LA100 EQUITY STRATEGIES

Los Angeles 100% Renewable Energy Equity Strategies

Steering Committee Meeting #10
August 17, 2022

Summary[1]

Schedule and Location

Wednesday, August 17, 2022, 10:00 am to 12:00 pm.
Conducted virtually

Virtual Meeting #10 Attendees

Steering Committee Members

City of LA Departments of Planning, Emergency Management, Recreation and Parks and Building and Safety, Marta Segura
City of LA Climate Emergency Mobilization Office (CEMO), Rebekah Guerra
Climate Resolve, Jonathan Parfrey
Community Build, Inc., Robert Sausedo
DWP-NC MOU Oversight Committee, Tony Wilkinson
DWP-NC MOU Oversight Committee, Jack Humphreville (alternate)
Enterprise Community Partners, Michael Claproth (alternate)
Los Angeles Alliance for a New Economy (LAANE), Kameron Hurt
Los Angeles Alliance for a New Economy (LAANE), Estuardo Mazariegos (alternate)
Move LA, Eli Lipmen
Pacific Asian Consortium in Employment (PACE), Celia Andrade
Pacific Asian Consortium in Employment (PACE), Susan Apeles (alternate)
Pacoima Beautiful, Annakaren Ramirez (alternate)
RePower LA Coalition, Michele Hasson
RePower LA Coalition, Roselyn Tovar (alternate)
The South Los Angeles Transit Empowerment Zone (SLATE-Z), Stephanie Ramirez (alternate)
South LA Alliance of Neighborhood Councils, Joy Enix
Strategic Concepts in Organizing and Policy Education (SCOPE), Agustín Cabrera
Strategic Concepts in Organizing and Policy Education (SCOPE), Tiffany Wong (alternate)

LADWP Staff

Andrew Kwok
Ashkan Nassiri

[1] This summary is provided as an overview of the meeting and is not meant as an official record or transcript of everything presented or discussed. The summary was prepared to the best of the ability of the notetakers.

Cathie Chavez-Morris
David Castro
Dawn Cotterell
Iris Castillo
Jason Rondou
Jay Lim
Mudia Aimiuwu
Pjoy Chua
Ramon Gamez
Simon Zewdu
Stephanie Spicer
Steve Baule

Project Team

Ashreeta Prasanna, National Renewable Energy Laboratory (NREL)
Daniel Zimny Schmitt, NREL
Eda Giray, NREL
Garvin Heath, NREL
Janet Reyna, NREL
Kate Anderson, NREL
Megan Day, NREL
Nicole Rosner, NREL
Patricia Romero-Lankao, NREL
Sonja Berdahl, NREL
Cassie Rauser, UCLA
Eric Fournier, UCLA
Felicia Federico, UCLA
Greg Pierce, UCLA
Paul Ong, UCLA
Stephanie Pincetl, UCLA
Christian Mendez, Kearns & West
Jasmine King, Kearns & West
Joan Isaacson. Kearns & West
Robin Gilliam, Kearns & West

LA100 EQUITY STRATEGIES

Welcome Remarks

Joan Isaacson, facilitator from Kearns & West, welcomed members to the tenth Los Angeles 100% Renewable Energy Equity Strategies (LA100 Equity Strategies) Steering Committee meeting. She introduced Simon Zewdu, Director of the Transmission Planning, Regulatory, and Innovation Division, to provide opening remarks.

Simon Zewdu welcomed Steering Committee members to the meeting and thanked them for their continued participation and input. He noted that the project team would be having internal discussions on addressing climate change concerns in Los Angeles. Simon Zewdu also shared that LADWP are planning to host discussions at the LADWP Board of Commissioner's meetings related to extreme heat and reducing its impacts. Simon Zewdu stated that LADWP is working on a new initiative called "Cool LA" which provides rebates for City of Los Angeles residents to purchase or replace various types of cooling units, including window and room air conditioners, at a reduced cost to lower extreme heat indoor temperatures to a safe level. He noted that LADWP will provide updates on these programs and initiatives in upcoming Steering Committee meetings.

Agenda Overview and Introductions

Joan Isaacson reviewed the meeting agenda (see slide 3 in Appendix). She shared that Strategic Concepts in Organizing and Policy Education (SCOPE) would provide an organization spotlight, UCLA would present tools for identifying Disadvantaged Communities (DACs), and the National Renewable Energy Laboratory (NREL) would present Steering Committee feedback on modeling, analysis, and strategy development. Joan Isaacson stated that Steering Committee members would have an opportunity to talk about what they are currently working on before the presentations.

Steering Committee Spotlight and Check-in

Joan Isaacson invited Agustín Cabrera, Research and Policy Director, and Tiffany Wong, Policy and Research Associate, from SCOPE to spotlight their organization. Agustín Cabrera introduced SCOPE by sharing that nearly 30 years ago, local activists organized to overcome systemic economic and racial injustice. They noted that SCOPE provides a platform for community members to advocate for themselves while they endure years of systemic exploitation and neglect. They said that SCOPE's membership is fighting to be heard and be a part of decision-making processes. Agustín Cabrera shared that SCOPE membership continues to fight for equity, justice, and solidarity for underutilized collective power as their communities are burdened by air pollution, being a park-poor community, and the climate crisis.

