for another period of public comment. The draft EIR failed to adequately inform us of the impacts of the project.

The BESS facility is not a coastal-dependent industry; it is unsafe for people and wildlife. The project location is in a flood zone as well as a tourist area. It is the wrong location for a battery storage facility. It is contrary to the Coastal Act priorities.

The city must recirculate the draft EIR because thermal runaway battery fires were not identified (or addressed) as a potential impact. Also not addressed: the risk created from having the project site in a flood and tsunami zone. Exposure of lithium-ion batteries to saltwater makes them combustible, yet the draft EIR did not discuss this. Nor did it address what would happen if the BESS were flooded.

There are threatened (as defined by the Endangered Species Act) southern sea otters and their nurseries in Morro Bay, as well as nesting peregrine falcons and Great Blue Herons; and many sensitive species. The otter pupping can happen all year long. Even if there is no fire, their nurseries would be impacted by construction noise and vibrations. There will be significant impacts for any of the sensitive species in the Morro Bay National Estuary that were not addressed by the EIR and are likely unavoidable in the proposed project site.

The DEIR states that impacts to the sea otters will be "less than significant"; but a "taking" can result from activities that disrupt their sleeping (10-12 hours per day), feeding, and breeding. Impacts from construction and operation could result in such unlawful "taking" as a result of reduced reproductive success, reduction in health, and mortality to the otters. These disruptive and harmful effects include construction noise and vibrations (including heavy machinery and pile driving); toxic air contaminants; and toxic plumes from battery fires. And yet the Padre Biological Resource Assessment Report (updated March 2023) FAILS TO MENTION the sea otter!

The city improperly deferred the fire safety analysis to a consultant hired by the Fire Department, DNV Energy USA Inc who has not yet performed the work. The draft EIR should be rewritten and recirculated after ALL of the impact and mitigation analysis is done, so the public can be fully informed and able to comment on the analysis. According to CEQA, "formulation of mitigation measures shall not be deferred until some future time."

The draft EIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment are precluded.

According to OCA (page 34) "the specific design of the facility has not yet been selected". But there is only 1 "project" for an EIR and that project is based on plans and an application submitted for three warehouse-sized buildings containing lithium-ion batteries. If the applicant plans to switch to "alternative #5" (a significant change) they must withdraw the application and submit a new one for alternative #5, starting the process over from the beginning; or at least submit a supplemental EIR with recirculation and include all of the potential impacts to humans and wildlife from airborne chemical exposure due to a fire, as well as contaminated runoff.

Regarding Chapter 4.8 (Noise and Vibration): Morro Bay is a small, quiet town that depends on tourism (as well as fishing) for its economic well being. There would be 3 to 4 years of construction noise. The DEIR indicates the

following heavy equipment use: backhoes, concrete saws, cranes, excavators, front end loaders, jackhammers, pavers, pneumatic tools, dozers, pumps, rollers and portable generators, trucks and graders, scrapers and pile drivers. Table 4.8-5 indicates separate noise impacts of each type of equipment, but not the cumulative noise and vibrations of many pieces of equipment being used simultaneously, and the stress it will create in our community. The noise and vibrations will also disrupt behaviors of our threatened sea otters, who sleep during the day right across the street at the T-pier. This noise and vibration could also cause birds to abandon their nests, in violation of the Migratory Bird Treaty Act. Once in operation, BESS facilities produce high noise levels, mostly from compressors and fans in the electrical cooling systems. According to a March 14, 2024 publication in "Noise Monitoring Services", the operation of BESS in communities is becoming "an increasing noise problem".

Not only the sea otters will be significantly impacted. The harbor seals also will be impacted. In 2022, construction was halted in Pacific Grove as it was found to be disruptive to the nearby harbor seal pupping season. It was too late, and 33% of the pups were lost that season. Harbor seals are sensitive, and many of the mothers abandoned their pups, while others miscarried. Morro Bay also has harbor seals, and a population of sea otters that have pups year round. Construction is projected to last 3 years for this project.

In addition, there are many nesting birds, including peregrine falcons, ospreys, great blue herons, egrets, white pelicans and brown pelicans, and others, that may be impacted by construction, operation or battery fires from the BESS, and those impacts and mitigation measures were not identified in the EIR. Mitigation measures must be both "feasible" and "effective." There must be a "nexus" between the impact and mitigation measures.

The project site is adjacent to the Environmentally Sensitive Habitat Area, and battery storage is not compatible with the continuance of those habitats.

If there were a fire at the BESS (as has happened at many other BESS locations), evacuation would be extremely challenging if not impossible.

Coleman Drive and the Embarcadero are both two lane, dead-end roads. Coleman Drive dead ends at the Rock, and the Embarcadero dead ends at Morro Creek. Traffic will have to go towards the fire before they can escape, creating gridlock. If Morro Creek is flooded, (or there is flooding from Main Street), or a tsunami, route 1 maybe inaccessible and many people would be stranded in that area.

Ramboll's Offsite Consequences Analysis was not included in the EIR! The EIR analyzes cancer risk from demolition and construction activities (§4.2-20 to 23) but the OCA performs a chemical dispersion analysis in case of a battery fire. They both conclude that any possible offsite consequences will be insignificant. However, ANY exposure to toxins or chemicals is unacceptable, when there are alternative locations for a BESS that are away from people and wildlife.

The project site is in the tsunami inundation zone as well as the 100 year flood plain. As mentioned above, Li-ion batteries become combustible when exposed to saltwater. Li-ion batteries may burn for days. They have to extinguish themselves. Massive amounts of water are used to cool them and prevent fires from spreading further. Toxic plumes from the fire and smoke, and contaminated water runoff may harm the environment.

According to the California Coastal Act, Section 30253, new development should "minimize risks to life and property in areas of high geologic, flood and fire hazard." Also, "Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses." These are 2 more reasons that the BESS project is incompatible with the California Coastal Act.

In conclusion, the draft EIR failed to adequately inform us of the impacts of the project. It should be rewritten and recirculated for another period of public comment.

Sincerely,

Patrice Promack

BSS Comments

John Terwilliger <[REDACTED]>

Mon 5/27/2024 6:37 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Dear Mayor Wixom, City Manager Kimball, and Esteemed City Council members:

Please refer to the recent history of similar BSS installations, including the near identical system at Moss Landing.

“The biggest grid battery complex in the U.S. is also the most fire-prone.”

These new systems have proven to be unstable and in the not uncommon event of an uncontrollable toxic fire, potentially fatal to downwind populations.

And ALL of Morro Bay is downwind of the proposed facility.

Please protect your families, friends and neighbors and stop this unsound plan before it goes any further.

Sincerely,
John Terwilliger CPE

[Tesla grid battery fire shows young industries failures and successes.](#)

Tesla grid battery fire shows young industries failures and successes

The latest fire at Californias Moss Landing battery complex was contained and didnt cause any injuries, but it still highlights the need for better safety systems at storage facilities.

BESS

Lynn Meissen <[REDACTED]>

Mon 5/27/2024 7:59 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>; Council <Council@morrobayca.gov>

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Like most of my neighbors, I am opposed to the BESS which does not require waterfront access, in no way improves the waterfront for service to visitors (most of whom are tax paying citizens of our small city, is a danger, though perhaps minimal to those close to it.

--

Judith Lynn Meissen

May 27, 2024

[REDACTED] Morro Bay

SV Guayacan

"The cure for anything is salt water: sweat, tears or the sea"

- Isak Dinesen

Vistra Morro Bay BESS proposed project

Mandy Davis <mandy@reactalliance.org>

Mon 5/27/2024 8:33 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>; Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>

You don't often get email from mandy@reactalliance.org. [Learn why this is important](#)

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Hi there;

Just a quick note to tell you folks what an absolutely horrendous idea locating a battery storage facility on Morro Bay National estuary and in the small harbor town of Morro Bay is!

Morro Bay has been designated a National Estuary for decades now...one of a handful of healthy estuaries in the United States. This fact is significant as a healthy estuary is second only to a healthy rainforest in biodiversity and biomass. They are breeding grounds for numerous marine mammals and non-migratory bird species and are nurseries to many nearshore and offshore fish species. Our estuary is one of the few locations where the endangered southern sea otters have nurseries and reside year-round and we are privileged to be one of the main winter stopovers and overwintering sites for countless bird species on the Pacific Flyway. To cite a battery storage facility right on the edge of a body of water that is subject to continuous tidal flow into an area that is home to, and is visited by such an enormous amount of wildlife is not only foolhardy but is violating numerous wildlife and protected habitat laws. If a fire was to occur and water and airborne pollutants were to be released, the potential for complete contamination of the estuary would be imminent. If one of these industrial contamination events were to occur during a period of high tidal flow, the entire water column would be contaminated and all of the animals that feed in the ecosystem would be as well, expanding the harmful effects to many other habitats in the region with a cascading effect on the bio-region. The potential for harm is obvious and should be recognized and acted upon.

I ask that you recognize how destructive the proposed facility will be to a one-of-a-kind ecosystem and its non-human inhabitants. There are other much more reasonable and viable locations to site this project. Please look elsewhere and realize the folly of Vistra's proposed project.

Mandy Davis
Wildheart Coastal Adventures
Morro Bay, Ca

Mandy Davis | President
Mobile | (941) 323-2703
Website | [REACTalliance.org](https://reactalliance.org)



Fwd: My public comment to the draft EIR for BESS proposal in Morro Bay

Cheryl Blockley <[REDACTED]>

Mon 5/27/2024 8:56 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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May 27, 2024
City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are residents and visitors of Morro Bay and the surrounding communities, and we are opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and deny the project. My husband and our family including our grandchildren delight in frequent visits to Morro Bay for wildlife viewing, beach time, shopping and eating out. The BESS proposed project in Morro Bay seems a disaster in the making for the physical and financial health of the people of Morro Bay and the surrounding area, the thousands of vacationers that visit each year, and for the wildlife and endangered species that live in the area. The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants.

BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay - The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

Construction of BESS will take over 3 years and will negatively impact our community - If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses - This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development *shall* protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic “Morro Rock,” at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The “rock” and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters’ sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. We demand that the agencies responsible for the protection of sensitive habitat, endangered species and special status species honor their obligations and deny the project.

Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. **By law**, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. **All of the “external costs” of the BESS will be borne by the citizens of Morro Bay.**

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not sufficiently inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. If the developer changes to an alternative project, they must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments. The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Cheryl Blockley
[REDACTED]
Los Osos, CA

Sent from my iPad

Comments on Draft EIR for Battery Storage Project in Morro Bay

Natalie Natividad <[REDACTED]>

Mon 5/27/2024 11:20 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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The City's Planning Commission:

I am writing to express my concerns regarding the proposed battery storage project in Morro Bay as outlined in the recently released draft Environmental Impact Report (EIR). As a tourist who deeply cherishes the natural beauty and unique wildlife of Morro Bay, I feel compelled to voice my objections to this project.

Morro Bay is renowned for its stunning coastal scenery, diverse ecosystems, and particularly for its population of sea otters, which attract visitors from around the world. The presence of these otters and the pristine environment contribute significantly to the local tourism economy. I fear that the proposed battery storage facility could jeopardize this delicate balance for several reasons:

1. **Environmental Impact:** The construction and operation of a large-scale battery storage facility could have adverse effects on the local environment. The potential for hazardous material spills, increased traffic, and noise pollution could disturb the habitats of local wildlife, including the beloved sea otters.
2. **Aesthetic Degradation:** One of the key attractions of Morro Bay is its unspoiled natural beauty. Introducing industrial infrastructure could mar the picturesque landscape that draws so many visitors. This change could reduce the area's appeal as a tranquil retreat for nature lovers and tourists.
3. **Tourism and Economic Consequences:** Morro Bay's economy relies heavily on tourism. Any negative impacts on the environment or aesthetics could lead to a decline in visitor numbers, directly affecting local businesses and the livelihood of residents who depend on tourist revenue.
4. **Risk of Accidents:** Battery storage facilities, while generally safe, carry inherent risks, including the potential for fires or explosions. An accident could have catastrophic effects on both the environment and the local community, further undermining Morro Bay's reputation as a safe and serene destination.

I understand the need for sustainable energy solutions, but I believe it is crucial to consider alternative locations for such projects that would not compromise the integrity of cherished natural areas. I urge you to reconsider the proposed site for this battery storage project and

explore other options that do not pose a risk to Morro Bay's unique ecosystem and tourism-driven economy.

Thank you for considering my comments. I hope that the decision-makers will prioritize the preservation of Morro Bay's natural beauty and the well-being of its wildlife.

Sincerely,

Natalie Natividad Cell - [REDACTED] North Las Vegas, Nevada

Jill Garman, LCSW

(805) 305-5809

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, CA 93442

May 26, 29024

This letter presents a plea for increasing your awareness and commitment to maintaining Morro Bay as a safe harbor for it's citizens, tourists, fisheries, sea life and endangered species.

Below I have provided photographs indicating the healthy waters, community events, and necessity to reject the BESS project proposed for Morro Bay and ask you to not certify the EIR, and deny the project.



This is the vulnerable area of the proposal where businesses, tourism, recreation, and endangered sea otters and other sea mammals are at risk with this proposed project.

In 2022 a Tesla Megapack lithium battery power unit caught fire at the massive Moss Landing energy storage facility, shutting down nearby Highway 1 and triggering a shelter in place order. Another such event occurred at Otay Mesa near San Diego on May 15, 2024, when a module of lithium-ion batteries ignited in a 250 MW BESS "Gateway" facility. This event occurred only 4 days prior to the Ironman event in Morro Bay on May 19, 2024 when 6,000 spectators watched as nearly 2,000 athletes participated in the area that all would have to be evacuated. If the Otay Mesa BESS runaway fire were in Morro Bay, it would have devastating consequences during normal business days and increasingly horrific on days such as the annual ironman event and other highly populated annual events.





Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses such as hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. If there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes of these chemicals. The commonly foggy conditions of Morro Bay can cause the liquification of these chemicals increasing the duration and risk of exposures. The proposed BESS land is in the coastal zone puts this community at great risk.

Under the Coastal act of 1976 under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is such a community. Battery storage is not coastal-dependent development, it is a dangerous risk, burden and a potentially devastating impact to this community fiscally as well as it's health and well being.

