

Santa Barbara Energy & Resilience Summit

Participant Pre-Read

May 8th, 2025

Overview and Objectives

Santa Barbara County faces an urgent need to strengthen its energy infrastructure against wildfires and related disasters. In recent years, massive wildfires and post-fire events (such as debris flows) have caused extended power outages and even cut off transportation routes. Momentum for resilience efforts surged after these crises but stalled post-election, as attention shifted and leadership changes slowed implementation. We now have a narrow window to regain focus and act decisively. This convening at UC Santa Barbara represents a unique moment to rally key stakeholders—investors, policymakers, utilities, developers, and community leaders—around a common goal: catalyzing a portfolio of energy resilience projects.

The objectives of this event are clear and pressing:

- **Reframe the Urgency:** Underscore the growing wildfire threat and grid vulnerability in Santa Barbara to make clear that energy resilience efforts cannot wait.
- **Reignite Momentum:** Re-establish commitment to previously supported projects by aligning stakeholders around a shared and urgent vision for action.
- **Catalyze Actionable Projects:** Advance a portfolio of strategic, high-impact projects by surfacing barriers and identifying practical solutions to move them forward.
- **Build a Coalition:** Activate the expertise in the room to forge cross-sector partnerships and mobilize support for implementation.
- **Define Next Steps:** Leave the event with a preliminary view on the actions, owners, and timelines to ensure continued progress beyond May 8.

The Santa Barbara Energy & Resilience Summit convening is not a symbolic conference—it is a working strategy session underpinned by a sense of urgency. Our overarching objective is to transition from slowed and stalled ideas to concrete action. The following sections detail how the day will unfold, the projects we will tackle, and the logistical information to ensure a focused and productive convening.

Expectations for May 8th

The May 8th event is designed as an outcome-oriented working session, blending informational presentations with collaborative working groups. Below is what to expect throughout the day and how you can engage:

- **Structure & Flow:** The day will alternate between short, focused presentations and working sessions. "What's Possible" segments will spotlight eight projects, followed by breakout discussions where participants will engage directly with project leads to surface solutions, tackle key barriers, and chart next steps. The agenda is fast-paced and action-oriented.
- **Participation & Contribution:** Every attendee is here to contribute. You'll join breakout groups aligned with your expertise or interest, offering input on technical, financial, regulatory, or community challenges. Project leads will present a brief challenge statement, then facilitators will guide a working session to refine strategy, identify partners, and outline a path forward. We've curated a diverse room to break silos and cross-pollinate ideas—your perspective is critical.

- **Outcomes & Follow-Through:** Each project should leave the day with a clearer strategy, a shortlist of actionable next steps, and a better sense of who can help move it forward. We'll also begin to shape a shared roadmap for the broader regional resilience effort over the next 6–12 months. The final session will synthesize outcomes, with a post-event memo capturing commitments, follow-ups, and priorities ahead.

Projects at a Glance

Below is a quick overview of the eight projects that will be the focus of our working sessions. Each project is geared toward resilient clean energy infrastructure in the Santa Barbara region, though they tackle different aspects of the challenge (from community solar to large-scale storage to innovative programs). Full descriptions and details are provided in the Appendix:

- **UCSB District Heating & Cooling Efficiency Project: Clean Energy Master Plan –** UCSB's comprehensive plan to modernize campus energy infrastructure, including decarbonizing campus heating by electrifying systems and replacing fossil fuel infrastructure to support UC's 2045 carbon reduction goals.
- **Santa Barbara Clean Energy Initiatives: Local Power, Lasting Resilience: Solar + Storage for All –** A program to enhance local energy resilience and sustainability by transforming rooftops into distributed micro-grids, despite challenges like net metering, aging infrastructure, and financing.
- **Santa Barbara County Food Bank Microgrid –** An initiative to install a solar-powered microgrid at the Food Bank to cut operational costs, ensure reliable power during outages, and support its mission of nutrition and disaster relief.
- **Santa Barbara City College Community Resilience Hub –** A $20 million community microgrid project at SBCC (seeded by a $4 million federal grant) to provide resilient, round-the-clock power to the campus and serve as a community shelter/hub during emergencies.
- **Rancho Goleta Lakeside Solar Microgrid –** A proposal to develop a solar-powered Community Microgrid for the Rancho Goleta Lakeside mobile home community, offering economic, environmental, and resilience benefits.
- **Doubleland Agrivolatics Project: Movable Solar for Agricultural & Energy Resilience –** A project to use patented movable solar arrays to support water-efficient farming under California's SGMA law, providing renewable power, regenerative soil benefits, and adaptive agricultural infrastructure.
- **Dragon Wings Solar Generators –** A potential project to deploy mobile solar-generator system delivering up to 1 MW of clean, off-grid or grid-connected power for industrial and remote applications—combining solar, battery storage, and scalability in a compact, zero-emissions package.
- **SparkFund Distributed Capacity Procurement –** A potential project to enable utilities and large energy users to plan and deploy Distributed Energy Resources (DERs) at scale, addressing grid capacity needs with greater speed, flexibility, and reliability while reducing infrastructure costs and enhancing resilience.

