

GEZ Updates: Technology Research & Technical Assistance/Stakeholder Engagement

GEZ Board Meeting - 9/19/25

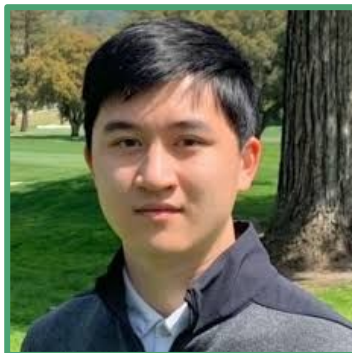
UC Berkeley Labor Center (UCB LC)

Plan for today

For today's meeting, the UCB Labor Center will provide updates on:

1. Technology Research, *Will Toaspern & Calton Kong*
2. Technical Assistance & Stakeholder Engagement, *Josh Sonnenfeld*

UCB Labor Center GEZ Team - New Additions!



Name and Title (*clockwise from top left corner*):

- **Jessie Hammerling,**
Co-Director
- **Francisco Arzu,**
Co-Director
- **Betony Jones,**
Senior Researcher
- **Calton Kong,**
Graduate Student
Researcher
- **Josh Sonnenfeld,**
Senior Researcher
- **Will Toaspern,**
Senior Researcher

Update: Priority Technology Subcategories

Key points to remember for today's discussion

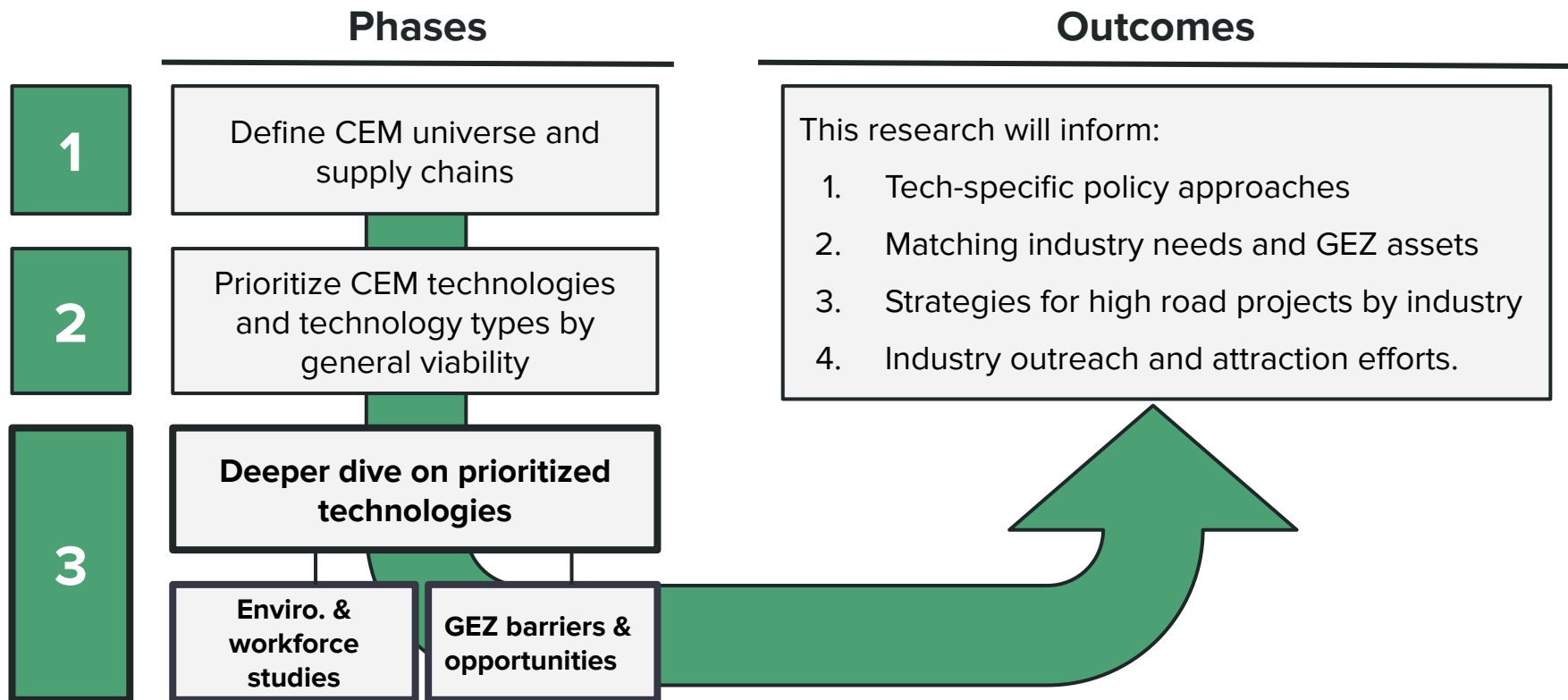
Focus is manufacturing



NOT saying no (or yes)



