



**LA100 Equity Strategies
Steering Committee Meeting #15
February 15, 2023**



Los Angeles Department of Water & Power (LADWP)

Project Leads



Simon Zewdu
Director

Transmission Planning,
Regulatory, and Innovation Division



Pjoy T. Chua, P.E.

Assistant Director
Transmission Planning, Regulatory,
and Innovation Division



Steve Baule

Utility Administrator
LA100 Equity Strategies Oversight
& UCLA Contract Administrator



Stephanie Spicer

Community Affairs Manager



Agenda

Start Time	Item
10:00 a.m.	Welcome
10:05 a.m.	Meeting Purpose and Agenda Overview
10:10 a.m.	Steering Committee Check In & Community Spotlight
10:25 a.m.	Community Listening Sessions (Part 1)
11:10 a.m.	Preliminary Results & Strategies Discussion <ul style="list-style-type: none">• Equitable access to EVs and charging• Multimodal strategies for reduced transportation energy burdens
11:55 a.m.	Wrap Up and Next Steps



Our Guide for Productive Meetings



Raise your hand
to join the
conversation
(less chat
entries, more
talking)



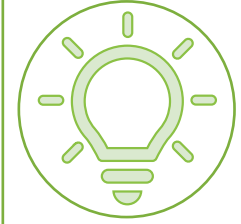
Help to make
sure that
everyone has
equal time to
contribute



Keep input
concise and
focused so that
others have
time to
participate



Actively listen to
others to
understand their
perspectives



Offer ideas to
address others'
questions and
concerns



Steering Committee Roster

Organization	Representative
Alliance of River Communities (ARC)	Vincent Montalvo
City of LA Climate Emergency Mobilization Office (CEMO)	Marta Segura, Rebecca Guerra
Climate Resolve	Jonathan Parfrey, Bryn Lindblad
Community Build, Inc.	Robert Sausedo
DWP-NC MOU Oversight Committee	Tony Wilkinson, Jack Humphreville
Enterprise Community Partners	Jimar Wilson, Michael Claproth
Esperanza Community Housing Corporation	Nancy Halpern Ibrahim
Los Angeles Alliance for a New Economy (LAANE)	Kameron Hurt, Estuardo Mazariegos
Move LA	Denny Zane, Eli Lipmen
Pacific Asian Consortium in Employment (PACE)	Celia Andrade, Susan Apeles
Pacoima Beautiful	Veronica Padilla Campos, Melisa Walk
RePower LA	Michele Hasson, Roselyn Tovar
The South Los Angeles Transit Empowerment Zone (SLATE-Z)	Zahirah Mann, April Sandifer
South LA Alliance of Neighborhood Councils	Thryeris Mason
Strategic Concepts in Organizing and Policy Education (SCOPE)	Agustín Cabrera, Tiffany Wong



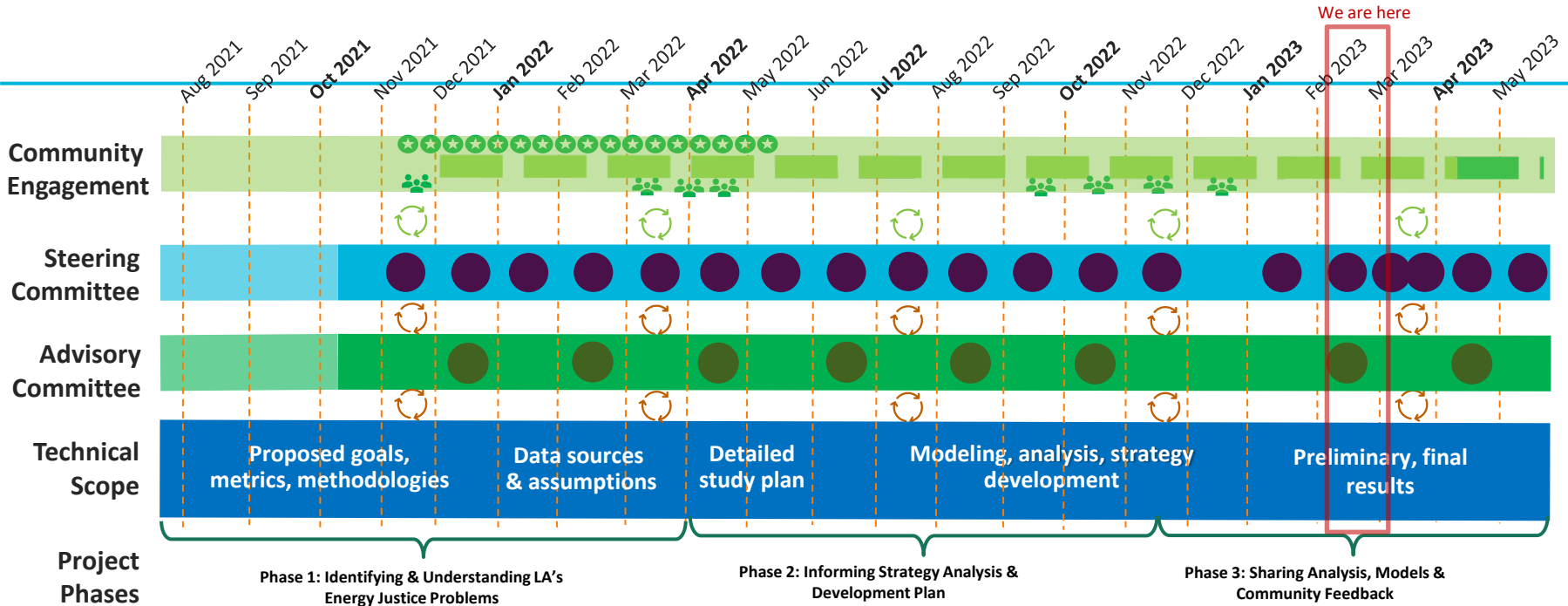
Steering Committee Agendas

Tentative Schedule



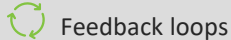
2/15/23 #15	<ul style="list-style-type: none">• Community Listening Sessions (Part 1)• Preliminary results and strategies discussion:<ul style="list-style-type: none">• Transportation electrification
3/15/23 #16	<ul style="list-style-type: none">• Community Listening Sessions (Part 2)• Preliminary results and strategies discussion:<ul style="list-style-type: none">• Housing—Weatherization and Resilience• Affordability (UCLA)
3/29/23 #17	<ul style="list-style-type: none">• Preliminary results and strategies discussion:<ul style="list-style-type: none">• Air Quality and Health (NREL)• Air Quality and Health (UCLA)• Local Solar and Storage• Grid Reliability and Resilience• Energy Atlas (UCLA)
4/19/23 #18	<ul style="list-style-type: none">• Preliminary results and strategies discussion:<ul style="list-style-type: none">• Rates & Affordability (NREL)• Universal access to safe and comfortable homes• Jobs (UCLA)

LA100 EQUITY STRATEGIES: TIMELINE & FRAMEWORK



Legend

Key connections



Engagement

- Community Engagement
- Steering Committee
- Advisory Committee

Digital Engagement Phases

- LA100 ES Digital Engagement
- Post-LA100 ES Engagement

Meetings

- Steering Committee
- Advisory Committee

Interviews

- One on One
- Listening Sessions

Steering Committee Check In

What do you see as two top priorities to address with equity strategies?

(type in Chat)



Steering Committee Spotlight

Enterprise Community Partners





LA 100 ES Steering Committee Spotlight

MICHAEL CLAPROTH

Program Director, Sustainable Connected Communities



Our Goals



Increase Housing Supply

Preserve and produce good homes that people can afford



Advance Racial Equity

After decades of systematic racism in housing



Build Resilience & Upward Mobility

Support residents and strengthen communities to be resilient to the unpredictable

Why Enterprise?

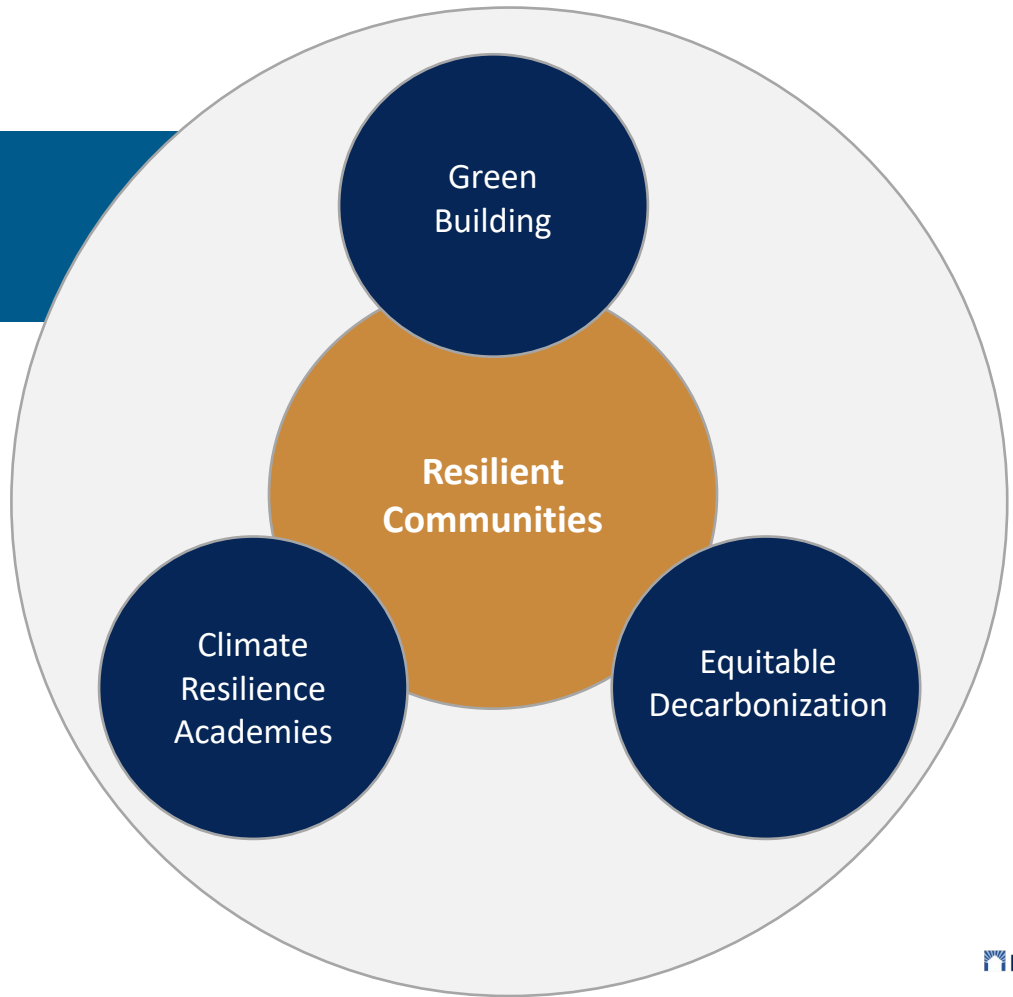
We are leading on climate resilience in the affordable housing sector.

