

State & Local Energy Climate Coordination (SLECC)

Meeting #10 | March 13, 2025
Virtual

*Coordination meetings between State and local
leaders across California*

Co-facilitated by



CALIFORNIA
STRATEGIC
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With sponsorship support from



And coordination with ...





Welcome to SLECC!



Purpose

SLECC will serve as a **statewide communication and ideation hub to help State and local leaders improve coordinated efforts** to more rapidly unlock the unique potential of California regions and communities to address energy, climate, and land use goals.

SLECC will **identify priority needs and co-create operational solutions to advance place-based energy and climate action.**

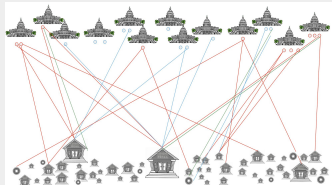
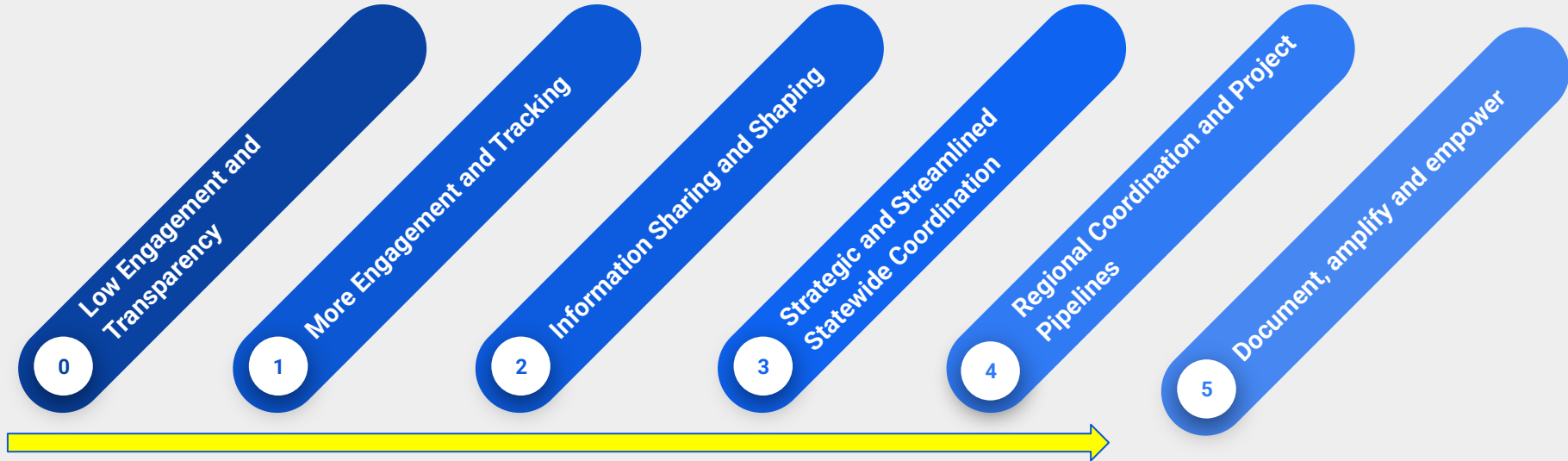
TODAY'S AGENDA

- **Welcome & Purpose/Progress of SLECC**
- **Roundtable Updates**
- **Discussion Topic: *Advancing Housing and Climate Goals through State-Local Collaboration***
 - Topic introduction, barriers & progress to date
 - Breakout 1: *Residential Decarbonization*
 - Breakout 2: *Housing Access and Affordability*
- **Closing**



Purpose & Progress of SLECC

CCEC's Phased Approach to Better State & Local Coordination



SLECC





Purpose & Progress of SLECC

We set out to: Build deeper understanding and stronger collaborative relationships between State and local agencies to identify barriers and streamline/improve delivery of energy and climate information, resources, and services.

