From:
To:
Tillbridge Solar Project

Cc: <u>7000 Acres</u>

Subject: Co2 Clean as a whistle, BESS toxic & carcinogenic, Justifiable not!

Date: 20 January 2025 11:39:25

Attachments: image.png

Hi This Toxic BESS battery is still belching toxic gases into the local environment "NBC News reports today that there was a mandatory evacuation of an area of 7600 acres surrounding the facility. 7600 acres is about 12 square miles. Approximately 1200 to 1500 residents living in that area were evacuated, according to NBC." This aspect of the supposed solution to a non-problem is still not being taken seriously for the real hazard that it is. Did anyone ever get displaced from their home because of Co2? This the fourth BESS fire at this plant.

Third Written Submission 7,000 Acres

"The Energy Storage Fiasco — How Soon Will It Be Abandoned?

From the MANHATTAN CONTRARIAN

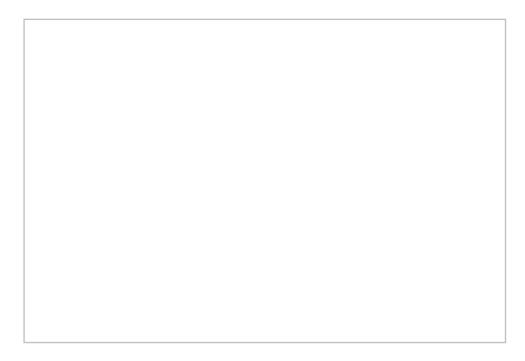
Francis Menton

Energy from the wind and the sun — they're clean and green and free. OK, there's the small problem of intermittency. But clearly the intermittency problem can easily be solved with a few batteries to store some power for the occasional calm nights.

Or is that solution really so easy? Regular readers here will know that I wrote an energy storage Report, titled <u>"The Energy Storage Conundrum."</u> published by the GWPF back in December 2022. After some straightforward calculations based on elementary-school-level arithmetic, that Report concluded that the amount of storage needed was so large, and the costs so completely unaffordable, that energy storage was totally infeasible as a way to make wind and solar work as the main power sources for an electricity grid. Calculations set forth in that Report concluded that the amount of energy storage needed to enable a predominantly wind/solar grid to get through a year without hitting a blackout was in the range of 500 to 1000 hours of average electricity usage. Keep that range in mind for the rest of this post.

Paying no attention whatsoever to my warnings, and not troubling themselves to do any simple arithmetic of their own, the states of New York and California have chosen to forge ahead with plans for predominantly wind/solar grids backed up by batteries. Multiple years into the project, neither state is anywhere near to building 1% of the energy storage that would be needed to make their fantasy systems work. But even in these very early stages, they have both blundered into an additional and

unanticipated problem: catastrophic fires.						
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Lithium-ion batteries have an unfortunate downside that they occasionally catch fire spontaneously. This can be a notable problem for your cell phone or computer, and a bigger problem for your electric bicycle or car. But the batteries for those things, even the electric car, are tiny compared to the huge batteries needed to back up the electrical grid. Grid-scale batteries must store thousands of megawatt-hours of electricity, compared to maybe 100 kWh for an EV. It seems that the frequency of these spontaneous fires increases with the size of the battery. Can this problem be solved? I have no idea. But it certainly has not been solved yet.

In March 2024, I had a post titled "New York and California Getting Totally Lost With Energy Storage," reporting on the efforts of those two states to build gigantic battery farms to back up their planned wind/solar adventures. At a stage of having built only a fraction of one percent of the amount of batteries that would be needed to support the project, both had run into a situation of repeated huge and catastrophic spontaneous fires in their newly-built battery farms.

New York (State) has average electricity demand of about 17,000 MW, meaning that the storage capacity it would need for the predominantly wind/solar system of the future would be 500 to 1000 hours of that, or 8,500 to 17,000 GWh. Governor Hochul has set a (ridiculous) goal of 24 GWh of energy storage for the State by 2030, and my March 2024 post reported that by August 2023 all of 1.2 GWh of that had been built. And yet, between May and July 2023, New York had had three large fires at the grid battery storage facilities built up to that time:

- On May 31, a battery that NextEra Energy Resources had installed at a substation in East Hampton caught fire.
- On June 26, fire alarms went off at two battery units owned and operated

by Convergent Energy and Power in Warwick, Orange County; one of those later caught fire.