- 15+ year record of helping developers assess risk and adapt buildings to withstand climate threats.
- A full platform of capital, policy expertise and technical knowledge to support communities vulnerable to climate risk.
- Disaster-response strategy informed by residents, housing providers, public officials, and other experts.

The Challenge

- Due to its age, physical conditions and maintenance needs, most of the country's affordable housing stock cannot withstand our changing climate.
- Every building on the planet must be net-zero-carbon by 2050 to avoid irreversible loss of ecosystems and crisis for vulnerable people.
- The pace, and expense, of disasters has increased dramatically.
- Post-disaster government assistance is well-intentioned, but slow and inequitable; resources lack coordination.
- As temperatures and sea levels rise, so do the number of low-income households that are at risk.





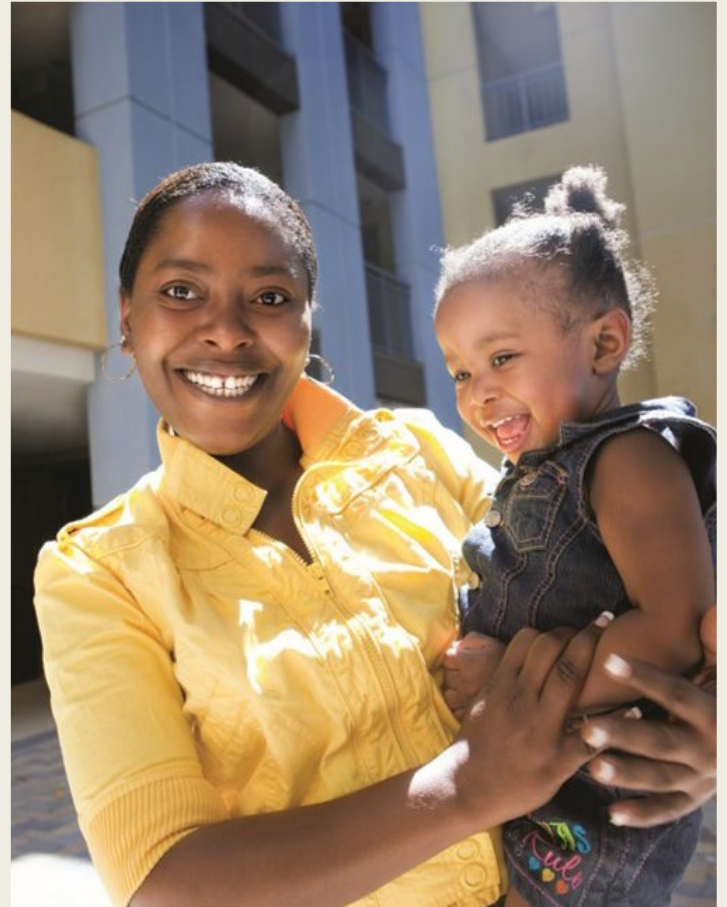
National Priorities

- **GREEN COMMUNITIES** National building certification program with long track record and hundreds of partners across the country. Ultimate goal of providing opportunities to green all affordable housing in the United States, through Green Communities Criteria or comparable pathways.
- **RESILIENCE ACADEMIES** Academies prepare affordable housing owners and operators for a changing climate and for increasingly frequent extreme weather events. Delivered to regional cohorts.
- **EQUITABLE DECARB** Accelerate decarbonization of affordable housing in a manner that centers community needs; co-creating an information hub and peer exchange. Aligned with market-based activities in Los Angeles, Chicago, New York City.
- EPA's Greenhouse Gas Reduction Fund (anticipate March 2023)
- HUD's Green and Resilient Retrofit Program (anticipate summer 2023)
- DOE's home efficiency rebates and incentives (anticipate January 2024)

Community Powered Resilience



Los Angeles CDC Neighborhood Exchange



- ❖ **Assessing portfolio and building risk**
- ❖ **Implementing strategies into building and retrofitting new and existing housing**
- ❖ **Understanding funding/financing assistance programs and how to access them**
- ❖ **Incorporating community engagement, continuity planning and equity strategies**

Academy Highlights	Academy Implementation
<ul style="list-style-type: none"> • 150 participant organizations expected • Funding opportunities database • Regional hazard fact sheets 	<ul style="list-style-type: none"> • 7-9 Academies to be held between 2021 and 2024 • 1:1 Technical Assistance • Turnkey Tool-Centric Curriculum
Academy Locations	
<ul style="list-style-type: none"> ✓ NY/NJ, Gulf Coast, Southeast ➤ 2023: West Coast, Mountain West ➤ 2024: Mid-Atlantic, Midwest 	

Community Listening Sessions

Paty Romero-Lankao, Nicole Rosner, Lis Blanco
and Daniel Zimny-Schmitt



Listening Sessions

- 1 Goals and Analytical Approach
- 2 Methods
- 3 Key Preliminary Findings
- 4 Q&A



1

Goals, Analytic Approach, & Steering Committee Feedback



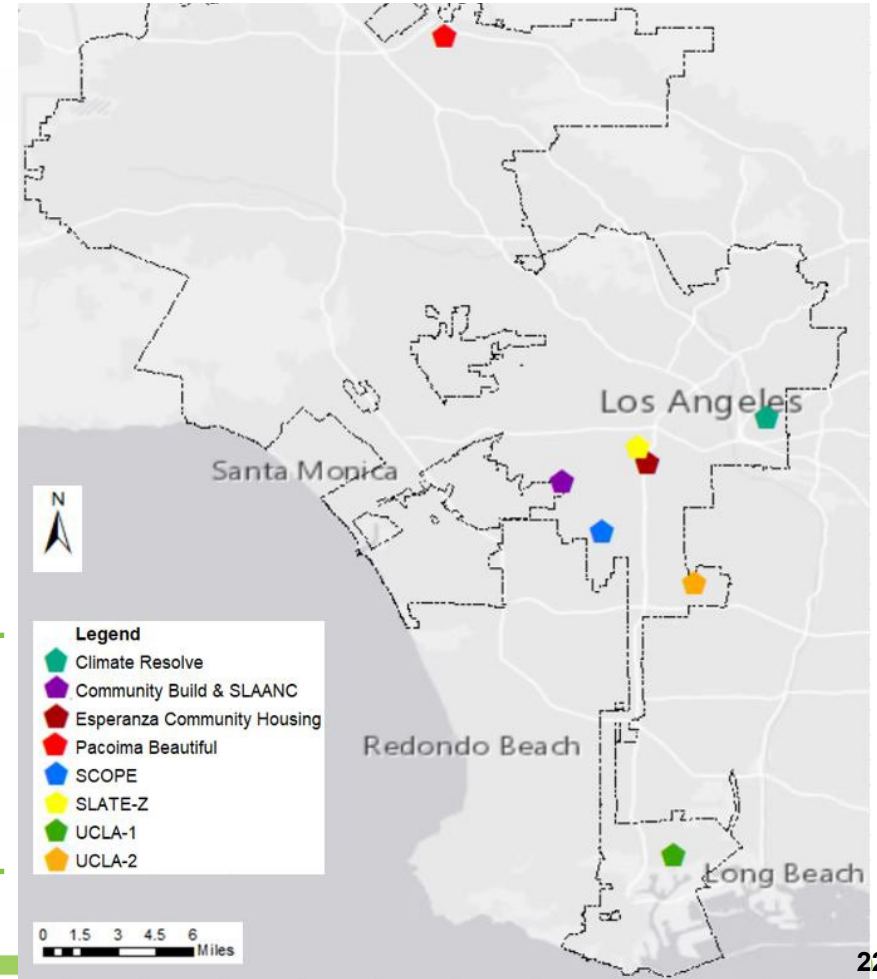
Goals

Examine Community-Identified:

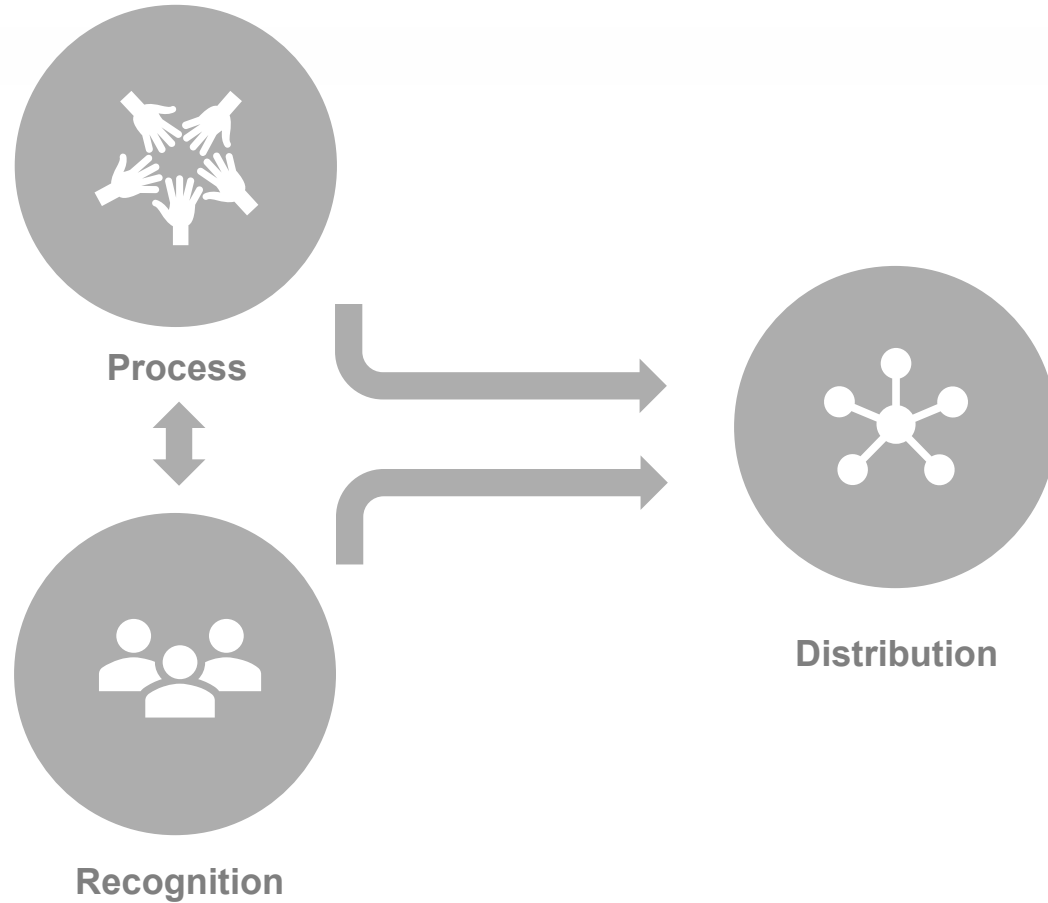
- Priorities and Needs of Disadvantaged Angelinos
- Causal Factors of Energy Inequities
- Actions (Strategies)
- Associated Equity Outcomes