SLECC and
other CCEC
Meetings

ID barriers and solutions



SLECC Annual Report

STATE & LOCAL PRIORITIES

- Climate Action
 - Planning Capacity
 - Source Data
 - Transitioning To Action
 - Legal Hurdles
 - Load Constraints
- Housing & Climate Nexus
 - Residential Decarbonization & Affordability
 - Climate Resilient Housing
 - Housing Access and Affordability
 - Infill, transportation and VMT
- Community and Energy Resilience
 - Climate Vulnerability Information
 - Energy Resilience and Reliability
 - Nature-based Solutions
- Renewable Energy Development
 - Changing incentives
 - Siting, Permitting, and Interconnection
 - Community Solar
- Clean Transportation
- CROSS CUTTING THEMES
 - Streamlined Communications and Engagement
 - Funding Access



SGC Priority 3 Work
Plan Update and
other policy
engagement
opportunities



Roundtable Updates

*What does **your** organization want State and local governments to know more about?*

- *Assistance, learning, or engagement opportunities*
- *Recent successes/lessons*
- *Information needs*
- *Invitations to partner*



Featured Discussion



Advancing Housing and Climate Goals Through State-Local Collaboration





Discussion: Advancing Housing and Climate Goals Through State-Local Collaboration

Overview and Engagement to Date



SGC Priority 3 Goals

- ★ Ensure existing opportunities to simultaneously advance the State's housing, climate, and equity objectives are utilized to their full potential.
- ★ Identify and elevate additional tools and strategies to meet the State's housing, climate, and equity goals in a coordinated way and at the scale and pace necessary to close existing gaps and meet the urgency of current and projected needs.
- ★ Improve coordination and information sharing between State, local, federal, and Tribal partners at the nexus of housing, climate, and equity.

SLECC engagement conducted

- October 2023 Regional Workshop in San Diego:
 - "From What to How: Advancing Housing, Climate, and Equity Through State-Local Coordination"
- December 2024 [Regional Workshops in Inland Empire](#)
 - "Decarbonizing Homes and Buildings"
 - "Aligning State and Regional Goals at the Nexus of Housing and Climate"



Discussion: Advancing Housing and Climate Goals Through State-Local Collaboration

What have we already heard? Key Barriers

Residential decarbonization and energy affordability

- Making home decarbonization retrofits affordable necessitates a more coordinated effort to use all capital and programmatic options
- Residential energy bills are increasing, making electrification initiatives more difficult. The state is not meaningfully addressing the real cost drivers and instead is targeting energy efficiency programs that can help lower bills. .

Housing access and affordability

- Housing is needed to support population and economic growth in many areas of CA, but is not always welcome by communities
- Funding is available to build housing, but the requirements are overly complicated and duplicative among sources
- Housing development is thwarted by lacking infrastructure such as aging grids and limited electricity load capacity
- The limited supply of housing has inflated prices beyond what is within reach of too many Californians
- Lack of affordability exacerbates financial burdens and climate vulnerability, and contributes to sprawl
- Housing development and sprawl results in greater emission levels within jurisdictions that will need to be mitigated

Climate resilient housing

- More resources are needed to make homes more wildfire, heat and energy resilient and insurable (e.g. fire resistance materials, backup power/batteries)
- It is too difficult to rebuild homes after disaster

Infill, transportation and VMT

- Infill development has great potential to avoid sprawl, reduce greenhouse gas emissions, and create homes near community amenities, jobs and schools, but it requires greater levels of local and regional capacity and coordination, and stable access to funding
- Multi-benefit projects are difficult to finance due to fragmented State funding landscape



Discussion: Progress on Barriers to Local Climate Action

Breakouts

Breakouts - Choose a Breakout

30 minutes then report out

- **Breakout 1: Residential Decarbonization** - *Facilitated by Angie Hacker (CCEC), panelists include Frederick Chung (LA County, SoCal Equitable Building Decarbonization), Genero (The Energy Coalition, Bassett Avocado Heights Advanced Energy Community model), Chris Moore (CPUC), Deana Carrillo (CEC)*
- **Breakout 2: Housing Access and Affordability** - *Facilitated by Sean Kennedy (SGC), with panelist Tyler Pullen (Turner Center)*



Discussion: Progress on Barriers to Local Climate Action

Breakout 1

Breakout 1: *Residential Decarbonization* - Facilitated by Angie Hacker (CCEC)

Related barrier:

- ★ Making home decarbonization retrofits affordable necessitates a more coordinated effort to use all capital and programmatic options