Agustín Cabrera overviewed SCOPE's mission to build grassroots power to create social and economic justice for low-income, immigrant, woman, femme, Black, and Brown communities in Los Angeles. They highlighted SCOPE's vision to create a liberated, equitable future where BIPOC folks who have been systemically left out and consistently exploited, can live long, sustainable lives. People will have access to what they need in their community, will have career opportunities, will have equitable and affordable homes, and more.

Agustín Cabrera noted SCOPE's area of focus on moving towards systemic change that results in a shift in material conditions for South LA community members through equitable public investment, community and environmental health, and long-term economic security. Agustín Cabrera described how SCOPE builds community power through grassroots organizing and uplifting voices by canvassing to coordinate vaccinations, phone banking, and securing funding for utility debt relief to organize communities.

Tiffany Wong explained SCOPE's policy platform, stating that SCOPE had engaged member leaders to identify their priorities for 2022 for systemic change. She described three pillars of their 2022 priorities, including energy and water justice, a just transition from neighborhood oil drilling that results in dangerous health impacts for community members, and equitable and community-driven projects. Tiffany Wong emphasized their goal to ensure that investments are made in frontline communities that have been historically disinvested in so that members can experience tangible and meaningful benefits. She noted SCOPE's policy priorities to provide access to clean air, water, and energy and access to career pathways and sustainable jobs.

Lastly, Tiffany Wong shared that SCOPE aims to bring climate change funding into South LA and work with the Justice40 initiative to ensure frontline communities are prioritized at the state and local levels. Agustín Cabrera shared that they appreciated the opportunity to spotlight SCOPE and their work and that they look forward to learning ways their organization can work with others.

Joan Isaacson asked which Steering Committee member would like to present at the next meeting. Jonathan Parfrey with Climate Resolve volunteered.

Steering Committee Roundtable Introductions

Joan Isaacson invited Steering Committee members to respond to the question: What is a priority or top issue that you are working on this week?

- **RePower LA Coalition**: Prioritizing ratepayer justice and engaging with people that are enduring difficult times due to high utility bills. RePower is strategizing to organize people to talk about issues they are facing and develop a campaign plan to uplift voices in the community and their issues.
- **DWP-NC MOU Oversight Committee**: Reviewing the MOU is a priority, as well as ensuring the community meetings are more widely understood by community members.
    - DWP-NC MOU and Advocacy Committee meetings occur on the first Saturday of every month (online) from 8:30 am to 10:00 am. The meetings are open to everyone and include "insider" information intended for the public about power and water programs. https://www.ladwpnews.com/dwp-nc-mou-and-advocacy-committee-meetings/
- **SLATE-Z**: Working on finalizing dates for a listening session with Pacoima Beautiful and preparing for a site visit with the California Strategic Growth Council.
- **Climate Resolve**: Climate Resolve is working with the South Los Angeles Transit Empowerment Zone (SLATE-Z) and SCOPE on the transformative climate communities opportunity. They are also preparing for calls with the White House Office of Science and Technology Policy on reflecting sunlight back to space to help with climate change impacts (e.g., heat island effect). They also completed a project with Pacoima Beautiful and GAF and are currently working on developing ten blocks of cool pavements to cool down the neighborhood.
- **PACE**: A priority this week is reducing greenhouse gas (GHG) emissions and mitigating some of the effects of climate change. Many communities are low-income and can't afford air conditioning (AC) and many don't have air conditioning in their homes. PACE is working on a program to provide AC for the most vulnerable community members, such as seniors and those with health conditions.
- **SCOPE**: Working with Los Angeles Alliance for a New Economy (LAANE) and Move LA and preparing for a Responding to Climate Change (RTCC) visit next week with partners. After last week's defeat of AB-2419 (Environmental justice: Federal

Infrastructure Investment and Jobs Act: Justice40 Advisory Committee), they are working to continue to push state and local agencies to spend Infrastructure Investment and Jobs Act (IIJA) funds and have been considering next steps.

- **Pacoima Beautiful**: Pacoima Beautiful just wrapped up its cool streets initiative. This week, they are working on heat resilience focus groups and planning a listening session with their membership.
- **Community Build Inc.**: Community Build is celebrating its 30-year anniversary in October. They are also working on the Groundswell water initiative for clean drinking water in communities of concern (COC) throughout the state. More information can be found at Groundswellforwater.org.
- **LAANE**: Ratepayer justice and correcting existing injustices and widespread issues of unaffordability are the focus.
- **Enterprise Community Partners**: The focus is on meeting with the Department of Building and Safety to provide insight and consultation for the decarbonization of new buildings and to offer an affordable housing perspective. They are also meeting with the Natural Resources Defense Council (NRDC) advisory group to identify potential affordable housing case study sites.
- **Move LA**: Working on AB1919 (Student Pass Pilot Program), Proposition 30 on Clean Air, and Measure ULA on affordable and sustainable housing and homelessness prevention.
- **City of LA Chief Heat Officer**: Preparing for the August commission meetings on climate adaptation for low-income communities.

