LA100 Equity Strategies
Steering Committee Meeting #14
January 18, 2023

LA DWP

NREL
Transforming ENERGY

UCLA

Los Angeles Department of Water & Power (LADWP)
Project Leads

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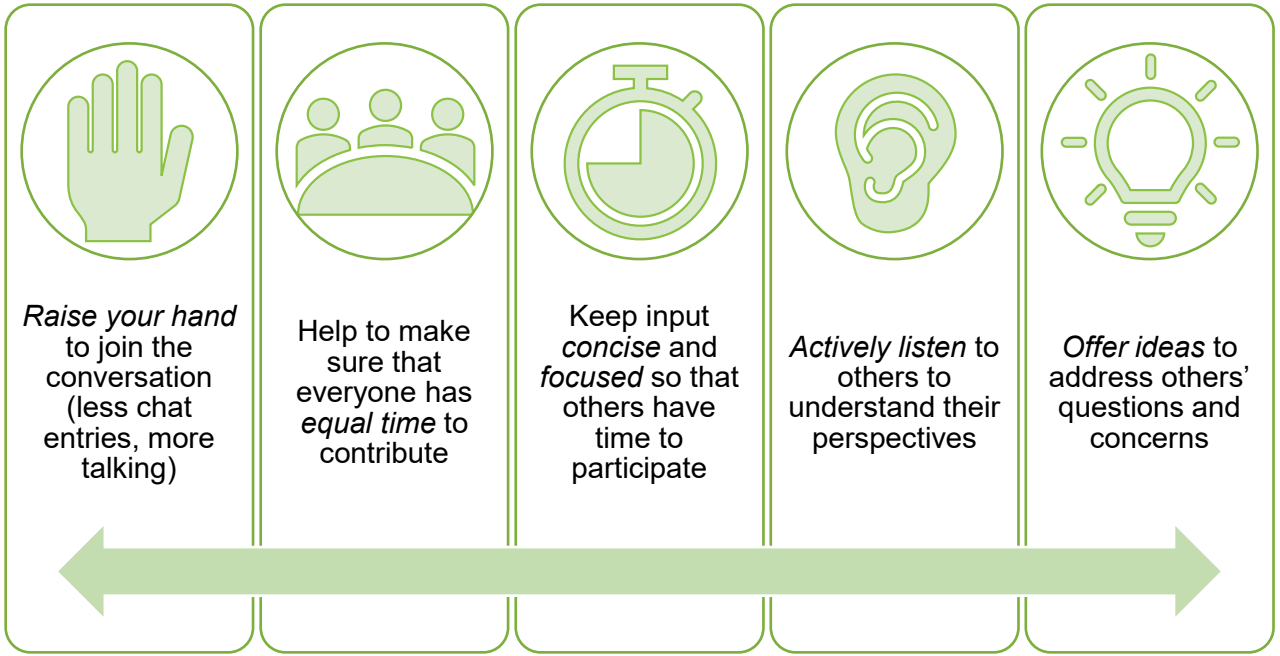
LA100 Equity Strategies Oversight
& UCLA Contract Administrator

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
10:20 a.m.	Ethnic Business Study
10:50 a.m.	Steering Committee Questionnaire Results
11:00 a.m.	Equity Modeling Update and Strategy Discussion • Residential buildings • Grid reliability and resilience • Transportation electrification (EVs and multimodal)
11:55 a.m.	Wrap Up and Next Steps

Our Guide for Productive Meetings



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

1/18/23 #14	• Equity modeling updates and strategy discussion for:
	  • Residential buildings
	  • Grid reliability and resilience
	  • Transportation electrification (EVs and multimodal)
	• Small Businesses (UCLA)