OUTLINE

- *Local perspectives:*
 - *Frederick Chung (LA County, SoCal Equitable Building Decarbonization)*
 - *Genero (The Energy Coalition, Bassett Avocado Heights Advanced Energy Community model), Chris Moore (CPUC), Deana Carrillo (CEC)*
- *State perspectives:*
 - *Chris Moore (CPUC)*
 - *Deana Carrillo (CEC)*
- *Discussion: How can state and local leaders collaborate to address challenges?*



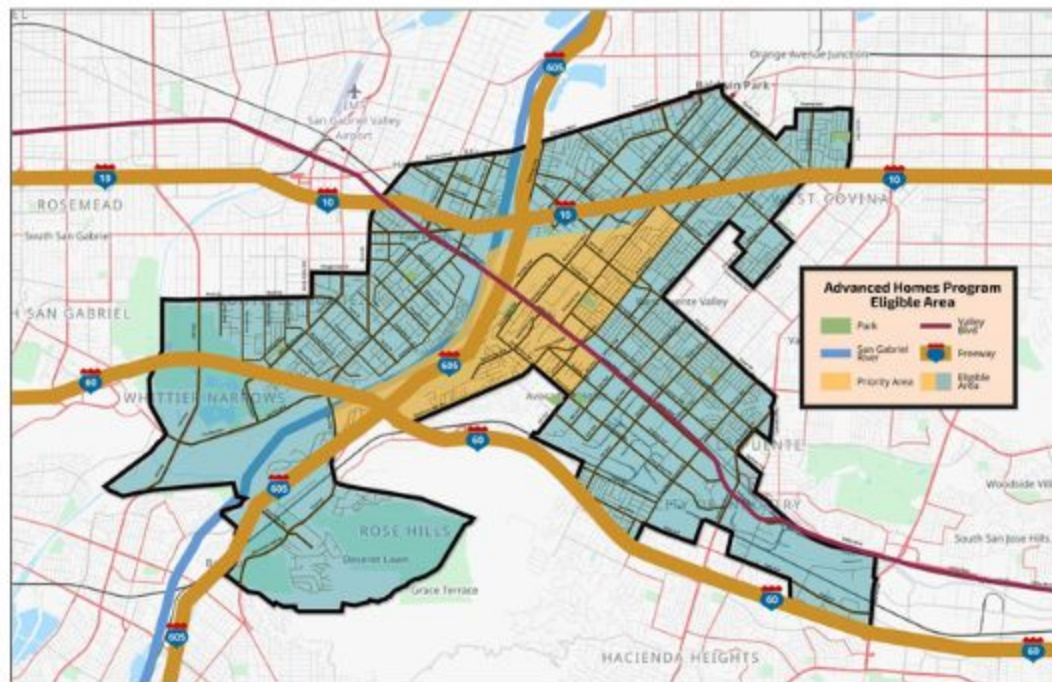
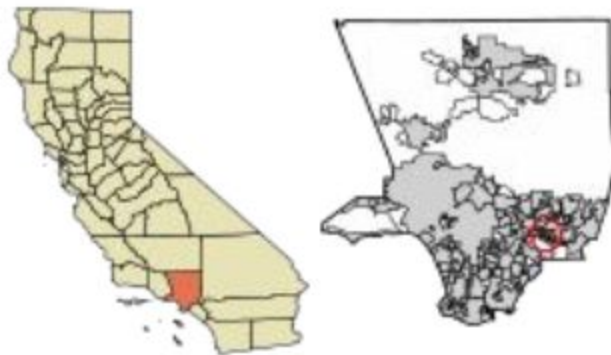
State & Local Energy and Climate Coordination (SLECC)

March 13, 2025

Bassett Avocado Heights + Surrounding Communities



- \$9M CEC EPIC Grant
- Targeted at low-income households
- All disadvantaged tracts
- East Los Angeles County



Advanced Homes



LACI Community Pilot

(QSG)



Metric	Total
Leads / Site Assessments	106 / 55
Failed Site Assessment	36
Air Monitoring Tests	17
Homeowner / Renter	16 / 2
Induction Stove installations	19



Induction stoves help the planet stay cooler. You may qualify for one



Induction
Powered by L. 2023/04/04

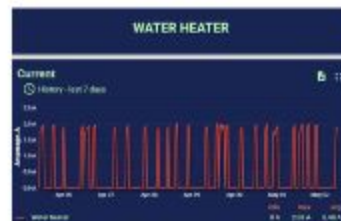


INDUCTION STOVE: A woman standing next to an induction stove.