Technology research phases and outcomes



Phase 3 Technology Research

Target Timing

1	Environmental and workforce researchers	July - May '26
2	Research into facility and infrastructure needs	July - December '25
3	Employer outreach and interviews	Aug. - December '25

Goal: Interim Report and Recommendations by mid 2026

CEM priority tech and subcategories (1/3)

Technology	Justification	Subcategories
Batteries	<ul style="list-style-type: none">• Significant growth in demand.• Priority of state and regional policy.• Ripe for innovation and new products.• Large mfg. presence in Bay Area.	<ol style="list-style-type: none">1. Solid State Batteries2. Flow Batteries (Non-Vanadium)3. Thermal Batteries4. Module Assembly5. Cathode Material
Electric Grid Components	<ul style="list-style-type: none">• Critical lack of supply/capacity.• Larger voltage grid component mfg. not occurring in the West.• Innovation in power electronics.• Innovative component mfg. aligned with region's mfg. and R&D expertise.	<ol style="list-style-type: none">1. Electronics Manufacturing Services (EMS)2. Power electronic module assembly, low to medium voltage3. Switchgears, medium voltage4. High voltage distribution grid transformers5. Transformers, high voltage6. Switchgear, high voltage

CEM priority tech and subcategories (2/3)

Technology	Justification	Subcategories
Zero Emission Vehicles (ZEVs)	<ul style="list-style-type: none">• Regional clustering of hq and mfg• Clustering and innovation in niche ZEV technologies (e.g. - drones)• Interest in shipbuilding in the region	<ol style="list-style-type: none">1. Light/medium duty vehicles, >mid scale2. Drones3. Electric ferries4. Electric powertrain, >mid scale
Electric Vehicle Chargers	<ul style="list-style-type: none">• Critical for ZEV transition.• Regional clustering/expertise.• New mfg. announced in region.• Priority of state and regional policy.	<ol style="list-style-type: none">1. DC Fast Charger
Heat Pumps	<ul style="list-style-type: none">• State and regional demand drivers.• Some opportunity for innovation.	<ol style="list-style-type: none">1. Heat Pump Water Heaters, commercial

CEM priority tech and subcategories (3/3)

Technology	Justification	Subcategories
Offshore Wind	<ul style="list-style-type: none">• GEZ locations identified by State as viable for offshore wind supply chain.• Significant supply chain segments must be located near deployment	<ol style="list-style-type: none">1. Floating steel and semi-submersible platforms, construction2. High Voltage Direct Current subsea cables
Electrolyzers (Green Hydrogen)	<ul style="list-style-type: none">• Green hydrogen is key to decarbonize hard-to-abate industries.• Very low current market penetration.• Priority of State of CA.	<ol style="list-style-type: none">1. Catalyst, stack and module assembly

Update: Technical Assistance & Stakeholder Engagement

Technical Assistance

The Labor Center's no-cost, confidential T.A. program is up and running:
<https://laborcenter.berkeley.edu/technical-assistance-for-a-high-road-economy/>

Examples of the type of assistance we offer:

- Identifying labor and community partners for new or ongoing projects.
- Facilitating introductions and relationship-building with potential partners, including economic development officials at GEZ municipalities.
- Identifying public funding opportunities.
- Reviewing workforce and community impact sections of funding applications and recommending ways to strengthen them before submission.
- Providing resources and examples of best practices for high-road partnerships and community benefits plans.

Technical Assistance

Who do we serve?

- Businesses, community-based organizations, unions, economic and workforce development professionals, elected officials and other policymakers, or others interested in exploring high-road strategies related to your work.
- Applicants for public funding who are seeking support related to labor and community partnerships.

Technical Assistance

How to access TA support:

Visit the UC Berkeley Labor Center's website for a brief intake form:

<https://laborcenter.berkeley.edu/technical-assistance-for-a-high-road-economy/>

Contact Francisco Arzú at farzu@berkeley.edu with any questions.

Please refer potential clean energy manufacturing projects!

Technical Assistance: Example

In Spring 2025, the State of California made available \$120M for its California Jobs First Regional Investment Initiative for projects aligning with the state's CA Jobs First Economic Blueprint.

UCB Labor Center provided TA to New Energy Nexus and the Battery Innovation Center, on a proposal to develop a battery materials processing facility in Contra Costa County, with a connected tech campus and workforce innovation center. While the project was not successful in its initial grant application, the group formed strong labor and community partnerships and is continuing to pursue the project, with an explicit focus on the GEZ.

Stakeholder Engagement in Phase 3 Research

Site/Infrastructure

Workforce

Environmental

Scope

Identify facility, site & infrastructure needs for manufacturing projects in priority technology areas

Identify occupations, skills, training needs, and strategies to support job quality and job access

Identify environmental risks and avoidance/mitigation strategies

Stakeholder Engagement

Employer interviews; Real estate industry interviews; utility interviews

Employer Interviews; Labor/Workforce Interviews

Environmental and community stakeholder table