Tools to Identify Disadvantaged Communities

Paul Ong, UCLA Center for Neighborhood Knowledge, presented tools to identify Disadvantaged Communities (DACs). He explained that these tools are used to prioritize, analyze, and monitor impacts. Paul Ong reviewed several definitions, including equity, which is the absence of undesirable, unacceptable, and unfair disparities defined both objectively and subjectively. He noted that achieving equity requires concrete action to close an existing disparity or to fairly compensate for an unavoidable disparity, or prevent a gap from materializing. Paul Ong then stated that achieving equity requires identifying the patterns of inequality and disparity.

Paul Ong overviewed definitions of disparities and DACs, stating that disparities are concentrated in DACs as defined by populations or neighborhoods and that DACs are often characterized by low socioeconomic status, people of color, and other factors. He shared some guiding principles for working with these tools and terminology (see slide 17 in Appendix), such as that there is no single or simple definition of DACs and that classification schemes vary (and should vary) with purpose, policy, and programs.

Paul Ong then shared common existing DAC indicators and how they are typically applied (see slide 18 in Appendix). For example, he described the Centers for Disease Control and Prevention's (CDC) Social Vulnerability Index as an indicator being used primarily for disaster planning and response, while the California Environmental Protection Agency's CalEnviroScreen is primarily used for allocating cap-and-trade funding and other environmental policies.

Paul Ong explained what it means to use different indicators. In an example, he described the differences between the Social Vulnerability Index and CalEnviroScreen, where classified indicators are ranked from low to high. Because of the differences in indicators, within the tracks identified as having a low ranking, a third of them were found to be inconsistent across the Social Vulnerability Index and CalEnviroScreen.

Eric Fournier, UCLA, presented an interactive web-based map (https://gisucla.maps.arcgis.com/apps/webappviewer/index.html?id=f86e687d379842dcb580f25c37094937) to provide additional comparisons between the different indicators. On the map, Eric Fournier noted that the UCLA team included indicators (including the Social Vulnerability Index and CalEnviroScreen) that focus on energy and electrification. He explained that layers that represent the different indicators can be added.

Eric Fournier noted both overlap and a lack of overlap between the different indicators (e.g., the CDC's Social Vulnerability Index and the Healthy Places Index map high-risk areas differently). He stated that UCLA provided guidelines for different neighborhoods to help with the comparison, and all indicators can be included as layers to help identify which areas represent the greatest number of DACs overall. Eric Fournier noted that the decisions on which DAC indicators to use will impact analyses and the development of future programs.

Paul Ong continued by stating that the choice of which DAC indicator to use matters. He also noted that UCLA plans to develop indicators relevant to minority-owned businesses (MOB) and DACs. Paul Ong presented several paths forward (see slide 22 in Appendix), including using CalEnviroScreen as an indicator to complement analysis, monitoring, and policy simulations. He also proposed combining CalEnviroScreen or overlaying it with other DAC indicators more relevant to studying specific energy disparities, such as the Housing and Community Development (HCD) or the California Air Quality Resources Board's (CARB) Transportation Disparity indicator. Paul Ong explained that a hybrid approach would balance consistency and flexibility across subprojects, with a potential example of this being the construction of a policy-specific energy disparity index.

Paul Ong wrapped up by saying that there is no single or simple solution to defining DACs, different indicators yield different results, and LADWP should aim to use indicators that are as relevant as possible to LA100 Equity Strategies. Finally, he noted that a decision on indicators should be made before analyses are completed.

Eric Fournier proposed several discussion questions to consider:

- Which indicators are the most relevant to the LA100 Equity Strategies process?
- What other sources of information are relevant and should be included?
- How important is having neighborhood-level (census tract) data/indicators on energy/utility burden for residents?
- How do you, or your organization identify "disadvantaged" when it comes to communities you work with?
- Which tool/metric/indicator is most meaningful or useful in your opinion?
- How important is it to develop indicators of energy/utility burden for businesses? Particularly for small MOBs and for MOBs in minority neighborhoods?

Major Themes from Steering Committee Questions and Discussion

- Across the categories, the two areas that stand out are Northeast Valley and South LA. It is interesting that the white (not disadvantaged) upper right corner of the Panorama City "witches' hat" is not because rich people live there. It is because those are groundwater recharge basins with zero people.
- Add the historical analysis of redlining as a layer. Also, overlay civic engagement participation; this typically includes those that have less political power.
- Do we understand the historical trajectory of being disadvantaged? Other major historical events could be added to the analysis.

