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Additional submitted attachment is included below.



November 13, 2024

A Speech delivered at B.L.E.S.S.I.N.[™] Community Awareness Meeting Crown Valley Community Center, Laguna Niguel, California

B.L.E.S.S.I.N.™ (Ban Lithium Energy Storage Systems In Neighborhoods) By San Juan Capistrano Resident Michael McGrady

My Path to Becoming a Community Activist

From the very beginning of ENGIE North America's Compass Energy Storage Project, I was outraged, outspoken, and raging with righteous indignation that such an indecent proposal was even being considered.

Nah, not really. I didn't know a thing until a little over a year ago when a concerned neighbor asked what I thought about "the battery project." What battery project!?

But I try to be a good steward of our little neighborhood, which is located right next door to the proposed Compass project, so I said I would investigate it.

How bad could it be, you know at first glance it seems like a clever idea. I have seen those 4-foot Tesla Battery Walls at malls and the like, it sounds like just more of those. A way to store solar energy during the day to be used at night. Makes sense.

So, okay, the Compass project would be like 74,000 of those Tesla Battery Walls, but still, I don't want to be a NIMBY (not in my backyard), this proposed unoccupied facility would just be sitting there, surrounded by a landscaped wall, what's the harm.

But I said I would investigate it and report back to my neighborhood and eventually to the San Juan Capistrano city officials I had spoken with.

My first report to them was in April of this year, when I told them this progressive, green energy idea wasn't as safe and environmentally friendly as first proposed.

I furthered my investigations, learning more about the laws, technology, the global incidents of lithium fire destruction, evacuations, first responder injuries, and the toxic dangers posed to people and the environment.

I learned about the California 2018 state law that requires that, by 2045 all electricity in California is to come from renewable and zero-carbon resources. To achieve this target, new power supplies in the state must be built at a record-setting rate.

And two years ago, the state gave the California Energy Commission authority to permit certain clean and renewable energy facilities in a quick and efficient manner.

The Opt-In Certification Program, as it's known, is a permitting process through which developers can submit project applications, circumventing the local community's authority over design, land use and safety.

These laws opened the latest California gold rush, a gold rush for companies like ENGIE North America, a global energy firm the size of Walt Disney.

I learned about the myriads of lithium battery facility fires, the unquenchable flames that can burn for days, the deadly gases eddying and churning in those rapidly expanding clouds of toxic smoke.

I heard from firefighters like Timothy Vamosi, fire captain and paramedic so concerned he authored a research paper Toxicology of the Lithium Battery Fire for the state of Massachusetts, in it he details the terrible dangers of lithium battery facilities. The fire captain said that when lithium fires do occur, the gases produced are just itching to burn. They may or may not be ignited immediately, leading to the risk of large-scale explosion. When they burn, the batteries release various numbers of toxic substances like CO, CO2, but worse, the batteries contain lithium hexafluorophosphate or other Li-salts containing fluorine.

And there it is...lithium hexafluorophosphate...but no worries, that big old word will burn down nicely to a simpler phrase. Lithium hexafluorophosphate, venting out of those batteries, lusting for just a tiny spark, will violently burn down into hydrogen fluoride. And hydrogen fluoride and its cousin hydrofluoric acid, can be absorbed systemically into the body by ingestion, inhalation, or skin or eye contact.

Batteries are simple things really, and the five components haven't changed for over two hundred years.

- The Container: The battery storage vessel
- Anode: The negative terminal of the battery
- Cathode: The positive terminal of the battery
- Electrolyte: A chemical paste or liquid that allows ions to move between the anode and cathode
- Separator: A porous material that prevents the anode and cathode from touching directly, which could cause a short circuit.

Lithium hexafluorophosphate and the other lithium salts are the electrolytes, the creamy delicious paste inside the battery. If the battery overheats or short circuits, the electrolyte starts to get cranky and wants to get outside the container. When that happens and when it finds the spark it's lusting for, it burns, and not wanting to be lonely, it overheats the neighboring batteries and then their electrolytes get cranky, they want out, they outgas, and then they burn. *And the flaming battery celebration continues – thermal runaway.*

And then you have Interstate 15 shut down completely for two days in July; in September you have schools closed and hundreds of businesses evacuated in Escondido; you have an Otay Mesa battery facility burning for 11 days in May. You have endless stories of first responders being injured or kept away from the flames until they burn themselves out.

I've spoken to many people, and I've researched a great deal since I first dismissed opposition as maybe just NIMBYs afraid of change. I met with Saddleback Church leadership, with ENGIE North America, with Venture Strategic, the Irvine based public relations firm hired by ENGIE to help with the public's understanding and perceptions.

