



Item 17: California Clean Energy Fund dba CalCEF Ventures

February 14, 2024 Business Meeting

Ayat Osman

Technology Innovation & Entrepreneurship Branch

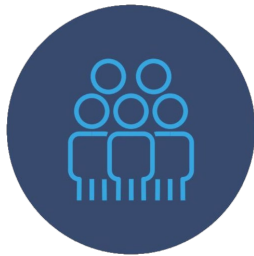
Energy Research and Development Division



Benefits to Californians



\$214 million
follow-on-funding



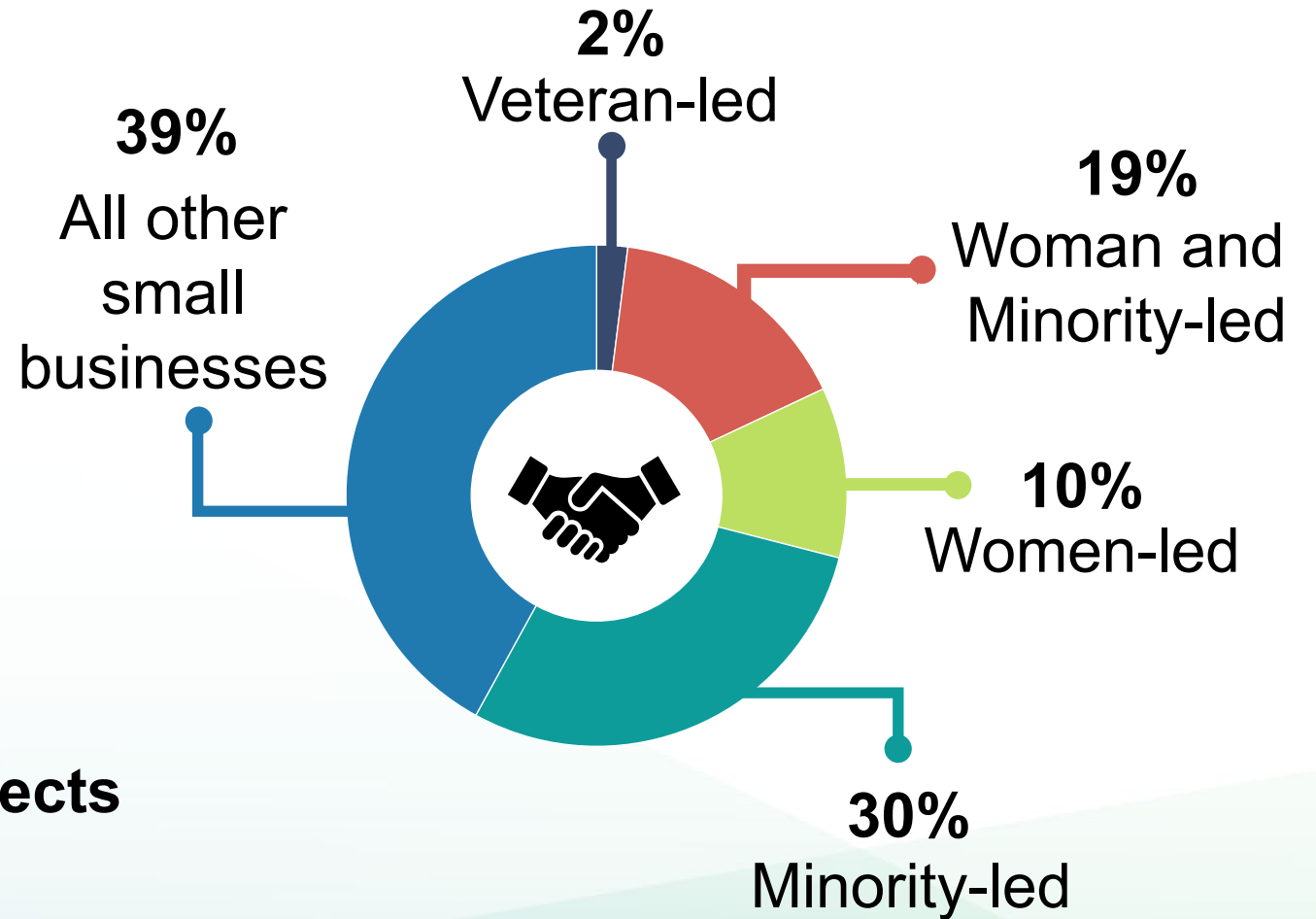
555 jobs
created



155 patents
registered



190 pilot projects
launched





CalSEED Background

The California Sustainable Energy Entrepreneur Development Initiative (CalSEED) provides small-scale funding for early-stage clean energy concepts.