& Quick Start Grant



Metric	Total
Water heater assessments	50
Water heater tune-ups	14
Whole-home assessments	20
HPWH installations	20



[Link to Final Report](#)

The gaps in building decarbonization programs – and how to fix them

Published June 15, 2023



Photo: L. 2023/06/15



Community Outreach

Authentic community-led outreach with wraparound customer support

- Partnerships with community-based organizations and public agencies
 - Engage as early as possible and throughout the project, not just at the start
- Provide wraparound services that address health, safety, social, and economic concerns
- Diverse strategies: presentations, workshops, demos, pop-ups, and canvassing



81
outreach
activities
completed

570
residents
assessed for
eligibility



Advance Homes



34

Rooftop solar
installations

62%

Roof replacements,
average of \$18k

71%

Main electrical
panel upgrades,
average of \$6k



20

Heat pump water
heater installations

19

Induction stove
installations

50

Water heater
tune-up services



19

Batteries (two per
home installation)

\$359k

In battery bridge
financing

Pipeline

22 / 56

Solar + Storage

22

Full Electrification

9

Partial
Electrification



Battery Storage Deployment

2021-2022

In Search of Partners/Biz
Models in Question



greenconvergence
solar

28 Contacted

08 Interviews

04 Interested

03 SOWs



sonnen

2022-2023

Bridge Financing w/ Retrofit
Add-On Battery



Winston
& STRAWN
LLP



2023-2025

Survive Swell; wait on SGIP

Haven

FRANKLINWH



sunrun



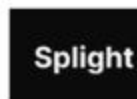
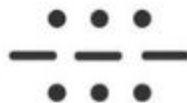
Non-Technical Barriers and Potential Solutions

Distrust of Energy Companies and/or Data Sharing	<ul style="list-style-type: none">● Partner with community organizations, build personal relationships with community members, take time● Have answers to community members' concerns, follow up● Proactively use brand name in all communications, avoid confusion● Emphasize and personalize the benefits● Set clear expectations up front, explain roles, lines of communication● Clearly define eligibility early on, build flexibility in program design
Lack of Understanding of Clean Energy Technologies	<ul style="list-style-type: none">● Provide accessible, family-friendly and youth-focused education● Provide materials (education) in multiple languages, in various formats● Be flexible and customize the approach/delivery
History of Environmental Inequities	<ul style="list-style-type: none">● Use a framework of community investment and equity● Communicate the long-term vision, distinguish the project as a solution● Acknowledge, be honest, manage expectations

Implementation Partners



NOT including Technical Advisory Committee (TAC) and Community Advisory Committee (CAC)





Thank you!

Genaro Bugarin
Director of Energy Innovation
gbugarin@energycoalition.org





Discussion: Progress on Barriers to Local Climate Action

Breakout 1

Breakout 2: *Housing Access and Affordability* - Facilitated by Sean Kennedy (SGC), with panelist Tyler Pullen (Turner Center)

Related barriers:

- ★ Housing is needed to support population and economic growth in many areas of CA, but is not always welcome by communities
- ★ The limited supply of housing has inflated prices beyond what is within reach of too many Californians
- ★ Housing development result in greater emission levels within jurisdictions that will need to be mitigated
- ★ It is too difficult to rebuild homes after disaster

OUTLINE

- Sean Kennedy (SGC)
- Tyler Pullen (Turner Center)
- Discussion: How can state and local leaders collaborate to address challenges?

Factory-built housing (~prefab, modular, and other phrases)

