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*Comment Received From: Michael McGrady  
Submitted On: 9/5/2024  
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**A Perspective from a Property Owner Adjacent to the Project**

*Additional submitted attachment is included below.*

## COMPASS ENERGY STORAGE PROJECT - ENGIE North America

Saddleback Rancho Capistrano Campus  
San Juan Capistrano, California 92675

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Promised Report for the Benefit of Friends and Neighbors

April 24, 2024

Submitted by Michael McGrady, President  
Hidden Creek Homeowner Association  
San Juan Capistrano, California

*This report contains publicly available information and testimony, the results of conversations with City of San Juan Capistrano officials, Saddleback Church, ENGIE North America, in addition to the author's own assertions and opinions. While I am unable to further spearhead this issue, for the sake of the neighborhood and our friends, I did commit to report back to you, with my findings.*

### Background

In 2021, ENGIE North America (formally Broad Reach Power LLC), along with Saddleback Church, began planning for a lithium-ion battery storage facility on a portion of Saddleback Church's 161-acre Rancho Capistrano property in north San Juan Capistrano. In December of 2021, an application to construct a battery storage facility was submitted to the city. As this area of north San Juan Capistrano was designated "Planned Community TBD," it did not contain specific regulations, criteria, or standards to address such a facility, and therefore the city could not adequately address requirements or any potential threat to the safety and wellbeing of the community.

In April 2022, the city determined that a comprehensive development plan to govern the area would be required, as well as be formally rezoned. In September 2022 Saddleback Church requested the required rezone study; in November 2022, the city denied the rezoning request.

In order to completely circumvent any regulatory, zoning or other impediments that might be possible from the City of San Juan Capistrano, ENGIE North America and Saddleback Church, in January 2023, chose to pursue a State of California process through the California Energy Commission and in February withdrew all their applications from the city.

In April 2024, the city council voted to adopt an Interim Ordinance Prohibiting New Commercial Battery Energy Storage Systems within the City of San Juan Capistrano.

While speaking with friends, neighbors, and city officials, there is, without exception, strong opposition, and resentment regarding this lithium-ion storage facility.

### Position of Saddleback Church

*The following is a summary of the church's position regarding the lithium-ion battery project, garnered from a one-on-one meeting with a senior administrative executive from Saddleback Church.*

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, the close proximity to the church's primary campus in Lake Forest, and the limited usability of so much acreage, Saddleback Church is wrestling with a unique problem.

Since 2020 and the impact of COVID 19, church attendance, and donations, across all denominations has shrunk severely. Yet the cost to maintain the aging facilities of Rancho Capistrano has risen to well over \$1,000,000/year. Furthermore, the long-term vision of the church has been to have something like 10-acre satellite church facilities spread much further apart. Added to high maintenance costs and limited use of the facilities, much of the 161-acres are a non-performing asset of bare land. For a business or church, unused land makes for an extremely poor investment.

This is why the church has, for years, explored other potential uses for the vast, unused acreage. They have considered everything from homes and apartments to hotels or a resort. All these alternative uses would require a bridge/tunnel across the double railroad tracks, costing tens of millions of dollars. An expensive proposition even if the church partnered with owners of adjacent unused land. An outright (and lucrative) real estate sale of 13 acres to ENGIE North America would help alleviate the financial burden of sustaining the Rancho Capistrano property. Their role in the current and future processes is solely a passive one; if ENGIE North America gains approval for the project, Saddleback Church will sell them the land. If ENGIE North America does not get approval, then Saddleback Church will continue to explore other alternatives for the unused acreage.

### Position of City Officials of San Juan Capistrano

The private and public positions of multiple city officials have been their expressed concern for the real environmental and safety hazards which come from lithium-ion runaway fires. Additionally, they have secondary concerns regarding the aesthetics of large industrial installations. However, under current momentum within the California state government, the lobbying power of the California Energy Storage Alliance, and the override authority the state has over the city, the potential threat the city might impose to this project is declining.

### California Energy Storage Alliance (CESA)

California Energy Storage Alliance (CESA) is a 501c (6) membership-based advocacy group advancing the role of energy storage in the electric power sector. With over one hundred members, is aggressively promoting energy storage in California and the West. They are assertively promoting energy storage as a mainstream resource.