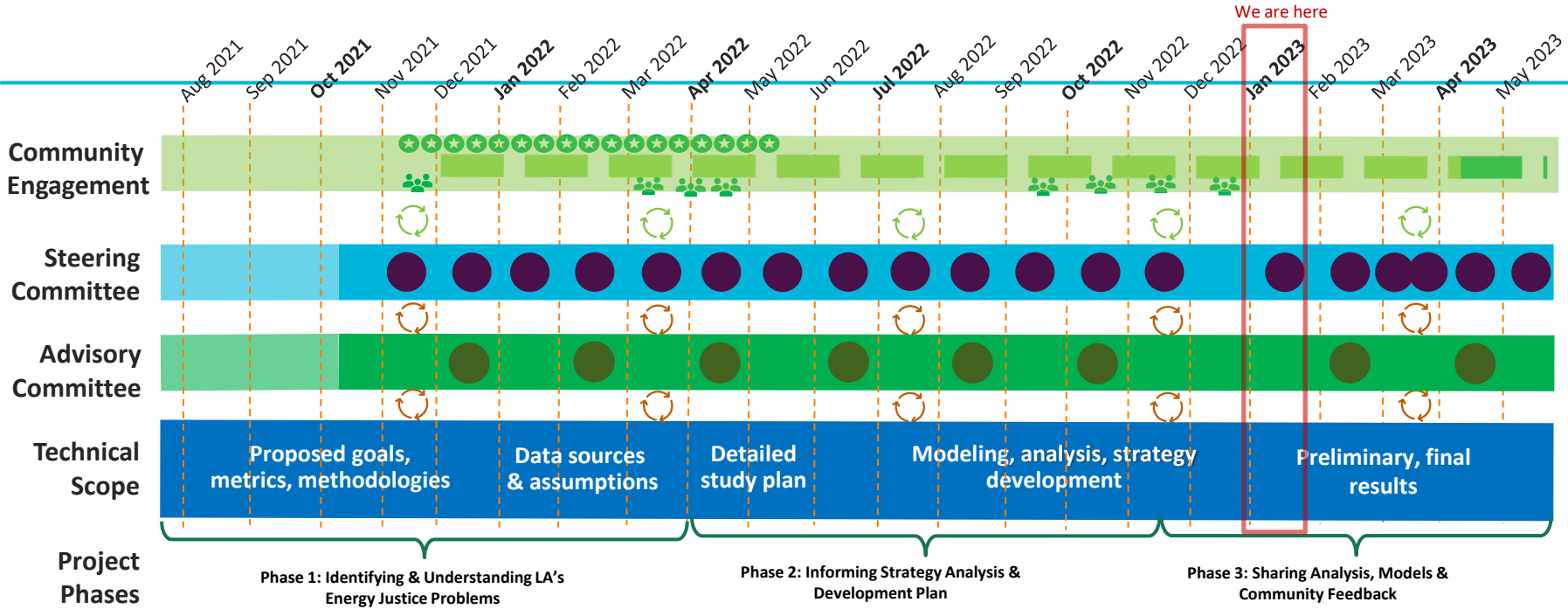
2/15/23 #15	• Summary of Listening Sessions
	• Preliminary results and strategies discussion:
	  • Residential buildings
	  • Transportation electrification

3/15/23 #16	• Community Engagement preliminary results
	• Preliminary results and strategies discussion:
	  • Air Quality and Health (NREL & UCLA)
	  • Rates and Affordability
	• Affordability (UCLA)

3/29/23 #17	• Preliminary results and strategies discussion:
	  • Local Solar and Storage
	  • Grid Reliability and Resilience
	• Energy Atlas (UCLA)

4/19/23 #18	• Jobs (UCLA) • Equity Strategies Summary • Next Steps Discussion (for LADWP & Steering Committee)

