



Item 11: Energy Storage Innovations to Support Grid Reliability - GFO-23-317

August 13, 2025 Business Meeting

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Solicitation Overview



Source: SUNation Energy

- Support electric grid reliability and resiliency
- Advance novel energy storage technologies
- Provide multiple grid services in disadvantaged and low-income communities



Benefit to Californians

- Accelerate scale up of novel technologies
- Increase value of demonstrations
- Improve local energy resiliency in event of grid outages
- Reduce renewable curtailment
- Lower local GHG and pollutant emissions

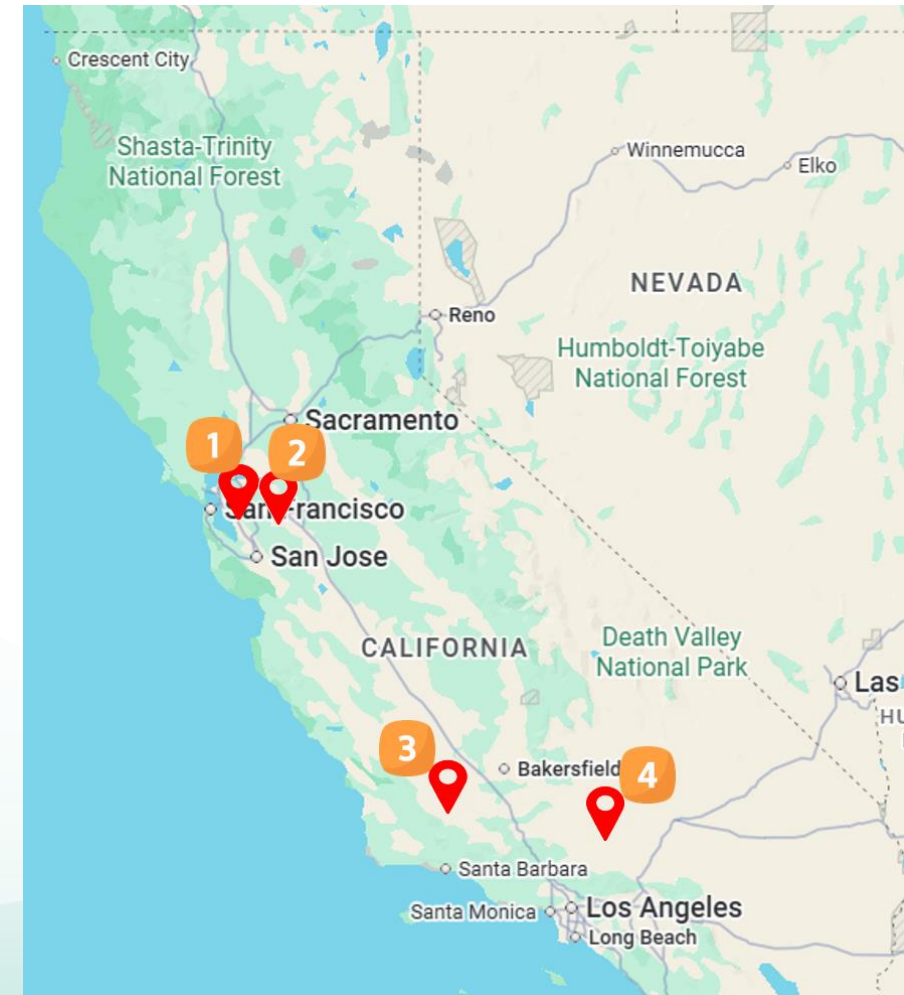


Source: Intersect Power



Summary of Proposed Agreements

| | Applicant | CEC Funds | Match Funds |
|---|--------------------------------|-------------|-------------|
| 1 | Enzinc Inc. | \$1,619,248 | \$523,766 |
| 2 | DarmokTech | \$2,000,000 | \$1,650,000 |
| 3 | Renewell Energy Inc. | \$5,004,537 | \$2,508,823 |
| 4 | Long Hill Energy Partners, LLC | \$9,995,463 | \$6,483,638 |



Source: CEC



Enzinc Inc.