## ENGIE North America

In August 2023, Broad Reach Power LLC was purchase by the €82.6 billion French company ENGIE S.A., the largest independent power producer and energy efficiency services provider in the world. As ENGIE's CEO, Catherine MacGregor, says, "...battery and energy storage are clearly a key element of our strategy." "The acquisition of Broad Reach Power was the standout event providing us a growth platform and also an early mover advantage on two key U.S. Energy systems." It is this author's opinion that ENGIE will not be easily discouraged by any local or regional objection to the Compass Energy Storage project.

## Strategies for Opposition

1. Straightforward NIMBY Approach – Vocal opposition based upon a broad “not in my backyard” strategy will, in my opinion, not work. Just saying that such a project ruins what is now open space will compete directly with the rights of private property owners to their legal use of their own property. Also, a few people complaining about the aesthetics of a project that is so closely aligned with noble alternative energy storage systems would be off-putting to many. In any event, such an offense strategy rarely works anyway.
2. Electric and Magnetic Fields (EMF) – EMFs are waves of electric and magnetic energy moving together. These energy fields surround us all the time. While the World Health Organization classifies extremely low frequency electromagnetic fields as possibly carcinogenic to humans, it was based on limited evidence showing an association with childhood leukemia. In fact, multiple scientific studies have not clearly shown whether exposure to EMF increases cancer risk. I would avoid this strategy as it can easily be dismissed as bad science and just NIMBY disguised with scare tactics. Also, as some of us live in close proximity to the existing power grid, those of us would be dismissed outright.
3. Environmental, Health and Safety – This is the best and most proven strategy, as it's based upon fact, and upon recent evidence. It is this area of focus which I have chosen to pursue for your benefit here.

## The Electric Grid and Injury, Death, and Destruction

The Camp Fire of Butte County, California was the deadliest and most destructive wildfire in California's history. It destroyed over 18,000 structures and was the most expensive disaster in the world in 2018 (in terms of insured losses). Over 52,000 people were evacuated, and eighty-five souls lost their lives in a fire caused by a Pacific Gas and Electric electrical transmission line. Happening during a November Santa Ana wind-like event – failed electrical grid, dry brush, hot, dry winds = death and destruction.

*“State policymakers are still bullish on battery storage but concede that issues leading to “thermal runaway” — where excessive heat inside a battery leads to a chemical reaction that spreads to other batteries in a chain reaction — need to be resolved.”<sup>1</sup>*

In thermal runaway, the lithium-ion battery cell temperature rises incredibly fast (in milliseconds). The energy stored in that battery is released suddenly. This chain reaction creates extremely hot temperatures (around 752 degrees Fahrenheit). These temperatures can cause gassing of the battery and a fire that is so hot it can be nearly impossible to extinguish.

In September of last year, a fire broke out at the Valley Center Energy Storage Facility in northern San Diego County. Though the blaze was put out in about 45 minutes, both businesses and homes within a quarter mile of the battery storage facility were evacuated, and shelter-in-place orders were in effect within a half-mile of the site.

Solar production and electric wind farms are available only during certain times, so energy storage, specifically from lithium-ion batteries, is seen as a way to fill the gaps in electric availability. Battery storage is, and will expand, as an integral part of the California electric grid. Yet, we are still in the preliminary stages of engineering battery storage facilities which will not put undue risk into the communities that they serve. That is why the location of every battery storage facility should be carefully scrutinized.

And ENGIE is not immune to lithium-ion battery storage thermal runaway. As they were commissioning a lithium-ion battery system in Belgium, it caught fire and despite a rapid response, the lithium-ion battery system was damaged seriously enough to be counted as a “total loss.”<sup>2</sup>



And again in 2023, New York state officials had to try to sustain public support, as well as their ambitious plans, for clean energy storage after fires broke out at three separate battery projects that year. <sup>3</sup>

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<sup>1</sup> Battery storage is a key piece of California’s clean energy transition. But there’s a problem with fires. By Rob Nikolewski – Tribune News Service – Oct. 12, 2023

<sup>2</sup> Engie Investigates Source of Belgian Battery Blaze – Jason Deign Dec 18, 2017  
<https://www.greentechmedia.com/articles/read/engie-investigates-source-of-belgian-battery-blaze>

<sup>3</sup> New York is reeling from its hot battery summer – By Julian Spector – 21 August 2023 – Canary Media  
<https://www.canarymedia.com/articles/batteries/new-york-is-reeling-from-its-hot-battery-summer>