LA100 EQUITY STRATEGIES: TIMELINE & FRAMEWORK



Legend

Key connections
- Feedback loops

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

Update on LA100 Equity Strategies Implementation

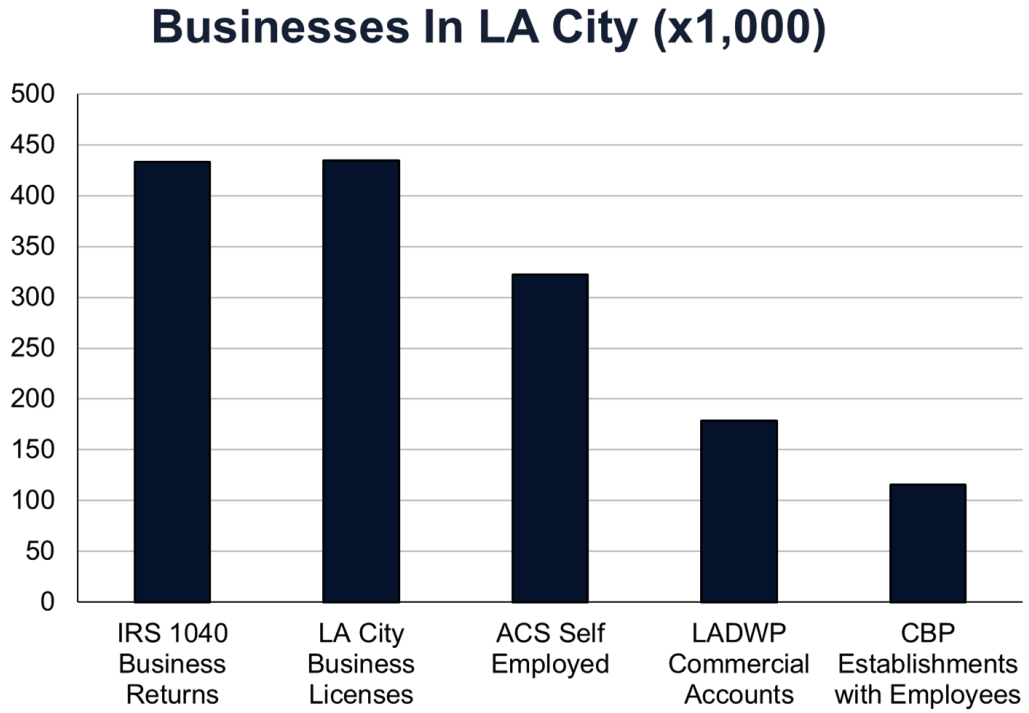
Steering Committee Check In

What is one hope you have for your community this year?

Ethnic Business Study

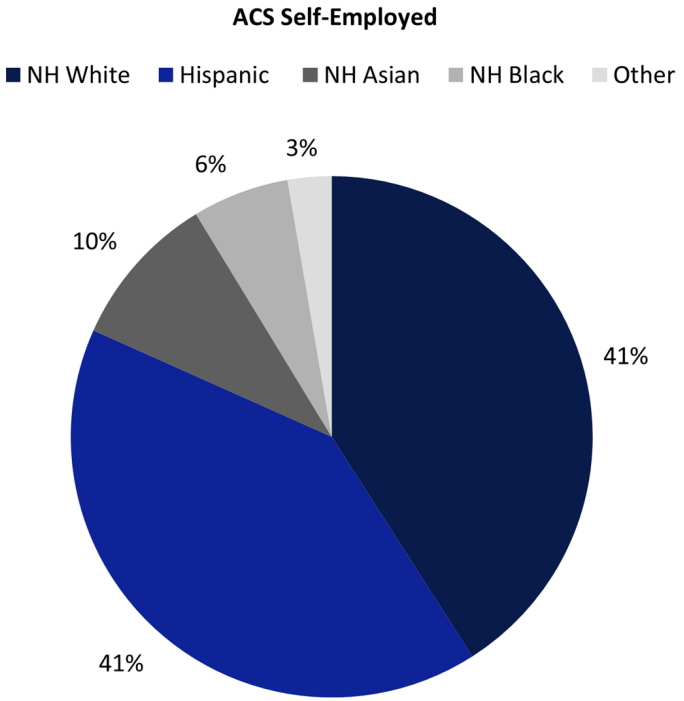
Paul Ong, UCLA Center for
Neighborhood Knowledge

Business Sector of Los Angeles City



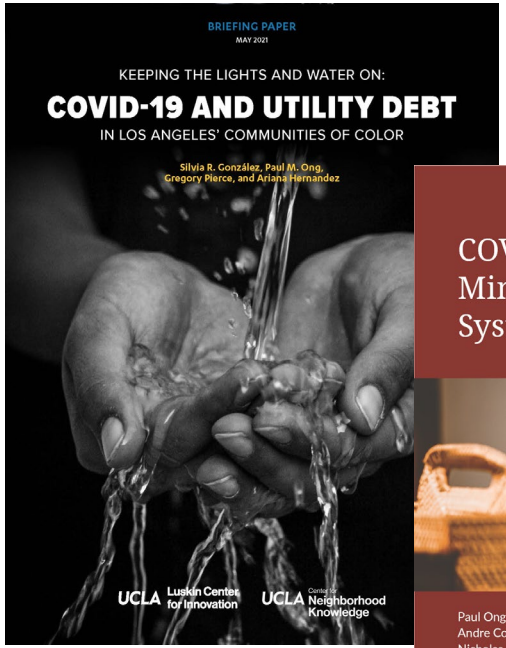
Over 400k entrepreneurs, with small businesses comprising a large majority of all businesses.

