WORKSHOP #1

Santa Barbara City College Community Resilience Hub

Project Description

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.

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WORKSHOP #2

UCSB District Heating & Cooling Efficiency Project

Project Description

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.

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WORKSHOP #3

Santa Barbara County Food Bank Microgrid

Project Description

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.

Point of contact: **Dave Hasenford**
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WORKSHOP #4

Rancho Goleta Lakeside Solar Microgrid

Project Description

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.

Point of contact: **Craig Lewis**
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WORKSHOP #5

Santa Barbara Clean Energy Initiatives

Project Description

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.

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WORKSHOP #6

DoubleLand Agrivoltaics Project

Project Description

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.

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WORKSHOP #7

Dragon Wings Solar Generators

Project Description

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.

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WORKSHOP #8

SparkFund Distributed Capacity Procurement

Project Description

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

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