Additionally, I ask that you reject and not certify this draft EIR or approve the battery storage project in Morro Bay due to risk and harm anticipated on the resurgence of the Morro Bay sea otter population. The Southern sea otter has been protected as threatened under the Endangered Species Act since 1977. It is also covered by the Marine Mammal Mammal protection act. Protections like these, along with an increased understanding of what sea otters need to survive and thrive, has helped them make this recovery. This project can negatively effect this recovery of otter populations in Morro Bay due to the disruption caused by 3 to 4 years expected to even complete the proposed BESS project occurring across the street from the Otter nurseries in the bay. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful.

I implore you to consider the recent devastating and dangerous events due to lithium ion battery storage such as Otay Mesa and Moss Landing and others not provided in this letter. Your weighty decisions today can result in the consequences of the future well-being of this community. As a Morro Bay resident, your constituent, California native, and concerned citizen, I urge you to decline and not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Jill Garman

jillgarman@gmail.com

P.O. Box 319, Morro Bay, CA 93443

Public comment to BESS Environmental Impact Report

Laird <[REDACTED]>

Mon 5/27/2024 12:15 PM

To: BESScomments@morrobay.ca.gov <BESScomments@morrobay.ca.gov>

Cc: morrobayeir@gmail.com <morrobayeir@gmail.com>; BESS Comments EIR <besscomments@morrobayca.gov>; Council <Council@morrobayca.gov>; Sarah.Macgregor@coastal.ca.gov <Sarah.Macgregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>

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Dear Ms. Fowler,

I am a Morro Bay resident and am opposed to the BESS project proposed for Morro Bay. I am asking that you not certify the EIR, and deny the project. After reading about the Gateway BESS facility fire, stopping this project is ever more urgent. Why gamble with our irreplaceable wildlife, and the lives of our inhabitants? There are many more areas better suited to BESS facilities. Thank you for your time and consideration.

Sincerely,

Laird Kravchinsky

Morro Bay BESS DEIR Public Comment

Brian Dorfman <brian@briandorfman.com>

Mon 5/27/2024 12:16 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>;

Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>

You don't often get email from brian@briandorfman.com. [Learn why this is important](#)

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City of Morro Bay

May 24, 2024

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Dear Ms. Fowler,

I am a resident of Morro Bay. I am opposed to the BESS project proposed for Morro Bay for the following reasons:

1. As I write this letter, a BESS facility in Otay Mesa, CA continues to smoldering and release toxic smoke and gas 9 days after a fire erupted on May 15th. Evacuations and road closures were in place for days. "We're preparing for the worst and making plans to be here for a long time, two to four weeks and will reevaluate then," said Captain Brent Pascua with Cal Fire San Diego. Lacking the needed knowledge to deal with the situation, The San Diego Fire Department was forced to fly in experts to study the fire and advise them on next steps. Meanwhile, millions of gallons of water has been thrown on the fire without extinguishing it.

In Vistra's DEIR and the accompanying "safety study" toxic gas exposure was calculated for only 24 hours, and then found to be less than significant to human health. In light of the above mentioned Otay Mesa fire, that minimal calculation is blatantly insufficient to assess the true potential toxic exposure to Morro Bay residents, workers, visitors and wildlife. As the DEIR falsely minimizes toxic exposure potential, I request that the applicant be required to recirculate the report and provide a full accounting of possible toxic exposure in the case of an incident lasting for days or weeks as this is well within the realm of possibility.

Also, unaccounted for in the DEIR is Morro Bay's foggy weather patterns, which can exist for days on end without wind. What is the risk from thermal runaway that occurs during foggy, windless conditions which are common in this location? What is the risk of toxic exposure during a days or weeks long incident in such conditions, or in conditions with fog and rain? A

recirculated DEIR must address these pressing questions which remain unanswered by the current document.

Finally, if a thermal runaway incident occurs, and large amounts of water are needed for containment, what source of water will be used? How will Vistra guarantee that Morro Bay's limited water resources are protected? In such an emergency situation, what plans will be in place for dealing with contaminated water to prevent spillage into the estuary and surrounding environment or otherwise harming humans, animals and the environment in the long term?

2. Regarding the various alternatives, no information has been offered about variations in the impact of corrosive salt air on the Proposed Project design versus the Enclosure based facility. Is it possible that enclosures degrade quicker or that they will be more vulnerable in the case of a tsunami or flood? I am requesting that Vistra provide studies on these two alternatives that details vulnerabilities in each design as they relate to placement in a flood and tsunami zone with regular exposure to corrosive salt air.

3. According to the CA Coastal Act, Section 30253: "New development shall...Minimize risk to life and property in areas of high geologic, flood and fire hazard."

The planned BESS is located in an established tsunami zone, also at risk of flooding. The property experienced severe flooding in the winter of 2023. The risk of a disaster at the proposed BESS site is very real. In the case of a tsunami, there is a serious possibility of large amounts of toxic material being washed into the estuary, the ocean and onto land. Use of this waterfront property for industrial BESS purposes does not conform with the tenets of the Coastal Act and must be rejected for this reason alone. Furthermore, it is inappropriate and irresponsible to build essential infrastructure on the coast in the face of sea level rise and increasing rates and severity of storms and hurricanes.

4. Despite all the risks listed above, no evacuation plan has been developed. The applicant's claims that they are "required to prepare and implement BESS Facility emergency plans and emergency evacuation plans" is not sufficient and the DEIR should be rejected on this basis. Lack of evacuation is a primary concern expressed by Morro Bay residents when objecting to the project being built on Morro Bay's busy waterfront, in the heart of our tourist district, serving thousands of visitors each year. On busy days, the one public road becomes very congested. If a fire occurred at the BESS facility during a busy tourist event at the Rock, such as the Kite Festival, there would be no safe evacuation for thousands of people, including children, who need to travel past the burning BESS in order to evacuate. This site is wildly inappropriate for the proposed project for this reason alone.

5. The DEIR does not address unavoidable impacts to the Morro Bay National Estuary. Construction noise and pollution will absolutely impact marine life in the estuary. Southern Sea Otters are protected under the Endangered Species Act. Their nurseries are in the bay just

across the street from the proposed project. With a projected 3-4-year construction plan, otters will experience significant disruption from consistent noise and vibration. Of grave concern is impact to otter nurseries. In Pacific Grove, it was determined that road construction along Ocean Blvd harmed local harbor seals leading to significant increase in miscarriage during pupping season. Otters give birth year-round so there is no safe time to conduct the needed work.

According to an NRC “Construction Noise Impact Report” (*Biologic Assessment Preparation Advanced Training Manual version 02-2012*) piling driving creates “extremely loud” peak noise levels ranging from 180-195 dBA (Section 7.2.4.1). At a 500-foot distance, that sound would be approximately 130 dBA which is well beyond the 90-120dbL cited in the DEIR as the impact threshold level for seals and otters, which are both present across the street from the construction site and are frequently found within that 500-foot distance. Life threatening behavioral changes could include feeding, mating and sleeping which are all vital to the otters’ survival. Construction of the BESS will lead to harassment of this the otters and the DEIR must accurately detail this unavoidable and potentially lethal “taking” of an endangered species.

In closing, this DEIR is grossly inadequate in addressing significant questions and impacts must be recirculated and updated with more information on issues such as thermal runaway, days-long incidents, evacuation specifics and harm to wildlife in the Morro Bay Estuary. For all of these reasons, I strongly support Alternative 1 – No project.

Sincerely,

Brian Dorfman

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Brian Dorfman

Dorfman Kinesiology

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Check out our [YouTube channel!](#)

27 May 24

To: Kim Fowler; City of Morro Bay, Community Development Department

From: Glenn Silloway, Morro Bay resident

Re: Comment on the Draft Environmental Impact Report (DEIR) for the 'Morro Bay Battery Energy Storage System Project'

The DEIR for the Morro Bay BESS describes a project that I support as an environmentalist. We have to stop burning so much fossil fuel, full stop.

Both the State of California and most environmental organizations also support projects like this one and specifically, this one. The overriding issue in this project is whether and how it makes a significant advance in our ability to create and distribute renewable energy over the electricity grid, and whether doing so is on balance better for the environment over time or not. Local trade-offs are important but have to be weighed against this overarching imperative.

Many of my neighbors object to the project because of unknowns that could lead to significant damage to life or property. I do not discount their fears; I share some of them. We have all read about fires in lithium-ion batteries of several kinds; we have read about the fire suppression system failure in Vistra's Moss Landing plant; we have seen how difficult it is to suppress fires in facilities like this one at Otay Mesa. There are other issues and we should not proceed until we find ways to mitigate them.

So, the beneficial outcome of this Review should be to identify and begin to describe ways to mitigate the potential failures in the project. The DEIR states that most identified problems and hazards can be mitigated. Are these hazards fully described? I cannot claim to have read the whole document carefully, but there are a couple areas I am especially concerned about.

Fire hazard

Fire is the number one safety issue my neighbors are concerned about and it is justifiably the top hazard to address. A couple things:

Vistra should incorporate a clear plan and commitment to supplement Morro Bay's current fire suppression capability. As I write Chief McCrain is working on this issue and I hope Vistra incorporates his suggestions, as appropriate. I will not pretend to know all about this and prescribe solutions, but I note that Vistra paid for 5 additional staff on an interim basis for the Moss Landing FD. Others have suggested a satellite station for the site. We need to have resources on hand 24/7 IF something bad happens.

Otay Mesa shows the difficulty if a fire does break out. The containerized structure seems (intuitively) to me a better option for isolating a fire. Vistra does need to demonstrate very clearly how they would design and build these containers to first suppress and then contain the fires to prevent spread.

Re: the plume in the event of a fire, I am not skeptical of Vistra's ability to estimate the hazard via evidence-based assumptions as they do. However, I am concerned that the analysis be based on a truly worst case scenario. Case in point: analysis based on the assumption that two battery racks per hour will burn over a 24 hour period may not be

useful. What if one single container was consumed in a much shorter time? That is the hazard we need to mitigate and we need empirical information about it.

Finally, I hope Vistra will remain transparent about these incidents. Recent reporting indicates that failures on similar BESS plants are declining, but this is not based on detailed descriptions of the incidents. I ask Vistra to voluntarily create an incident report (not currently defined in CA law, near as I can tell) that they publish. We need to know exactly what happened and how it was addressed. Obviously, this is in Vistra's interest also.

Circulation

Morro Bay on a busy day is full of cars belonging to visitors. It isn't everyday, but since you cannot predict when a major accident will occur, days like this are what we need to plan for. Our current circulation system is unable to cope with this much traffic if an emergency occurred.

At a recent City Council Public Comment period one resident recounted how congested the Embarcadero was along the path next to the BESS site—traffic does not move. It is a case of Vehicle Miles Not Traveled even though there are a lot of vehicles. VMT analysis does not help in this case. If the BESS existed there and did have a major fire emergency, what would we do?

Note that this scenario is even worse in a projection where the Master Plan ideas for expanded visitor serving businesses occur in conjunction with the BESS: even more cars in the vicinity.

The DEIR lists four 'Significant Thresholds' in its circulation analysis that "may have a significant effect on the environment". Two of them are a substantial "increase [in] hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections" and "inadequate emergency access." The DEIR goes on to say that neither of these is considered in detail because they "would not substantially increase hazards." (p. 4.9-7, Vol 1)

The problem of high traffic (which we have) during an emergency (which could happen) is exactly what these potential hazards are about. We have a bottleneck on Coleman Drive, including where it curves into the Embarcadero and where the Embarcadero goes north across the one-lane bridge to Atascadero Road. The traffic then stops again at the sign next to Stax and then again at Beach/Main Street for cars trying to reach Highway 1/Highway 41 along Beach Street. The excluded thresholds are exactly what we need to mitigate.

A couple thoughts about potential solutions for planners with more information and more experience than me:

Provide an outlet. The Coastal Commission won't like the idea of adding a two-lane north flowing bridge across Morro Creek, but it could be a big part of the solution. Cars could turn on to this going north and avoid going near the BESS where fire trucks must go and where the hazards would be maximized. This two-lane bridge is in the floodplain which adds a lot of cost and design work to prevent failure, but these can be done. And the Coastal Commission will have to make public safety a factor in its thinking. This can be done.

The Coleman/Embarcadero outlet needs a further faster outlet to Highway 1/Highway 41. Vistra could supply the \$2 million additional dollars we need to build the roundabout

at that intersection to move traffic more quickly. This roundabout would be essential to any circulation improvement in the vicinity.

Another new outlet could be provided by the much-discussed new road across Vistra/PGE parcels to connect the Embarcadero directly to Main across the southern portion of the parcels to Highway 1/Highway 41 intersection. This does not alleviate the problem of cars stalled on clogged roads right next to the BESS if the north flowing lanes across a new bridge don't exist, but it can help.

Finally, keep the cars away from the congestion in the first place. In conjunction with a new road linking Main and the Embarcadero, a large permanent parking facility, perhaps adjacent to Scott, could reduce vehicle traffic along the tourist / visitor path.

These mitigation tactics can be done and could help relieve the dangers associated with a hypothetical emergency at the BESS. I hope Vistra will incorporate these or similar approaches in the final plans.

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
Email: BESScomments@morrobayca.gov

Re: Public comment to draft EIR for the battery storage proposal
May 27, 2024

Dear Ms. Fowler,

My name is Amy Cresswell. I am a 15-year resident, a medical professional/provider and small business owner in Morro Bay. I am opposed to the BESS project proposed for Morro Bay.

While I do agree with the need for clean, renewable energy, safe energy storage options, and the phase out of gas, coal, etc. I do feel strongly of the importance of phasing in battery storage facilities in a responsible, safe, and well- scientifically researched (without bias), well-tested manner, with public safety and public health taking precedent on placement/location selection. Lithium-ion batteries pose an unsafe toxic threat and risk to populated areas as demonstrated by the real-life probability, and current and recent occurrences of fires and reignition due to thermal runaway at BESS facilities around the world, including California. Not to mention reported occurrences of fires and thermal runaway on cargo ships, other modes of transportation, and warehouses. I acknowledge the need and push for green energy storage. Thus far, due to lithium-ion battery fires, the prevalence of thermal runaway and known toxins that are released, current battery technology of BESS storage facilities seem *not* a proven nor truly green and risk-free option in regard to public safety and public health. I oppose the BESS project proposed location in Morro Bay which lands in the heart of the Morro Bay community on the Embarcadero a popular tourist destination. The BESS facility brings with it associated safety and health risks and burden to residents, businesses, and emergency services, that would not otherwise be placed upon our community, the estuary and coastline, the marine life (i.e. the sea otters) and wildlife (i.e. protected Snowy Plover). Public and environmental safety and health outweigh the convenient location near high voltage power lines and ease of access to connect the grid, or monetary gains. A BESS site is more appropriate in a minimally populated dry climate area.