Three Mile Bay Fire Company was called for what appeared to be a trailer on fire. Crews arrived to find a lithium battery storage trailer with flames showing, and three others along with two transformer trailers in close proximity. Crews ended up setting up multiple master streams devices in an attempt to protect items not yet involved in the fire. Tankers were requested from multiple departments across the county. Three Mile Bay Fire Company remained on scene for just over 12 hrs. until released by command. Local officials told residents within a mile of the site in the village of Chaumont to shelter in place for several hours to avoid inhaling **potentially toxic smoke**.<sup>4</sup>

### Potentially Toxic Smoke

The following are excerpts from: *Toxicology of the Lithium-Ion Battery Fire*<sup>5</sup>  
by Timothy Vamosi MSN-RN, EMPT  
Firefighter / Paramedic  
Captain at Easton Fire Department  
Easton, Massachusetts

### The Problem

- An irreversible thermal event in a lithium-ion battery can be initiated in several ways, by spontaneous internal or external short-circuit, overcharging, external heating or fire, mechanical abuse etc.
- The electrolyte in a lithium-ion battery is flammable and generally contains lithium hexafluorophosphate (LiPF<sub>6</sub>) or other Li-salts containing fluorine.
- In the event of overheating the electrolyte will evaporate and eventually be vented out from the battery cells.
- The gases may or may not be ignited immediately. This leads to opportunities for exposure and contamination of persons.
- In case the emitted gas is not immediately ignited the risk for a gas explosion at a later stage may be imminent. - This leads to thermal burns and exposure burns.
- Li-ion batteries release a various number of toxic substances as well as e.g., CO (an asphyxiant gas) and CO<sub>2</sub> (induces anoxia) during heating and fire. This is exposure causing an inability to process oxygen and/or the displacement of oxygen from the environment.
- At elevated temperature, the fluorine content of the electrolyte and, to some extent, other parts of the battery such as the polyvinylidene fluoride (PVdF) binder in the electrodes, may form gases such as hydrogen fluoride HF, phosphorus pentafluoride (PF<sub>5</sub>) and phosphoryl fluoride (POF<sub>3</sub>).

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<sup>4</sup> Battery Trailer Fire in Solar Farm, County Rt 179 – Thursday, July 27th, 2023  
Three Mile Bay Fire Company

<http://www.tmbfc.com/history.html?view=1&id=290981>

<sup>5</sup> <https://www.mass.gov/doc/toxicology-of-the-lithium-ion-battery-fire/download#:~:text=%2D%20The%20release%20of%20hydrogen%20fluoride,confined%20or%20semi%2Dconfined%20spaces.&text=%2D%20Hydrogen%20fluoride%20mixes%20readily%20with,are%20considered%20the%20same%20chemical>

## Hydrogen Fluoride

- Hydrogen fluoride mixes readily with water forming hydrofluoric acid. For all practical purposes, they are considered the same chemical.
- It has a strong irritating odor; however, odor should not be depended on to provide sufficient warning of exposure.
- It is considered a weak acid but is still extremely harmful due to its ability to penetrate tissue.
- Hydrogen fluoride/hydrofluoric acid can be absorbed systemically into the body by ingestion, inhalation, or skin or eye contact.
- Eye exposure to hydrogen fluoride/hydrofluoric acid is highly unlikely to result in systemic toxicity.
- Inhalation is an important route of exposure.

## Exposure to Hydrogen Fluoride

- Hydrogen fluoride goes easily and quickly through the skin and into the tissues in the body. There it damages the cells and causes them to not work properly.
- The seriousness of poisoning caused by hydrogen fluoride depends on the amount, route, and length of time of exposure, as well as the age and preexisting medical condition of the person exposed.
- Breathing hydrogen fluoride can damage lung tissue and cause swelling and fluid accumulation in the lungs (pulmonary edema).
- Skin contact with hydrogen fluoride may cause severe burns that develop after several hours and form skin ulcers.
- Hydrogen Fluoride diluted in water becomes Hydrofluoric Acid.