Partners

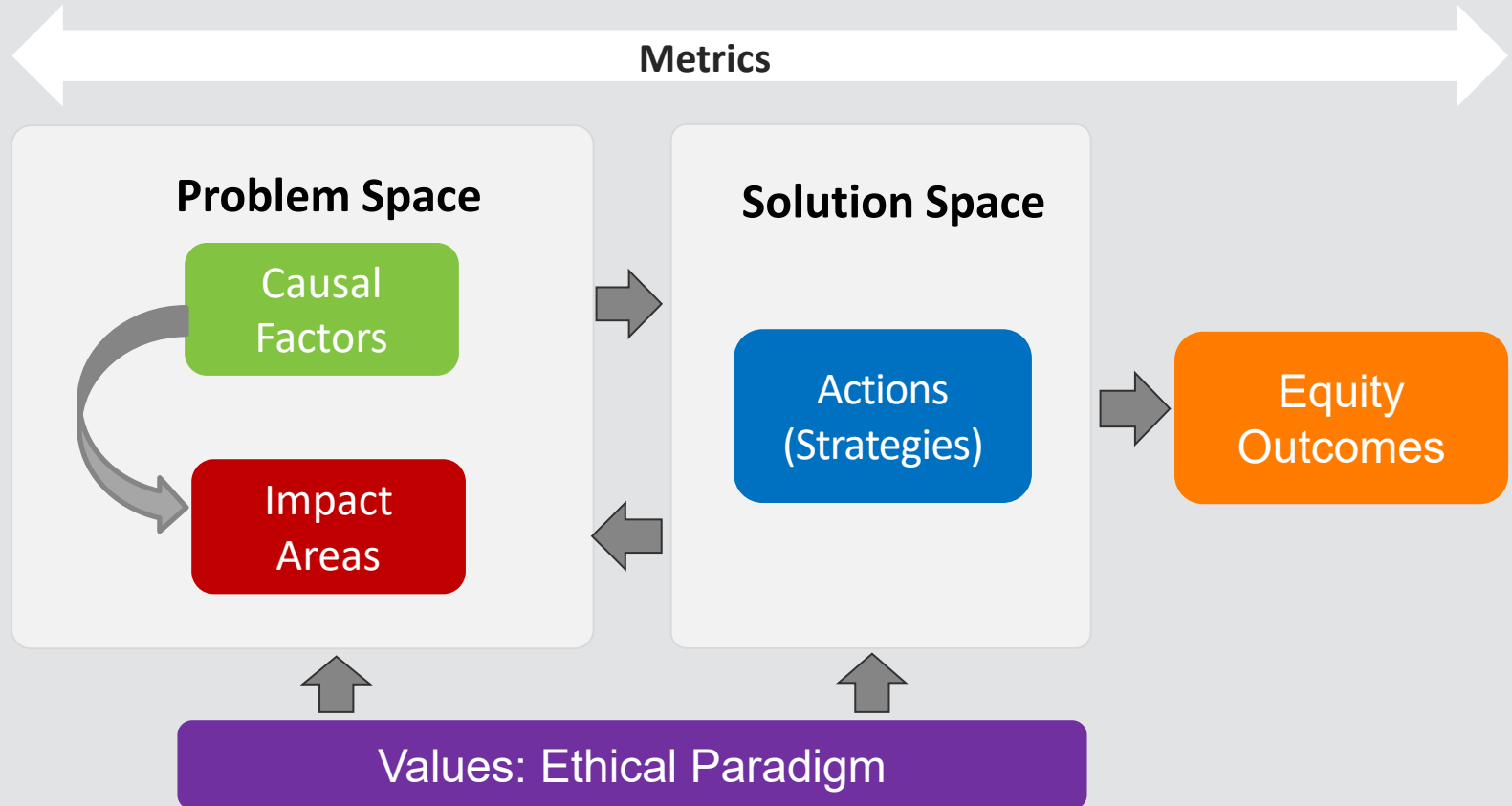
Map of In-Person Listening Sessions



TOWARDS A MORE JUST PROCESS



Analytic Approach



Steering Committee Feedback

1

Process Question:

How can we operationalize the justice and equity principles laid out by Angelinos in this process?

2

Recognition Question:

Are we forgetting any “causal factors” of current energy inequities?



2

Methods



QUALITATIVE DATA COLLECTION METHODS



139 total participants



5 representative regions

Round 1



5 listening sessions



36 virtual participants

Round 2



10 listening sessions



103 in-person participants

Activities



Partner with CBOs



Record, Transcribe & Anonymize

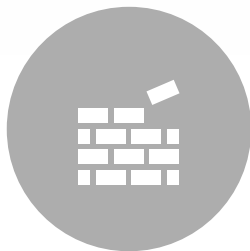


Categorize & Analyze



Share & Co-Design Actions

NREL PROCESS: MODELING IMPACTS



Pre-Listening Session

Action

- Organizing Meetings:
- CBOs
 - NREL Technical Teams

Purpose

Co-design listening session questions



Listening Sessions

Action

Conducted listening sessions with CBO partners

Purpose

Build a continuous, multi-directional, transparent, & sustained engagement process



Post-Listening Sessions

Action

Feedback loop with NREL Technical Teams and CBOs

Purpose

Continue transparent & sustained co-design process to inform modeling



Grounding Findings

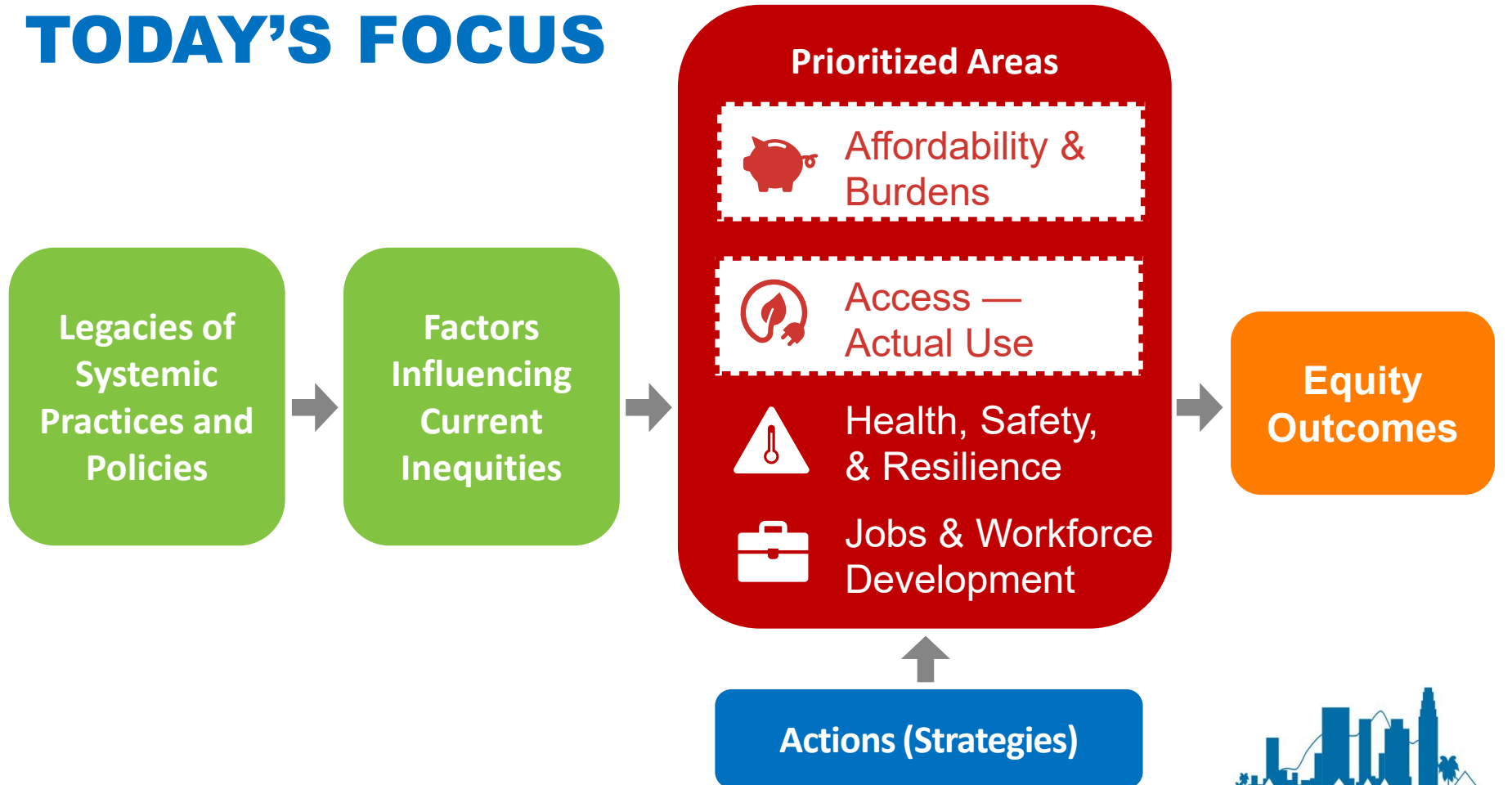
Action

Continuing feedback loop with communities

Purpose

Continue transparent & sustained co-design process *with* communities

TODAY'S FOCUS



DIALOGUE COMPOSITION

Causal
Factor

Impact
Area

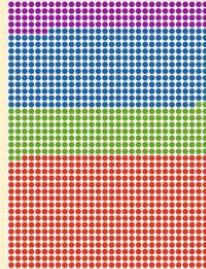
Actions
Strategies

Values

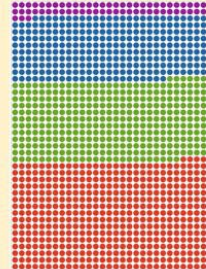
Round
1

Round
2

San Fernando



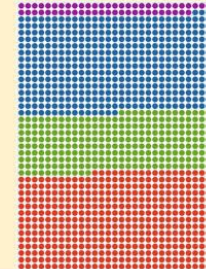
South LA #1



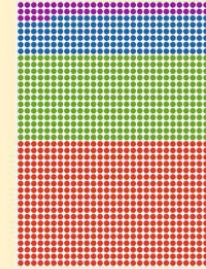
South LA #2



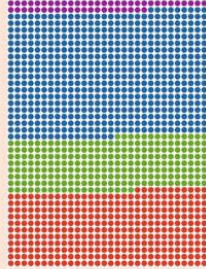
East LA



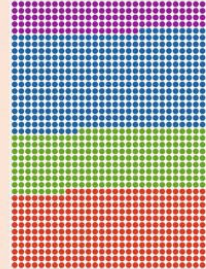
Harbor



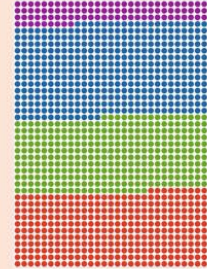
South LA #1 (SLATE-Z)