Concerns with the proposed BESS Morro Bay site, draft EIR findings and reported mitigations:

- 1. Current example of of BESS safety concerns: The Otay Mesa battery facility fire at the Gateway Energy Storage facility. The fire has been *burning for more than 10 days* since igniting *Wednesday 5/15/2024 with occurrence of thermal runaway/flare-ups*. As per the San Diego Tribune and local news broadcasts, *evacuation orders were issued for businesses located within several hundred feet and roads remained closes throughout the week. Cal Fire San Diego official report that they are preparing for it to take up to 2 to 4 weeks to put out. A Cal Fire***

San Diego captain acknowledged that putting water on the fire is required to keep the fire confined, but the water damages the batteries allowing them to arc and starting another fire. Cal Fire indicated that damages included major damage to the building including the roof and effort made to prevent further spread to other buildings. Not to mention, the 600-foot perimeter hazmat/CalFire maintained due to toxic fumes. As per the article *Reigniting San Diego BESS Fire Highlights Thermal Runaway Risk from Battery Tech*, Online “*Rev Renewables, the operator of the 250-megawatt facility, acknowledged the challenges in extinguishing such fires. They noted that while the fire’s resurgence was unfortunate, it was anticipated due to the nature of lithium-ion battery fires. The facility plays a crucial role in supplying electricity to California’s power grid, underscoring the importance of managing these risks*”. **It is irresponsible to place a BESS facility in an area surrounded by homes, schools, businesses, waterfront, sensitive habitats, protected wildlife. Why can the State and energy companies not see that safety and health must come first? The solution to achieve green energy must come with non-explosive and nontoxic non-public health risks. Manage the risks by building in unpopulated areas and get down to better technology and safer non-fire risk options before consideration to placing this facility in such a populated central location.**

2. **Fires at large scale battery facilities are not uncommon and have occurred year after year. (To name a few: Arizona McMicken fire April 2019, Moss Landing Vistra September 2021, Moss Landing Vistra February 2022, Moss Landing PG&E Tesla-supplied battery plant September 2022, Valley Center Energy Storage Facility September 2023, current May 2024 Otay Mesa Fire). A “reference article”:**
 - Los Angeles Times: *Battery storage is a key piece to California’s clean energy push. But there’s a problem with Fires.* By Rob Nikolewski . October 12, 2023.

3. **Scientific studies and current research have found toxic gases and particulate, ash that are occur during lithium ion battery fires and thermal runaway include carbon monoxide (CO), carbon dioxide (CO₂), hydrogen fluoride (HF), phosphorus pentafluoride (PF₅), hydrogen chloride (HCL), hydrogen cyanide (HCN), nitrogen dioxide (NO₂), sulphur dioxide (SO₂) and solvents. Research article statements have been made stating that need for further gas and smoke emissions study are needed and more research is needed for fail safe monitoring and fire, thermal runaway prevention and decision making for adequate safety measures for both emergency personnel and the public. I’m not implying that research isn’t ongoing, and that progress has not or cannot be made. Quite the contrary. Current evidence, however, points to the fact that progress to the point of consistent L-ion battery fire prevention is not there yet. A few of the articles.**
 - F. Larsen, P. Andersson, P. Blomqvist, B. Mellander, *Toxic fluoride gas emissions from lithium-ion battery fires*, Nature Scientific Reports August 30, 2017.
 - P. Liu, C. Liu, K. Yang, M. Zhang, F. Goo, B Mao, H. Li, O. Duan, O. Wang, *Thermal runaway and fire behaviors of lithium iron phosphate battery induced by overheating*, Journal of Energy Storage Volume 31, October 2020, 101714.
 - P. Bugryniec, E. Resendiz, S. Nwophoke, S. Khanna, C. James, S. Brown, *Review of gas emissions from lithium-ion battery thermal runaway failure-*

4. The Draft EIR Section 4.2.1 “Setting under Air Quality” paints an inaccurate picture of Morro Bay wind patterns. It states, “The pacific high remains *generally* fixed several hundred miles offshore from May through September, **enhancing onshore winds and opposing offshore”**.

- The draft EIR fails to mention the **real-life occurrence of variable wind from differing directions** that occur daily throughout the year. The draft EIR also failed to mention the strong offshore winds that blow September through late November early December. I experience the Morro Bay winds and variability firsthand as a 15-year resident, avid surfer (wind makes or breaks the quality of surf conditions!), and former student pilot.
 - **FACT: Daily wind patterns, wind strength, and wind gusts are variable sometimes calm early morning, yet some mornings with offshore or cross shore winds blowing from the East, North East, South East, or South. By midday, typically switches and blows onshore from either the NW, southwest, and sometimes the west. By sunset it can calm or switch direction again depending on conditions.**
 - I question that the .25 mile and .5 mile radius is a safe distance from the high school and that the proximity was not a significant impact as stated in the draft EIR.
 - Given Morro Bay’s propensity for wind, how could the toxic fumes and any particulate from a fire remain in the .25 and .5 mile radius that the EIR mentions as safe distance from a school? Morro Bay High School is just over 1 mile north. Not to mention the RV park/camp ground less than 1 mile to the north and rest of the surrounding community stated previously in this letter.

5. The toxic fumes, particulate, ash that lithium-ion battery fires result in public health and safety concerns with need for evacuations and shelter-in-place.

- September Moss Landing fire resulted in 12-hour shutdown of highway 1. Residents were ordered to shelter-in-place and turn off all ventilation systems pending testing for hazardous materials.
 - Local Moss Landing residents reported not being notified immediately as emergency services relied on reverse 911 calls to land lines. Most people and even some small businesses do not have land lines. (KSWB Action News 8, *Moss Landing residents worried for their safety after PG&E’s Tesla-battery fire* September 21, 2022).
 - Evacuations, shelter-in-place and road closures due to toxic fumes would be a hardship for Morro Bay businesses, private medical practices, local schools, outdoor tourist spots, and campgrounds.
 - As a healthcare provider serving families and children with special needs, and children with complex feeding and eating disorders; I am concerned

the DEIR fails to consider or address the impact on health services in regard to evacuation or shelter-in-place when a fire does occur.

- **Morro Bay residents will get undue burden of potential health fallout in the probable event of a toxic BESS fire.**
- Morro Bay is more populated as compared to Moss Landing or Valley Center, Otay Mesa. Tourism numbers in Morro Bay vary with people visiting throughout the year, and with times of high tourism especially given the prevalence of annual or biannual events such as 1. Multiple Surf Competitions at the Rock (NO the answer is not to move them up the strand!), 2. The AMGEN tour, 3. The Iron Man (the road closures and traffic mess is a pain as it is. I can't imagine the possibility of a simultaneous BESS fire). 4. The annual Rock to Pier Run 5. Project Surf Camp (surf camp for Special Needs children that runs throughout the summer) 6. The Annual Avocado Festival, 7. The Annual Morro Bay Car Show. 8. 4th of July Festivities (Since moving here in 2009, the number of tourists on the 4th have more than doubled).
- Not to mention the traffic back-up exiting the rock/embarcadero that occurs on busy holiday and 3 day weekends. The traffic delay from the Rock down the Embarcadero is slow stop and go. What usually takes 3-5 minutes to drive has taken me up to 15 minutes + after surfing at the Rock.

6. Even in cool dry environments the risk of thermal runaway and fire is high and has occurred. The coast/marine environment of Morro Bay is not dry. The coastal air is moist and salty. Both are known to degrade batteries.

7. The Draft EIR fails to mention "thermal runaway" anywhere within section 4. Instead, it states "Operation of the BESS Facility would involve use and storage of lithium-ion batteries, which may pose risk of upset and accidental release of hazardous chemicals contained within the batteries (e.g. in the event of a fire). Damage to lithium-ion batteries can also occur from physical impact, exposure to certain temperatures, and /or improper charging, which can result in a fire and/or explosion hazard ". It does not mention that the damage to the batteries can occur due to moisture. Nor does it mention what the impact of the moist salt air on battery life and battery integrity.

Morro Bay has been home for my husband and I since 2009. My ties and love for Morro Bay and the central coast have been lifelong with my first of more family visits than I can count as a 8-month-old infant. Morro Bay has been not just a travel destination, but a home away from home that has spanned my entire 47 years. Morro Bay left strong, positive impressions on my family (5 generations of! Starting back in the 1930's with my grandparents and great grandparents) and I. The local fishing community and industry, the local surf community, and the Morro Bay community at large had left an impression. An impression of a thoughtful, welcoming way of life with deep appreciation and care for not only residents and visitors to the area, but also the appreciation, respect, and responsibility to care for nature, wildlife, sea life, and the environment. Morro Bay has proven to me again and again to be a safe and supportive community to raise a family, to start a business, to retire to, and for many a place of safe and

beautiful refuge to visit. And a place of safe refuge for marine and wildlife including the endangered sea otter nursery in the harbor, the Peregrine Falcon nesting habitat, the Blue Herons, and the many other birds including the Plover which are so diligently protected all along the strand.

I would not have anticipated that in my lifetime, that I would be responsible for advocating to my community leadership the need to promote the health and safety of our community and surrounding environment. While I understand the need for alternative energy sources and the State's push for energy storage, I also understand and have learned that battery storage facilities around the world (including Moss Landing, and Otay Mesa, who's populations are much smaller than Morro Bay) have not yet proven to be a completely sound, fire-free, safe option that would safely serve our community, the nearby wildlife, or the nearby ocean life. The high fire probability with lithium batteries known to become unstable with moisture (placement in moist, salty coastal environment makes no sense) results in placing undue burden on emergency services, Morro Bay residents, visiting tourists, and businesses, not to mention local healthcare system. The fact that something of such high fire probability with toxic particulate and fumes is proposed and is even being considered for the heart of our community and neighborhoods, in a tourist area, and so near our coastline and protected waterways is deeply concerning. Not safe. Not responsible. The Morro Bay BESS proposal is not appropriate for the surroundings.

Construction/Installation of BESS sites in unpopulated, dry climate areas makes more logic sense when it comes to public safety and to truly achieve a minimal environmental impact.

My love and respect for California, Morro Bay, the entire Estero Bay and Central Coast community and environment runs deep. And, so deeply does my sense of responsibility. My responsibility as a resident, and healthcare provider/business community member to speak out against the proposed BESS project for Morro Bay.

Sincerely,



Amy Cresswell
Resident, Morro Bay

Cc: Morro Bay City Council Members
Attn: Mayor Wixom, and City Council
595 Harbor Street, Morro Bay, CA 93442
council@morrobayca.gov

Morro Bay Planning Commission, Attn: Chairman and Commissioners
955 Shasta Avenue, Morro Bay, CA 93442
planningcommission@morrobayca.gov

Sarah MacGregor, CA Coastal Commission, Coastal Planner
725 Front Street, Suite #300, Santa Cruz, CA 95060
Sara.MacGregor@coastal.ca.gov

My public comment Letter to the draft EIR for BESS

Laura Candler <[REDACTED]>

Mon 5/27/2024 2:11 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>

 1 attachments (5 MB)

Laura Candler's Response to the DEIR May 27 2024.pdf;

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Dear Ms. Fowler,

I'm writing to express my concerns about the proposed BESS project and to respond to the draft EIR. I've attached a PDF of my letter to this email. Please let me know if you have any problems opening the document. Thank you!

Laura Candler

May 27, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

The first time I visited Morro Bay, I fell in love with your beautiful coastal community! I live in North Carolina, but my sister is a resident of Morro Bay, so I'm able to visit Morro Bay on a regular basis. I always look forward to my visits because there's so much to see and do in the area. My sister and I love walking on the beach together, as well as kayaking in the harbor, swimming in the ocean, going whale watching, exploring the quaint shops and restaurants, observing the adorable otters, and photographing the amazing sunsets!

The reason I'm writing this letter is to express my deep concerns about the proposed BESS project, and I also want to respond to the draft version of the EIR that was released several months ago. Even though I'm not a resident, I've been in Morro Bay enough to know that the selected site is NOT an appropriate location for the proposed battery storage facility. My sister and I have walked the Embarcadero out to Morro Rock many times, so I'm familiar with the area. In fact, the proposed site is so absurd that it makes me wonder what kind of company would choose to build a potentially dangerous battery storage plant in that location. The proposed site is in the middle of a quaint tourist town on a dead end road that leads to Morro Rock. The site is in close proximity to a high school, it's near a national estuary, and it's within walking distance of a state park! If any incident occurred that required nearby residents and visitors to evacuate, it would be almost impossible to get everyone OUT of the area while allowing first responders and emergency personnel to get IN to deal with the incident.

Furthermore, the proposed location is in a flood and tsunami zone, which is notable because lithium ion batteries become unstable and can spontaneously combust when exposed to salt water! If that weren't enough, the proposed site is located in an area where the sand and soil has the potential for liquefaction in the event of an earthquake! According to the [Earthquake Track website](#) which uses USGS data to track seismic activity, in the last year alone there have been over 150 small earthquakes (M1.5 or greater) in Morro Bay! It's not unreasonable to assume that a significant earthquake might result in liquefaction of the soil under the storage plant, potentially damaging the batteries and leading to battery fires.

If a visitor to Morro Bay like myself can easily identify dozens of problems with the proposed site, it defies logic to think that any responsible energy company would want to build one of the world's largest battery storage plants in this area. Since an environmental impact report is required as a part of the approval process, one might expect that the EIR would bring these problems to light. Unfortunately, as I read the draft EIR that was released in March, I was disappointed to discover that it failed to adequately address even the most obvious problems.

Furthermore, the conclusions at the end of the report were based on skimpy evidence and faulty logic. For example, despite the fact that dozens of fires have occurred at battery storage facilities over the last few years, the DEIR downplays the chance that a fire might occur at the Morro Bay site, and it downplays the length of time such a fire might last. It also doesn't explain how a battery fire would be extinguished or even contained if one does occur. Fires from lithium ion batteries are extremely hot and cannot be extinguished with water, so the process of thermal runaway causes them to spread from one battery unit to another. Even though the fires can't be extinguished with water, massive amounts of water are sprayed on them in an attempt to cool the batteries and keep the fires from spreading. Since the fires can't be extinguished, they often burn out of control for days or weeks! The recent battery storage fire in Otay Mesa has been burning for 10 days and it's still not completely out. Furthermore, over millions of gallons of water have been used to try to contain that fire. Morro Bay has a water shortage, which makes me wonder where the water would come from to contain a battery fire in Morro Bay.