Tyler Pullen

Terner Labs and Terner Center

March 2025



**Terner
Labs**

**TERNER
CENTER
FOR HOUSING
INNOVATION**
UC BERKELEY

A brief primer on the ~spectrum of FBH

Kit of parts

Flat pack

Volumetric modular

Kit of parts

Flat pack

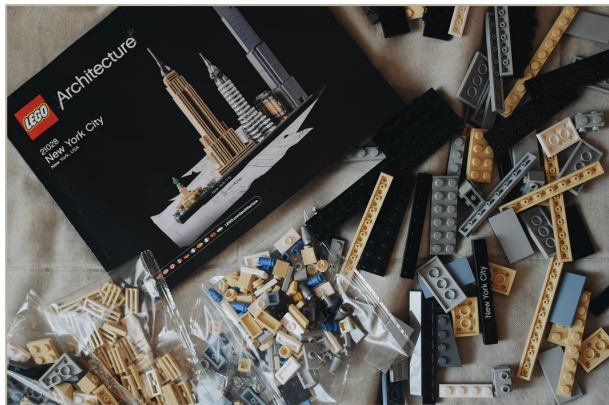
Volumetric modular



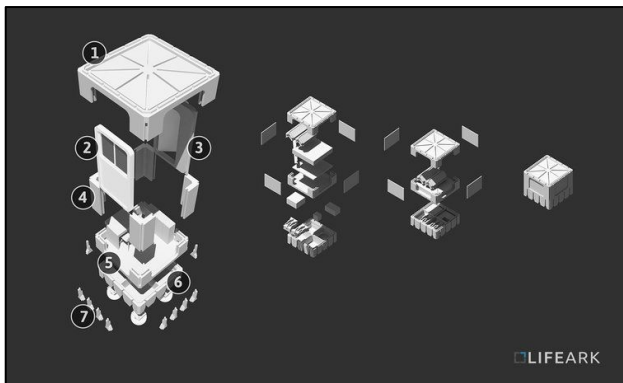
Top: Carlos Aranda, 2020 ([link](#))

Bottom: Builder Online, courtesy of nArchitects and MIR studio ([link](#))

Kit of parts



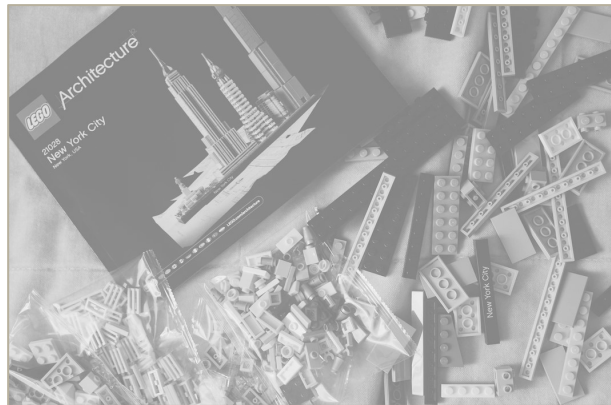
Flat pack



Volumetric modular



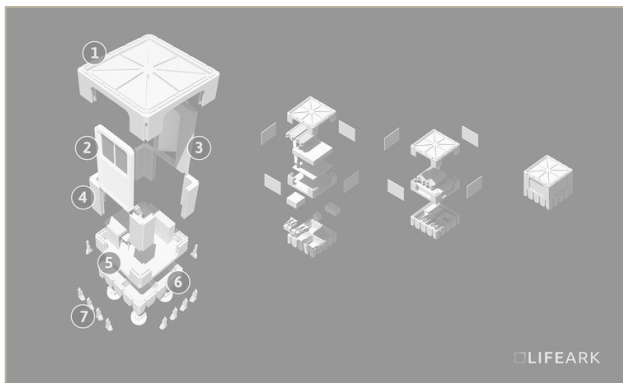
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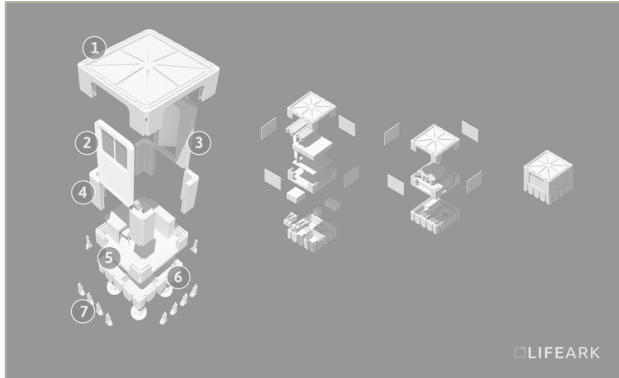
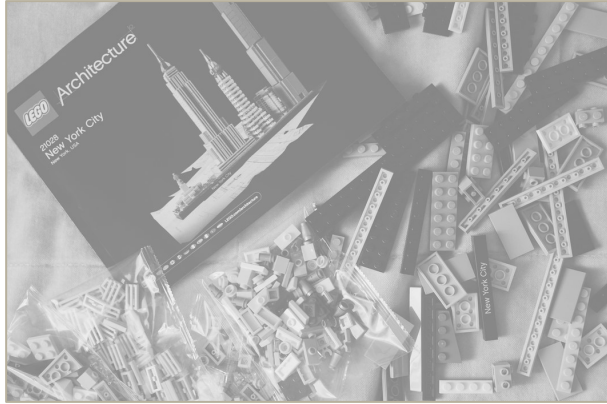
Flat pack