Agenda (subject to change)

The following agenda outlines the schedule and structure for the May 8th convening. Please note the timing and plan to arrive by 8:30 AM for check-in.
Locations and some details are subject to change; final agenda will be confirmed at the event. All times Pacific.

- *8:30 AM – Door Open for Registration & Breakfast (Corwin Pavilion)*
- **9:30 AM – Welcome & Why We Are Here (Corwin Pavilion)**
- **9:50 AM – Why Santa Barbara? (Corwin Pavilion)**
- **10:00 AM – What Do We Hope to Accomplish? (Corwin Pavilion)**
- **10:10 AM – What's Possible? (Part A) – Project Pitches 1–5 (Corwin Pavilion)**
- *11:00 AM – Break (Corwin Pavilion)*
- **11:15 AM – What's Possible? (Part B) – Project Pitches 6–10 (Corwin Pavilion)**
- *12:05 PM – Lunch (Lagoon Plaza - Outdoors)*
- **1:05 PM – Investing in Energy Resiliency (Corwin Pavilion)**. Fireside Chat with Leah Stokes & Jigar Shah.
- **1:55 PM – What Do Investors Need? (Corwin Pavilion)**
- **2:05 PM – Structure for the Working Sessions (Corwin Pavilion)**
- *2:10 PM – Break and Transition*
- **2:20 PM – Working Sessions Groups #1-8 (Conference Rooms/Back of Corwin Pavilion)**
- *4:00 PM – Break and Transition*
- **4:10 PM – What's Next? (Corwin Pavilion)**
- **4:45 PM – Close & After Party (After–Party at Brass Bear Funk Zone)**

Logistics

What to expect upon arrival and throughout the day.

- **Check-In & Registration:** Check-in begins at **8:30 AM** in the lobby of the UCSB campus at **Corwin Pavilion**. Look for signage for the "SB Energy & Resilience Summit." At registration, you will receive your name badge, an agenda handout, and an info packet (which includes this briefing book and additional materials). A volunteer team will be on hand to assist with directions and answer questions.
- **Venue & Parking:** The main sessions will take place in **Corwin Pavilion**. Breakout sessions will be in **Conference Rooms nearby in the University Center (UCen) or in the back of the Corwin Pavilion.** All rooms are within walking distance in the same facility or building cluster. If you are driving, parking is available at the UCSB visitor parking lots **[We recommend parking in Lot 22, which is about a 10 minute walk from Corwin Pavilion]**. You are welcome to park in any visitor parking lot on campus. All cars parked on campus must have a valid parking permit. Full day permits cost $8/day. Permits may be purchased online, through the ParkMobile app, or on campus at pay stations located in parking lots.
- **Breakout Session Assignments:** There will be one round of workshops. Conference Rooms will each be labeled with a project name for the respective workshop group numbers. Find your group number on your badge.