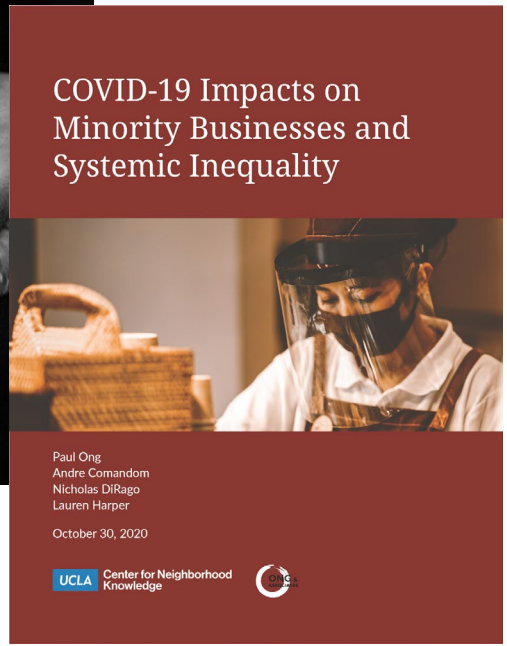
Ethnic Businesses in Los Angeles City



Ethnic businesses are disproportionately small operations. Three-in-five entrepreneurs are people of color (2015-19 ACS), but minority business enterprises (MBEs) comprise less a third of firms with employees (2017, U.S. Census NES).

Motivations for Research





In the face of worsening economic inequality due to COVID-19 and climate change, it is critical that ethnic small business owners and entrepreneurs remain viable, thus creating an inclusive and sustainable economic recovery.

This research seeks to identify the magnitude, patterns and causes of the structural barriers that hinder access to the necessary capital and ever-changing technological tools that can grow and transform ethnic business entrepreneurship.

The research project is designed to reach small businesses, micro-businesses and self-employed individuals who are critical to the survival and economic mobility of communities of color but are typically excluded from existing business studies.

Survey Goals and Objectives

Goals: Gain insights on the energy affordability barriers and opportunities for ethnic-owned small businesses. Provide information to LADWP and other stakeholders to help develop effective and equitable policies and programs.

Objectives: Collect critical information from small businesses, with a focus on ethnic-owned businesses. 500 valid responses. Produce an analytical brief for LADWP and other stakeholders.

Survey Methodology

- **Institutional Review Board (IRB) approval to protect privacy and ensure confidentiality**
- **10-15 minutes**
- **Key Topics**

  (1) Firm characteristics

  (2) COVID impacts and relief programs;

  (3) Energy burden;

  (4) Climate-change impacts;

  (5) Sustainability practices; and

  (6) Programmatic needs

Survey Sampling Methodology

- **Online & Multi-language:** English, Spanish, Chinese, Vietnamese, Thai, and Korean
- **Sampling strategy, geography:** Convenience panel, region-wide sampling
- **Sampling strategy**, **diversity:** Oversampling of ethnic firms and those in ethnic economic enclaves (i.e. Leimert Park, Boyle Heights, Koreatown, etc.)
- **Sampling strategy, quality control:** Selective invitations and extensive spam screening and verification (e.g., IP address, email, location, etc.)
- **Outreach efforts:** Partner with community-based organizations, chambers of commerce and business associations serving MBEs.
- **Participation incentives:** $20 Visa Gift Cards
- **Progress:** 250+ valid responses (mid-November 2022)

Preliminary Survey Results

Early Major Observations

(As of November 21, Subject to Change, Not for Distribution)

- **Businesses:** An overwhelming majority of respondents are people of color
- **Pandemic Impact:** A large majority experienced negative impact
- **Pandemic Assistance:** Less than a majority received assistance
- **Energy Burden:** A significant minority were behind on utility bills 2+ months last year
- **Current Climate Change Impacts:** A large minority experienced negative impacts
- **Future Climate Change Impacts:** More expect negative impacts
- **Planning for Climate Change:** Only a small minority have an existing plan
- **LADWP Transition:** Only a small minority understand implications for their businesses
- **Programmatic Needs:** A large majority need support to upgrade equipment
- **Programmatic Needs:** A majority want educational materials

Joint Workshops*

Energy Efficiency Workshop will be organized by LADWP, business serving community-based organizations and UCLA, providing MBE participants an opportunity to learn about the survey related to equity and LADWP programs, and to share their views and priorities.