Volumetric modular



Kit of parts



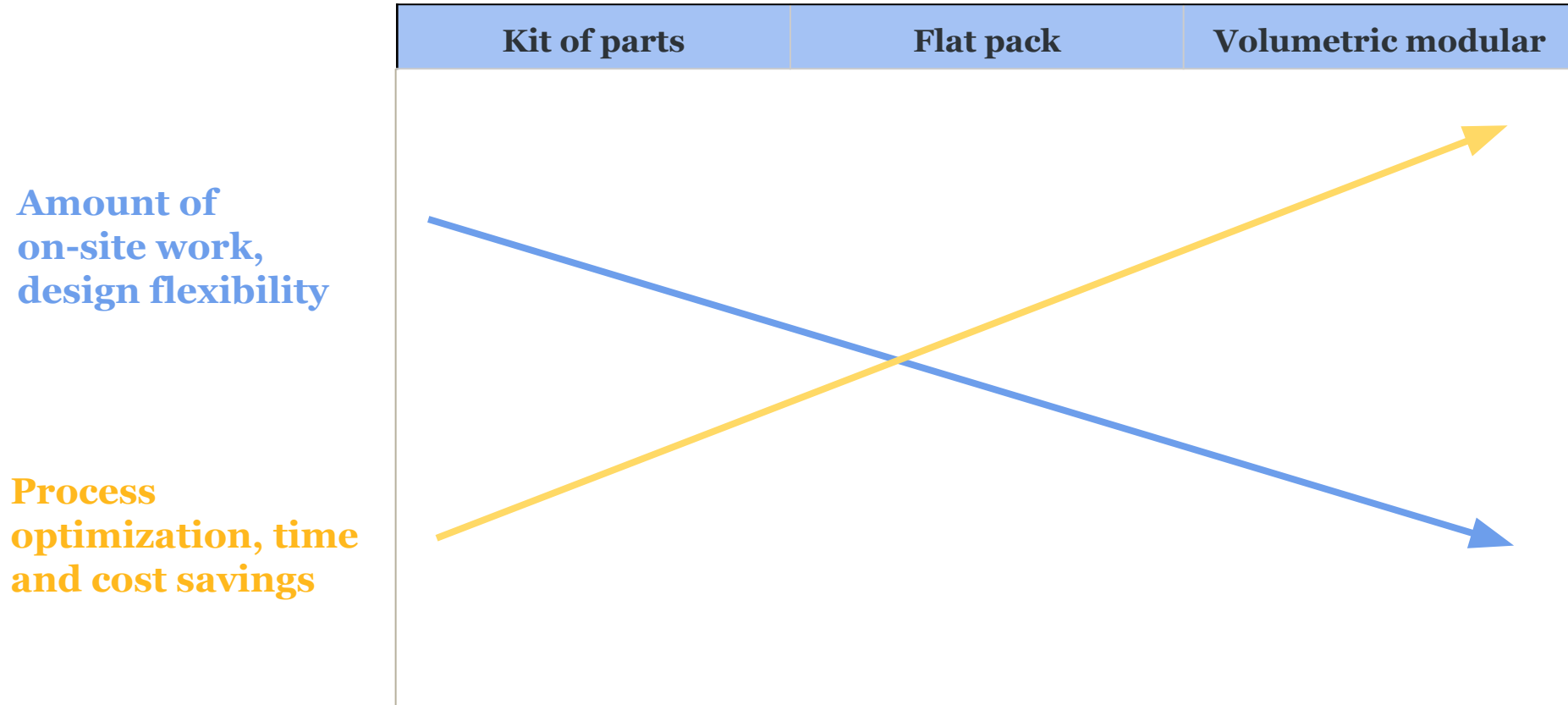
Flat pack



Volumetric modular



In general terms:



FBH is basically the magical Mirror of Erised from Harry Potter:



Potential benefits include:

- Faster construction (true)
- Lower costs (*mostly* true, with caveats)
- Safer work (true)
- More diverse workforce (anecdotally true)
- Reduced material waste (likely true)
- Higher quality construction (possibly true, tricky to measure and prove)

The challenges for FBH (and other innovations) are largely the same challenges for construction writ large

These Challenges Include:

- Uncertainty and inconsistency in housing development
- Industry fragmentation
- Risk aversion (culturally, financially)
- Lack of familiarity/experience related to the above



Factory-Built Housing

State-local Energy & Climate Collaborative | March 2025



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Factory-Built Housing (FBH)

- **October 2023:** SGC Resolution to Support Energy-Efficient FBH to Meet the State's Housing, Climate, and Equity Goals
 - Council Priority 3: Housing, Climate, & Equity
 - Affordable Housing & Sustainable Communities Program
- **FBH Benefits**
 - Time, cost, and material savings
 - Energy efficiency
 - Quality jobs
 - Greenhouse gas reductions



San Leandro Senior Apartments

Affordable housing built on former parking lot across from San Leandro BART Station.
Reduced 22 weeks of construction time.
Funded by AHSC.



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Original Opportunity – FBH Pre-Development

Goals

- Build new/expand energy-efficient FBH manufacturing facilities in California
- Expand FBH market in California and co-benefits that support State priorities

Policy Priorities

- Accelerate supply of affordable and energy-efficient housing in CA
- Support Justice40 and California priority communities through community & workforce benefits
- Support disaster relief, recovery, and resilience

Funds Available: \$12M to support applicants applying for Part II of the US DOE LPO Title 17 Clean Energy Financing Loan

- Environmental assessments, financial planning, community benefits plan development, and other activities needed to apply for federal funding

Funding Source: Affordable Housing & Sustainable Communities (AHSC) Program set-aside

- Part of California Climate Investments (CCI) to reduce GHGs and benefit Disadvantaged Communities



FBH Round 1 and 2 Program Results

Applications and Awards

- Round 2 applications closed Jan 3, 2025
- 1 applicant submitted to both rounds; no award

Short-Term Proposal Withdrawal

- No Phase I applicants far enough along in the application process to meet funding timeline
- Uncertainty the LPO program will continue under new administration

Barriers for FBH Applicants

- Offtake - Applicants lack purchase agreements necessary to pay back LPO loan
- Scale - LPO \$100m project threshold too large for early-stage companies
- Small Pool – Limited manufacturers overall, very limited participation in LPO program



FBH Program Update

Objectives

- Better understand the barriers to deployment of FBH in the California market
- Enhance market adoption of FBH
- Leverage/unlock other investments in FBH
- Identify programmatic alternatives
- Right-size activity funding
- Match and increase demand to supply
- Improve affordability



FBH Program Update

Approach

- Determine programming updates in alignment with FBH resolution and CCI guidelines
- Continued Stakeholder Engagement
- Market Research
 - Focus on known gaps/challenges and areas that need refinement
 - Narrow to areas that could be reasonably addressed with available program funds



Factory-Built Housing Pre-Development Fund – Broader Opportunities

- Request for Information (RFI)
 - Seeks input from broad cross-sector stakeholders and industry experts to define:
 - Experience/expertise related to FBH
 - Barriers to FBH deployment in California
 - Opportunities for FBH in California
 - Types of support/interventions needed to enable greater deployment
 - Recommendations for how SGC's funding may have the largest impact
 - Opened February 20, 2025 / Closes March 20, 2025

SGC Factory-built Housing
Landscape Assessment



Program Re-Design - Initial Observations

- Deployment Barriers
 - Non-standardized building codes at all levels
 - Local zoning restrictions
 - Financing vehicles for purchase
 - Negative perception / Low Market Acceptance
 - Complex transportation logistics
 - Installation requires specialized labor
- Limits to Funding Manufacturing Facilities
 - Few eligible applicants
 - Limited focus on urban infill projects
 - Facility proximity to consumer demand
 - Predominately outside of California near large master planned communities
- Demonstrable Benefits/ROI
 - Variable based on project conditions (location, housing type, and project scale)