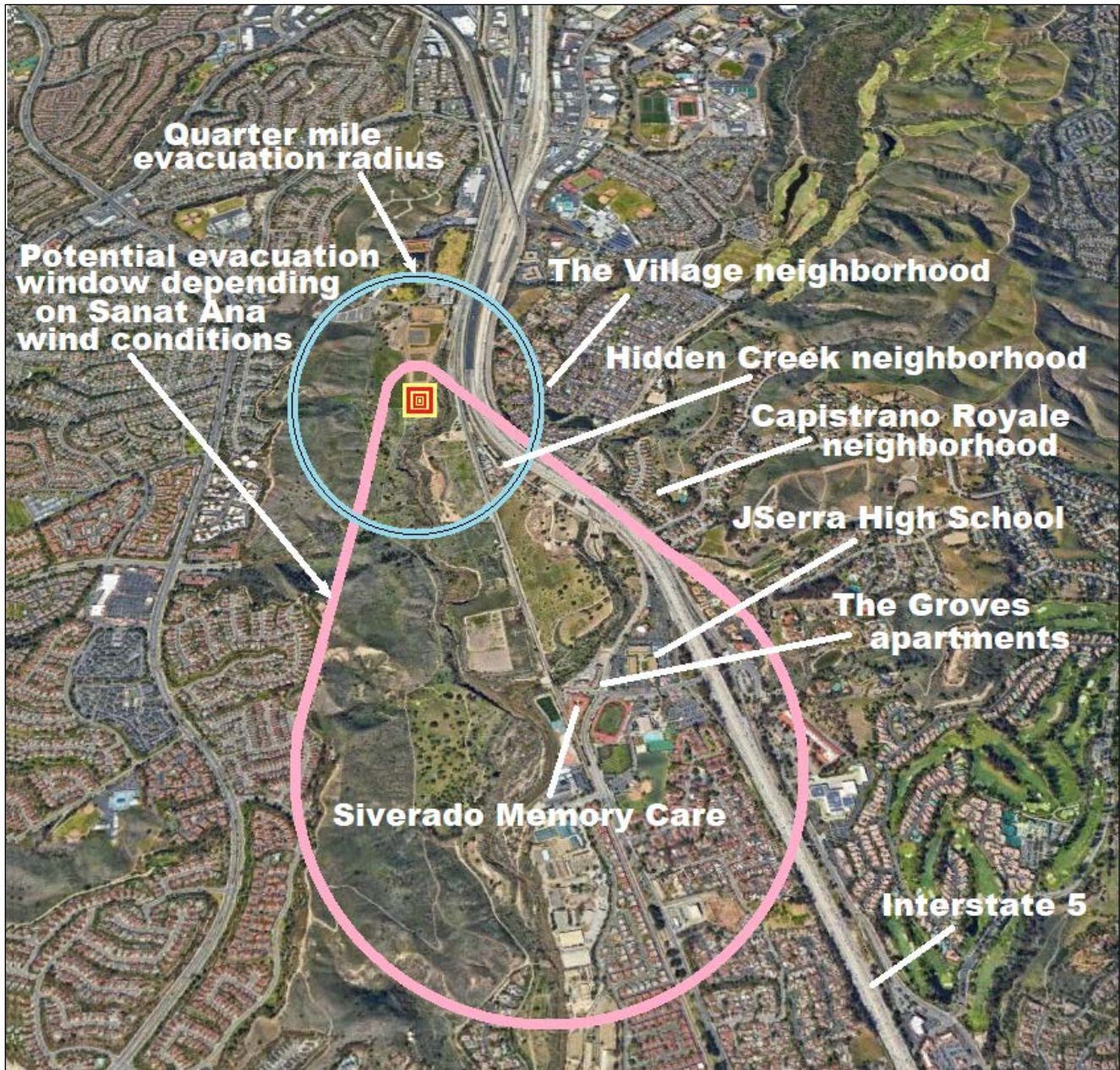
## Fire Captain Timothy Vamosi's Conclusions:

*“As we saw earlier there are many other byproducts of combustion and off gassing that should be considered when a response to lithium-ion battery fires is required. More research is needed to continue on the potential risks of exposure from these types of fires and their impact on the fire service and the community. More research is needed on the consequences of lithium-ion battery fires.”*



## Local Impact

If we consider a quarter mile evacuation order (let alone a mile shelter-in-place order), followed by the potential impact of toxic fumes if lithium-ion fire occurs during a Santa Ana wind event.



During his comments at the April 2, 2024, San Juan Capistrano City Council meeting, Paul McMillan, Development Director for ENGIE North America pointed out that:

*“San Juan Capistrano is bisected by a major infrastructure corridor. Fourteen lanes of Interstate 5 run through it, along with Rancho Viejo Road and Camino Capistrano, and two railroad lines.”*

What happens to those major infrastructure corridors if an event happens – Interstate 5, California’s primary north/south freeway is shut down, all passenger and freight rail service is shut down, and the affected communities can only evacuate south to San Diego county.