• On July 27, a different Convergent battery at a solar farm in Chaumont caught fire and burned for four days straight.

Source: this August 2023 piece from Canary Media.

Over in California, their average electricity demand is around 30,000 MW, meaning that the range of 500 to 1000 hours of battery storage they would need to back up their dream of a wind/solar system would require 15,000 GWh to 30,000 GWh of batteries. Here from the State of California is an Energy Storage System survey from October 2024. The amount of energy storage built so far is stated as 13,391 MW. Of course, they use the wrong units. These people are completely innumerate. However, we know that they are talking about 4-hour lithium-ion batteries, so multiply by 4 and divide by 1000 to get 53.564 GWh of storage built so far. That would be between about 0.18% and 0.36% of the amount of energy storage they would need to back up a predominantly wind/solar system.

And yet with this teensy amount of storage built so far, California too has had repeated spontaneous fires. My March 2024 post reported on two of these fires (sourced from an LA Times piece from October 2023):

- In September 2022, a Tesla Megapack caught fire at a battery storage facility operated by Pacific Gas & Electric in the Northern California town of Moss Landing.
- A fire broke out at the Valley Center Energy Storage Facility in San Diego County on Sept. 18 [2023].

And now we have the biggest fire of all, this time again at the Moss Landing facility. According to Energy Storage News in August 2023, after a 2023 expansion to 3 GWh capacity, the Moss Landing facility became the world's largest energy storage facility. The fire broke out yesterday, January 16, and appears to be still burning to some extent at the time of this writing. I can't find an estimate of how much of the facility is getting destroyed, but it is not a small part. Here is a picture of the fire from NPR:

NBC News reports today that there was a mandatory evacuation of an area of 7600 acres surrounding the facility. 7600 acres is about 12 square miles. Approximately 1200 to 1500 residents living in that area were evacuated, according to NBC.

NBC quotes Monterey County District 2 Supervisor Glenn Church calling this "a worst case scenario of a disaster" that nobody predicted. Church continues:

"This is really a lot more than just a fire, it's really a wake up call for this industry, and if we're going to be moving ahead with sustainable energy we need to have safe battery systems in place," Church said.

Church is further quoted as stating that this is the fourth fire at this facility going back to 2019. Besides the current one and the one in 2022 reported in the LA Times story linked above, there were additional fires at Moss Landing in 2019 and 2021.

Back here in New York, my friend and co-author Richard Ellenbogen sends me an email pointing out that we have a large grid-scale battery storage facility moving toward construction on the East bank of the East River right across from Midtown Manhattan. I don't find whether construction has actually begun, but this project has been in the works for years, and has gotten multiple regulatory approvals. Here is a piece from the New York City Economic Development Corporation indicating that the financing for the project was closed in May 2024. My friend Ellenbogen points out that the technology is the same as the Moss Landing facility in California, and a 12 square mile evacuation zone around this facility would include a big chunk of Midtown Manhattan and another big chunk of densely-populated Western Queens — hundreds of thousands of people, instead of the paltry 1200-1500 just evacuated out in California. What are our New York pols thinking? Actually, the EDC press release quotes a bunch of them. Here are a couple of quotes:

"Large-scale deployment of battery storage helps New York City advance its PlaNYC goal to achieve a clean, reliable, and equitable future," said Mayor's Office of Climate & Environmental Justice Director Elijah Hutchinson. "NYCIDA's support of this 100 MW project will help reduce our reliance on polluting fossil fuels and when completed, be one of the largest battery storage installations in the state."

"For decades, residents of historically disadvantaged communities in Queens have suffered the negative effects of peaker plant pollution," said Queens Borough President Donovan Richards. "The battery energy storage facility coming to Astoria will help address this longtime injustice and result in a healthier environment for all of us in Queens. I commend the NYCEDC and the NYCIDA for taking decisive steps to bolster our city's green economy by facilitating projects like this one that produce clean and renewable energy."

OK then. This is the level of incompetence we are dealing with.

You would think that the latest Moss Landing disaster would be big news, but not so much. I find pieces at NPR, CBS and NBC, but not, for example, The New York Times. I guess this news is not "fit to print."