Preliminary Re-Design Opportunities

- Focus on deployment of FBH (demand side), rather than on development of factories (supply side)
- Conduct a mix of interventions to support deployment
 - Education to increase awareness of opportunities, affordability and benefits
 - Toolkits for local governments (planning, zoning, codes, siting, installation)
 - Pilot projects to demonstrate feasibility and ROI



Discussion (1 of 2)

- Please describe your experience or expertise as it relates to factory-built housing in California.
- Please describe your existing relationships with other FBH market participants in California.
- In your experience, what have been the most significant barriers to factory-built housing **supply** in California?
- In your experience, what have been the most significant barriers to factory-built housing **deployment** in California?



Discussion (2 of 2)

- What do you see as the most significant opportunities for factory-built housing deployment in California?
- What specific forms of support (capital, financing, market development, regulatory, etc.) and other interventions could enable greater deployment of factory-built housing in California?
- Do you have recommendations for how \$1-3M in grant funds could enable greater deployment of factory-built housing?



Questions?

SGC Factory-built Housing
Landscape Assessment



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Discussion: Discussion: Advancing Housing and Climate Goals

Report Out

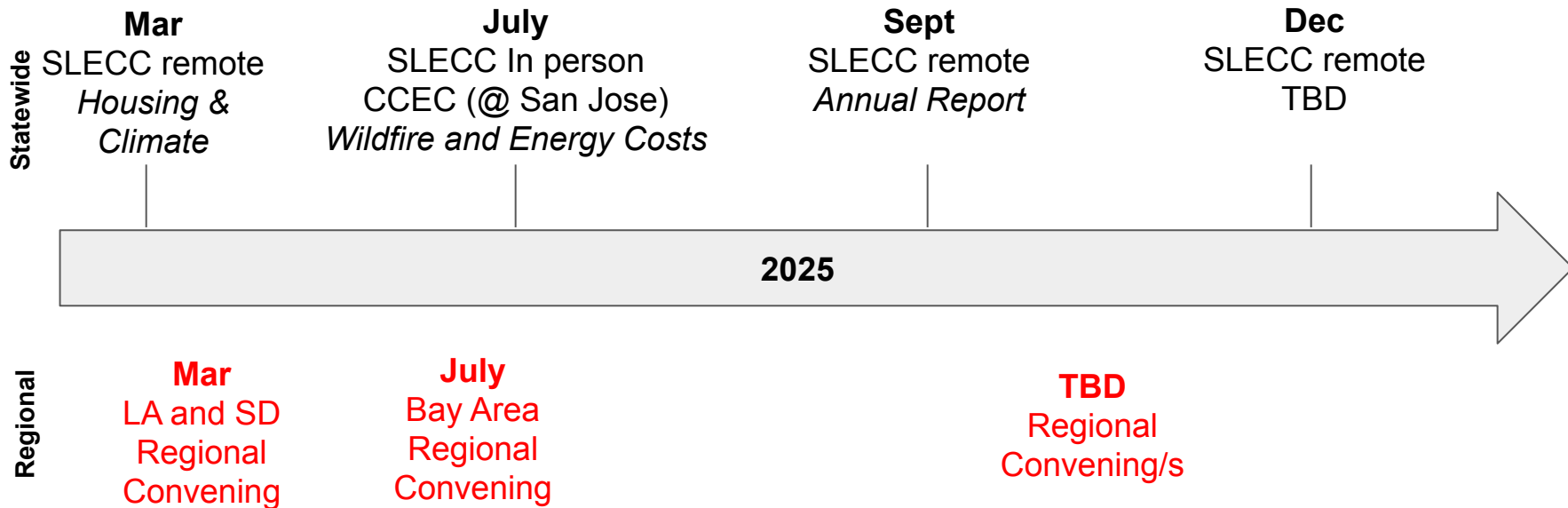
Facilitators briefly report:

- Key points
- What attendees felt needs to happen next



What's Next for SLECC

State and Local Coordination & Engagement Needs (2025)



Contact
ahacker@civicwell.org

What's Next?

- Catalyst Convenings:
 - SD March 25
 - LA March 26
- Next SLECC statewide meeting date: **July 9, 2025 (in person as CCEC Forum)**

*Thank you for sharing
your insights!*