- In terms of civic engagement, there are a number of possibilities, such as voter registration, but this is compounded by the fact that some residents are not citizens. Voting and neighborhood council data may also be useful.
- The problem is that the cost burden of the LA100 transition should be income-based, not geographic. For example, the area around Canoga Park in the Valley looks very much like my Northeast Valley, though it does not have the same level of environmental justice (EJ) rankings. Geographic data is more important for issues like access to mitigations of heat and to electric vehicle (EV) charging. There are concerns that the emphasis on geographic communities, while important, is being used at a much higher priority than income and historic disadvantages.
- Energy burden per neighborhood is also important. Geographic overlays combined with other indicators paint a clearer picture than income alone.
    - Eric Fournier: Yes, including indicators that reflect energy cost burdens could potentially be very important and relevant to LA100 Equity Strategies.
- There is a tension between providing heat pumps and efficient appliances and health impacts (https://ph.ucla.edu/news/press-release/2022/jul/ucla-fielding-school-project-shows-health-effects-extreme-heat-across). Some AC units can increase emissions. It is important to think about what kinds of technology solutions can be affordable and sustainable to equalize the public health playing field. There is a need to measure premature deaths and hospitalizations, as well, particularly related to heat waves. The project team should work with the UCLA School of Public Health on this.
    - Eric Fournier: The California Department of Public Health's Healthy Places Index is included on the web map that was provided.
    - Paul Ong: Health impacts also often occur at the place of work. It is not always at the residential place but is also a problem at the place of work. It is important to think beyond the residential and also consider the commercial and business places.
- Mitigating for extreme heat is central to Los Angeles' resiliency and adaptation strategies.
- What is "energy burden by neighborhood"? Locating large solar farms in EJ communities could be an industrial use disadvantage.
- The health deficits in EJ neighborhoods could be determined to come from transportation and industrial emissions, not from the emissions from natural gas-fired power plants, which are a small percentage of total pollution.
- The heat indices that have been developed – California Heat Assessment Tool (CHAT) and Healthy Places Index (HPI) -- have real deficits. These deficits must be examined before applying them as an overlay to the DAC analysis.
- It is very important to have neighborhood-level on data on energy and utility burdens for residents. There is also a need to see consistent data reporting on utility burden through the equity metrics.
    - Simon Zewdu: One size doesn't fit all. Perhaps, in the coming months, the project team can put together metrics of different strategy development areas discussed in the past and associated indicators related to those strategies. When developing programs in the future, LADWP will take those indicators into consideration.
    - Eric Fournier: This map is absolutely a living and evolving resource. The UCLA project team is happy to add or modify layers as needed to support this discussion.
- It's very important to have neighborhood-level data.
- Is the project team also mapping shutoffs?
- Track utility burden in common areas as it relates to affordable housing.
- In this space, this group should challenge the use of the term "disadvantaged" to define communities.

- The City of LA Climate Emergency Mobilization Office (CEMO) has a document that overlays neighborhood-level geographies – at the neighborhood council level – and uses CalEnviroScreen data to identify the top 10% of affected neighborhoods.
    - Eric Fournier: Neighborhood council boundaries can be included for context.
- The Northeast Valley is full of minority-owned businesses, and the energy burden is very important for them (e.g., small business rigs). Include a rate structure for small businesses.
    - Eric Fournier: Understanding the geographic distribution of shutoffs and actual energy burdens (using LADWP customer data) are both high-level objectives of the project team's analyses as part of LA100 Equity Strategies.
- Lead pipe replacement could be interesting to understand and direct focus on the neighborhoods that need deep holistic neighborhood-level energy and water infrastructure investments.
- Mapping the use of energy could be helpful for health considerations.
    - Paul Ong: The UCLA team has discussed looking at both shutoffs and being behind on utility bills as an energy layer.
- Arrearages are also an important indicator.
- Santa Monica removed small businesses from the building decarbonization policy. Take a look at policies to help smaller businesses and workers.
- Artificial intelligence measurement tools can also be used by businesses and utilities to ensure energy efficiency is making progress and is positively impacting the energy burden.
    - Paul Ong: The project team has also started looking at using customized information from the American Community Survey to look at the percent of income paid to utilities.
- Regarding businesses, many are also facing a residential energy burden, especially for those running their business from their homes. How is a business-specific metric being calculated?
    - Paul Ong: The team is trying to estimate the number of home-based businesses, and current estimates show at least half of small businesses being home-based.
- How is the team including heat island impacts? Heat impacts are important to analyze by geography.
- Regarding small businesses, street vendors, gardeners, and LADWP linemen, amongst others, are especially vulnerable to extreme heat.
    - Paul Ong: Yes, the project team will try to include street vendors and others vulnerable to extreme heat in the analysis.
- Commercial rates are different from residential power rates. Businesses typically pay significantly more per kWh than residences, which is why a "small business" typical bill is important to see (with LA100 cost increase projections) as an EJ issue.
- It's important to note, no matter the database, which communities continue to be highlighted (like South LA and Northeast Valley) and what has caused that.

Key Takeaways for Modeling, Analysis, and Strategy Development

Megan Day, LA100 Equity Strategies Project Manager and NREL Senior Energy Planner, provided an overview of Steering Committee feedback that was heard during the June and July LA100 Equity Strategies Steering Committee meetings (see slides 27-38 in Appendix). She shared that NREL would provide a summary of the input and explain how that input is impacting the modeling, analysis, and strategy development, noting that a full summary of the input was included in the pre-read document.