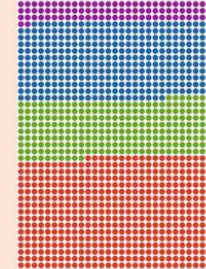
Pacoima



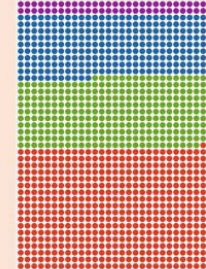
South LA #1 (SCOPE)



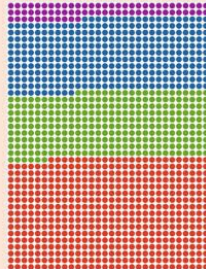
Harbor #1 (UCLA)



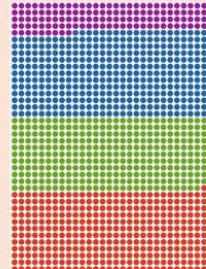
Harbor #2 (UCLA)



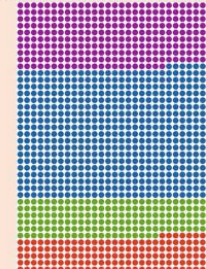
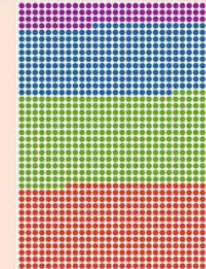
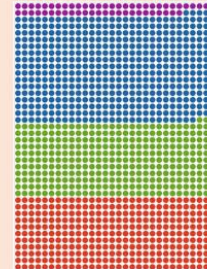
South LA #2 (Watts)



South LA (Esperanza)



East LA #1 (Climate Resolve) East LA #2 (Climate Resolve) South LA #2 (Comm. Build/SLAANC)



3

Key Preliminary Findings



Recurring Ethical Principle

*“The very **definition of equity**, which we spent a lot of time talking about. And even now those of us who have been disadvantaged are sometimes uncomfortable with. **Means it's not about how much. It means that we've all made a commitment that, until we catch up, nobody else gets anything.** So more and more of it becomes ours. Because we have been inequitably treated. But what we want to know is, **how is it proceeding.**”*



Steering Committee Feedback

1

Process Question:

How can we operationalize the justice and equity principles laid out by Angelinos in this process?

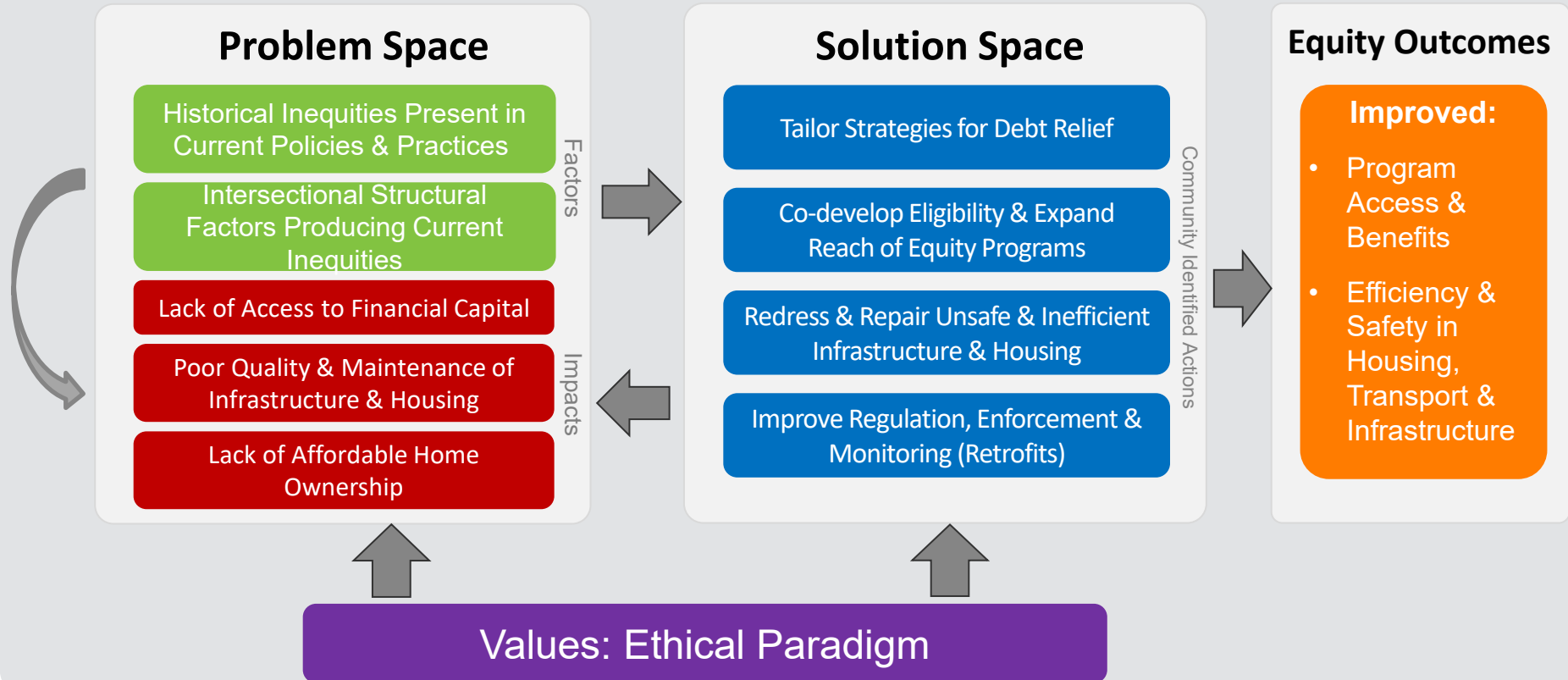
2

Recognition Question:

Are we forgetting any “causal factors” of current energy inequities?



Key Findings: Recognition Justice



Action 1:

Tailor Strategies for Debt Relief & Preventing the Accumulation of Debt

*“If the bill was split from...[the] starting of the pandemic, to where you said it's over. **If that bill was split between what you owe presently and then you work out a payment plan for people**, I think that it would be a win win, and then these improvements can happen, the bills still get paid, water and power does get their money, the people are satisfied. But I haven't seen it...when the pandemic happened 2.5 years ago, take what that number was to present when you said utility moratorium is over, stop it right there. Look at what that is, then make that be another bill that you'll have to pay into to get it down but keep the present bill as it is, that's going on right now.”*

Action 2:

Co-Design Equity Programs to Prioritize Energy & Housing Security

*“The owners, if they upgrade the stuff, they're gonna raise the rents...thank god we live in a rent-controlled area... if you don't live in a rent controlled area, you gotta think real carefully if this would, if you want that problem, sometimes it's not for you, basically just **try to live with the appliances that you have** and upgrade the appliances you have and **tell your owner to change the plugs**, because at the end of the day you don't want no car that you can't afford ... when you live in an old building, and they upgrade the electric and they **upgrade** the floors and all this stuff **it's gonna affect people's rent because they're not in a rent controlled [area]**... a lot of people won't be able to stay where they're at. So, they're asking to add some more onto that with the car and electric and all that, make sure you can afford it”*

Action 3:

Programs to Safely Upgrade & Remediate Existing Housing & Infrastructure

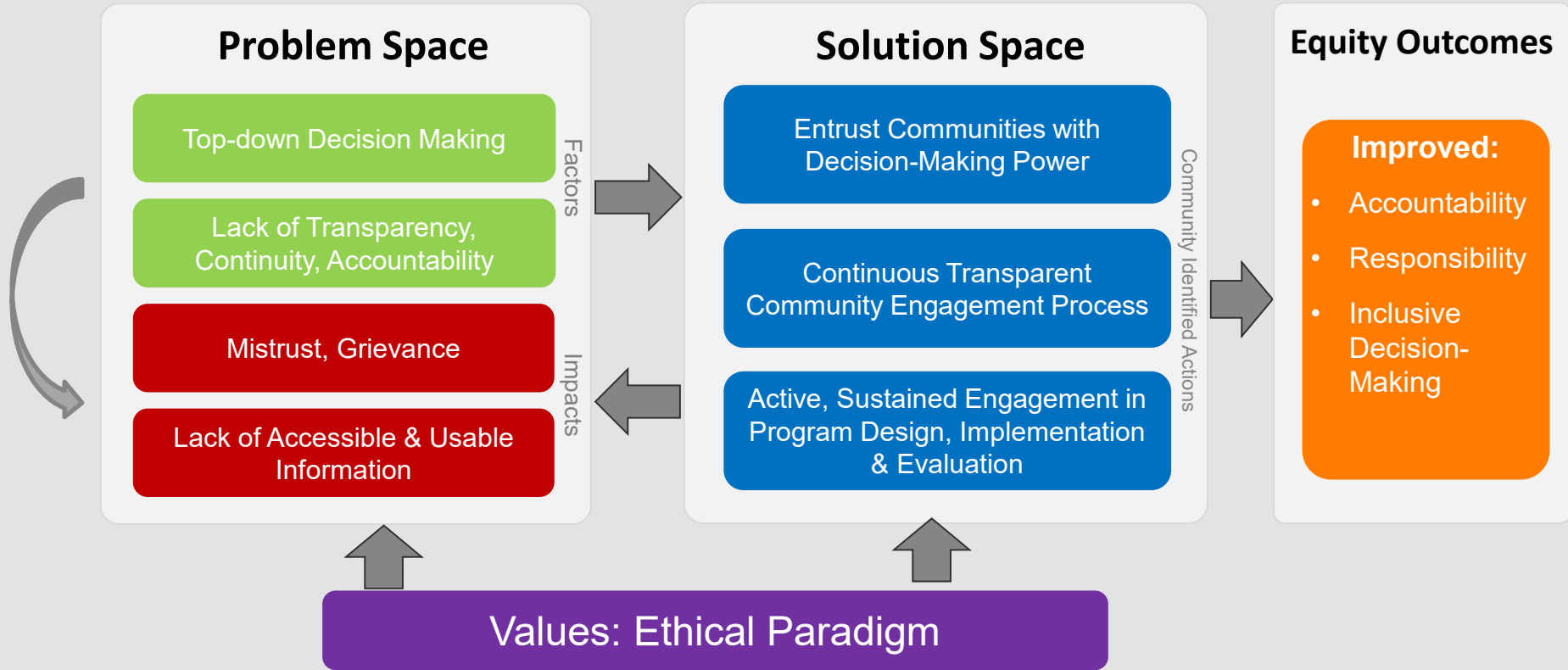
*“[W]hile I appreciate raising the concern about addressing current infrastructure, insuring up that infrastructure. I also wonder if there is a plan to remediate some of the infrastructure that currently exists in South LA that is problematic, in terms of known adverse health outcomes...one thing is **capacity**. **Does our infrastructure have the capacity to deal with these things**. But...just in terms of - from what I understand from the community - there is a **sense of neglect**. In terms of the **outdated infrastructure that needs remediation**...I’m hearing **discussions about what are we going to do to fix, improve the infrastructure to make way for new**. But how are we going to remediate the old? And I think that's also about **building trust in the community**... Where is the **plan to remediate some of the things that currently are causing damage and have been causing damage for quite some time now?**”*

Action 4:

Improve City Regulations, Accountability and Enforcement

*“There’s a lot of barriers, especially with **old houses**, and Boyle Heights has a ton of old houses. Or they have houses that are old that were flipped. Like a friend of mine just bought a house on Lorena, and **the flipper just basically hid all the old stuff** in there and when he found out that basically it was a **fire hazard** for him to have these **old electrical wires**. ...**The regulations just aren’t there and there’s no support for families who can’t afford to fix these things**. And it’s not necessarily families’ faults that this is happening, or homeowners’ faults, or renters.”*

Key Findings: Procedural Justice



Action 5:

Co-Design Community-Outreach With Local, Trusted Messengers

*“I think education needs to be upfront. And it has to be education directed to the lower income people and also moderate-income people. Who, frankly, **aren't convinced that electric is the way to go**. Second, when it comes to churches. Churches have historically been the way that a lot of education is disseminated. A number of pastors in small churches, medium size churches, aren't on board yet. It's going to be difficult to push this forward without them. I would also like to see...the churches maybe, if you are talking electric vehicles, I would also like to see a **partnership with the churches**. And maybe these electrical stations, maybe they receive that. Education happens in front of the churches as a catalyst to bring people onboard.”*

Action 6:

Guarantee Continuity, Transparency, & Accountability in Community Engagement

*“For continuity’s sake...when they come back again, they should at least keep somebody on board. And bring the others back. Because every time you [LADWP] start over, they are starting from a deaf point of view. If you've already been involved, you've heard the message, you at least have a perspective, a context. And you have a lens by which to hear and see what’s going on. **They [LADWP] keep starting over the same.**”*

Action 7:

Regulate Predatory Solar Developers

*“We were going to hire a company for that...they said they did not charge anything. But...**the moment we wanted to install it, they were charging us.** So, we canceled that, because they said one thing and then they said another. And I already told the neighbor, and he told me, “don't believe that.” He says, “they just come and install it, and when the time comes...they tell you to sign, and your bill will arrive.” And that is why we have not installed it, for the same reason.”*

Thank
you!



Thank
you!



4 Q&A

1

Process Question:

How can we operationalize the justice and equity principles laid out by Angelinos in this process?

2

Recognition Question:

Are we forgetting any “causal factors” of current energy inequities?

Transportation Electrification

Preliminary results and draft strategies
discussion



Equity Strategy Modeling & Analysis

NREL is conducting modeling, analysis, and strategy development along 10 prioritized pathways:

Low-income energy bill stability

Universal access to safe and comfortable home temperatures

Housing weatherization and resilience to extreme events

Improved access to solar/storage, energy efficiency in multifamily- and/or renter-occupied buildings

Targeted community solar siting

Resiliency in disadvantaged neighborhoods through solar-plus-storage siting

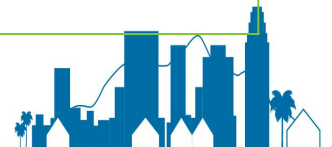
Equitable light-duty electric vehicle (EV) and charging access

Multimodal strategies for reduced transportation energy burdens

Distribution grid upgrades to enable equitable solar, storage, and EV adoption and resilience

Mitigation of medium- and heavy-duty vehicle health impacts through electrification

This presentation focuses on the highlighted pathways.



Equity in LADWP EV Charging & Used EV Investments

LADWP INVESTMENTS

ELECTRIC VEHICLES



Incentive Programs

NUMBER OF YEARS



TOTAL AMOUNT SPENT

\$71,239,371

AVG. AMOUNT PER CUSTOMER
DAC/Non-DAC

\$41
\$64

% OF INCENTIVES
Normalized by # of Customers
DAC/Non-DAC



WHICH COMMUNITIES DISPROPORTIONATELY BENEFITED FROM PROGRAMS?

DAC/Non-DAC

Mostly Non-White/White

Mostly Hispanic/Non-Hispanic

Mostly Renters/Owners

Below/Above Median Income

Non-DAC

White

Non-Hispanic

Owners

Above

Analysis of LADWP EV and EV charging infrastructure incentives indicate 75% of incentives went to households in non-disadvantaged communities.

The \$71 million in LADWP EV incentives disproportionately benefited predominantly White, non-Hispanic, home-owning, and wealthier neighborhoods.



LADWP EV Charging & Used EV Incentives

by Product & Rebate Type



Program	Which communities disproportionately benefited from incentives?				
	Non-DAC/DAC	Mostly White/ Mostly Non-White	Mostly Non-Hispanic/ Mostly Hispanic	Mostly Owners/ Renters	Above/Below Median Income*
Commercial New Charger	Non-DAC		Non-Hispanic	Renters	Above
Direct Current Fast Charger	No statistically significant difference				
Residential New Charger	Non-DAC	White	Non-Hispanic	Owners	Above
Residential New Sub-Meter	Non-DAC	White	Non-Hispanic	Owners	Above
Residential Used Vehicle	Non-DAC	White	Non-Hispanic	Owners	Above

NOTE: Medium-duty and heavy-duty (MDHD) EV incentives and commercial new sub-meters could not be analyzed due to an insufficient data.

*Median income: \$73,100 annual salary (2019)

DAC = disadvantaged community as defined by SB 535

Programs with a **statistically significant difference** in the **dollars spent on rebates received by households** between the sociodemographic metrics are marked in **blue** or **gold**. Unmarked boxes indicate no statistically significant difference.



Did census tracts receive EV incentives proportional to their population*?

*number of households

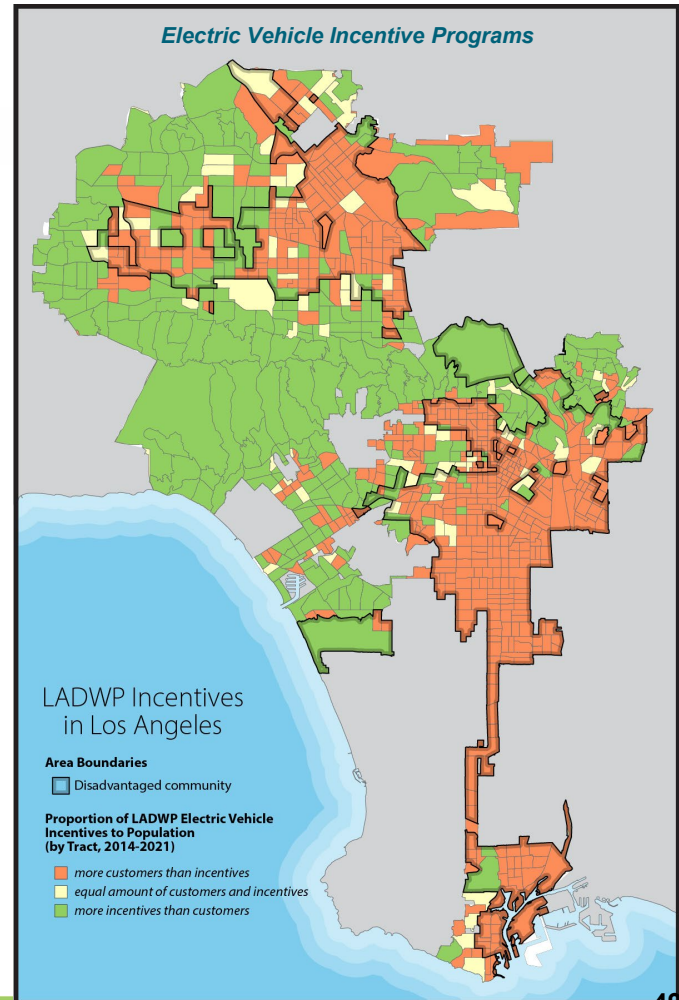
Areas including South LA, and the San Fernando Valley did not receive EV and EV charging infrastructure incentives proportional to their populations

Tracts where:

- % of households* > % of incentives received**:
"more customers than incentives"
- % of incentives received** > % of households*:
"more incentives than customers"
- % of incentives received** = % of households*:
"equal number of customers and incentives"

*% of households = number of households in a census tract divided by the total number of households

**% of incentives received = number of incentives granted to tract divided by the total number of incentives



Public EV Charging Stations

Are public *electric vehicle charging stations* distributed equally across neighborhoods?