**The workshops are not a part of the funded research but is mutually beneficial and useful to shape future efforts to ensure an equitable transition.*

Potential Future Work

Detailed analysis in billing info and secondary data

- Arrears data
- Detailing who and where small business customers are

Program participation

- Energy efficiency program participation rates
- Small Business Program outreach efforts

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Discussion

1. **Did the preliminary survey results resonate with what you know?**
   a) **Anything surprising?**

1. **Are there additional tabulations/outcomes we should consider based on the preliminary survey results?**

Questions

1. How to reach targeted businesses to ensure diversity in survey responses?
2. What policies and programs are needed to ensure equitable transition for vulnerable businesses?
3. Which businesses and/or sectors should LADWP prioritize for services and assistance?
4. Future research needs for LADWP and stakeholders?
5. How to create effective public-private-nonprofit collaboration in the future?

Send responses to mbesurvey@luskin.ucla.edu

Steering Committee Questionnaire Results

The following results are based on questionnaire responses from 7 steering committee members.

Feedback on Residential Buildings

What are the main populations or building types NREL should assess for thermal comfort and safety?

Prioritize thermal comfort and safety for:

- **Older buildings**/without insulation
- **Disadvantaged communities**
  - Especially households with **infants and seniors**
  - DACs in **urban heat islands**
  - DACs with congestion
- Low-income populations
- Community centers/after-school centers
- Neighborhoods lacking safe access to parks, tree canopies, coastal breezes, cooling centers, social cohesion
- Only some rooms in a house
- Optimized affordability (for households and LADWP rate impacts)

Implementation strategies:

- Through **community-based organizations** (CBOs)
  - CBOs run resilience hubs which build social cohesion
- Targeted to renters/rent-burdened
- **Target those already enrolled in programs** like SNAP, Section 8, Angeleno Card, other assistance programs
- Solar reflective roofs and walls in multifamily buildings
- Work with StreetsLA to deploy shade structures at key intersections, plazas, parks
- Information in multiple languages, including Chinese, Vietnamese, Armenian, Russian, Korean, Tagalog
- Diverse outreach staff that reflect targeted communities
- Town hall meetings in disadvantaged communities
- **Door-to-door campaigns**
- Information distributed through schools
- Billboards
- Text messages (instead of e-mail)

Feedback on Transportation

EV Access & Affordability Strategies

- **Avoid electricity cost increases**
- Free **EV rentals** (e.g., 2 weeks) for low/moderate-income and underserved communities
- Marketing/access to EVs via local, used car dealerships frequented by low-income populations
- Any **subsidies paid by City, not LADWP ratepayers**
- More education on maintenance, how to use charging, and incentives
- **Income-eligible, low-cost loans and grants for EV purchase or lease**
- Assistance for EV battery, parts reliability and cost
- Offer public parking and initial free charging
- LADWP should support active and public transportation and provide **e-bike and e-scooter incentives/discounts** (EVs generate brake and tire particulate matter)

EV Charging Implementation strategies:

- Get EV charging stations into **apartment home communities/multifamily** apartment buildings
- City should pay any charging station subsidies, not LADWP ratepayers
- LADWP should provide incentives to owners of multifamily apartments to install charging stations, pool costs, or encourage shared usage within building (maybe BlueLA for a large apartment building)
- Provide charger incentives to 10-20 key apartment owners then publicize these owners in the media, via LADWP bills, through community organizations, putting pressure on other apartment owners to install chargers
- Install EV charging stations in disadvantaged communities through **grants for property owners** who wish to install on their property **provided they are available for public use**
- **Require** minimum of 2 charging stations in multi-family, commercial, retail, office buildings
- Offer/promote financial benefits (rebates, lower cost maintenance, discounted EV charging stations)

Feedback on Transportation (continued)

Multimodal Transportation Electrification Strategies

- **EV car-share programs**
  - More education via community groups on how to access
  - Eliminate barriers to access for those without credit/debit card
- LADWP should launch an **e-bike** program based on successful pilot in Colorado that provides rebates
- Ensure all of LA is served by e-bike, **e-scooter**, EV car-share market
- E-bikes and e-scooters are good short trip solution, but safety is a problem. Instead provide subsidized or **free transit passes**
- Assess transportation mode by trip length, e-bikes or e-scooters support short to mid-distance travel.