Buildings

Janet Reyna, Technical Lead on Housing and Buildings at NREL, summarized Steering Committee feedback on buildings and housing (see slide 28 in Appendix). She said one of the top comments heard was that success includes ensuring renters – particularly low-income renters – access upgrades, savings, and benefits. Janet Reyna noted that NREL is also evaluating technology, billing, and deployment strategies to increase access to home cooling, solar/storage, EV charging, and energy efficiency in multifamily and renter-occupied buildings. Another piece of feedback heard was the focus on the elderly and the most vulnerable. As a result, she shared that the modeling will focus on universal thermal health and safety by analyzing indoor temperatures under various scenarios. Other feedback included strategies to focus on heat island areas and not penalizing cooling for those that need it most.

Janet Reyna asked Steering Committee members to consider what is missing from the input shared and if the key takeaways identified by NREL are the right things to be studying and modeling.

Major Themes from Steering Committee Questions and Discussion

- In the areas where heat island data is being used, is it overlapping with the CalEnviroScreen data?
    - Janet Reyna: NREL will be looking at how indicators are modeling the heat island effect. The project team will be modeling strategies for all of Los Angeles, not just designated communities.
- How is NREL looking at grid capacity data for various neighborhoods? Does this have any bearing on the research being done?
    - Janet Reyna: The distribution research team may look at this, but they are not looking at bulk power in this project.
- NREL did a good job of summarizing the challenges of addressing low-income households who rent and face issues related to affordable power during periods of high heat.
- Wilmington is highly pollution-burdened and deserves attention. This is especially since heat exacerbates pollution and exposure, and therefore hospitalization and deaths.
- The heat island effect needs to be associated with EJ factors. For example, in the Valley, Woodland Hills is often the hottest area.
- Climate Resolve and Grid Alternatives are running a program in Wilmington where they replace roofs that need repair with solar-reflective and smog-eating shingles, along with photovoltaic arrays. These cool-smog-eating shingles are manufactured in South Gate too: https://www.malarkeyroofing.com/features/smog-reducing-granules/

Electric Vehicles

Megan Day overviewed some of the Steering Committee feedback heard on EVs (see slide 30 in Appendix). She noted that Steering Committee members highlighted the need to address EV affordability and EV supply equipment access. As a result, Megan Day stated, NREL plans to model new and used EV adoption, home/work charging access, and home readiness. She shared that the Steering Committee also recommended a "use" metric to capture affordability, range, parking, and access. Megan Day then stated the EV research team at NREL would include adoption and use rates in its modeling.

Megan Day asked Steering Committee members to consider what is missing from the input shared and if the key takeaways identified by NREL are the right things to be studying and modeling.

Major Themes from Steering Committee Questions and Discussion

- Ensure that there is collaboration to increase safety (regarding EVs and electric scooters).
- Something missing is the conversation around heavier-duty vehicles. Heavy-duty vehicles are focused and concentrated in the Los Angeles gateway cities and the Northeast Valley.
    - Megan Day: Light-duty vehicles are the focus of the EV modeling. Heavier-duty vehicles are analyzed in the transportation topic.
- Light-duty vehicles are not unimportant in the long run. Many vehicles in the Northeast Valley are pickup trucks engaged in commerce, including vehicles pulling trailers. Combined with heavier-duty vehicles, they produce a lot of fossil fuel exhaust.
- In terms of the recently passed Inflation Reduction Act, there will be money for EVs. It is important to think about how to take advantage of that funding. At the Pacific Asian Consortium in Employment (PACE), they are thinking about how to propose projects that would help climate change but also improve access to EVs for DACs (e.g., payment assistance, down payments, lower-cost, low-income loans). EVs are more expensive than gas-powered cars, and this is a major factor for low-income communities.
    - Janet Reyna: The Inflation Reduction Act also has funds for low-income residential efficiency and electrification. There are still questions about how the program will be administered, but NREL is considering these funds as part of the strategy design for the building topics.
- Aren't fossil fuel/Internal Combustion Engine (ICE) vehicle sales banned in California after 2035?
    - There are provisions, but it doesn't stop people from using ICE vehicles.
- As someone that has been driving EVs for 15 years, they are indeed superior to ICE vehicles. And given the mercurial price of gasoline, they are less expensive once operations and maintenance are taken into account.

Truck Electrification Air Quality and Health Impacts

Garvin Heath, Senior Environmental Scientist and Energy Analyst with NREL, overviewed some of the Steering Committee feedback on truck electrification air quality and health impacts (see slide 32 in Appendix). He shared that the feedback focused on using multiple criteria in the analysis and the key takeaways for the modeling are to study several metrics to measure impacts on DACs and create a traffic-affected DAC definition. Garvin Heath noted other feedback on considering truck idling, freeway corridors, and port/airport air quality and health impacts. He stated that NREL would focus its analysis on neighborhoods most impacted by medium-duty and heavy-duty vehicle traffic. Additionally, Garvin Heath explained that the modeling would not focus on idling but rather on the movement of trucks through communities.