Two stages of funding:

Concept Award

\$200,000

- Concept development & assistance
- Mentorship from industry leaders
- Introduction to resources to advance the concept



Prototype Award

\$500,000

- Successful Concept Awardees prepare for commercialization
- Business Plan Competition to push awardees to think about commercialization



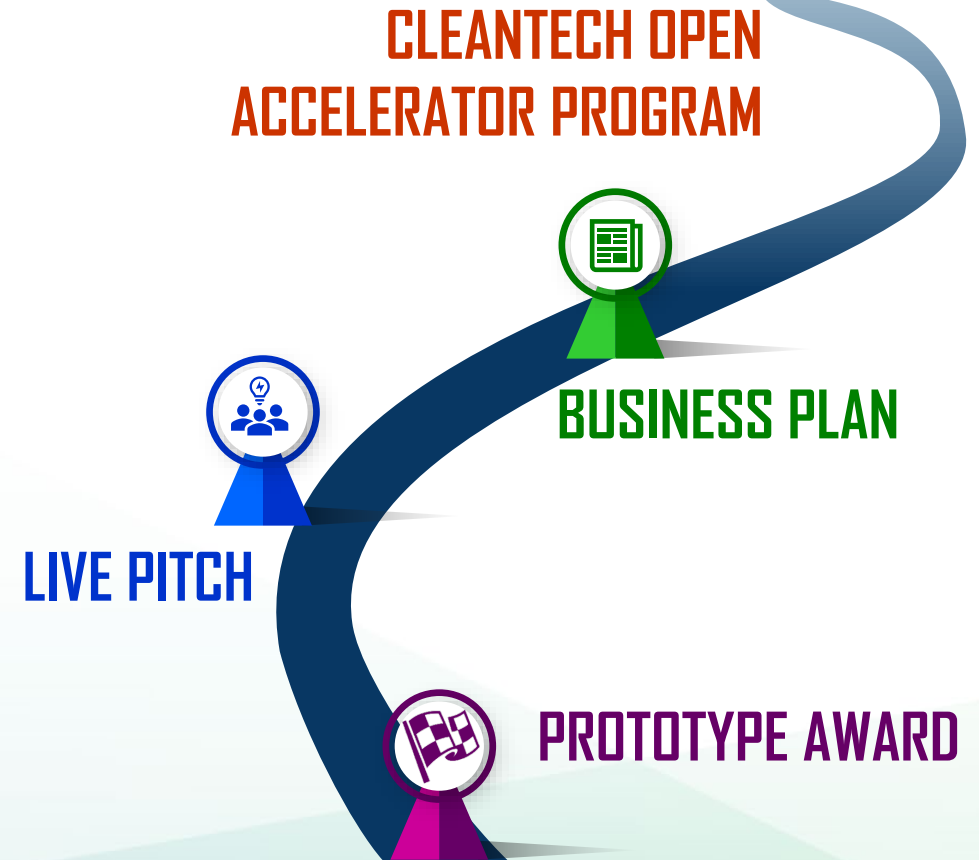
Prototype Award Process

6th Prototype Award competitive solicitation held in Q4 2023

Companies were judged on their technology's technical and commercial potential

- Business case analysis
- Company pitch session

Top six scores are being recommended for CalSEED Prototype Awards

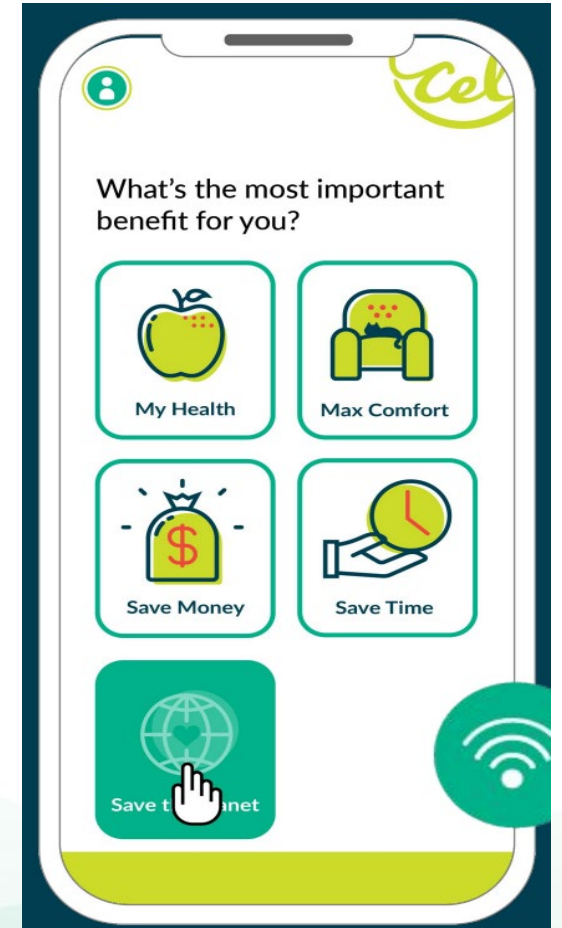




Community Energy Labs, Inc.

IoT Software Platform for Building Operators

- Improves Regulations Compliance
- Low Barrier CapEx <\$20k
- ROI in under 2 Months



Source: Community Energy Labs Application



Tyfast Energy Corp.