## Fire in the San Juan Valley

A thermal runaway fire can leap far above the proposed ten-foot wall on the Compass Energy Storage Project. The San Juan Valley, in which the proposed project sits, is a wind tunnel for the Santa Ana winds.



Fed by an almost unquenchable flame, a Camp Fire like catastrophe is not out of the realm of possibility.

## The Process

As already mentioned, on April 2, 2024, the San Juan City Council met to address, among other things, the adoption an interim ordinance prohibiting the construction of the Compass Energy Storage Project until a study could be conducted by the city planning department. The initial study regarding guidelines would be 45 days, with an additional request for 10 months, fifteen days (basically a year). See the following link (starts around 1 hour, 26 minutes):

### E. CONSENT CALENDAR:

a. Adoption of an Interim Ordinance Prohibiting New Commercial Battery Energy Storage Systems within the City of San Juan Capistrano; and a Finding That Said Action is Categorically Exempt from the California Environmental Quality Act (“CEQA”) Guideline

[https://sjc.granicus.com/player/clip/2851?view\\_id=3&redirect=true](https://sjc.granicus.com/player/clip/2851?view_id=3&redirect=true)

At the meeting, a number of local residents spoke out against the project while one spokesperson, Paul McMillan, Development Director for ENGIE North America, spoke in favor of the project. Also, support was expressed in two letters regarding the agenda item.

Rachel McMahan, Vice President, Policy for the California Energy Storage Alliance CESA praised the environmental nobility of such a project and urged *“the City to reject a moratorium on this type of infrastructure and work collaboratively with developers and the community to site this critical infrastructure. To this end, CESA is happy to provide information, best practices and assistance in the City’s forthcoming effort to update its Land Use Code to accommodate energy storage.”*

The second letter was more direct, meant to preemptively establish ENGIE North America’s unapologetic plan to utilize aggressive legal and regulatory methods to quash local government interference.

It was submitted by attorney Ryan Waterman of the law firm Brownstein Hyatt Farber Schreck, LLP.

In the 10-page missive, Waterman suggests the city’s interim ordinance was too broad and vague, guidelines that would apply to even the electric Ford F-150 Lightning pick-up (which it does not). Waterman also suggests that the City’s planning department staff report is misleading in their findings. Furthermore, Waterman says the ordinance is unnecessary because State venue provides *“ample time and opportunity to contribute to the process and to address its concerns about BESS facilities in that forum.”*

The final legal salvo said that *“the proposed interim ordinance may run afoul of both the Government Code and CEQA.”* And that the ambiguous ordinance *“seems to be intended to target, while delaying achievement of the state's GHG [greenhouse gas] reduction goals.”*

***Make no mistake about the purpose of ENGIE North America’s messaging via their surrogate spokesperson.***

Riddled with caselaw references, and with the firm’s hubris in calling Waterman the *“leading land use, environmental and renewable energy attorney,”* this is a direct shot across the bow of a sleepy little south Orange County town, a consolatory but stern warning to the City that ENGIE North America has every intention of legally crushing any local opposition from elected officials, or the citizens they represent.

My opinion is that, considering the lobbying power of the California Energy Storage Alliance, the unapologetic attitude and momentum coming from State officials, and the size of the legal war chest behind a global energy company the size of Disney, San Juan Capistrano and its citizens most likely will be effortlessly beaten into submission.

In communications with Renée Louise Robin, Director, Permitting and Planning for ENGIE North America, they said they are *“in the process of preparing a permit application on this project that will provide detailed information on the proposed design, location and operation of the project. All of this information will be publicly available - and we welcome all public comment and questions during the review process.”*

They *“anticipate the application will be filed very shortly, and we are happy to provide you and any of your neighbors with links to the information. In addition, there will be a full environmental review process with local public meetings and information sessions once our application is filed. You can be assured that safety is our first priority, and that extensive attention has been paid to these issues in every aspect of the project.”*

They are *“also happy to talk with you and your neighbors for an informational session. We look forward to sharing the project details with the community.”*

To be clear, while there will be multiple public forums where “concerned citizens” will be able to express their outrage, fear, and expectations for the project, these will be, for the most part, just a ceremonial necessity established to *“solicit public input,”* but in reality, it is a hollow gesture, only serving to check a box before the Compass Energy Storage project commences. You must understand, State officials, CESA, ENGIE North America, SDG&E, etc., all dream dreams, deeper (and more profitable) than the average mortal citizen could understand. Sometimes children have to be led to where they do not want to go.