When I searched the EIR to see how it addressed the prospect of a runaway battery fire, I was shocked to discover that it never even mentions the term "thermal runaway"! Furthermore, it doesn't include a clear and specific plan to explain how residents and visitors in the area would be evacuated safely at the same time that emergency personnel are attempting to access the site. The topic is only addressed in a general sense, including a mention that safety protocols are being outsourced to DNV Energy, USA through the Morro Bay fire department and that those protocols will be developed at a later date. Considering the fact that the proposed site is on a dead end road near a high school, I can see why they would want to outsource this task. But no matter how many times they outsource it, it's hard to imagine ANY company being able to come up with a safe plan for evacuating the area.

This is just one example of how the draft EIR fails to adequately identify and address the potential problems associated with the proposed BESS location in Morro Bay. That document is over 600 pages long, but a close reading reveals that it consists of page after page of faulty logic, has many glaring omissions, and includes conclusory statements that are based on flimsy evidence. In short, the BESS draft EIR is fundamentally flawed and needs to be recirculated.

Since I'm not a resident of Morro Bay, you might be wondering why I'm taking time to write this letter and express my concerns. I think my perspective as a visitor allows me to truly see and appreciate the uniqueness of Morro Bay, and I want to do everything in my power to make sure that Morro Bay retains its charm and character. Not only is Morro Bay a quaint and friendly town, it's also a haven for outdoor enthusiasts and wildlife lovers. People travel from all over the world to visit Morro Bay, and those visitors enjoy many activities such as golfing, swimming, kayaking, whale watching, surfing, and hiking. Morro Bay also hosts many special events throughout the year that draw thousands of visitors at a time to the area. Some of the more notable events are the Morro Bay Bird Festival in January, the Kite Festival and Ironman competition in May, and the Witch's Paddle in October. Visitors love to view the wildlife in Morro Bay including many species of birds, as well as sea otters, harbor seals, dolphins, sea lions, and humpback whales. Morro Bay is also a great place to enjoy a seafood meal at a waterfront restaurant. I love the map on the Morro Bay visitor's website that shows many of the fun places to visit and highlights the recreational opportunities in the area. I've included a copy of that map

along with some photos of Morro Bay at the end of my letter because words alone can't adequately convey the unique character of this small town.

According to information available on the Morro Bay website, the town attracts more than 800,000 visitors a year. Tourism is a huge part of the local economy, so it's important to consider how the construction of a battery storage plant might impact tourism in the area. As a frequent visitor myself, I'm horrified to imagine how the people and wildlife in Morro Bay would be subjected to several years of construction noise, dust, and increased traffic while the battery storage plant is being built. Then after construction is finished, who will want to visit a town which is the site of a huge battery storage plant? As people become aware of the potential dangers of these storage facilities, they aren't going to want to spend time anywhere near them. I've been in Morro Bay on a weekend in the summer when thousands of people can be seen enjoying outdoor concerts in the parks, visiting Morro Rock, kayaking in the bay, or dining at the harbor restaurants. All of these activities take place within a mile of the proposed site, setting up the potential for a disastrous outcome if a fire were to break out at the BESS. If that happens, traffic will be insane as thousands of people try to leave the area, potentially obstructing access for the emergency vehicles that are trying to get into the area to deal with the incident. People who are visiting Morro Rock will be trapped at the end of the road with no way out. Even if a fire never occurs at this location, I suspect that tourists who regularly visit Morro Bay will look for new coastal destinations where they don't have to be concerned about their safety. In addition, organizations that host special events in Morro Bay will be looking for new venues that aren't located near facilities that have the potential to endanger their participants.

For all of these reasons, I object to the BESS project proposed for Morro Bay and I ask that the draft EIR be rewritten and recirculated before any further consideration is given to the proposal. The purpose of an EIR is to inform the public and decision makers about the potential environmental effects of a proposed project and to identify ways to mitigate or avoid these effects, but the draft EIR released in March falls well short of this goal. Despite the length of the document, many questions are left unanswered, including the ones below:

- What steps will be taken to ensure that the BESS is built on a foundation that can withstand the effects of soil liquefaction during a major earthquake?
- What steps will be taken to ensure that the battery units will not be exposed to salt water in the event of seawater flooding?
- In the event of a fire, what will be the source of the water needed to cool the batteries and attempt to contain the fire?
- What is the plan for safely evacuating thousands of people from the area near the BESS in the event of a fire, while at the same time allowing emergency personnel to access the site?
- What steps will be taken during the construction process to reduce the impacts on tourism from noise, additional traffic, and airborne particles such as dust?

Even if the EIR is rewritten and these questions are answered, I find it hard to believe that the revised EIR will be able to reassure Morro Bay residents and visitors that the proposed BESS project will not significantly impact their community in a negative way. It should be clear to

anyone who is familiar with the location that it's not an appropriate site for a battery storage facility of any size. I hope that after recirculation and all of the potential impacts are identified, considered and reviewed, the city will not certify this EIR and will reject the project.

Sincerely,

Laura Candler

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Map of Morro Bay showing the location of parks and recreational opportunities as well as their proximity to the proposed site (indicated by the red arrow).



Morro Bay in Pictures

These photos are included because they show the charm and character of Morro Bay as well as some of the wildlife in the area. Morro Bay is not an industrial town. It's a vibrant and thriving coastal community that is not an appropriate location for a battery storage plant.











Please provide additional analysis of safety issues and alternatives

Don Maruska <don@donmaruska.com>

Mon 5/27/2024 4:30 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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The Final EIR needs more attention to Safety and Alternatives. These are the major issues that are in question.

Safety

Requests for further analysis:

1. The public needs an assessment of if and how the responsible local public safety authorities will protect them. Solicit an analysis from the Morro Bay Fire Department about the safety issues and how they will be addressed. If there are BESS project specifications that remain to be determined, identify the options being considered and how the safety plan would address safety concerns under them.
2. Provide tangible examples of how other jurisdictions have addressed safety with plants close proximity to the public. For example, what can be learned from the battery storage project in Goleta? What's similar and what's different (in addition to size) about the projects? What analyses did safety officials in that community conduct? Why did they decide to approve the project?

Alternatives

Requests for further analysis:

1. What are alternatives beyond those identified in the DEIR?
2. A potential alternative if the City does not approve the project is for Vistra to request approval from the State of California under AB205. How would that work? Are the environmental review requirements the same or different? What would be the impact of the State approval route on the City's ability to influence the project and obtain benefits for its residents?

Thank you for your consideration.

Don Maruska – Climate Solver, entrepreneur, speaker, Master Certified Coach
895 Napa Avenue, Suite A-5, Morro Bay, CA 93442

May 27,2024

To the Morro Bay City Council members

City of Morro Bay Attn: Cindy Jacinth, Planning Manager 955 Shasta Avenue Morro Bay,
California 93442

Subject: BESS – Vistra Lithium-ion Battery Energy Storage Facility proposal – public comments
on Draft EIR

Hello Morro Bay City Council,

I am a full time resident, taxpayer and property owner in Los Osos, California, due south of
Morro Bay, California.

I am writing today to register my strong objection and concerns about Vistra Energy’s intent to
build a Lithium Ion Battery Energy Storage Facility on the waterfront property currently owned
by Vistra, where the inactive power plant is located (Assessor’s Parcel Number [APN] 066-331-
046; 1290 Embarcadero Road). I believe this would be a bad mistake which would jeopardize
human and animal life and well being, economic activity and property values in Morro Bay and
in adjacent Los Osos where I live with my family.

As we have seen by example of the BESS fire in Moss Landing, California on September 20,
2022, once a lithium ion BESS facility or battery component catches fire, there is no feasible
way to extinguish the fire. The only solution, per professional firefighters who have faced such
fires, is to allow them to burn until the combustible material is consumed – to “burn out” in
common parlance. When a lithium ion battery burns, it releases toxic gasses that are harmful
to human and animal life in the area. These toxins are released into the air and may be
absorbed into the ground, where they can further impact subterranean life as well as leach into
the aquifer and in the case of Morro Bay, directly into the Bay and the Pacific Ocean.

These toxic materials include:

1. **Hydrogen Fluoride (HF):** Highly toxic and corrosive, HF is released from the decomposition of fluorinated electrolytes in the batteries ([EEPower](#)) ([NUS Blog](#)).
2. **Carbon Monoxide (CO):** Produced from the incomplete combustion of organic solvents, CO is a colorless, odorless, and highly toxic gas ([EEPower](#)) ([NUS Blog](#)).
3. **Carbon Dioxide (CO₂):** While not directly toxic, CO₂ can displace oxygen in the air, posing a suffocation risk in high concentrations ([NUS Blog](#)).
4. **Hydrogen Cyanide (HCN):** A lethal gas that can be produced during the combustion of certain battery materials ([EEPower](#)).
5. **Phosphorus Pentafluoride (PF₅):** A highly toxic gas that can result from the breakdown of some electrolyte additives ([NUS Blog](#)).
6. **Sulfur Dioxide (SO₂):** Released if sulfur-containing compounds are present in the battery, SO₂ is toxic and can cause respiratory problems ([EEPower](#)).

7. **Volatile Organic Compounds (VOCs):** Various organic solvents in the battery electrolyte can release VOCs when burned, contributing to air pollution and health hazards ([NUS Blog](#)).
8. **Particulate Matter:** Fine particles, including metals like nickel, cobalt, lithium, and manganese, can be released and pose inhalation risks ([EEPower](#)) ([NUS Blog](#)).

In the case of the Moss Landing incident, residents and visitors were made to shelter in place while the fire burned. If such a situation were to happen at a theoretical Morro Bay BESS facility, this would be unacceptable to me and my family, as we need to travel for work and recreation. We moved to this beautiful area specifically to enjoy the natural world here and this would be an undue burden to place on me, my family, and our community.

Lithium-ion batteries, while highly efficient for energy storage, pose significant fire risks. These fires are particularly dangerous due to their intensity, their difficulty to extinguish, and the release of toxic fumes. The draft EIR appears to downplay these risks; for example, the DEIR mentions:

- In Volume 1, section 4.7.4, which deals with the hazardous emissions and the CEQA thresholds whereby a project is required to address such emissions, it is mentioned that these concerns need not be addressed in the DEIR “Because the Project Site is not located within one-quarter mile of a school (Threshold 3)” – I feel this misses the point entirely considering the real risk posed by a potential fire at the BESS facility. A quarter mile is 1,320 feet, while the High School is approximately 2,000 feet away. This seems like a trivial difference in terms of distance away from a dangerous source of toxic gasses in the event of a lithium ion battery fire.

I urge the City Council to reconsider the following critical points:

1. **Fire Hazard and Emergency Response:**
 - Lithium-ion battery fires can escalate rapidly and are notoriously difficult to extinguish. The Draft EIR must provide a comprehensive analysis of the fire hazards specific to the proposed BESS, including a detailed emergency response plan.
 - There should be clear guidelines on the availability and adequacy of firefighting resources and personnel trained specifically to handle lithium-ion battery fires. Coordination with local fire departments and emergency services must be explicitly outlined.
2. **Toxic Emissions and Air Quality:**
 - In the event of a fire, lithium-ion batteries can release hazardous substances, including toxic gases such as hydrogen fluoride, hydrogen cyanide, phosphorus pentafluoride and others mentioned above. The EIR should include a thorough assessment of the potential air quality impacts from such emissions and the risks to public health.
 - Measures to mitigate these risks, such as advanced fire suppression systems and containment strategies, should be detailed and evaluated for their effectiveness.
3. **Environmental Impact on Surrounding Areas:**

- The proximity of the proposed BESS to residential areas and sensitive ecosystems necessitates a rigorous examination of the potential environmental impact. This includes the risk of water and soil contamination from firefighting efforts and runoff.
- The EIR should propose robust environmental safeguards to prevent contamination and protect the local environment.

4. Risk Assessment and Alternative Technologies:

- The draft EIR should include a comprehensive risk assessment of lithium-ion battery technology compared to other available energy storage technologies that may pose fewer safety and environmental risks.
- Consideration of safer alternatives, such as solid-state batteries or flow batteries, should be explored and discussed in detail.

In conclusion, it is imperative that we undertake a thorough and sober assessment of these and other risks expressed by the community, and understand what preparation would be required for the potential risks involved. The current draft EIR for Vistra Energy's BESS at Morro Bay does not sufficiently address the significant dangers posed by lithium-ion battery fires. I strongly urge the Commission to require a more thorough analysis and robust safety measures to protect the community and the environment.

I also request that the following concerns be addressed in the EIR:

- Morro Bay High School is located less than 2000 feet from the proposed BESS facility – this poses an undue risk to our young students who attend school here
- Citing this BESS facility on the location of the mothballed former PG&E power plant, simply because it is currently owned by Vistra Energy (or any other owner) seems irresponsible and incorrect due to the risk of a lithium ion battery fire at this location given its proximity to the City of Morro Bay's High School, Embarcadero area, its fishing fleet, its tourism businesses, human population, aquatic life (including fish, marine invertebrates, sea otters, sea lions and seals) and properties in adjacent and nearby areas.

Thank you for considering my comments. I look forward to your response and to a revised EIR that addresses these critical issues.

Sincerely,

-Mark Virgin
Los Osos, CA 93402

Alternatives

Carol Swain <[REDACTED]>

Mon 5/27/2024 6:51 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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I am in favor of Alternative 5, Enclosure-based BESS facility. This design has two main advantages. They are safety, which in the event of a malfunction, the effect would be limited by restriction within each container. The second main advantage is that the design would be more aesthetically acceptable due to the reduced height and ability to screen from view.

City of Morro Bay Attn: Kim Fowler,
Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

I am a new resident to Morro Bay. I moved here in November 2020 and love it. I have a beautiful view of The Rock, can be on the beach in 8 minutes, and have made some new friends. I grew up in the Bay Area, but I lived in Visalia for 37 years, and although I raised four children, had a great career in teaching, it was where I lived. It was never my home. Morro Bay is my home.

Back in September of 2021, I attended a meeting put on by Vistra about the old PG&E property and at that moment started my opposition to the BESS project proposed for Morro Bay. I strongly oppose it!

I ask you to not certify the Environmental Impact Report (EIR) and ask you to deny the project.