Equity Strategy Discussions

Rotating small group discussions:

- Housing
- Transportation
- Grid Reliability & Resilience

Housing

Prioritized Outcomes:

- Universal Access to Safe and Comfortable Home Temperatures
- Building Weatherization and Resilience to Extreme Events

Janet Reyna, NREL

Housing

Safe and Comfortable Home Temperatures
Weatherization and Resilience to Extreme Events

NREL developed a model of 50,000 representative housing units that cover the diversity of housing characteristics, appliance ownership, occupant behavior, income levels, climate zones, and owner/renter status that exist in LA.

Using this model, NREL is identifying energy impacts of building weatherization, building technology interventions, and costs needed to deliver safe and comfortable temperatures to low- and moderate-income and underserved households.

Research Questions:

- Which *types of housing* are most vulnerable to dangerous temperature exposures?
- What are *housing-type-specific* cooling interventions?
- Which types of *homes* and *neighborhoods* have the least access to cooling?
- What are the *most effective weatherization interventions* to prevent dangerous in-home temperatures and associated health risks in an outage situation?

Outcomes:

- Lowest-cost/lowest-bill-increase strategies and building-type-, income-level-, neighborhood-, and renter/owner-specific technology deployment strategies to provide universal cooling access in homes
- Optimized weatherization interventions by housing type to prevent health risks in extreme events.

Steering Committee Equity Strategies Discussion

Housing

- Safe and Comfortable Home Temperatures
- Weatherization and Resilience to Extreme Events

What guidance do you have for implementation strategies to:

- *Equitably weatherize and upgrade homes?*
- *Ensure access to weatherization and upgrade benefits for renters and owners?*

Transportation

Prioritized Outcomes:

- Equitable light duty electric vehicle (EV) & charging benefits
- Multimodal strategies for reduced transportation energy burdens

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

Transportation

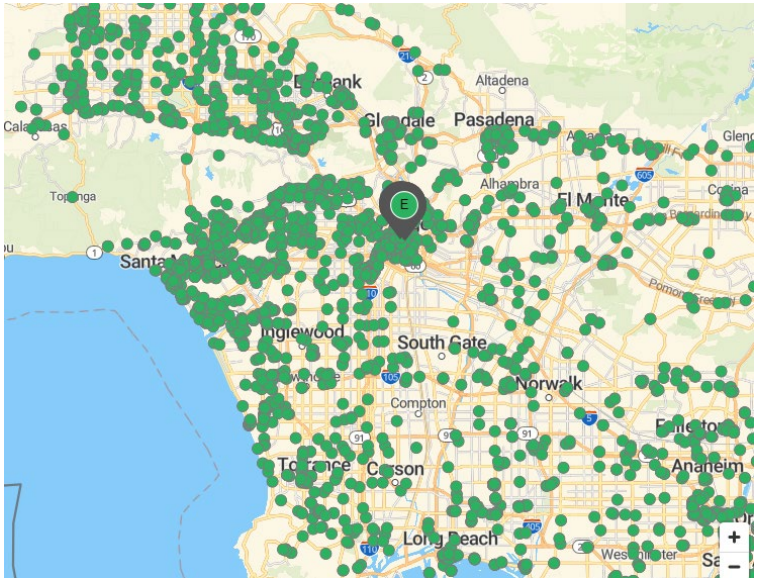
Equitable Electric Vehicle & Charging Benefits Reduced Transportation Energy Burdens

Questions to Be Answered by Modeling:

- What would a *business-as-usual, economic EV adoption* scenario look like versus an *equitable adoption model*?
- What are the *electrical loads* associated with equitable EV adoption and access and EV charging infrastructure distribution?
  - Feeds into distribution system upgrades needed to support equitable EV access and charging needs.
- What is the potential for *increased multimodal electric mobility* (i.e., e-bikes, e-scooters, EV car share) for zero-car households?
  - What are the energy cost and demand savings?