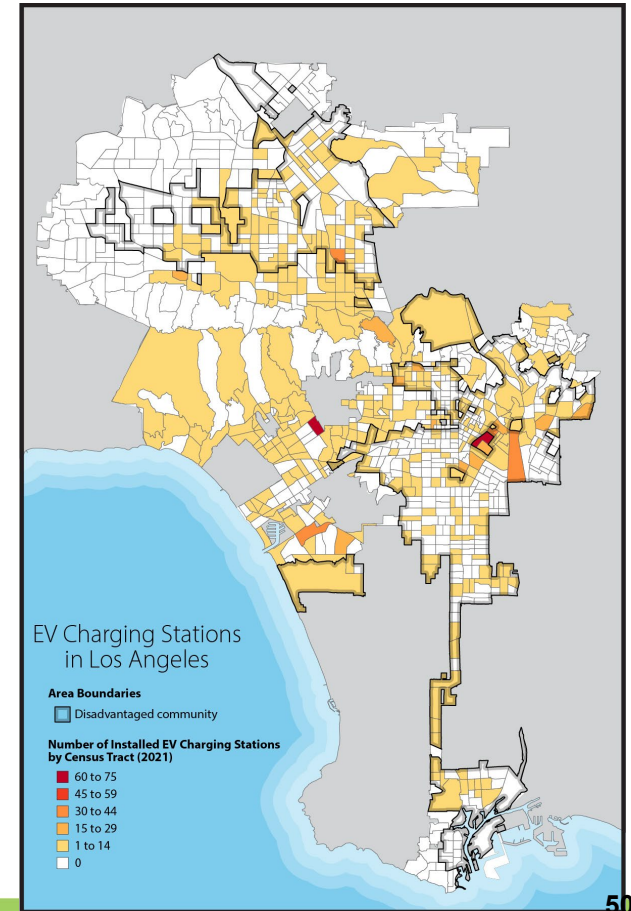
[Link To Methodology](#)

Non-DAC/DAC	Mostly White/ Mostly Non-White	Mostly Non-Hispanic/ Mostly Hispanic	Mostly Owners/ Renters	Above/Below Median Income*
No statistically significant difference		Non-Hispanic	No statistically significant difference	

*Median income: \$73,100 annual salary (2019)

Non-Hispanic communities have more charging stations than **Hispanic** communities. For all other populations, there is no statistical significance in the distribution of EV charging stations throughout the city.

Public EV charging stations in LA consist of the following networks: Blink, ChargePoint, Electrify America, EV Connect, EvGateway, EVgo, FLO, Greenlots, OpConnect, PowerFlex, SemaCharge, Tesla, and Volta, and include non-networked charging stations.



Source: [Alternative Fuels Data Center](#)

Q&A

Current EV and EV Charging Distributional Equity Analysis



Equitable Light-Duty Electric Vehicle (EV) & Charging Access

Multimodal Strategies for Reduced Transportation Energy Burdens

Alana Wilson, NREL
Bingrong Sun, NREL
D-Y Lee, NREL



Equitable Light-Duty EV & Charging Access



Used EVs

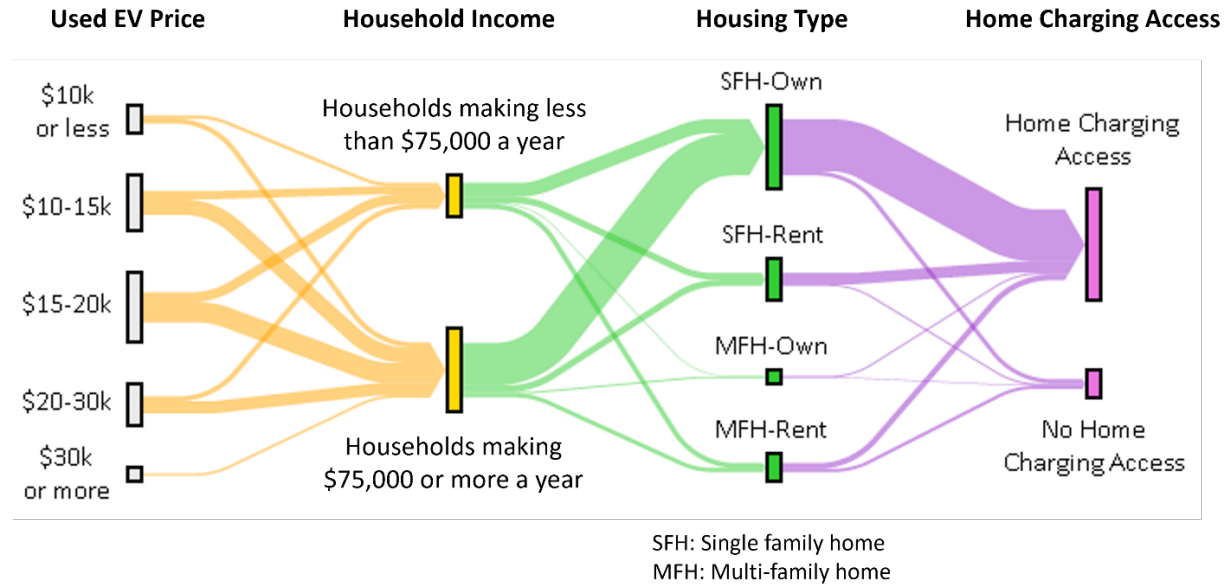
Key Findings

In a business-as-usual scenario, by 2035:

- ~30% of used EV consumers are households that make less than median income (\$75K)
- ~50% of LA households that make less than \$75,000 a year and are predicted used EV consumers live in rented properties and/or multifamily homes
- ~40% of predicted EV consumers living in multifamily buildings will not have access to power outlets near where their vehicles park.

Access to EVs depends on cost, income, home charging access, personal car ownership, and other factors.

preliminary

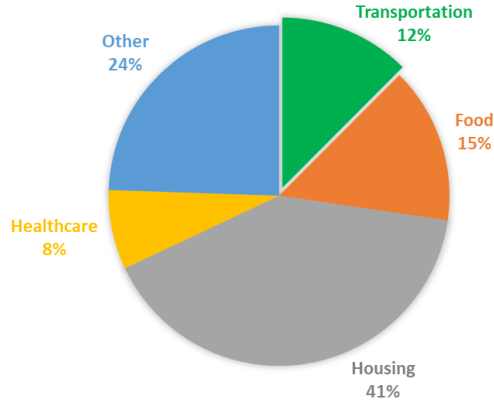


Preliminary sociodemographic and economic characteristics (2022 dollars) of used EV owners in LA, 2035 (based on business-as-usual scenario) (Source: EVI-Equity)

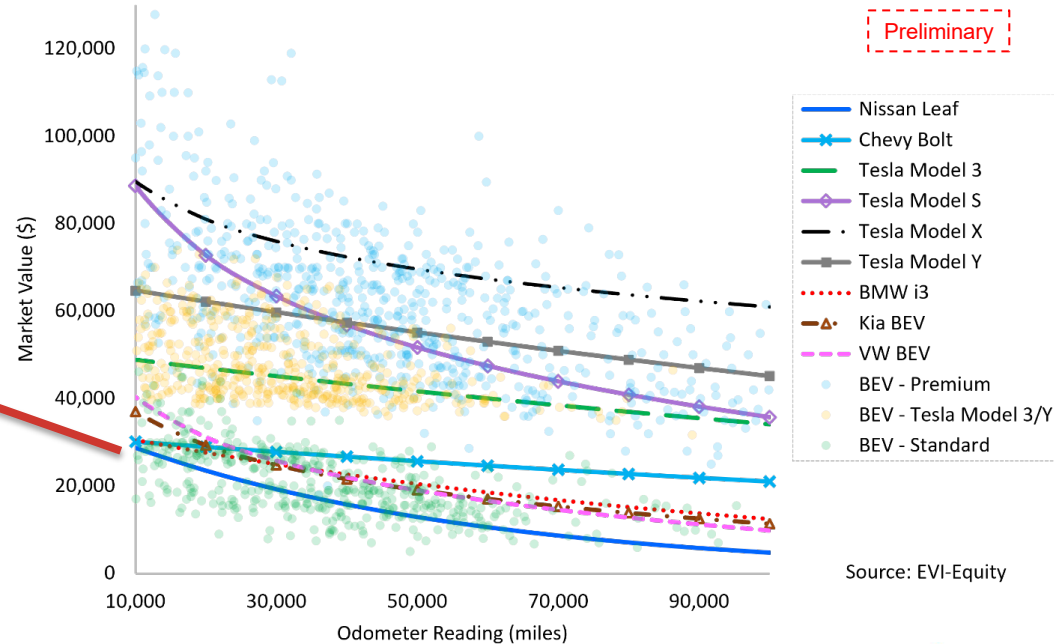
Used EVs

Key Finding: With federal (\$4,000) and city (\$2,000) rebates, purchasing a standard used EV can maintain or lower household transportation expenditures for moderate income households.