The draft EIR is inadequate in identifying the potential impacts to our community and environment. There will be significant impacts to this community that will be measurable. Having the BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." VISITOR SERVING/COMMERCIAL. How is building a lithium-ion battery plant serving the visitors and citizens for Morro Bay? We don't use all the power that will be generated by the BESS. It will be for all the people in the central valley who are running their air conditioners all summer long.

The vision for our city set forth in The Plan does not include battery storage. Morro Bay is a cute little fishing village, and those of us that live here, and visitors, feel secure. Our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys are a big draw for the people who visit and those of us that live here. If the BESS project is implemented, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Why would long-time visitors come to Morro Bay and listen to the unpleasant noise.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic and corrosive gasses - This facility, projected to be the largest in the world, requires an industrial location to

operate safely. **It should not be in the heart of a tourist town, nor adjacent to a national estuary.** The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. **If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed.** No one will be safe. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

And a whole other issue is that BESS on the Embarcadero in Morro Bay would be in **conflict with the California Coastal Act** - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic "Morro Rock," at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not. BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species.

We have thousands of visitors though out the year: surf contests, our kite festival, art shows, marathons, the witches paddle, car shows, kayaking and boating, and just plain fun in the sun at the beach. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. How would you feel if If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires. This project will impact many nesting birds, but the draft EIR does not identify this significant impact either.

Melonie Grubbs, the director of the National Estuary Foundation in Morro Bay says we have a "pristine" estuary that other estuary look to and aspire to be like. How can we even think of jeopardizing this habitat?

We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

On a totally different topic, you will be putting our firefighters in danger as these fires are unpredictable. We do NOT have enough firefighters, nor do we even want to think about the

problem that would make us need them. Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. **WHAT? By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published.** (I am sorry, but I don't trust that this will be done later either.) An analysis of lithium-ion battery fire hazards and toxic chemicals must be included in the EIR, not submitted separately. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay. A BESS fire recently broke out in Otay Mesa, releasing toxic gasses in a radius at least 600 feet, and a much larger area was ordered to evacuate or shelter-in-place. A day or two after the fire was believed to be extinguished, it reignited itself. 600 feet from the projected plant includes residences, tourists, restaurants and wildlife. The DEIR must be rewritten and recirculated for our comments –

As I have said before, the draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that they now support an alternative design, which is a substantially different project. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments. The BESS is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore, as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, I hope and believe the agencies responsible **will not certify this draft EIR or approve the battery storage project in Morro Bay.**

Sincerely,

Betsy Gaudette-Cross
Morro Bay, CA



Fwd: Please...just....don't

Alice Wysocki <[REDACTED]>

Mon 5/27/2024 8:43 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Hello,

I am writing in opposition to the BESS plant - specifically at this moment, acceptance of the draft environmental report.

I was born and raised in Morro Bay, my father having been hired onto the construction for stack 1 as a cement finisher. I currently live in Cambria.

This BESS plant is a disaster just waiting to happen and I can't really wrap my head around the speed with which it seems to be destined for approval.

Morro Bay was for most of my life polluted by the toxic exhaust spewed by the power plant. We called it acid rain.....everyone had pitted cars...remember ? Then PGE was allowed to exit without cleaning up after themselves.

A draft environmental impact report that minimizes the risk to ...the environment....and / so disrespects the actual historical experience of the people of Morro Bay should be rejected.

An environmental impact report that honestly deals with actual science in our actual environment that addresses the risk of known BESS problems should be required. Requiring anything less than a vigorous assessment is a failure to look out for Morro Bay, her people, the wildlife who call her home and the surrounding areas/ people of the greater Estero Bay region.

This project is not safe..and thinking it is defies common sense, I beg you, please please stop, or at least slow down, this project until the risks are more clear, and the City can bind Vistra to a clean up/ remediation plan.

Alice Wysocki
1979 MBHS Pirate
Current Cambria resident

Morro Bay BESS Draft EIR

Michael Smothers <[REDACTED]>

Mon 5/27/2024 9:30 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

Ms. Fowler,

Please submit my comment regarding the proposed BESS Draft EIR dated March 2024.

I firmly believe the BESS should go forward as described in the original design with 3 large battery storage buildings or using Alternative 5: Enclosure-Based BESS Facility containing 174 separate battery storage buildings. Each alternative has advantages. The main thing is that the city has the opportunity to benefit from this technology.

I believe the concerns about fires, earthquakes, and tsunamis are overblown and will be addressed as part of the planning process.

The stacks should be removed.

Sincerely,

Michael Smothers
[REDACTED] Morro Bay

Fw: Draft EIR Comments

[REDACTED] >

Mon 5/27/2024 10:34 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

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Resending with correct BESS email address. Thank you.

----- Forwarded Message -----

From: rw2b5@aol.com <rw2b5@aol.com>

To: BESScomments@morrobayca.org <besscomments@morrobayca.org>

Cc: council@morrobayca.gov <council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <sarah.macgregor@coastal.ca.gov>; planningcommission@morrobaya.gov <planningcommission@morrobaya.gov>

Sent: Monday, May 27, 2024 at 10:31:29 PM PDT

Subject: Draft EIR Comments

City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

My wife and I are residents of Morro Bay, having chosen to move here when retiring in 2018. We are opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants.

A BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay. The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our city set forth in the Plan does not include battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys.

Construction of BESS will take over 3 years and will negatively impact our community. If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses. This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to

saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

A BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act. The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development *shall* protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic “Morro Rock,” at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The “rock” and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

A BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species. Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters’ sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

Fire protection and emergency response strategies were not addressed in the draft EIR. According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the “external costs” of the BESS will be borne by the citizens of Morro Bay.

The DEIR must be rewritten and recirculated for our comments. The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. Since alternative #5 is a substantially different project with important differences in the impacts, if there is a change to that alternative, the applicant must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore, as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Roman G. Watt
Morro Bay, CA

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner,
California Coastal Commission

May 27, 2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, CA 93442

RE: My Response to Draft EIR for Battery Energy Storage System (BESS) Proposed Project in Morro Bay

Dear Ms. Fowler, I have lived in Morro Bay since 1990. I chose Morro Bay because of the pristine beauty of the coastline, the abundance of outdoor activities, and the plethora of wildlife including birds of the air, the mammals of the sea, and the creatures of the land. I first started coming here as a tourist and fell in love with this relatively obscure piece of Heaven. For these reasons, I am opposed to the BESS project proposed for Morro Bay and ask you to not certify the Environmental Impact Report (EIR) and to deny the project.

The draft EIR has failed in many aspects to identify the probable negative impacts to our community and its environment. The draft EIR is woefully inadequate and failed to address the potential damages to all that I (we) hold sacred. Effective mitigation will definitely not be feasible.

In 2021 the city drafted "Plan Morro Bay" which delineates our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The citizens of Morro Bay plainly put forward their vision and it DID NOT include battery storage. The residents of Morro Bay and the tourists who so happily flock here enjoy the coastal lifestyle and the pleasurable activities associated with the coastal lifestyle. I take a daily walk to breath in our air, revel in the marvelous creatures I have the opportunity to see everyday—sea otters, egrets, sea lions, ground squirrels, hawks, osprey often enjoying their fish lunch, and too many others to mention. Every day I recommit myself to preserving this precious lifestyle for my children and grandchildren down through the generations.

So much of this coastal, quiet, and natural environment will be endangered due to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Local merchants who depend upon the sea for their livelihood will face new challenges due to the BESS battery storage project. Tourists may very well decide to boycott Morro Bay due to the unpleasant changes to our city. We spoke out in 2021 to determine the future of Morro Bay as we envision it and it is now time for us to reemphasize that the Bess project is not what we envision in our future—not now and not in the future.

This particular BESS project is projected to be the largest in the world. A little town of less than 10,000 people should not be asked or told that it is what we are going to get. A project of this size requires location to an industrial location where the resources to prevent or contain spontaneous ignition and the resulting release of toxic and corrosive gasses are readily available. It should not be situated in a small, coastal, tourist town with proximity to a national estuary, home to a nursery of sea otters, and in a flood and tsunami zone. The fire risks due to saltwater exposure to lithium-ion batteries are something I am not ready to accept. Recent evacuations due to emergency situations in BESS projects are real and present a clear and present danger. Given a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide.

Morro Bay has limited access in and out of town. Safe evacuation from such a fire and or toxic fumes will be impossible especially for a town which entertains a large number of out-of-area tourists on a daily basis who would not know how or where to access emergency services when the situation arises. Bess on the Embarcadero in Morro Bay is a risk. It is a risk I am not willing to take! I believe that any agency that certifies this draft EIR and ultimately approves this project would be needlessly and recklessly placing the residents and visitors of Morro Bay in danger.

I am a former teacher and administrator. The close proximity to Morro Bay High School especially, but also Del Monte Elementary School, to the proposed BESS project is problematic. We take great pride in these schools, the school staff and the students who are our children. BESS is not safe and it is particularly not safe for them.

Bess on the Embarcadero is in conflict with the California Coastal Act-The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. It requires that new development shall minimize adverse impacts in areas of high geologic, flood and fire activity. This project site which is in a flood and tsunami zone, would actually amplify such risk. Morro Rock is a unique geologic feature of this area and sanctuary to the endangered peregrine falcons as well as a sacred site to the local native American peoples. This is protected under the California Coastal Act. Visitors come here to enjoy the activities such as kayaking, surfing, kite flying, boating, car shows, art shows, etc. These activities are coastal-dependent development and the BESS battery storage certainly is not.

I could speak to many other ways in which the draft EIR is deficient including protection of sensitive habitat, endangered special and species. Fire protection and emergency response strategies were not addressed in the draft EIR. It directs that fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, this analysis must be included in the draft EIR and not deferred until after the EIR is published. The burdens of emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and other threats will overly burden our local Police Department, who may not have adequate resources, equipment, manpower, or training. Ultimately, the responsibility will be born by the citizens of Morro Bay who neither sought this out nor want it here.

If I wasn't concerned enough, my daily Newsbreak news alerts have graphically described the recent fire event in Otay Mesa. That thermal runaway has ignited, reignited and then reignited itself. If that were to happen to the BESS on the Embarcadero, it would endanger residences, tourists, dining establishments, retail businesses and wildlife. Our school children would almost certainly be impacted as well.

I conclude by fervently imploring the agencies responsible to not certify this draft EIR or approve the battery storage project in Morro Bay. I recognize the offer of a substantial source of funding is very tempting for a cash-strapped city but the risk is not worth it. The dangers of this project could very well cost so much more, not just in money, but in the loss of community, air quality, and quality of life.

Sincerely,
Mary Jo DeSio, EdD

CC: Mayor Wixom and Morro Bay City
Council; Planning Chair and Commissioners; Sarah
MacGregor, Coastal Planner, California Coastal Commission

Draft EIR Comments

Mary <[REDACTED]>

Mon 5/27/2024 11:12 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>;

PlanningCommission@morrobay.ca.gov <PlanningCommission@morrobay.ca.gov>

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City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

My husband and I are residents and visitors of Morro Bay. We moved here in 2018 after several decades of coming to vacation here. We are opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and to deny the project. The draft EIR is woefully inadequate in identifying the potential impacts to our community and environment. This is my public comment to the draft EIR submitted by the City and its consultants.

Locating a BESS on the mothballed former power plant property is an infringement of the citizens' vision of the future of Morro Bay. The PG&E power plant was decommissioned in 2014. Since that time, it has sat, deteriorating, through various ownership changes. Even routine maintenance/landscaping was discontinued, and it has sat as a blight on Morro Bay for more than a decade.

In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial." The vision for our City, set forth in the Plan, does not include or allow for battery storage. Morro Bay is a dearly loved small coastal town, and our residents and visitors feel secure here. We love our community character, our natural resources and our wildlife.... the sea otters, peregrine falcons, osprey, great blue herons, owls, and egrets, all of the endangered species, and even our wild turkeys. Every single day we see evidence that supports why people come here – they come here to enjoy the unique opportunities Morro Bay has for them to interact with wildlife up close! They come to enjoy paddling of electric boating on our Bay, fly kites, hike and so much more. Many of these activities are especially rewarding for those of us with mobility limitations, as well as parents with small children, etc.

Sea otters and peregrine falcons are of particular concern to me. It hasn't been all that long ago that peregrine falcons were nearly extinct in California, and the sea otter populations are still considered at great risk. Two distinct rafts of otters live here in Morro Bay and are beloved by visitors and residents alike. The peregrine falcons bring birders from far and wide, especially when they fledge their young each year. Having first thought as a teenager that I might never see a peregrine falcon in the wild, I gravitated to and have supported efforts, including hands on nest monitoring duty and coordinating winter counts, through both the Golden Gate Raptor Observatory and the Santa Cruz Predatory Bird Research Group I have witnessed up close the herculean efforts that captive breeding, egg retrievals, etc., have achieved

State wide, and peregrine falcons have rebounded back from near extinction.

Here in Morro Bay we have the opportunity to share peregrine falcons easily with residents and visitors alike, at the only site known to support two pair of nesting peregrines so close together, Morro Rock. One of the most well-known peregrine falcon nesting sites in North America, it is believed that “many Native Americans residing in village sites near the Morro Bay estuary must have been aware of the peregrine falcons residing and nesting at Morro Rock, then a near shore island.” (Steve Schubert, A 50 Year History of Peregrine Falcons of Morro Rock). Viewing areas near the Rock provide an opportunity for persons of limited abilities to be able to see these birds in their natural environment. This affords us the ability to educate generation after generation to understand just how important it is to protect species such as the peregrines, our sea otters, etc. Having a BESS facility adjacent to this area presents multiple justifications for NOT allowing that to happen.

Construction of BESS will take over 3 years and will negatively impact our community. If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay. No longer will Morro Bay be seen as a place to come and see wildlife up close. Individuals and families concerned about the possibility of BESS fires (Otay Mesa, for example). It is unclear what the construction impacts will be on all of Morro Bay’s wildlife. The risks to disruption of our wildlife here is simply not acceptable. The needs for battery energy storage can be met elsewhere.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses. This facility, projected to be the largest in the world, requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

Recently we are hearing about BESS fires in more places than I can keep up with. As of the time of writing this letter there is a BESS fire at Otay Mesa that has continued to burn for nearly a week. A shelter-in-place as disrupted life safety to the community as well as other impacts. This is simply not acceptable. Yet another two BESS plants are planned for an area far too prone to wildfire, a community that as already has its residents lose their homeowners insurance as a result of fire potentials, adding a BESS again presents a community with an unacceptable risk. It is clear to residents of communities across the world that having a BESS facility is detrimental to the safety of their communities.

A BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act. The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development *shall* protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic “Morro Rock,” at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The “rock” and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

A BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species. Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters’ sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the

draft EIR does not identify this significant impact. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

Fire protection and emergency response strategies were not addressed in the draft EIR. According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the “external costs” of the BESS will be borne by the citizens of Morro Bay.

The DEIR must be rewritten and recirculated for our comments. The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. Since alternative #5 is a substantially different project with important differences in the impacts, if there is a change to that alternative, the applicant must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore, as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Mary L. Watt
Morro Bay, CA

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Comments on BESS

Jennifer Burke <[REDACTED]>

Mon 5/27/2024 11:32 PM

To: BESS Comments EIR <besscomments@morrobayca.gov>

[You don't often get email from [REDACTED]. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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May 25, 2024

City of Morro Bay

Attn: Kim Fowler Interim Planning Manager

955 Shasta

Morro Bay, CA

To whom it may concern regarding public comments on proposed BESS project:

I would like to express my concerns over the proposed BESS (Battery Energy Storage System) project in Morro Bay, California. I feel strongly that Morro Bay is the wrong site for this project.

Firstly, there are obvious safety concerns. Should there be a battery explosion, toxic gases will be released into the air and circulate over the entire city as well as the bay. One cannot apply Arroyo Grande's wind pattern and apply that to Morro Bay. Morro Bay's weather is frequently windy and the air shifts all the time. In fact, Hwy 41 is considered a wind tunnel for Morro Bay's fog spreading inland. We know evacuation of the city is not possible in a timely fashion as egress highways are mostly 2 lane and last year during flooding the highways were closed. The Vistra power plant was submerged with the flooding last year as well. The power plant is adjacent to the high school exposing a concentrated number of youths to a risk of toxic fumes and permanent lung damage that affect them for life. Millions of tourists visit Morro Bay and they are at risk as well. There is no contingency for people sheltering in place in event of an explosion, assuming everyone's house is fully airtight (who would pay for bills to ensure this?). How long can the elderly stay in houses without medical or basic needs assistance? What happens should someone require emergency attention— do you just expect them to die while in shelter? That is unacceptable! What happens in the event of an explosion that releases toxic gases for days? Is it reasonable to expect everyone to rearrange their entire lives for days or weeks?

Salt air is highly corrosive to batteries— we have witnessed regular batteries corroding just in our houses over time. Morro Bay citizens have had to shoulder the expense of moving our water treatment facility away for the coast. How is the world's largest BESS facility allowed to built right next to the shore with rising sea levels? And what happens when a tsunami hits??? We know that other much smaller BESS sites have had battery explosions in this state and across the country. So it is safe to say that it will be a question of when and not if there will be a battery explosion.

Secondly, these toxic gases are also even more concerning to wildlife. Morro Bay is a bird sanctuary. Birds lungs are exquisitely sensitive to toxic gases and being coastal birds they would be rapidly exposed. Furthermore, newly hatched birds would be unable to fly away from danger. Likewise, marine life would be affected. Endangered peregrine falcons and sea otters as well as other species that are already dwindling in numbers are at risk of further decline with the building of this BESS project.

Thirdly, besides the very concerning health risks associated with having a BESS facility in Morro Bay, how will having such a facility affect homeowners and their ability to procure homeowners' insurance once the BESS site is built? Will it raise insurance rates? Will it lower property values and affect homeowners' ability to sell their houses in the future? Likewise if property values drop it will stand to reason so will property tax revenue. Who will bear the burden of property clean up of toxic residue when there is a substantial battery explosion as it will continue to remain toxic and dangerous for homeowners to clean it up themselves. (Think of the toxic fumes on the derailed train in Ohio that polluted the environment for weeks...)

Fourthly, think of how this facility will impact tourism. Once there is an explosion, it will keep tourists from visiting our city. Then lost revenue will exceed any financial gain we might receive from Vistra. People will not want to visit the rock from afar and look at a massive battery storage site.

These are all valid concerns not being addressed in the consideration of building this BESS. These and many other concerns are being swept under the rug placing all of the citizens of Morro Bay and the wildlife in this very special place, in danger. Vistra only cares about its financial bottom line. If the BESS site is not safe enough for its employees to reside on site, then how is it safe enough for us? It seems like they could have chosen a much safer location, where there are minimal residents, not thousands of residents with a million-plus tourists annually.

Sincerely,

Jennifer Burke, DVM



Morro Bay, CA 93442

Battery storage facility, Morro Bay, Location, location, location!

debbie highfil <[REDACTED]>

Mon 5/27/2024 10:03 AM

To: Planning Commission <planningcommission@morrobayca.gov>

Some people who received this message don't often get email from [REDACTED] [Learn why this is important](#)

CAUTION: This is an external email. Please take care when clicking links or opening attachments.

Dear chairman and commissioners,
please keep in mind the real estate mantra:

Location, location, location!

Whereas a BESS installation may be a great idea in the right location, the right location is *not* in the middle of a small town near a busy harbor.

As I write this, the Otay Mesa BESS fire that started over a week ago is still under surveillance by Cal Fire for any further re-ignitions. The BESS at Otay Mesa experienced the thermal runaway that is typical of these lithium battery fires.



The Draft EIR that was submitted by Vistra is inadequate and incorrect in many ways. The volume of pollutants that will be released (when the inevitable fire occurs) was based on only a 24 hour period and did not calculate the omnipresent winds that we have on the Central Coast. As was seen in the fires at Moss Landing and Otay Mesa, the fires go on for many days - never a 24 hour period only.

The second thing that is dear to my heart is the fact that we have a nursery in Morro Bay waters for the endangered species, sea otters.

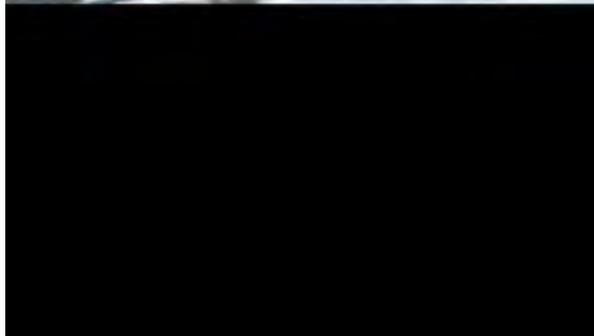
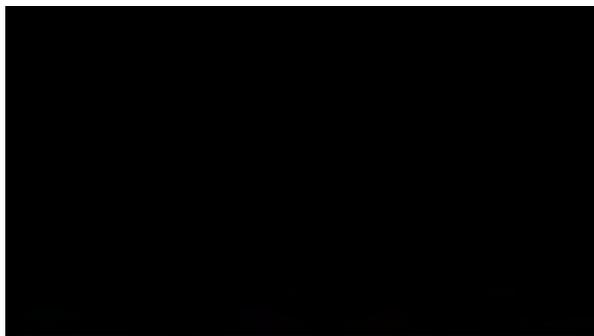
As you probably know, sea otters are an extremely sensitive species. They rest and sleep for an average of 11 hours per day. Three or four years of noisy, dust producing construction right across the street from where the nursery is often located will cause them to be stressed. Not to mention what will happen when there is a fire.

It is illegal to cause harm to an endangered species.

This alone should end the idea of this project.

A big, controversial project in the middle of a small city with a busy harbor should be denied.
Please use your power to do so.

Thank you,
Debbie Highfill.



Public Comment to BESS Environmental Impact Report

Adrienne Frost <[REDACTED]>

Mon 5/27/2024 9:51 PM

To: Planning Commission <planningcommission@morrobayca.gov>

Cc: Adrienne Frost <[REDACTED]>; Amanda Frost <[REDACTED]>

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City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: Our public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are long-time residents of Morro Bay and we are opposed to the BESS project proposed for Morro Bay. We ask you to not certify the EIR and deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. We are very concerned and our fears are justified by what is happening now at the Gateway BESS facility in Otay Mesa, California.

Following are our public comments to the draft EIR submitted by the City and its consultants:

On May 15, 2024, a module of lithium-ion batteries ignited in a 250 MW BESS "Gateway" facility in Otay Mesa, near San Diego. Firefighters barricaded a 600 foot perimeter as they detected toxic, corrosive gasses, including hydrofluoric acid, in that area. A HAZMAT team and bomb squad were dispatched, and 40 firefighters have been working around the clock to keep the fire contained. The fire was believed to be extinguished, but it reignited itself multiple times over the next week and is still burning. The Otay Mesa BESS situation is a textbook thermal runaway and an example of what could happen here, except that in Morro Bay it would be an unmitigated disaster due to **the location of the project site.**

Robert Rezende, battalion chief and the Alternative Energy Emergency Response Coordinator for the San Diego Fire-Rescue Department, said he wasn't surprised the fire keeps reigniting because that's common with lithium-ion batteries and the fires can last for an undetermined amount of time. The company that owns and operates the Gateway BESS facility, Rev Renewables, indicated this type of thermal runaway event was not unexpected. The evacuation order for some commercial businesses (Otay Mesa Gateway facility is not in a residential area) was for a larger area, and stated:

"This evacuation order requires immediate movement out of the affected area due to an imminent threat to life. All persons in the impacted area should prepare to evacuate. Evacuation order means there is extreme danger in your area. You must leave now; do not wait. Contact your neighbors and share information."

Cal Fire Capt. Brent Pascua stated that these thermal runaway events can last anywhere from seven days to a couple of weeks, but firefighters are planning for *two to four weeks*, and then they will "reevaluate."

If the Otay Mesa BESS runaway fire were in Morro Bay, it would have devastating consequences. In Morro Bay, within 600 feet of the project site are homes, numerous restaurants and shops, residents, tourists walking around, riding bikes, paddling and surfing; the endangered sea otter nurseries, the endangered western snowy plover and other nesting birds, and many protected species. An evacuation order would likely encompass the entire city. Wildlife would be killed, nests abandoned, and tourists gone for good. Firefighting assistance from neighboring jurisdictions may not be able to access the facility due to gridlock during evacuation. Residents and visitors may be sickened from the toxic fumes. Elderly residents may have trouble evacuating. All of this would be due to the location of the project and could be avoided if the project were moved to a suitable location.

Otay Mesa raises some important questions. What will those toxic fumes do to a small community, visitors and the wildlife? How will we evacuate from Morro Rock and the Embarcadero and where will we go for several weeks? How much water does it take to douse a thermal runaway event 24/7 that lasts for several weeks? Where is that water going to come from? Where do school students in high school and elementary school go to learn for several weeks? Where does the contaminated water go after it is used for fire suppression? Where do 40 firefighters come from since we only have a fraction of that number here in Morro Bay? There are many, many more questions.

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Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses - This facility requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development *shall* protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic "Morro Rock," at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The "rock" and quiet harbor attracts thousands of visitors year round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay.

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires, the single most important and dangerous impact. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. Since alternative #5 is a substantially different project with important differences in the impacts, if there is a change to that alternative, the applicant must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

*Construction of BESS will take over 3 years, at minimum, and will negatively impact our community and visitors- **If the BESS is constructed, we will be exposed to years of construction interruptions, blockages, noise and vibrations, as well as ongoing noise from the BESS while in operation. There is also high potential for expansion to the initial project footprint soon after the initial implementation. Seafood restaurants, shops and beaches are directly across the Embarcadero, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of this city. Long-time visitors will start avoiding Morro Bay. It stands to reason that Morro Bay's attractiveness as a get-a-way spot will severely decline thus business declines and property values decline. Once BESS is constructed, and more than likely expanded, it will never go away.***

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore as a community we expect to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism and property values. After having seen what is happening in Otay Mesa and the true impacts due to the proposed project location being revealed to our community, we believe the agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

We HOPE that good sense will prevail.

Sincerely,

Jack & Adrienne Frost

Amanda Frost & Sam Francis & Anson

May 27,2024

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, CA 93442
BESScomments@morrobayca.gov

I am not a proponent of the current lithium ion BESS plant location in Morro Bay, California. It is certainly not going to be a tourist attraction and will be a boost of funds for the City of Morro Bay, but at what cost?

Expect the worst and hope for the best. In this case, prepare for the worst and hope it's not life threatening.

Moss Landing, California has a very similar scenario but on a smaller scale than initially proposed in Morro Bay.

Here are some questions after brief review of EIR presentation:

Removal of stacks and Power Plant Building, but what about the structure on the waterfront?

And, is there a timeline on the demolition of stacks and structures?

The stacks at the Moss Landing site were supposed to be removed but still remain. Even after completion of the BESS.

What are some options available alternative battery storage?

Has Vistra Energy even researched alternate batteries?

With today's technology safer batteries for storing and delivering energy are available.

Lithium ion batteries are toxic and susceptible to overheating and creating intense fires that are near impossible to put out.

We could have another Moss Landing incident (fire) occur during and/or after the completion of the BESS.

What type of emergency procedures need to be in place for the kind of disaster that could happen at a battery/electric plant?

What about a buffer zone for toxic fumes or gases to dissipate?

There is not much of a buffer zone around the proposed BESS site.

Vistra Energy states they have no other properties to locate a BESS. Since most of the stored energy goes elsewhere from Morro Bay, could there be sites near or along PG&E's power grid and substations where a land deal brokered with PG&E, Vistra Energy and others (State of California?) for an alternative location that is a less sensitive area, but still accessible?

I hope these are a few items on everyone's mind.

We will continue to follow the process and move Morro Bay in the right direction

Concerned citizen of Morro Bay

Fwd: Public comment on the BESS Environmental Impact Report.

Home < [REDACTED] >

Tue 5/28/2024 7:45 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 1 attachments (32 KB)

lithiumionbattery.docx;

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Dear Ms Fowler

Please see my comments on the Bess eir below. I must have made a mistake on your email address last night

Sent from my iPhone

Begin forwarded message:

From: Michael Messenger <[REDACTED]>
Date: May 27, 2024 at 10:56:49 PM PDT
To: BESScomments@morrobay.ca.gov
Subject: Public comment on the BESS Environmental Impact Report.

Dear Sirs, Please find my comments on this Environmental impact report attached along with my recommendations to significantly improve the scope and usefulness of this analysis to the City of Morro Bay.