It's a well-known Orange County story, how Hobby Lobby Stores sold the 161-acre Rancho Capistrano facility to Saddleback Church for only \$1. But, regardless of how gratefully Saddleback celebrates Hobby Lobby's generosity, it doesn't do anything about the limited usability of 161 acres of land. Saddleback Church is wrestling with a unique problem.

It costs over \$1,000,000/year to maintain the aging facilities of Rancho Capistrano. For a business or church, unused land makes for an extremely poor investment. They want to fund their ministries, local ministries supporting families and vulnerable children, life skill and mentoring for at-risk teens, the San Juan PEACE Farm growing food and honey from beehives provided to families in need through food distribution, distributing an additional 60,000 pounds of food to a quarter million families.

Saddleback Church has been convinced that the latest iterations of lithium battery facilities are mitigating most of the risks. They say they are members of this community and would never intend to put anyone at risk.

And the persuasion of Saddleback Church leadership has come from Venture Strategic and ENGIE North America. Like Saddleback but perhaps for less altruistic reasons, ENGIE North America is in it for the money, the current California gold rush is on. It's why ENGIE has spent well over \$3,000,000 already, engineering and promoting the Compass project, circumventing the city, and going straight to the state for approval.

But that doesn't make Venture Strategic and ENGIE evil, this is not a battle of right and wrong, but a battle of perceived risks. I have met with these people; they are sincere in their belief that risks are being mitigated.

They want to try to educate, not to persuade.

In this contest of wills, battled at the state level, each party claims to act in accordance with what is good for the environment, the community, and for the country.

Certainly, both of us may be wrong in our convictions, and one of us MUST be wrong.

ENGIE will tell you that the conversion of the cathode material from lithium-ion to lithium iron phosphate is far less likely to cause cranky electrolytes, to cause thermal runaway. But the batteries still burn.

ENGIE will point to Electric Power Research who publishes the "BESS Failure Incident Database." Suggesting that utility-scale BESS has dramatically increased over the last five years while failure incidents as a percentage of installed systems is decreasing.

In other words, the grizzly bears we put in your backyard are not attacking as many people as they used to.

And still, their latest proposed battery design submitted to the California Energy Commission details that each battery pack has twelve sparkers installed, to try to burn those cranky electrolytes before they become explosive, venting the toxic hydrogen fluoride through twenty-six pressure-sensitive overpressure vents out and into our neighborhoods.

And this is what the California Energy Commission thinks of ENGIE's current design.

California Energy Commission Worker Safety and Fire Protection staff's initial review of test results for this type of battery energy storage system (BESS) indicates that the chances for cell thermal runaway are high and for escalation to a unit or units are moderately high. Potentially significant impacts to worker safety and fire protection and public health could result from a fire in a BESS producing toxic gas emissions to the atmosphere, with limited site and fire water access, and the proximity to populations, sensitive receptors, railways, and heavily traveled highways or roadways.

[END QUOTE]

We do think that the pursuit of lithium battery storage systems and engineering improved safety standards are necessary steps as we continue to migrate to an electrified nation. But problems still will occur, so WHERE we place these systems matters.

But what do we do next ...what to do next.

Two hunters are out in the woods when one of them collapses. He doesn't seem to be breathing, and his eyes are glazed. The other guy whips out his phone and calls the emergency services. He gasps, "My friend is dead! What can I do?" The operator says, "Calm down. I can help. First, let's make sure he's dead." There is a silence; then a gunshot is heard. Back on the phone, the guy says, "Okay, what do I do next?" What do we do next?

I shared my path to becoming a community activist, you are already one by being here tonight. You can write an e-comment to the California Energy Commission, you can sign up on the mailing list, you can join one of the breakout sessions, you can donate financially to B.L.E.S.S.I.N.[™]. Even just doing your own research makes you a community activist.

In Closing...

Friends, my fellow members on this B.L.E.S.S.I.N.[™] advisory committee are optimistic...

No, they are absolutely confident in their conviction that, through these grassroots efforts, we can stop the incursion of dangerous lithium battery facilities near our homes and our schools.

However, I don't share their level of confidence, the battery gold rush fever has taken hold in Sacramento.

But what I do know is that when that pungent, acidic, penetrating, toxic odor of hydrogen fluoride fills the air, when fire is racing down the San Juan Capistrano valley, when the rail lines and Interstate 5 are shut down, that day, when you and I, along with our families, are ordered to evacuate for days on end,

On that day, I want to know that I at least did something to stand against it.