Household Expenditure Breakdown for an Example Household with \$60,000 Annual Income; and Purchased Used Nissan Leaf



Market Value of Used Battery Electric Vehicles (BEVs) in California in 2022



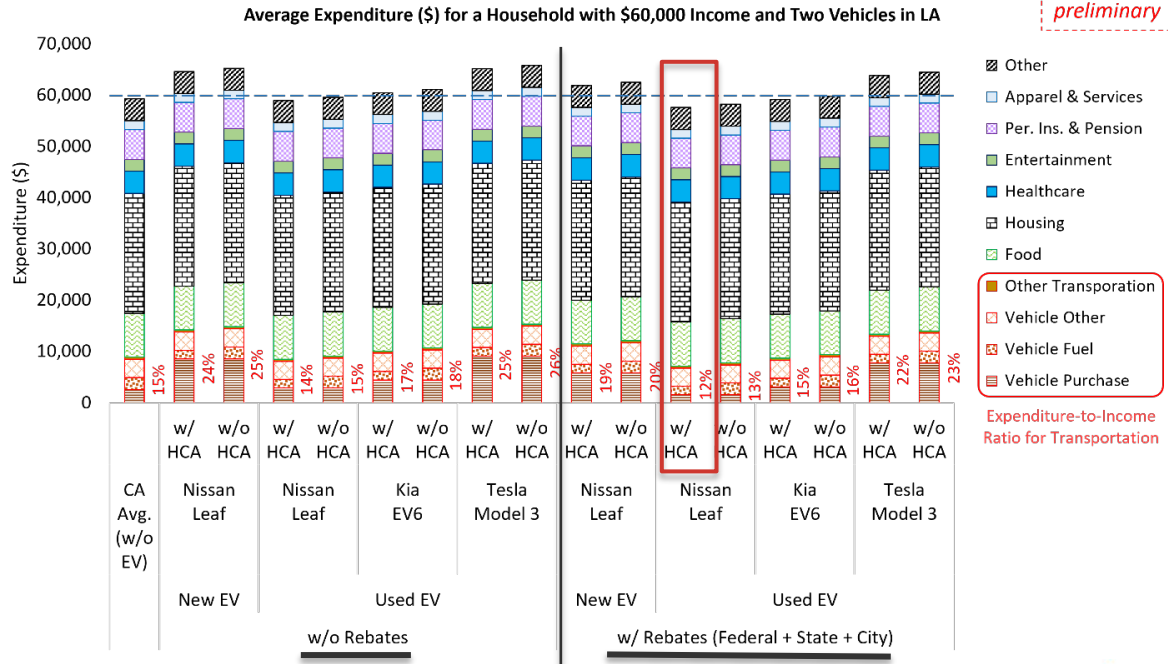
Source: EVI-Equity

Used EVs and the longitudinal evolution of their market value in California in 2022 (Source: EVI-Equity)

Used EVs

Key Finding:

- Home charging access can make the difference between used EV adoption increasing or decreasing expenditures for low- to moderate-income households.
- A used Nissan Leaf could reduce household expenditures for moderate income households with charging access.
- Combining federal, state, and LADWP rebates can mean additional used EV models (e.g., Kia EV6), lower low- to moderate-income household costs.



Expenditure-to-income ratio for an example household with an income of \$60,000 that purchased one new versus one used EV in LA
(HCA = home charging access)

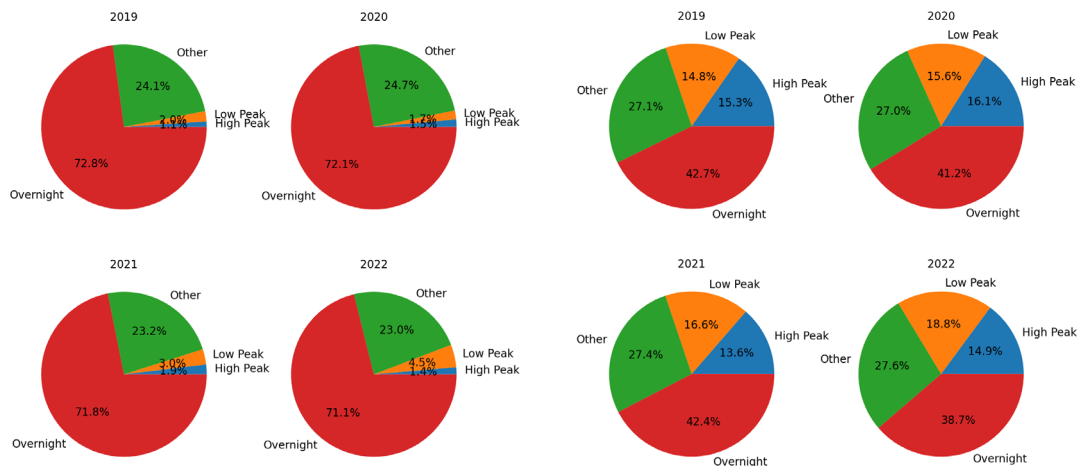
EV Charging

Key Findings:

- Charging profiles vary by customer type, which can inform load management
 - ~40% of sampled commercial charging consistently occurred overnight vs. >70% of residential
 - Apartments had lowest peak charging of commercial chargers analyzed (22% vs. 78%)
 - BlueLA carshare sites use ~50% overnight charging

NREL analyzed hourly load data for EVSE that received an LADWP rebate for EV charging time-of-use rate sub-meters

- 35 locations with full time series (2019-2022)
 - 22 residential; 13 commercial
- ~20% of charging occurs during peak electricity demand hours



Residential (n=22)

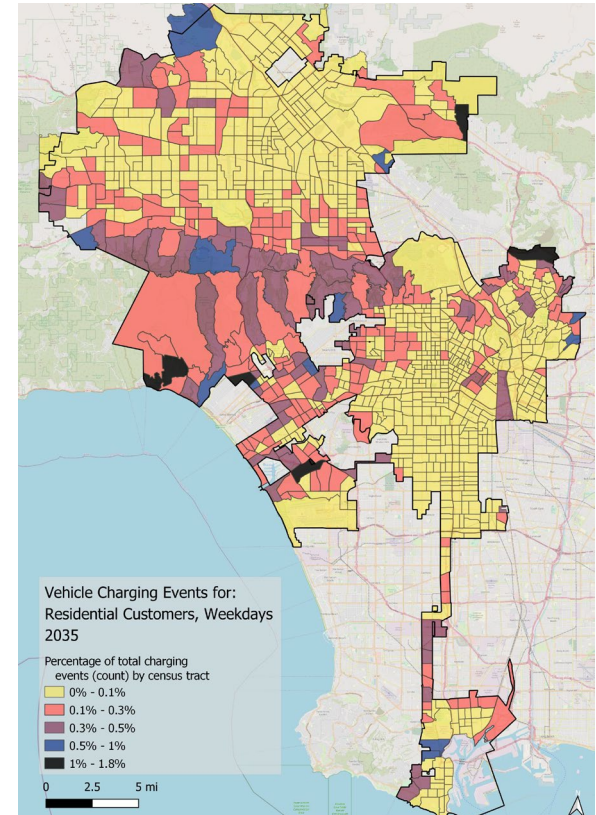
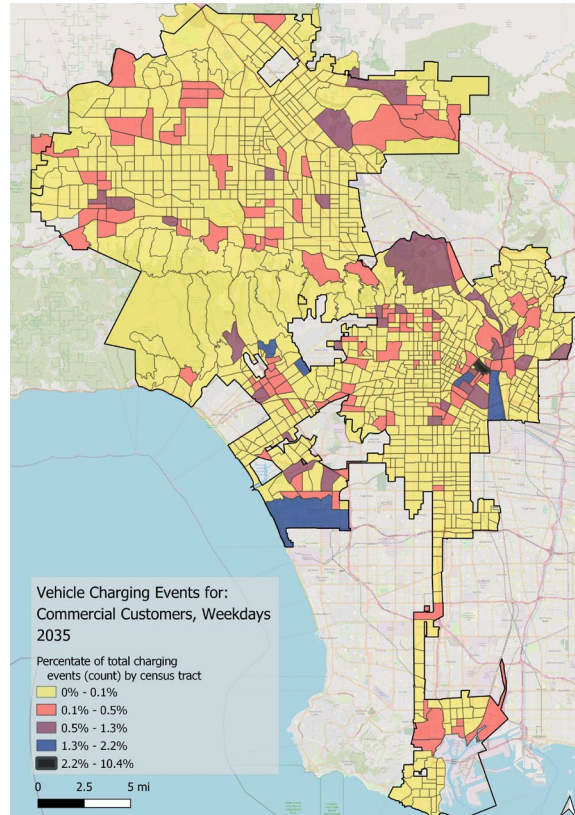
Commercial (n=13)

2035 EV Charging Business-as-usual Scenario Preliminary Results

Key Finding:

In a 2035 business-as-usual scenario, residential EV charging occurs predominantly in west LA, indicating EV adoption and charging access and benefits will continue to be heavily inequitable without a deliberate program and incentive equity focus.

Initial analysis shows the different spatial distributions of commercial (left) versus residential (right) customer charging events.

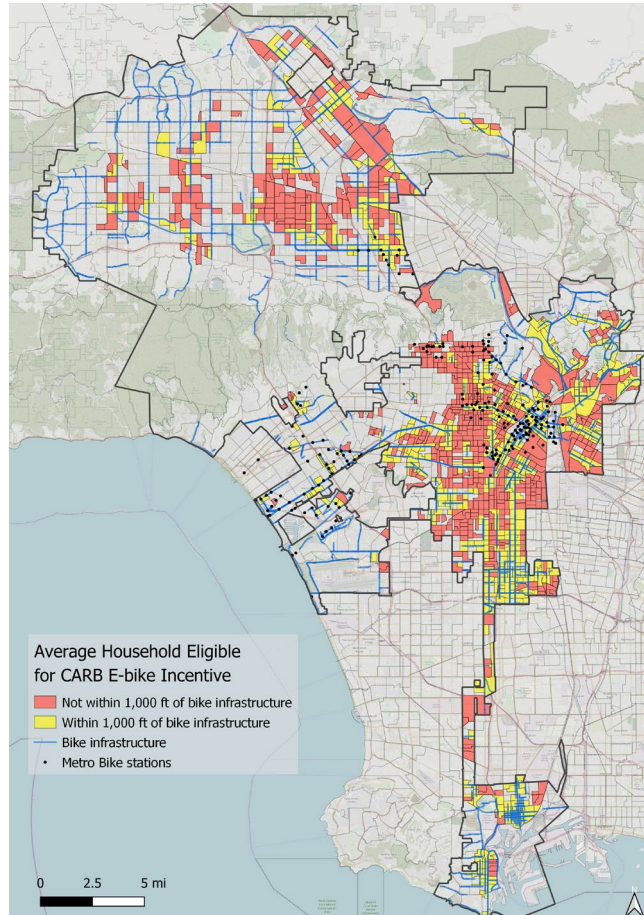


Multimodal Strategies for Reduced Transportation Energy Burdens



Equitable and Safe E-bike Access

“This program will be one more way California is helping to ensure everyone in our state has access to clean transportation”
-CARB Deputy EO Craig Segall



E-bike benefit

Forthcoming CARB e-bike incentives* limited to households at 300% of Federal Poverty Level**

- 49% of LA census block groups (map: red & yellow areas)