--

Thanks

Michael Messenger
[REDACTED]

Michael Messenger

Henderson, NV 89052

Dear Ms. Fowler,

Summary

I am a retired energy consultant who spent 40 years analyzing alternative energy generation options, resource plans and efficiency programs for both the State of California and as an energy consultant at Itron. I frequently visit my friends who live in Morro Bay and as a result I just recently learned about the City's plan to construct a battery energy storage system at the old site of the PG&E power plant in Morro Bay. They asked me to review the EIR and bring my experience to this table.

I recognize there is a significant need for developing more energy storage in the California grid system to support both more renewable energy facilities and lower outage levels. The key question is where to site these BESS systems that could minimize the risk and maximize the benefits for Californians, not just those living in Morro Bay. This EIR does not even analyze the risks or costs lithium-ion battery fires in Morro Bay, which is a fatal flaw given its proximity to downtown Morro Bay.

As a result, it is imperative that a revised EIR on the proposed BESS facilities include a comprehensive analysis of other alternative storage sites and even other energy storage systems to ensure the benefits of these storage systems exceed the cost at the regional and local level. In my judgement, this EIR has failed to provide a comprehensive analysis of alternative systems and or sites and as a result should be redone to include a more comprehensive analysis of fire risks, the costs of containing them and the benefits of storage systems for at least three significant storage systems. It should be rewritten after some additional analyses are conducted. In these comments I try to identify what types of analysis might be useful for the Project Applicants and the City of Morro Bay to conduct.

1. The City of Morro Bay needs to examine the pros and cons of alternative sites for the lithium-ion battery storage facility

I was surprised when I reviewed this document that there was very little analysis, if any, of the possible pros and cons of using alternative sites for this energy storage facility. It seems sensible to place an important but potentially dangerous storage facility much farther away from the local population center but still close to the transmission connection hub. Locating this battery plant even 2 miles from the current site (along the coast or inland) probably would significantly reduce the monetary damages and potential loss of human life from any fires which escaped beyond the lithium ion battery storage plant boundaries. Since fires from lithium-ion batteries are a known risk (lithium-ion battery fires killed over 100 people last year alone) one would hope that a study of alternative siting options would weigh the costs of moving the storage facility

farther away from a population center with the benefits of reduced risk of property damages and loss of human life and or costly injuries. No such analysis was presented.

2. The City of Morro Bay needs to better understand the costs and benefits of alternative fire suppression strategies for lithium-ion storage facilities design to reduce the possibility of a chemical fire spreading to local buildings, Schools, and hotels adjacent to this site.

I imagine there are many ways to ensure that potential fires inside this battery storage facility could be prevented from spreading to the local downtown area and or the local ecosystem. I can find no such analysis in this document. Even something as simple as exploring the costs of clearing open spaces around the facility, erecting walls, or maybe even building walls of sand built around the facility might be useful in reducing the risk that chemical fires might spread to the downtown area or block traffic on Route 1.

On May 15, 2024, a module of lithium-ion batteries ignited in a 250 MW BESS "Gateway" facility in Otay Mesa, near San Diego. Firefighters barricaded a 600 foot perimeter as they detected toxic, corrosive gases, including hydrofluoric acid, in that area. A HAZMAT team and bomb squad were dispatched, and 40 firefighters have been working around the clock to keep the fire contained. The fire was believed to be extinguished, but it reignited itself multiple times over the next week and is still burning. I strongly recommend that someone from Morro Bay contact the responsible city officials in Otay Mesa and set up a call to discuss lessons learned, particularly about any techniques used to stop the spread of the fires and the extent to which toxic fumes put local residents in danger.

Bottom Line The City of Morro and its consultants need to carefully review and study the lessons learned from recent lithium-ion battery fires that occurred just recently at the Gateway BESS facility in Otay Mesa, California. (Reference 1 "Energy storage fire near Otay Mesa calms down after 10 days", ABC news, San Diego CA.. <https://www.10news.com/news/local-news/energy-storage-fire-near-otay-mesa-calms-down-after-10-days>

3. The City of Morro Bay should consider siting this facility in either a remote area inland or at an established industrial site.

The Otay Mesa fire did not spread to any surrounding residential, or commercial areas because it was consciously sited and designed to be in an industrial area. The City of Morro Bay will not have these built-in siting protections because there are many homes, restaurants, and shops within 600 feet of the site.

If a fire breaches the wall of this facility, how quickly could residents be evacuated and at what cost to themselves? How many downtown residents and or tourists are likely to be adversely affected by the toxic fumes from the fire? Does the project applicant or the city fire department have a plan? What would be the long-term impact on the tourism industry if one or more restaurants burned to the ground? In

sum, the Otay Mesa BESS fire is an example of what might happen in Morro Bay and the City needs to investigate if there are simple and low cost steps that could be taken to dramatically reduce the risks of fires breaking out at the new facility. I could find no such analysis in this EIR.

Bottom line small single use lithium-ion batteries were responsible for over 200 fires and 49 deaths in the United States alone in 2023. According to the U.S. Consumer Product Safety Commission, at least 25,000 fire or overheating incidents in lithium-ion batteries occurred in the last five-year period. Imagine how much greater this thermal runaway risk might be in this battery storage facility where literally hundreds of lithium-ion batteries are working together in close proximity, significantly increasing the risk of thermal explosions in one battery triggering a chain reaction in adjacent batteries at the plant. This risk should be quantified, not ignored.

- 4. *The City of Morro Bay needs to understand that lithium-ion battery fires must be extinguished using different firefighting techniques than those used for “normal” fires because they often reignite themselves. As a result, the costs and benefits of new or at least different firefighting strategies need to be explored within a revised EIR.***

Robert Rezende, battalion chief and the Alternative Energy Emergency Response Coordinator for the San Diego Fire-Rescue Department, said he wasn't surprised that the Otay fire keeps reigniting because that's common with lithium-ion batteries and the fires can last for an undetermined amount of time. The company that owns and operates the Gateway BESS facility, Rev Renewables, indicated this type of thermal runaway event was not unexpected. Cal Fire Capt. Brent Pascua stated that these thermal runaway events can last anywhere from seven days to a couple of weeks, but firefighters are planning for *two to four weeks*, and then they will “reevaluate.”

- 5. *The Draft EIR does not analyze what level of water and human firefighting resources would be needed to extinguish a fire at this facility and whether these resources can be mobilized quickly to put potential fires out quickly.***

The fire at Otay Mesa that started on May 15, 2024 raises some important questions for Morro Bay. What will those toxic fumes from these fires do to the lungs and health of a small community and the wildlife? How will we evacuate from Morro Rock and the Embarcadero and where will we go for several weeks? How much water does it take to douse a thermal runaway event 24/7 that lasts for a few weeks? Where is that water going to come from? Where do school students in high school and elementary school go to learn for several weeks? Where does the contaminated water go after it is used for fire suppression? Where do 40 firefighters needed to combat such a chemical blaze come from since we only have a fraction of that number on staff?

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses – It is highly likely that this type of a energy storage facility requires an

industrial location to operate safely. In fact the project applicant should provide a summary of where all the current lithium ion battery storage sites are located and if they are zoned industrial. One might think that battery energy Storage facilities should not be located in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. If there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide.

The city's consultant should analyze what is the statistical likelihood of a fire at this new facility given the incidence of fires at the existing 2300 MW of lithium-ion battery storage facilities in California? Perhaps the consultant could estimate the likely number of fires started over a twenty-year period and the dollars of damage done a per MWH delivered or MW capacity. Water mist has proven to be effective for containing a lithium-ion battery fire, but a copious amount of water and time is required. Additionally, lithium-ion batteries extinguished with plain water have a documented history of re-ignition. (Reference 2) Source -<https://hct-world.com/how-to-put-out-a-lithium-ion-battery-fire/#:~:text=Water%20mist%20has%20proven%20to.documented%20history%20of%20re%20ignition>city basis.

Alternative Fire protection options and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published.

Conclusion The DEIR must be rewritten to include additional analyses of the costs and benefits of moving this battery storage facility to alternative sites where runaway fire events will not pose such catastrophic risks to the city of Morro Bay. Moreover, the costs and benefits of using different types of energy storage such as pumped storage facilities should also be explored.

The draft EIR, as written, does not inform the public of the costs and damages experienced at any of the lithium-ion battery energy storage fires to date, the single most important and dangerous impact for Morro Bay. Nor does it discuss the estimated level of benefits that would accrue to the Morro Bay or provide any analysis of the net value of the new energy storage plant to the PG&E grid system. A much more balanced treatment of the potential benefits and costs of this new facility is urgently needed to ensure the City of Morro is making the best decision for current and future residents of the city.

Sincerely

Michael Messenger

Public comment to BESS Environmental Impact Report

Krista Rooney <[REDACTED]>

Tue 5/28/2024 7:47 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

 5 attachments (7 MB)

IMG_2897.jpeg; IMG_2966.jpeg; IMG_2860.jpeg; IMG_2535.jpeg; IMG_2293.jpeg;

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City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

We are locals who grew up here and are now raising our children here too and we are strongly opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and ask you to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants. We are very concerned and our fears are justified by what is happening now at the Gateway BESS facility in Otay Mesa, California.

On May 15, 2024, a module of lithium-ion batteries ignited in a 250 MW BESS "Gateway" facility in Otay Mesa, near San Diego. Firefighters barricaded a 600 foot perimeter as they detected toxic, corrosive gasses, including hydrofluoric acid, in that area. A HAZMAT team and bomb squad were dispatched, and 40 firefighters have been working around the clock to keep the fire contained. The fire was believed to be extinguished, but it reignited itself multiple times over the next week and is still burning. The Otay Mesa BESS situation is a textbook thermal runaway and an example of what could happen here, except that in Morro Bay it would be an unmitigated disaster due to the location of the project site.

Robert Rezende, battalion chief and the Alternative Energy Emergency Response Coordinator for the San Diego Fire-Rescue Department, said he wasn't surprised the fire keeps reigniting because that's common with lithium-ion batteries and the fires can last for an undetermined amount of time. The company that owns and operates the Gateway BESS facility, Rev Renewables, indicated this type of

thermal runaway event was not unexpected. The evacuation order for some commercial businesses (Otay Mesa Gateway facility is not in a residential area) was for a larger area, and stated:

"This evacuation order requires immediate movement out of the affected area due to an imminent threat to life. All persons in the impacted area should prepare to evacuate. Evacuation order means there is extreme danger in your area. You must leave now; do not wait. Contact your neighbors and share information."

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Please consider and ensure future generations can enjoy this bird and wildlife sanctuary safely for decades to come!

Sincerely,
The Rooney Family

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Public Comment to BESS draft EIR

Antje Colby <[REDACTED]>

Tue 5/28/2024 8:21 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Council <Council@morrobayca.gov>; Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>; MorrobayEIR@gmail.com <MorrobayEIR@gmail.com>

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May 28, 2024

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Ave

Morro Bay, CA 93442

BESScomments@morrobayca.gov

Re: My public comment to Draft EIR for Battery Energy Storage System (BESS) proposed project in Morro Bay

Dear Ms. Fowler,

I became a frequent visitor to Morro Bay 3 years ago when my daughter began attending Cal Poly and when a family member moved to Morro Bay. My family and I have fallen in love with its rustic natural beauty, the abundant wildlife, and its kind citizens and visit many times each year, always staying at the Inn at Morro Bay. I was shocked to hear that a BESS facility is considered being built in the stacks area by the harbor. From what I have seen personally and after doing a little research, Morro Bay is absolutely not the place to house a facility like this because of the impact on a fragile, diverse, unique ecosystem and the potential harm that would be inflicted on the citizens and daily visitors during a fire. The impact of building a BESS in this area would have devastating consequences, not only in case of a fire of an existing facility, but also during demolition of the old structures, construction, and daily operation of a new facility.

Thermal runaway

I am not a chemical engineer, but I am a scientist (cell biologist), and from what I understand having a lithium-ion battery facility near areas of salt water could be absolutely detrimental, resulting in fires which release extremely toxic gases and can take weeks to extinguish, putting fire fighters, citizens, and wildlife in extreme danger. It is quite often windy in Morro Bay and the spread of toxic gases would be hard to contain and could easily travel to larger areas and surrounding communities. Earthquakes are not uncommon and it would only take one incident of a large wave or backflow of saltwater from a nearby creek to seep into the BESS facility. Even without saltwater contamination, defective lithium ion battery cells are known to ignite spontaneously which can lead to ignition of neighboring cells and cause disastrous thermal runaways. The geography of the harbor area is such that citizens including nearby high school students, and visitors near the rock and the harbor restaurants could be trapped during a fire. There are few roads into and out of Morro Bay and efficient and timely evacuations are hard to

imagine. It is also not hard to imagine that the fire spreads quickly up into the surrounding hills which are often covered with dry grasses.

Impact on wildlife

Morro Bay Harbor and the surrounding areas are home to incredibly diverse and abundant wildlife. The otters in the nearby harbor are an absolute delight for citizens and visitors alike and probably inspire many young people to become wildlife biologists and at the least to appreciate and protect these delightful creatures that play an important role in the ecosystem. I have also seen seals (or sea lions), pelicans, herons and countless other birds, schools of fish and whales all in close proximity to the proposed site. I can only imagine how the vibrations of drilling during construction, the ongoing noise during construction and operation, and the potential contamination of water and soil during demolition of the old facility and construction of the new BESS impact the nesting, mating, and normal behavior of the abundant species in close proximity. Affecting the behavior and survival of even just one species can have devastating consequences on the larger ecosystem, especially in a unique coastal area like Morro Bay.

A BESS facility does not belong in a fragile coastal area that includes nearby creeks, estuaries, bird rookeries and a protected harbor, all homes to diverse and abundant species of wildlife. Construction and daily operation would have continued long term impact on wildlife, tourism, and the well-being and safety of citizens.. Furthermore, it would only take one event of a thermal runaway to result in devastating consequences to firefighters, shopowners, neighbors including nearby high school students, surrounding communities and daily visitors; consequences include being trapped, the inability to quickly evacuate, inhalation of toxic fumes potentially for weeks, burn injuries, the destruction of homes and nearby businesses, fire of surrounding grasslands, and loss of tourism.

I hope the City of Morro Bay and all the agencies that have oversight refuse to allow a BESS facility to be built and as a frequent visitor and parent to a college student nearby express my utmost concern on this issue. I ask you not to certify the EIR and ask you to deny the BESS project.