Garvin Heath asked Steering Committee members to consider what is missing from the input shared and if the key takeaways identified by NREL are the right things to be studying and modeling.

Major Themes from Steering Committee Questions and Discussion

- Can public health indicators be used in the DAC indicators so that public health implications and improvements can also be considered and understood?
    - Garvin Health: NREL is collaborating with UCLA on this concept and will be including health as a metric. While NREL will focus on individual road segments and near source impacts, the UCLA team will be using a different air quality model that considers the whole region of Los Angeles.

- In the health modeling, it would be helpful to also include heat waves as an indicator of health impacts.
    - Garvin Heath: This is not in the scope being considered in the air quality models or an "output." This is an "input" – taking in historical data to incorporate assumptions in the analysis. This is not an outcome metric. It would take a different modeling approach to address this.
    - Simon Zewdu: The issue of extreme heat is an important focus. It is not in the scope, but it is an important consideration. It will inform the questions being asked, and this will need to be considered more granularly in the future.
- Where does the orange color data (see map on slide 32 in Appendix) come from? It shows a concentration of truck traffic East-West in the Mid-Valley, with a concentration in East. Is this map representative of all trucks or just heavy-duty trucks?
- Are public transit buses included in the electrification analysis?
- It is time to get serious about climate change mitigation. That does bring into focus a question of how much to spend, for example, on 100% versus 95% elimination of greenhouse gases in power production, versus how much to spend on protecting low-income families from extreme heat.

Local Solar and Storage

Ashreeta Prasanna, Distributed Energy and Storage Analysis Researcher with NREL, overviewed some of the Steering Committee's feedback on local solar and storage (see slide 34 in Appendix). She shared that feedback included considering utility bill savings, particularly for renters, as a primary measure of success. Ashreeta Prasanna noted the key takeaway for modeling included designating utility bill savings across groups as a key metric. Additional feedback heard, she said, focused on financing, funding to pay utility bills, and subsidizing bills. She noted that NREL would include on-bill financing as part of the scenario analysis. Other feedback included recommendations against using rebates as they can be difficult to access and that shared community solar is a good option if compensation is equitable.

Ashreeta Prasanna asked Steering Committee members to consider what is missing from the input shared and if the key takeaways identified by NREL are the right things to be studying and modeling.

Major Themes from Steering Committee Questions and Discussion

- Think about the workforce that is building out local solar and storage. Provide opportunities for union-standard jobs that ensure good benefits and work standards.
    - Simon Zewdu: Yes, all programs and projects launched in the future will include local hiring, living wages, and good benefits and work standards.
- There is geographic importance of local solar and storage. Microgrids can provide local resilience. But in general, as the power system becomes 100% renewable energy, solar farms in industrial areas may negatively impact communities. Think about where to site solar farms and local solar to not over-concentrate solar in frontline communities.
- Allow people to sign up for monthly utility bills.
- Make instant rebates available at the time of purchase.
- Is there a way to model where people are taking advantage of programs currently? Identify opportunities to do outreach to communities to sign up for newer pilot programs.

    - Simon Zewdu: There is a lot of discussion regarding outreach for programs. The department is working on an outreach program to activate programs with customers. LADWP will work with the City of LA's Office of Sustainability to consider equity in the future. The project team will provide updates in future Steering Committee meetings.
- There is a trend amongst owners of rooftop solar to fight against the California Power Utility Commission's reductions in solar subsidies and prices for feedback power in private utility areas.

Grid Resilience and Distribution Grid Impacts

Megan Day presented Steering Committee feedback on grid resilience and distribution grid impacts (see slide 36 in Appendix). First, she stated, Steering Committee members noted that some parts of the grid already require upgrades. Megan Day explained that NREL would incorporate current required upgrades with upgrade schedules that prioritize DACs. She shared that other feedback focused on prioritizing resilience hub-type opportunities (e.g., community centers) for cooling, vehicle and phone charging, potential water purification, and considering upgrades needed for older electrical panels and wiring in some homes. Megan Day shared that NREL would be prioritizing in-home or close-to-the-customer solutions.

Megan Day asked Steering Committee members to consider what is missing from the input shared and if the key takeaways identified by NREL are the right things to be studying and modeling.

Major Themes from Steering Committee Questions and Discussion

- What are the actual plans for microgrids in the Los Angeles power planning process?
    - Megan Day: NREL does plan to run analyses that look at increases in resilience and technologies and reducing grid service interruptions for using energy. The project team will look at strategies that will ensure reliability for those that need it most, and microgrids will be considered here.
- What workforce will be able to do the work on these upgrades, and how can Los Angeles prioritize local hires?
- Can LADWP think about federal and state funding streams for infrastructure to improve grid resiliency?
    - Simon Zewdu: LADWP will be looking at funding streams that can be applied to various initiatives. The department has started some work related to the green hydrogen fund but will continue to explore all funding opportunities available.