Outcomes:

- Strategies to achieve more equitable EV and charging benefits
- Strategies for reducing transportation energy costs for low-income households



Source: Alternative Fuels Data Center – Electric vehicle charging station locations. https://afdc.energy.gov/stations/#/find/nearest?location=los%20angeles,%20ca&fuel=ELEC

Steering Committee Equity Strategies Discussion

Transportation

- Equitable benefits from electric vehicles (EVs) & EV charging (including and beyond personally owned EVs)
- Multimodal strategies for reduced transportation energy burdens

What guidance do you have on implementation strategies for equitable benefits from:

- *EVs, EV charging?*
- *Alternative electrified transportation like EV car-share, e-bikes, and e-scooters?*

Grid Reliability & Resilience

Prioritized Outcomes:

- Distribution grid upgrades to enable equitable reliability and solar, storage, and EV access and adoption
- Resilient access to electricity-related services during emergency events

Bryan Palmintier, NREL
Sherin Ann Abraham, NREL
Kwami Sedzro, NREL

Grid Reliability & Resilience

Part 1: Equitable distribution grid upgrades for reliability and solar, storage, EV adoption

Challenges to address:

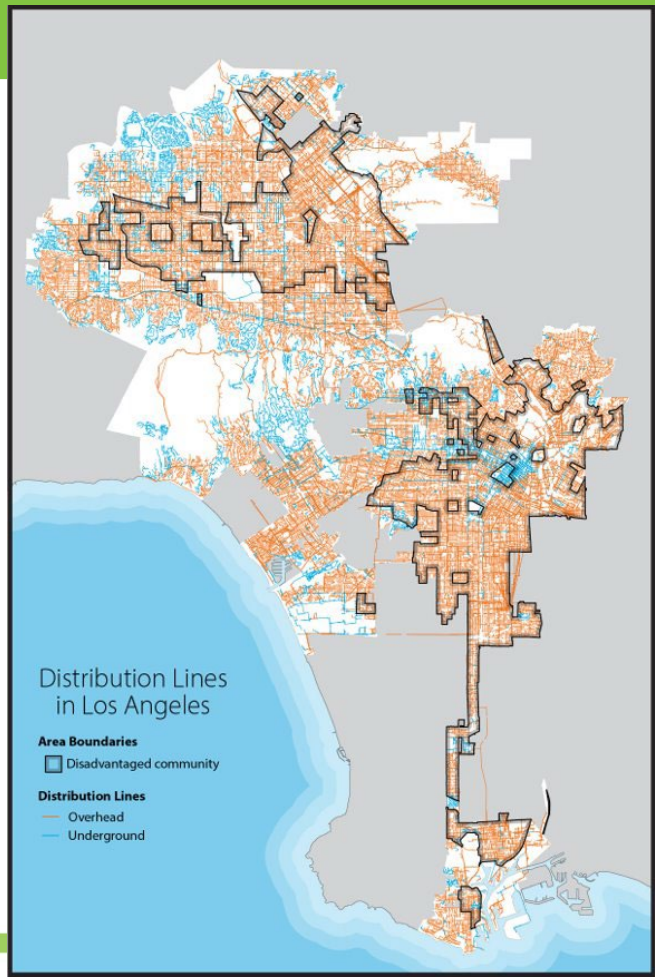
- Distribution grid, especially in DACs, is currently widely stressed
  - Increasing electrification (EVs, air conditioning, stoves, hot water) will increase stress
  - Grid stress leads to lower reliability (and limits EV chargers)
  - Grid stress may also limit ability to install solar or storage
- In some years, historic grid stress linked to more frequent grid outages for DAC communities

Analysis Notes:

- Future reliability difficult to estimate, so instead…
  - Reliability proxy=grid stress: Overloading and voltage challenges
- Approach: Estimate upgrades needed to resolve grid stress
  - Current needs
  - Future estimated needs with electrification, solar

Outcomes:

- Equity-informed regional prioritization for LADWP electric distribution system investments
- Metrics to consider equity in future LADWP prioritization



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Grid Reliability & Resilience

Part 2: Resilient access to electricity-related services during emergency events

Challenges to address:

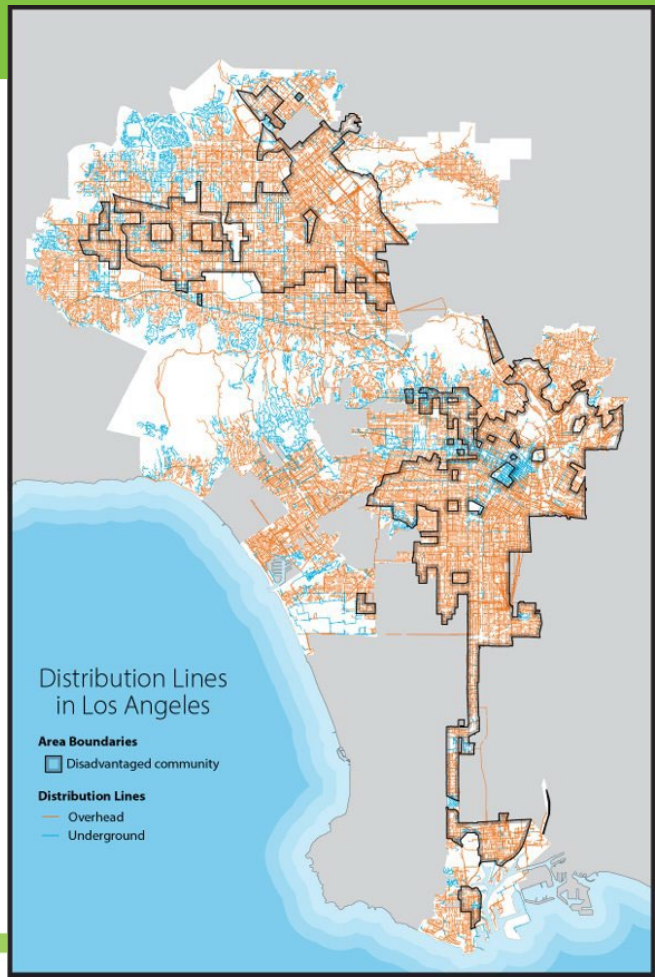
- With increased electrification—heating/cooling, cooking, transportation—electricity is increasingly important during emergency events:
  - Storms, heat waves, earthquake, fire, etc.
- Residential electricity is one consideration. Also important is access to critical services which require electricity:
  - Clean water, medical care, food, emergency services, etc.

Analysis Notes:

- Cannot predict specific emergency events, so instead…
  - Compare social-burden-based metrics (considering services & access) across many scenarios
- Approach: Estimate resilience with and without a range of resilience programs to identify most effective (& estimate costs)
  - Limited to 5-6 diverse neighborhoods

Outcomes:

- Relative strengths/weaknesses of various resilience programs
- Locational comparison of value of resilience approaches
- Metrics to consider equity in future LADWP resilience planning



Steering Committee Equity Strategies Discussion

Grid Reliability & Resilience

- Part 1: Equitable distribution grid upgrades for reliability and solar, storage, EV adoption

What electric grid-specific factors should be included in equitable grid planning priorities?*

- *Possible examples: historic outage rates, backlog/rejections for service capacity (increasing power to home) or solar/storage install requests, rate of neighborhood population growth, demographic/income levels*

Which future clean electric technologies are most important for the grid to support at homes/business in DACs? Why? Examples: EVs, air conditioning, electric heat/cooking, solar, storage, or others.*

**Note: We also understand the need for panel and home wiring upgrade support. That is covered by other parallel NREL & UCLA analyses (Buildings, Local Solar & Storage). Here we are focused on the grid upstream of the meter.*

Steering Committee Equity Strategies Discussion

Grid Reliability & Resilience

- Part 2: Equitable distribution grid upgrades for reliability and solar, storage, EV adoption

The community energy resilience assessment considers electricity, shelter (home and/or community), fire station, hospital/urgent care, pharmacy, grocery, water, transportation, law enforcement, banking, and telecommunication services.

- *Is there any other service you would like us to consider?*
- *Which services are most critical during an emergency event (e.g., a storm, earthquake, heat wave, or fire)?*

Do you have suggestions on equitable grid resilience program implementation and technologies?

- *For example, these programs could include microgrids, resilience hubs, community solar, storage, and/or other approaches.*

Going Forward

Tentative

Steering Committee Meetings

February 15, 2023
Virtual

- Community Listening Sessions Summary
- Preliminary Results
  - Buildings
  - Transportation

Subsequent Meetings

- Third Wednesday of each month, 10:00 a.m. – 12:00 p.m. PT
- Virtual for near-term
- There will be 2 meetings in March – 15th and 29th

What would you like to discuss in upcoming meetings?
Drop your agenda suggestions in the chat!

Thank you!