Designing a Battery for Heavy Duty Vehicles

- High power; 1-3 cycles/day
- ~10,000 cycles/~10 years
- -40 °C to +70 °C

TYFAST



Source: Tyfast Application



Solvari

Inexpensive Solar for the Residential Market

- 3x more home installations per day
- 25% cheaper from reduced complexity

Current Technology

22 Solar Panels

+450 parts



Solvari^{SR}
Solar Made Easy

22 Solvari Panels

+0 parts



Source: Solvari Application

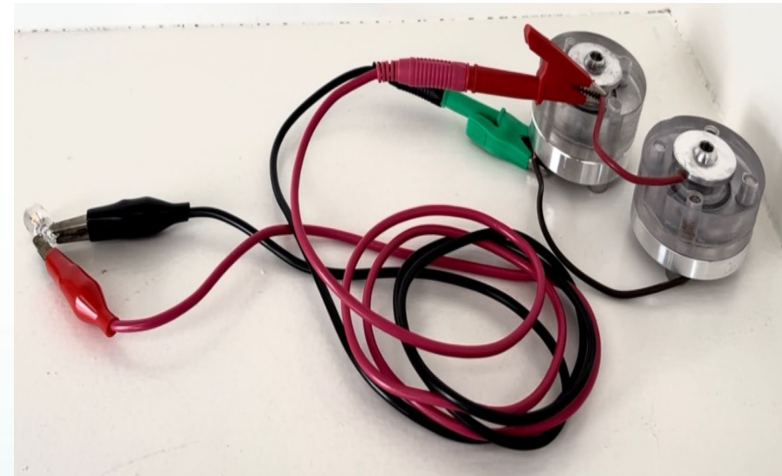


Ariya Energy

Dendrite-free Solid Metal Battery Grid Storage

- Zinc-based grid storage
- Expected \$100/kWh with 3000+ cycles and 99.5% efficiency
- 50% increase in cycle life

**ARIYA
ENERGY**



Source: Ariya Application



Aeromutable Corporation

Reducing Drag on Tractor Trailers to Extend Range

- Uses dynamic air injection at the back of the trailer
- Extends range by up to 16%



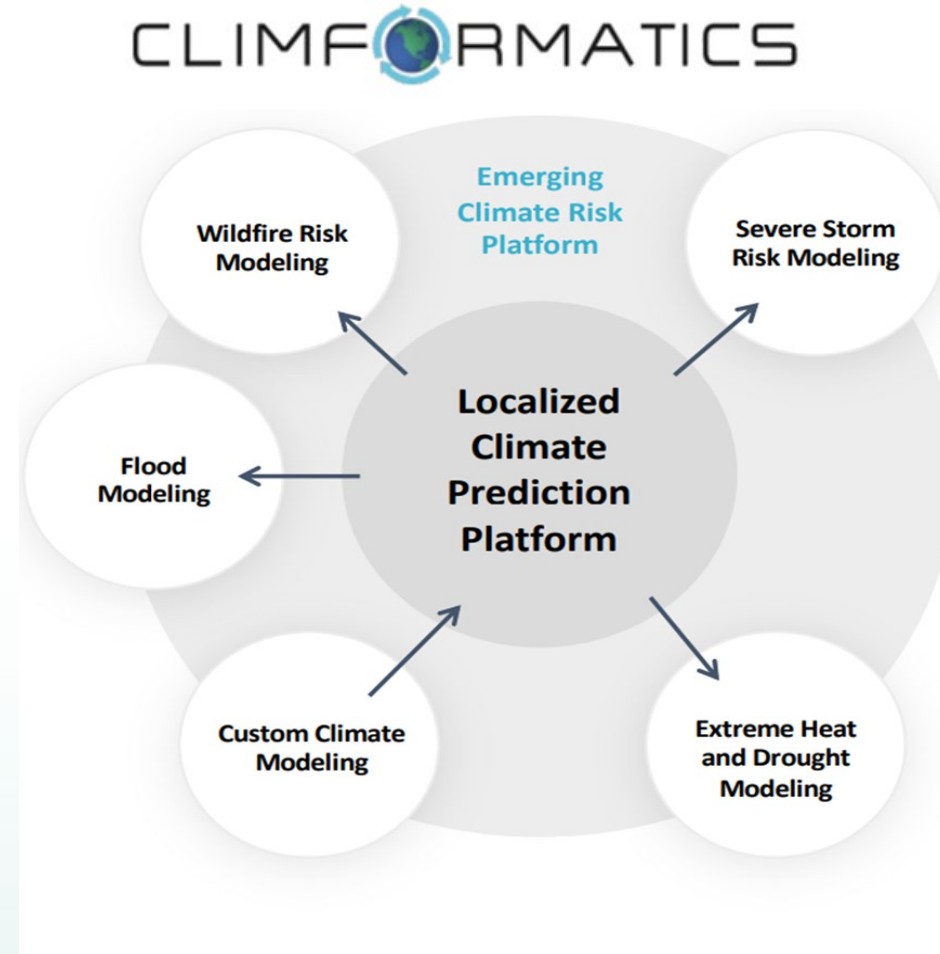
Source: Aeromutable Application



Climformatics Inc.

Localized Climate Prediction Platform

- Solar power and net load forecasts
- Fire-weather and extreme weather forecasts



Source: Climformatics Application



Staff Recommendation

- Approve these six small grant awards and staff's recommendation that this action is exempt from CEQA