Affordability and Rates

Megan Day reviewed Steering Committee feedback on affordability and rates (see slide 38 in Appendix). She stated that members highlighted that strategies should include income-adjusted rates, maximum bill as a share of income, expansion of existing program participation, and technology-installation approaches. Megan Day noted that NREL would model the suggested strategies. Other feedback focused on considering the whole costs for the customer (e.g., trash, water, power, housing, and gas), considering household size, and anticipating administrative barriers to income-adjusted rates. She shared that a key takeaway for NREL would be to include gas and water costs in the analysis and explore the feasibility of including trash services in final bill estimation and analysis.

Megan Day asked Steering Committee members to consider what is missing from the input shared and if the key takeaways identified by NREL are the right things to be studying and modeling.

Major Themes from Steering Committee Questions and Discussion

- Are these costs the responsibility of LADWP and its ratepayers?
    - Megan Day: Yes, these analyses will be focused on costs to ratepayers.
- Are legislative barriers such as Proposition 26 and 218 being looked at?
    - State legislation is essential to being able to rebalance costs in an equitable way.
- All costs come out of customer bills and all will pay for the full costs of the LA100 100% renewable energy transition. The transition is estimated to increase average residential bills by 7.5% to 8% annually. It is important to show average rate increases since businesses will probably bear more of the cost of the transition than residences.
    - Jay Lim: The approximately 7.5% for Case 1 annual increase is an average but varies year to year. More information can be found here: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB782111&RevisionSelectionMethod=LatestReleased
- What projections are being compared? Costs of the entire transition over an X year period and how to finance these expenses and spread across all customers? Finding more equitable ways to distribute those costs? Is there a cost for the energy transition? Is this being used to identify affordability rates? What is needed is the financial cost of the transition and ways to budget for it.
    - Joan Isaacson: Cost estimates are being done in the Strategic Long-Term Resource Plan (SLTRP) process and were also done for the LA100 study.
    - Jay Lim: At www.ladwp.com/SLTRP, AG Meeting #10 includes rate estimates. These are preliminary estimates. There is still a lot of discussion before the plan becomes final.
- A significant portion of the LA100 costs are not the responsibility of LADWP. There are some costs that should be borne by the City of Los Angeles.
- Steady bill increases would put pressure on low-income communities. Be thoughtful about how the cost increases are equitably distributed.
    - Joan Isaacson: For the SLTRP, community meetings are coming up in September.
    - Stephanie Spicer: Community Meeting Dates: August 30, September 1 & 7. More information is available at www.ladwp.com/SLTRP

Affordability Priorities for Analysis

Greg Pierce, Co-Director of the Luskin Center for Innovation, overviewed the Steering Committee's feedback on the UCLA polls (see slide 42 in Appendix). Regarding affordability, he shared that members ranked shutoffs due to non-payment and bill discount enrollment as the most important metrics. Other metrics of high importance included thermal comfort and electricity insecurity. Greg Pierce said that the UCLA team received mixed opinions on electricity burden and household-based energy budgets as affordability metrics. He noted the rating of electricity based on service cost and electricity use intensity as the least popular affordability metrics.

Greg Pierce highlighted some of the feedback received on policy categories. He shared that members ranked the direct assistance and crisis relief, rate and billing design, and structural efficiency policy categories the highest. Community solar was ranked as moderately popular. Greg Pierce also noted that members had mixed opinions on rooftop solar and appliance efficiency, and microgrids and demand response were the least popular policy categories.

Wrap-Up and Next Steps

Joan Isaacson shared that the next Steering Committee meeting will take place on September 21, 2022, and that subsequent meetings will occur monthly on the third Wednesday of each month from 10:00 am – 12:00 pm. She also explained that agenda items will include Steering Committee member check-ins and report-outs; an overview of LADWP's diversity, equity, and inclusion work; air quality and health; medium-duty and heavy-duty vehicle emissions impact modeling approach; and workforce development.

Simon Zewdu thanked everyone for their continued participation and highlighted the importance of the input to ensure the Steering Committee is part of the planning process and progress of LA100 Equity Strategies. He noted that the project team will continue to update the Steering Committee to bring in procedural justice and ensure communities are part of shaping the strategies. Lastly, Simon Zewdu shared that the Equity Strategies process is being aligned with LADWP's SLTRP process.