Sincerely,

Antje Colby
Emerald Hills, CA

Public comment to BESS Environmental Impact Report

Debi Thoresen <[REDACTED]>

Tue 5/28/2024 8:22 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: Sarah.MacGregor@coastal.ca.gov <Sarah.MacGregor@coastal.ca.gov>; Council <Council@morrobayca.gov>;

PlanningCommission@morrobayca.gov <PlanningCommission@morrobayca.gov>

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Dear Ms. Fowler,

We are residents and visitors of Morro Bay and the surrounding communities, and we are opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR, and ask you to deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment. These are our public comments to the draft EIR submitted by the City and its consultants. We are very concerned and our fears are justified by what is happening now at the Gateway BESS facility in Otay Mesa, California.

The EIR reports a fire limited to a 24 hour period. The chemicals that will be released into the air during a fire is insufficient. It does not adequately address control of the fires, when they do occur. It fails to address the contaminants that will pollute our creeks and ocean. It completely lacks an adequate plan of evacuation for the residents and visitors in the city of Morro Bay. It does not address the wildlife, including the endangered, thriving population of sea otters, nor the approximately 250 species of birds living in Morro Bays National Bird Estuary.

The proposed 24.5 acre site identified by Vistra to place the largest battery storage site in the world is woefully unacceptable. This site has extremely limited access to roads, with highways 1 and 41 being the only way in and out. Morro Bay's population of about 10,770 expands regularly with the over 800,00 annual visitors.

Morro Bay is in a Tsunami zone. A year ago, most of the roads surrounding the town, as well as within the city were flooded, resulting in many people being trapped wherever they happened to be. Placing the proposed BESS, with its known fire dangers at a site that people and wildlife would be trapped is unacceptable given the loss to life, pollution and damage to the waterways and ocean.

Please protect the gem that is so amazing as the area of Morro Bay. Our residents deserve more than a total disregard for our safety.

Place this BESS out of a town, away from a thriving population of otters (depleted species, as identified by the Marine Mammal Protection Act), adjacent to Morro Bay's National Bird Estuary. Morro Rock is a favorite landmark to visit. Don't set a trap for us while we are on the Embarcadero and fire explosions happen. Our schools deserve a community that protects their welfare.

Choose a more appropriate site. Morro Bay is not it.

Thank you,

Debi Thoresen

Public comment to draft EIR for BESS in Morro Bay

Melody Bullis <[REDACTED]>

Tue 5/28/2024 9:41 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>

Cc: sarah.macgregor@coastal.ca.gov <sarah.macgregor@coastal.ca.gov>; Council <Council@morrobayca.gov>; Planning Commission <planningcommission@morrobayca.gov>

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City of Morro Bay

Attn: Kim Fowler, Interim Planning Manager

955 Shasta Avenue

Morro Bay, California 93442

BESScomments@morrobayca.gov

Dear Ms. Fowler,

As a resident, homeowner and tax payer in Morro Bay since 2011, I am opposed to the BESS project proposed for Morro Bay and ask you to not certify the EIR. I ask that you deny the project. The draft EIR is inadequate in identifying the potential impacts to the community and environment.

Construction of BESS will take over 3 years and will negatively impact our community - If the BESS is constructed, we will be exposed to years of construction noise and vibrations. From 2 miles away I can hear the barking of sea lions from the west as well as the cheers from the high school football games from the north. Sound carries. Vibrations carry. The noise and disruption from the BESS construction will be untenable for many, myself included. The tourism economy that many in our community rely on to live will suffer greatly. Visitors will avoid coming to an area that is under construction of this magnitude. The local wildlife that is so beloved and brings visitors from all over the world will be adversely affected by the construction. Otters for example often alert and change direction when there is conversation within earshot.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses - This facility requires an industrial location to operate safely. It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. The winds here can be fierce. The winds will carry these toxins for miles. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community should not be subjected to. Any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act - The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay attracts thousands of visitors from around the world year because of the natural beauty which is unique to Morro Bay. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species - Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant impact. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

Fire protection and emergency response strategies were not addressed in the draft EIR - According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police Department, who may not have adequate resources, equipment or training. All of the "external costs" of the BESS will be borne by the citizens of Morro Bay.

The DEIR must be rewritten and recirculated for our comments - The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires, the single most important and dangerous impact. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site.

Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. Since alternative #5 is a substantially different project with important differences in the impacts, if there is a change to that alternative, the applicant must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

Sincerely,

Melodye Bullis
Morro Bay, CA

Battery Storage Plant

Joe DeFelice <[REDACTED]>

Tue 5/28/2024 10:09 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>; concil@morrobayca.gov <concil@morrobayca.gov>;
planningcommission@morrobayca.com <planningcommission@morrobayca.com>

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Hi,

I've been a regular visitor to Morro Bay for a number of years. I just wanted to express my concern about building a large battery storage plan there. Despite what the company says on the project's website, I can't believe there wouldn't be a significant safety risk to the community. Just a little research on the internet seems to make that pretty clear. But from the city's perspective, I don't understand how you'd want to risk the revenue from tourism that I have to believe would be affected by having a large plant there. Yes, the old stack are there now, but in a way they give the area a bit of character as a reminder of it's industrial past (not present, not future). Even those, I would think, you'd want to remove at some point. Anyway, I just wanted to provide my perspective, because I love your little town, and would hate to see it's character change so drastically (not to mention putting the people there at increased risk.)

Thanks,

Joe DeFelice

San Mateo, CA

Draft Environmental Impact Report, Vistra Corp. BESS Project

Donald Headland <[REDACTED]>

Tue 5/28/2024 10:41 AM

To: BESS Comments EIR <besscomments@morrobayca.gov>; Council <Council@morrobayca.gov>; sarah.macgregor@coastal.ca.gov <sarah.macgregor@coastal.ca.gov>; Planning Commission <planningcommission@morrobayca.gov>

 1 attachments (3 MB)

Headland Public Comment-DEIR BESS.docx;

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Hello,

Attached you will find our public comments for the DEIR, for *1290 Embarcadero - Vistra Battery Energy Storage System (BESS), #CDP20-026/CUP20-14*.

Our letter is in opposition to this project due to the possible risk of the health and safety of residents, tourists, wildlife, and the Police/Fire Department personnel in the event of a fire if this building application is approved.

Thank you for taking the time to read our comments.

Respectfully,

Donald and Kristen Headland

City of Morro Bay
Attn: Kim Fowler, Interim Planning Manager
955 Shasta Avenue
Morro Bay, California 93442
BESScomments@morrobayca.gov

Dear Ms. Fowler,

My husband and I have a home in North Morro Bay, we have lived here for over thirty-two years. We have extended family that live in Cayucos and Los Osos. We are concerned for the safety of our family, residents, tourists and the wildlife.

We are opposed to the Battery Energy Storage System (BESS) project in Morro Bay and ask you to NOT certify the Environmental Impact Report, and deny the project. The draft EIR is inadequate in identifying the potential impacts to our community and environment.

Enclosed are comments for the Draft Environmental Impact Report for the Battery Energy Storage System (BESS), located at 1290 Embarcadero Road, by Vistra Corp., # CDP20-026 / CUP20-14 in the City of Morro Bay

We have a great appreciation for the clean air and clean ocean water, the abundance of wildlife, our environmentally sensitive estuary, friendly residents and tourists. The City of Morro Bay offers many recreational activities like surfing, observing sea otters and sea lions near Morro Rock, the many different bird species that migrate, live and roost in trees along the coast, hiking, biking, our harbor with many restaurants and boutique shops, Morro Bay movie theater, public parks, pickle ball and tennis courts, a skateboard park, youth and adult league baseball games at our local park, boating activities for fishing and whale watching, and over five miles of beaches for everyone to enjoy. Visitors come from all over the world to visit our safe, charming coastal town to enjoy what our location has to offer. See attached A- Recreational Attractions.

The BESS on the power plant property is an infringement of the citizens' vision of the future of Morro Bay. The PG&E power plant was decommissioned in 2014. In 2021, the city drafted "Plan Morro Bay" which outlines our vision for the future of Morro Bay, and changed the "industrial" land use designation for the power plant property to "Visitor Serving/Commercial". The vision for our city set forth in the Plan does not include battery storage.

Construction of BESS will take over 3 years and will negatively impact our community. If the BESS is constructed, we will be exposed to years of construction noise and vibrations, as well as ongoing noise from the BESS while in operation. Seafood restaurants, shops and beaches are directly across from this

proposed project, and the noise and vibrations will create a severe adverse impact on those businesses and on the economic vitality of our city.

Lithium-ion batteries have a history of spontaneous ignition and releases of toxic chemical gasses. This facility, projected to be the largest in the world, requires an industrial location to operate safely.

It should not be in the heart of a tourist town, nor adjacent to a national estuary. The project site is in a flood and tsunami zone, creating an extreme fire risk due to saltwater exposure to lithium-ion batteries. When there is a battery fire, residents, visitors and wildlife in Morro Bay will be exposed to highly toxic plumes containing hydrogen fluoride, hydrogen chloride, hydrogen cyanide, and carbon monoxide. Safe evacuation from such a fire will be impossible. If a BESS is built here, our peace of mind, our safety and security, and all of what we love about Morro Bay will be threatened or destroyed. BESS on the Embarcadero in Morro Bay involves health and safety risks that our community is not willing to take, and any agency that certifies this EIR and ultimately approves this project would be recklessly placing the citizens and visitors of Morro Bay in danger. See attachment B -Flood Map and Tsunami Zone.

BESS on the Embarcadero in Morro Bay would be in conflict with the California Coastal Act. The proposed BESS land is in the coastal zone and is protected by the Coastal Act of 1976. The Coastal Act requires that new coastal development shall minimize adverse impacts in areas of high geologic, flood and fire activity; but the project site, located in a flood and tsunami zone, would actually amplify such risk. Also, under the Coastal Act, new development shall protect special communities and neighborhoods with unique characteristics that are popular visitor destination points for recreational uses. Morro Bay is unique for its iconic "Morro Rock", at 576 feet tall it is the remnant of a volcano and currently a peregrine falcon sanctuary. The "rock" and quiet harbor attracts thousands of visitors year-round for art shows, surf contests, our kite festival, marathons, the witches paddle, car shows, kayaking and boating, fishing, annual bird festival and more. The Coastal Act also prioritizes coastal-dependent development, which battery storage is not.

BESS on the Embarcadero in Morro Bay would threaten sensitive habitat and endangered species. Morro Bay provides habitat for many sensitive and endangered species. The proposed project site and vicinity borders the national estuary and overlaps with Environmentally Sensitive Habitat Areas (ESHA). The sea otters are protected under the Federal Endangered Species Act as a threatened species, and are protected under the Marine Mammal Protection Act and as part of the State Marine Reserve. If the otters' sleep, feeding, breeding success, or their natural behaviors are disrupted due to construction or chemical releases from battery fires, this would be unlawful. This project will impact many nesting birds but the draft EIR does not identify this significant

impact. We ask the city to notify the agencies responsible for the protection of sensitive habitat, endangered species and special status species so they can honor their obligations to protect those species.

Fire protection and emergency response strategies were not addressed in the draft EIR. According to the draft EIR, the fire hazard analysis and safety protocols will be performed by consultants hired by the Morro Bay Fire Department at a later date. By law, all impact and mitigation analysis must be included in the draft EIR, not deferred until after the EIR is published. Additionally, emergency response strategies, including evacuations, shelter-in-place orders, response to terrorist attacks and all other threats will overly burden our local Police and Fire Department and local hospital, who may not have adequate resources, equipment or training. Is our local Emergency Medical Services and medical hospitals trained / with medical supplies and medication to treat people affected by toxins released by air borne thermal runaway from a fire at the proposed BESS project located at 1290 Embarcadero Road? All of the "external costs" of the BESS will be borne by the citizens of Morro Bay. Fire emergency response strategies for an unexpected number of people exposed to toxic thermal runaway vapors are not addressed in the draft EIR. See attachment C- Website links.

The DEIR must be rewritten and recirculated for our comments. The draft EIR, as written, does not inform us of the hazards of lithium-ion battery fires. It discounts the threats to our wildlife and our community. It fails to acknowledge the effects on several Endangered Species whose habitats are adjacent to the proposed project site. Vistra, the property owner, has submitted plans to the City and applied for a permit to build their BESS. The draft EIR was written for this specific design, and no other. However, Vistra officials have indicated that the design of the facility has not yet been determined, and they are considering choosing alternative #5 instead of the current project. Since alternative #5 is a substantially different project with important differences in the impacts, if there is a change to that alternative, the applicant must withdraw the current application and start the process over. For all of these reasons (and many more) the draft EIR must be rewritten and recirculated for our comments.

The BESS is projected to power 450,000 homes; this is 75 times more power than Morro Bay might need in an outage, with our 6,000 homes. This is a profit-driven industry benefiting the developer and the larger metropolitan areas of San Francisco and Los Angeles, but for which Morro Bay will bear the burden. The costs will be high for us; therefore, as a community we demand to be kept informed of the progress of the proposal and allowed to participate in the decision-making process. The significant impacts from this project include fiscal impacts due to the loss of tourism. Once the true impacts due to the proposed project location are revealed to our community, we hope and believe the

agencies responsible will not certify this draft EIR or approve the battery storage project in Morro Bay.

Sincerely,

Donald and Kristen Headland

Donald and Kristen Headland

[REDACTED]

Morro Bay, CA, 93442

CC: Mayor Wixom and Morro Bay City Council; Planning Chair and Commissioners; Sarah MacGregor, Coastal Planner, California Coastal Commission

Attachments:

A - Recreational Attractions

B - Flood Map and Tsunami Zone

C - Website links:

Occupational Safety and Health Administration

<https://www.osha.gov/laws-regs/standardinterpretations/2020-03-31>

Hydrogen Cyanide Exposure: Symptoms – asphyxia, lassitude (weakness, exhaustion) confusion; nausea, vomiting; increased rate and depth of respiration or respiration slow and gasping; thyroid, blood changes.

<https://www.cdc.gov/niosh/npg/npgd0333.html>



Attachment A – Recreational Attractions



Attachment B – 100- and 500-Year Floodplain

Attachment C –

Occupational Safety and Health Administration

<https://www.osha.gov/laws-regs/standardinterpretations/2020-03-31>

Hydrogen Cyanide: Symptoms – asphyxia, lassitude (weakness, exhaustion) confusion; nausea, vomiting; increased rate and depth of respiration or respiration slow and gasping; thyroid, blood changes.

<https://www.cdc.gov/niosh/npg/npgd0333.html>