## My Final Thoughts

Among other things, I've been involved with alternative energy since the 1980's, first with cogeneration systems, and then as an early adopter of solar power. Sometimes my activities thrust me into public forums, and in direct conflict with the State government and the utilities. My experience tells me that you must approach these conflicts with a steady, rational argument, replacing fear of the unknown with facts of the known.

This is what I consider my own rational perspective about the Compass Energy Storage project.

- There are major profits to be made in the continued expansion of lithium-ion battery storage, and property owners, utilities, and energy companies are vying for a piece of those profits.
- I respect what Saddleback Church is attempting to do in utilizing the assets of their congregation, funding their ministries. I respect the rights of private property owners to legally leverage what they own.
- I worry what alternatives Saddleback Church could otherwise explore (high-density housing, traffic, noise, etc.).
- I know the risk of potential toxic and fire injury to my family, neighbors, and communities is very real.
- California has approximately 26,000 miles of transmission lines, and approximately 240,000 miles of distribution lines. Utilities such as SDG&E and SCE have done joint power projects in the past and there are available transmission lines in uninhabited areas capable of handling such a project.

<https://gis.data.ca.gov/datasets/260b4513acdb4a3a8e4d64e69fc84fee/explore?location=33.823832%2C-114.389479%2C6.99>

All of this said, battery system companies like ENGIE, California politicians, State regulatory agencies, cities and their citizens alike have every reason to eliminate the fire problem before installing gigawatts of new battery capacity. Even ENGIE North America, with their financial prowess, the backing of CESA, and with their legal attack dogs ready to pounce, cannot afford to have an incident. Lithium-Ion fires, whether in a Tesla or neighborhood, are leading headline news stories. So far, the worst has been evacuations, shelter-in-place, and injuries to four first responders from a 2019 Arizona battery explosion.

The Camp Fire disaster and bankruptcy of PGE are still fresh in the minds of politicians and energy companies, financial and political survival instincts are driving them to consider safety as a preeminent concern. There are over 7,500 lithium-ion battery storage systems in California already, with the number of installations nationally expected to double in 2024.

*“Longer-term, battery fires risk jeopardizing the operations of the electrical grid. Battery storage is poised to replace dirty, outdated peaker plants, storing clean power and injecting it into the grid during hours of peak demand. The technology can't deliver on its duties if it's bursting into flames and then remaining inoperational for months of investigations and refurbishment.”<sup>6</sup>*

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<sup>6</sup> Canary Media - <https://www.canarymedia.com/articles/batteries/new-york-is-reeling-from-its-hot-battery-summer>

The fire danger to the 161 acres of Saddleback Church's Rancho Capistrano facility, as well as the other 580+/- acres of the area's open space, remains the same with or without the battery storage facility. Fire could still race down the San Juan Valley as easily from a tossed cigarette as it would from a lithium-ion battery.

There are so many other uninhabited and equally viable locations for such facilities across the state, locating it a quarter mile up wind from my home increases the risk of toxic injury and fire, while simultaneously reducing our quality of life in San Juan Capistrano.

#### Additional Resources

#### **Giant Batteries Bomb: Renewable Energy Storage Systems Literally Setting The World On Fire**

<https://stopthesethings.com/2020/03/01/giant-batteries-bomb-renewable-energy-storage-systems-literally-setting-the-world-on-fire/>

Battery storage is a key piece of California's clean energy transition. But there's a problem with fires.

<https://www.latimes.com/business/story/2023-10-12/battery-storage-is-a-key-piece-of-californias-clean-energy-transition-but-theres-a-problem-with-fires>

#### **After three fires this summer at commercial battery storage facilities in N.Y., Hochul creates working group for safety investigation**

<https://riverheadlocal.com/2023/08/04/after-three-fires-this-summer-at-commercial-battery-storage-facilities-in-n-y-hochul-creates-working-group-for-safety-investigation/>

#### **April 2, 2024 City Council Meeting Submissions**

Click on Link; Select Agenda on right side of page; scroll to F.1.; Click on Agenda Report, Correspondence 1, Correspondence 2 or PowerPoint

[https://sjc.granicus.com/player/clip/2851?view\\_id=3&redirect=true](https://sjc.granicus.com/player/clip/2851?view_id=3&redirect=true)