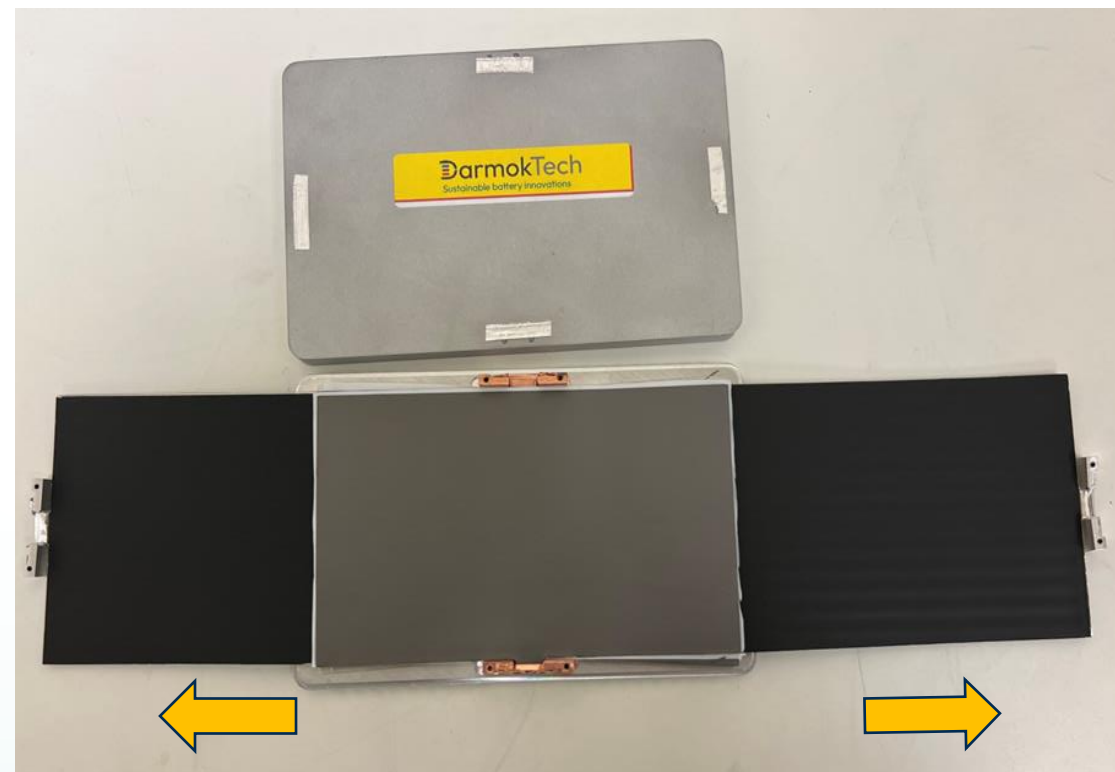


- Rechargeable nickel-zinc batteries
- Semi-automated manufacturing process of zinc sponge electrodes
- 100Ah battery system for testing in a microgrid application at UC Riverside test lab
- Lower cost of manufacturing, increase cell performance to 5000 cycles



Source: Enzinc Inc.

- Sodium-ion battery with solid-state electrolyte
- Cell architecture for improved recyclability at end-of-life
- Large format cells in stationary storage environment
- Reduce recycling emissions by 80%



Source: DarmokTech



Renewell Energy Inc



- Repurpose idle oil and gas wells for “Gravity Well” energy storage
- Long-duration energy storage with network of 5 wells
- Leverage existing infrastructure and workforce
- Estimated distribution deferral savings of ~\$350k

Source: Renewell Energy, Inc



Long Hill Energy Partners, LLC

- Quino Energy's 500 kW/5 MWh organic redox flow battery
 - Non-flammable technology with no toxic or hazardous gasses
- Backup power and resilience for High Desert Regional Health Center in Lancaster (DAC/LIC)
- Reduce electricity costs for HDRHC by \$300k/year



Source: Quino Energy, Inc.



Market Potential

Long Hill Energy Partners, LLC

- \$10.2M saved over 25-year system lifetime
- >\$700M in savings if deployed at 25% of critical community facilities in LA County

Renewell Energy Inc

- 124 GWh of Gravity Well storage available annually in CA
- >\$1B in savings in CA over system lifetime



Staff Recommendation

- Adopt staff determination that these projects are exempt from CEQA
- Approve four grant agreements