- **Catering (Meals & Refreshments):** A light continental breakfast (coffee, tea, pastries, fruit) will be available during registration. **Lunch around 12:00 PM** will be provided for all attendees; it will be an outdoor picnic-style lunch **(weather permitting, we plan to use the courtyard outside Corwin Pavilion; otherwise an indoor space will be arranged)**. Vegetarian, vegan, and gluten-free options will be available.
- **After Party / Networking Reception:** After the program concludes, an informal after-party will take place to celebrate the day's progress. **Location: Brass Bear Funk Zone**. All participants are welcome.
- **Materials and Presentations:** Full project briefs and any slide presentations will be made available in digital format after the event. During the event, we will provide notepads and pens for note-taking.
- **Wi-fi:** Campus wireless services are available to UCSB guests. More information about accessing campus wi-fi is available here.
- **Contacts and Assistance:** If you have questions leading up to the event, please contact **Michelle Jednachowski at michellej@synthesisdesign.com**. On the day of, any event staff or volunteers (identifiable by orange lanyards) can assist you with logistics or issues (technical difficulties, room directions, etc.). In case of an emergency, follow campus guidelines and the instructions of event staff.

Appendix: Project Descriptions & Details

The following appendix provides a brief summary for each of the eight projects. We encourage you to familiarize yourself with the basic outline of each project so you can dive deeper during the working sessions.

Workshop 1: Santa Barbara City College Community Resilience Hub
Location: Goleta Valley
This is a project to build a robust microgrid at Santa Barbara City College (SBCC) that can power a significant portion of the campus and power critical facilities for a prolonged period during an outage. The plan calls for approximately $20 million in investment to install solar panels, battery storage, and control systems, effectively turning SBCC into a resilience hub for the community. Notably, SBCC has already received a $4 million federal grant earmarked for this microgrid. The microgrid would enhance community resilience (SBCC could serve as an emergency shelter powered by the microgrid) and reduce campus energy costs for the publicly owned city college long-term.

Workshop 2: UCSB District Heating & Cooling Efficiency Project: Clean Energy Master Plan
Location: State Street
The University of California acknowledges the urgency of the climate crisis and has committed to reducing greenhouse gas emissions across all campuses. As part of the UC Sustainable Practices Policy, each campus will achieve a minimum 90% reduction in total greenhouse gas emissions by 2045, relative to 2019 levels. While UCSB already procures 100% clean power from the UC Clean Power Program, heating and hot water provided by distributed combustion-based equipment throughout campus buildings account for approximately 94% of UCSB's natural gas consumption.

By electrifying all heating and hot water sources, UCSB will eliminate 16,484 metric tons of carbon dioxide equivalent (MTCO2e) emissions annually, equal to 50% of the University's total greenhouse gas emissions (2023). To guide this transition, UCSB has developed the Clean Energy Master Plan, a comprehensive strategy focused on decarbonizing and electrifying campus heating infrastructure.

The Plan evaluates alternatives for replacing existing fossil fuel-based thermal energy systems, including a new central utility plant (CUP) and expanded hot and chilled water distribution network serving 154 buildings on campus (82% of UCSB's current total building area). Off-campus buildings not connected to the new CUP are proposed to have standalone all-electric thermal systems.

Workshop 3: Santa Barbara County Food Bank Microgrid
Location: Lobero
The Food Bank of Santa Barbara County is owner of a newly renovated 58,000 square foot warehouse facility in Goleta California. The Foodbank's mission is to fight food insecurity and hunger and to transform the health of Santa Barbara County through good nutrition. The Foodbank also plays a crucial role in disaster relief efforts, providing support to the county and partner food banks during crises such as the recent LA fires.

Our proposed microgrid project will dramatically reduce the Foodbank's ongoing operational cost by providing solar PV energy to be consumed directly on site and to lower peak demand. It would also provide secure, consistent, renewable power during long duration grid outages. Challenges include presenting a persuasive cost benefit analysis to properly account for the value of storage.

Workshop 4: Rancho Goleta Lakeside Solar Microgrid
Location: SB Harbor
The Clean Coalition is staged to facilitate a Community Microgrid, pending $150k in funding, to deliver an unparalleled trifecta of economic, environmental, and resilience benefits to the Rancho Goleta Lakeside (RGL) community of 200 mobile homes located in the most disadvantaged area of Goleta. Importantly, RGL is served by a single master meter with Southern California Edison (SCE) and them privately submetered to all of the residences, and this creates an ideal opportunity to provide a model for the State of California to innovate policies such that master metering will be allowed for all Multi-Unit Housing (MUH) facilities, including apartment & condominium complexes, and of course, mobile home parks. Master metering is required to ensure that solar-driven microgrids can effectively deliver economic, environmental, and resilience benefits to MUH facilities.