Inability to access the benefit

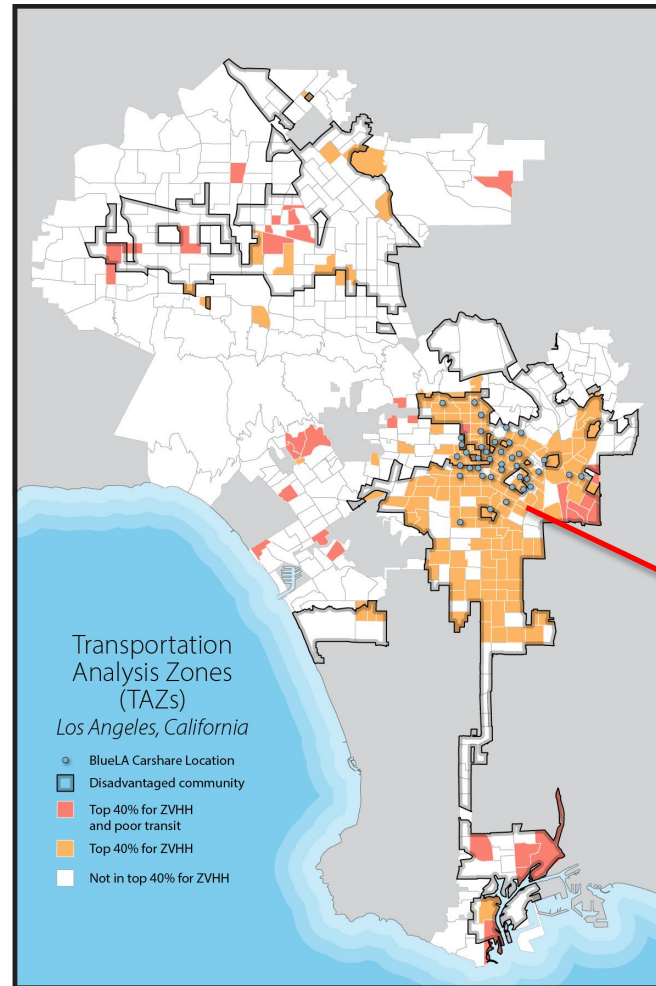
Key Finding: Fewer than 50% of households eligible for CARB e-bike incentives are within 1,000 feet of existing bike infrastructure.

Red areas are areas where >50% of households are eligible for the e-bike incentive **but don't have nearby access to bike infrastructure.**

* Budget of \$10 million (~6k incentives). Note that demand for other existing e-bike incentives far exceeds supply
**Map uses ACS 2015-2019 income & FPL



Initial Priority Areas for Multimodal Strategies



Areas that are:

- In the top 40% for zero vehicle households* (ZVHHs – 12% or more of households without vehicles),
- In the top 40% for low-quality transit **,
- SB235 designated disadvantaged communities

Example: In census tract 6300, approximately 83% of households do not own vehicles (2,026 of 2,433 households).

*ACS 2015–2019

** EPA Smart Location 2020



Multimodal Transportation Electrification Strategies for Disadvantaged Communities



Shared e-bike access



Shared EV access

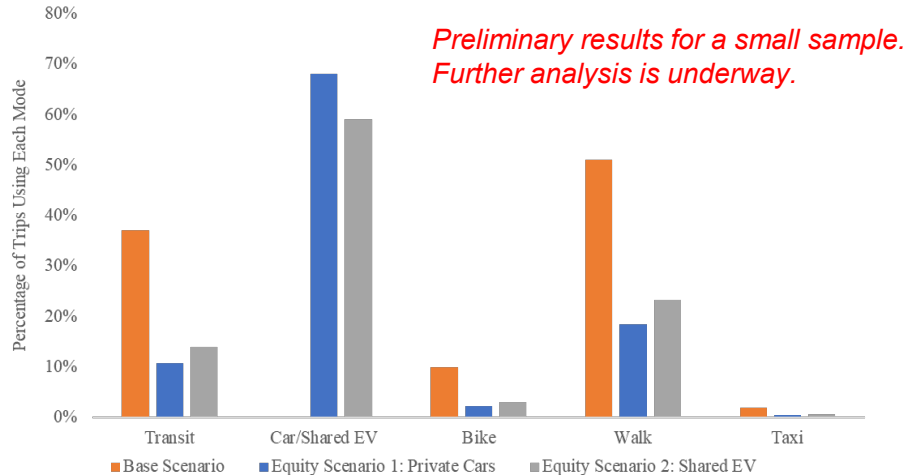


Improved transit

Transportation Analysis Zone ID & Neighborhood	Most affordable	Most time efficient	Access to most opportunities	Transportation Analysis Zone ID & Neighborhood	Most affordable	Most time efficient	Access to most opportunities
3718 – Panorama City				4111 – Boyle Heights			
3731 – Panorama City				4114 – Boyle Heights			
3734 – North Hills				4115 – Boyle Heights			
3737 – Panorama City				4150 – Boyle Heights			
3864 – Reseda				4335 – East Hollywood			
3866 – Canoga Park				4611 – Wilmington			
3872 – Winnetka				4612 – Wilmington			
3877 – Van Nuys				4614 – San Pedro			
4067 – Boyle Heights				4630 – Wilmington			
4105 – Boyle Heights				<i>Calculated for low-vehicle ownership, low transit access, disadvantaged communities</i>			

Mode Equity Analysis

Key Finding: EV car sharing could substantially reduce transportation time and increase access to opportunities in neighborhoods with very low car ownership rates.



Percentages of trips that use different travel modes in three scenarios

* Only operational costs (e.g., gas, insurance, maintenance) are considered in the privately owned car scenario. Vehicle purchasing cost is not included.

Daily Impact on Cost, Travel Time, and Accessed Destinations in Three Scenarios for All Households in a TAZ

Scenarios	\$	Hours	Ratio of Destinations Within Reach
Base Scenario 1: Without privately owned car	4,970	1,407	1
Base Scenario 2: Privately owned car	5,120*	803	9.3
Equity Scenario 1: Shared EV program	6,704	933	8.5

With original travel time budget but now faster travel modes, what are the impacts?

Which multi-modal strategies can increase access towards this level?



Equity Strategies



Current Inequities

75% of LADWP EV and EV charging infrastructure incentives went to households in non-disadvantaged communities

The \$71 million in LADWP EV incentives disproportionately benefited predominantly White, non-Hispanic, home-owning, and wealthier neighborhoods.



Community Solutions Guidance

Affordable and electric options to enhance mobility and reduce pollution

Culturally informed, transparent, tailored, and consistent outreach and communication

Simplified application materials and methods for LADWP and city incentives.



Modeling & Analysis Key Findings

With federal (\$4,000) and city (\$2,000) rebates, standard used EVs (e.g., Nissan Leaf) are affordable for median income households and maintain or lower household transportation expenditures

Combining federal, state, and city rebates can make additional used EV models, like the Kia EV6, affordable for many low-to moderate-income households.



Equity Strategy

Establish a purchase price cap and/or household income threshold for LADWP used EV incentive

- Modeling underway to identify incentive thresholds for affordable EV access

Partner with CBOs to target incentive outreach to disadvantaged communities, renters, and multifamily home residents.



Current Inequities

Mostly non-Hispanic communities have more charging stations than mostly Hispanic communities

75% of LADWP EV and EV charging infrastructure incentives went to households in non-disadvantaged communities



Community Solutions Guidance

Ensure charging stations are located to respond to daily household routines

Set up low-income communities for EV infrastructure without adding burdens

Infrastructure for charging personal EVs, shared EVs, e-bikes, etc.



Modeling & Analysis Key Findings

By 2035, ~50% of potential LMI used EV consumers will be renters or live in multifamily buildings

40% of households living in multifamily homes lack access to charging at or near parking

Home charging is more affordable than public charging and can make the difference between used EVs increasing or decreasing expenditures for median income households

Apartments had lowest peak charging of commercial/multi-family chargers analyzed

Commercial customers are 4-6x more likely to charge during peak hours than residential customers



Equity Strategy

Home charging access

- Provide at- or near-home charging access for renters and multifamily residents to enable more equitable purchase and EV charging options

Public charging

- Provide support (e.g., vouchers) for those relying on public EVSE due to no home charging
- Develop public charging for residential charging in disadvantaged communities with charging deserts



Multimodal Transportation Electrification **DRAFT** for discussion

Current Inequities

In LA, SB235 census tracts, 16% of households don't own vehicles (vs. 12% citywide)

Even with LADWP, state, and federal incentives, used EVs are still not necessarily the best option or affordable for low-income households.

Community Solutions Guidance

Tailor access to affordable e-mobility technologies based on needs

Expand electric bike e-scooter, and EV-sharing programs

Improve quality of public transit and safety of streets

Modeling & Analysis Key Findings

Behavior modeling shows EV car sharing can provide affordable access to EVs, substantially reduces transportation time, and increases access to opportunities in areas with very low car ownership rates

The best multimodal strategy for different communities can vary

Equity Strategy

Provide a portfolio of options including EV car-share, e-bike, e-scooter, programs in low-income census tracts with low vehicle ownership

- Areas include Boyle Heights, Wilmington, and Panorama City neighborhoods
 - 20 census tracts, most in those neighborhoods, have poor transit

Pair e-bike incentives with bike infrastructure expansion and charging

- Modeling currently underway will identify spatial distributions of strategy benefits

Discussion

Please share ideas and suggestions about the draft equity strategies

(A continued response opportunity will be available after the meeting.)

DRAFT Transportation Electrification Equity Strategies – Discussion

EV Access & Benefits

- Establish a purchase price cap (e.g., \$20k) and/or household income threshold for the LADWP used EV incentive
- Partner with community-based organizations to target incentive outreach to disadvantaged communities, renters, and multifamily home residents.

EV Charging Access & Benefits

- Provide at-home or near-home charging access for renters and multifamily building residents to enable more equitable opportunities to purchase and charge EVs.
- Provide financial support (e.g., vouchers) for those who must rely on public EVSEs due to lack of home charging access
- Develop publicly accessible charging infrastructure to support residential charging in disadvantaged communities with charging deserts.

Multimodal Transportation Electrification

- Establish EV car-share, e-bike, e-scooter, programs in low-income census tracts with low vehicle ownership and limited transit access
- Focus on areas that fit those criteria and are SB235 DACs, especially neighborhoods like Boyle Heights, Wilmington, and Panorama City
- Pair bike infrastructure expansion and charging with e-bike programs and incentives



Going Forward

Tentative

Steering Committee Meetings

March 15, 2023 (Virtual)

- Community Listening Sessions Summary (Part 2)
- Preliminary Results and Discussions: Housing weatherization and resilience to extreme weather events

March 29, 2023 (Virtual)

- Preliminary Results and Discussions:
 - Local Solar and Storage
 - Grid Reliability and Resiliency
 - Air Quality and Health
- Energy Atlas

Subsequent Meetings

- Third Wednesday of each month, 10:00 a.m. – 12:00 p.m. PT
- Virtual for near-term

For another opportunity to provide input on the transportation strategies, watch for an email with a link.



Thank you!
