

# Santa Barbara Schools include batteries with Solar

## Santa Barbara, CA: Anchoring Schools as Heart of the Community with Energy Resilience

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A school with resilient energy takes on a new level of importance in society. It can serve as a safe haven in times of crisis, an electrified shelter where community members can gather, charge cell phones, contact loved ones and perhaps get a hot meal.

“Even if you don’t have kids, you know where your neighborhood school is. Schools are the heart of a community, and this solidifies their place,” said Laura Capps, president of the school board for the Santa Barbara Unified School District, which is in the process of installing multiple solar-powered microgrids.



Capps began exploring sustainable solutions for the Santa Barbara district after being elected to the school board four years ago. She found the local schools behind in this pursuit since not one of the school buildings had solar when she came on board. This lack of solar schools wasn’t born out of ideological opposition, but because officials were concerned about priorities. “There was the feeling

that if you focus on sustainability you are taking your eye off the ball of literacy — the more fundamental mission of a school system.”

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But as she began researching other nearby school districts, she found they were actually saving money on their electricity by going solar, an opportunity created by California’s high utility rates, solar incentives, and its widespread use of solar power purchase agreements. Capps discovered that one neighboring community had cut energy costs by almost \$1 million annually by adding solar to its schools.

Capps’ initial proposals for solar were integrated into a comprehensive energy resilience plan after Santa Barbara County was devastated by wildfires and subsequent mudslides in January 2018. The district found itself playing an important role in the community during that natural disaster, and it began to plan how it could keep operating school buildings during future power outages. The district’s focus on energy resilience was sharpened in 2019 while millions of

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Californians lost power as utilities de-energized power lines to prevent them from sparking wildfires. The state’s largest utility, Pacific Gas & Electric (PG&E), has warned that it may be forced to take such action repeatedly over the next decade when wildfires threaten.

## SIX SOLAR MICROGRIDS SITES AT SBUSD



SOLAR MICROGRIDS PLANNED FOR SIX SBUSD SITES | CREDIT: CLEAN COALITION

Teaming up with non-profit consultant Clean Coalition, the Santa Barbara Unified School District is planning to deploy a sophisticated system that uses cutting-edge microgrid management strategies to create resilience while lowering costs. The design calls for solar+storage microgrids at six sites, and solar power alone at eight additional sites, which include three high schools, four junior high schools, five elementary schools, a district office, and a warehouse. The project is expected to include about 4.5 MW of solar capacity and 3 MW/6 MWh of battery energy storage that will be financed with a 25-year power purchase agreement (PPA) with no upfront capital cost for the district. (The school district had received competitive proposals from developers for the project as of this writing.)

The proposed system will incorporate a new, more precise way of calculating the monetary value of energy resilience, allowing the district to prioritize what appliances receive backup power and better quantify the investment. Loss of lights, for example, may cost the district little money, but loss of freezers quite a bit. The project also will manage the capacity of the battery in new ways to increase its ability to provide backup energy, while also leveraging its ability to earn revenue in energy markets.

Craig Lewis, executive director of Clean Coalition, believes Santa Barbara’s system will become a standard that other schools will want to follow. “I think it’s going to be a game changer for the industry in terms of general understanding of how solar microgrids need to be configured in order to provide the type of resilience that we need them to provide,” Lewis said.

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Additional information: <https://clean-coalition.org/community-microgrids/goleta-load-pocket/santa-barbara-unified-school-district/>