The RGL Community Microgrid will also showcase how to overcome significant technical challenges, including the fact that RGL owns & operates nearly two miles of underground distribution grid that is significantly constrained and that the solar will be distributed across the 200 home sites and combined with a single centralized Battery Energy Storage System (BESS). Additionally, each home will continue to be privately submetered with private monthly billing to ensure that each home continues to be responsible for the cost of its own energy use – and to ensure that all RGL community members are financially motivated to implement electrification measures and use energy wisely.

Workshop 5: Santa Barbara Clean Energy Initiatives: Local Power, Lasting Resilience: Solar + Storage for All
Location: Flying A Studio
In 2021 Santa Barbara Clean Energy, the City of Santa Barbara's Community Choice Aggregation (CCA) program launched with a foundational goal of building power supply locally for increased resilience and environmental benefit. Through the CCA, the City looks to leverage the many rooftops within the City and turn them into distributed micro-grids. This program would increase resilience, help customers control their costs, provide local and state reliability benefits, and reduce GHG emissions. Such a program isn't without its challenges, however, including new net metering structures, aging housing stock, and financing options. This presentation will provide an overview of the City's lessons learned and goals for the future.

Workshop 6: Doubleland Agrivolatics Project: Movable Solar for Agricultural & Energy Resilience
Location: SB Mission
A 10MW multi-site project consisting of newly patented movable solar arrays and accessories to help farms and ranches adapt to water restrictions under California's 2014 SGMA law by supporting the growth of highly water-efficient cover crops which reduce erosion and desertification, and provide numerous regenerative soil benefits. Paired with storage, they also provide cost-effective power to offset electric costs, and supply significant local backup power. The project is easily configured to maximize shade for ag workers and livestock, erect temporary fencing, and collect vital agricultural data to boost yields. Movable features ensure land remains productive, supporting rotational grazing and crop rotation, and enriching agricultural communities facing tighter water budgets.

Workshop 7: Dragon Wings Solar Generators
Location: Back of Corwin Pavilion
Dragon Wings is a revolutionary mobile solar-generator system developed by Southern Beams Builds, Inc., designed to bring utility-grade power anywhere it's needed. From a compact enclosure that fits in a single parking space or stacks atop a standard shipping container, each unit deploys in under five minutes to provide 30 kW of three-phase AC power—and can be daisy-chained with

additional units to deliver up to 1 MW of sustained power for large industrial loads. At its core, Dragon Wings combines batteries (scalable between 75 kWh and 450 kWh) with 60 folding solar panels to generate 80–150 kWh of clean energy every day. It operates entirely off-grid or in parallel with existing infrastructure. Built for versatility, Dragon Wings has proven itself across a wide range of industries. Powering construction sites, EV charging stations, festivals and events, backup resilience for critical facilities, film productions, telecommunications installations, and even military forward operations. Driven by a mission to accelerate global electrification and energy independence, Dragon Wings delivers zero-fuel, zero-emissions power in a rugged, quiet package. It's the fastest, cleanest way to add reliable, industrial-scale energy anywhere in the world and the foundation for a decarbonized future.

Workshop 8: SparkFund Distributed Capacity Procurement
Location: Back of Corwin Pavilion
Sparkfund's DCP model, a new tool for utilities, energy majors, and large-load customers, answers the energy market's rapidly evolving and variable deployment rate with scale, flexibility, and speed. The DCP model harnesses the versatility of DERs to achieve deployment velocity and scale, allowing utilities to more accurately match deployment to demand growth and infrastructure needs. Integrating DERs into utility system planning addresses the biggest challenge with DERs to date - operational unpredictability and random siting. Through the DCP model, utilities plan, site, deploy, and dispatch DERs to deliver capacity at the scale and pace necessary to unlock the full value of the grid.

How It Works:

- Integrates DERs into utility system planning as capacity resources.
- Targets areas of the grid with the highest need for additional capacity.
- Streamlines deployment through pre-vetted sites and vendor networks.

Benefits:

- Grid growth acceleration
- Peak management
- Grid resiliency, reliability, and hardening
- Cost reduction to ratepayers by smoothing peak demand and avoiding or deferring T&D system upgrades

UCSB University Center (UCen) Map