LA100 EQUITY STRATEGIES

Appendix

Steering Committee Meeting #10
August 17, 2022
Presentation Slides

LA DWP NREL Transforming ENERGY UCLA

LA100 Equity Strategies
Steering Committee Meeting #10
August 17, 2022

LA DWP

NREL
Transforming ENERGY

UCLA

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

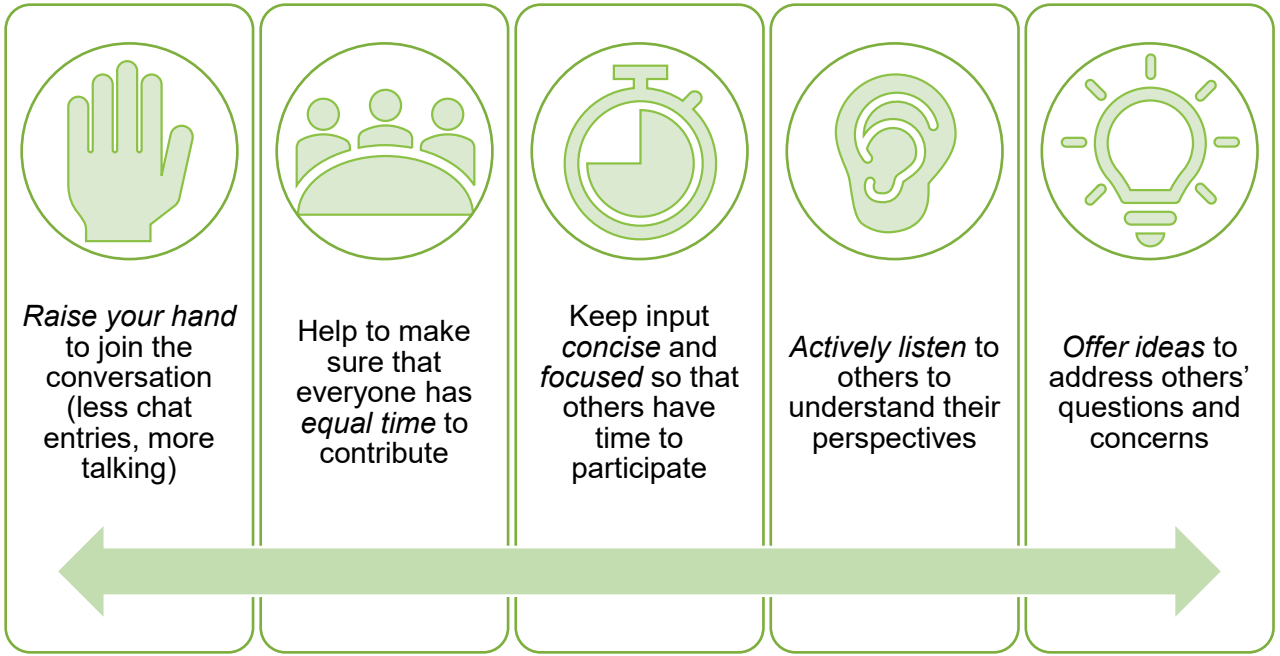
Steve Baule
Utility Administrator
LA100 Equity Strategies Oversight & UCLA Contract Administrator

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 and Spotlight
10:25 a.m.	Tools to Identify Disadvantaged Communities
11:10 a.m.	Steering Committee Feedback: *Key Takeaways for Modeling, Analysis, and Strategy Development*
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

Building People Power in South Los Angeles

SCOPE
STRATEGIC
COMMUNITY
AGENDA

Strategic Concepts in Organizing and Policy Education (SCOPE) builds grassroots power to create social and economic justice for low-income, immigrant, woman, femme, black, and brown communities in Los Angeles.

Our vision is to create a liberated, equitable future where BIPOC folks who've been systemically left out and consistently exploited, can live long, sustainable lives. People will have access to things they need in their community, will have career opportunities, will have equitable & affordable homes, etc.

We are guided by the goal of moving toward systemic change that results in a shift in material conditions for South LA community members through **equitable public investment, community and environmental health, and long-term economic security.**

How are we building people power in South LA?

SCOPE LEADS GRASSROOTS EFFORTS IN SOUTH LOS ANGELES ON VOTER ENGAGEMENT, ACCESS TO HEALTH CARE, CLIMATE AND ECONOMIC JUSTICE

- Whether it's knocking on 16,000 doors to coordinate COVID-19 vaccine appointments, engaging 55,000 voters through phone banking, or securing $2 billion for utility debt relief so families can avoid water and power shutoffs, our members work best when working in solidarity.
- For nearly three decades, our grassroots members have been organizing and mobilizing communities to improve the quality of life in South LA by lifting our voices into a strong movement for economic and racial justice by building a powerful grassroots base.
- SCOPE grassroots members are the core of the organization and continue to demonstrate that our collective resilience and solidarity is what makes our movement strong.

Our policy platform was created and molded by member leaders to achieve our long-term strategy to change the landscape and material conditions in SLA. These platforms are vehicles and strategies to achieve our goals.

Policy Platform

Just Transition from Neighborhood Oil Drilling

Equitable and Community Driven Projects

Including Future Agenda Items

Tentative Schedule

This Meeting

Project Metrics

- Metrics of vulnerability and measures of inequity
- Key takeaways from June/July Steering Committee feedback for modeling, analysis, and strategy development

September 21, 2022

- Study progress and outcomes
- LADWP diversity, equity, & inclusion overview
- Steering Committee member check-in report out

Future Meetings

- Future meeting with technical leads
  - Where is offshore wind power? Why isn't it part of the future mix?
  - Better real-time information about peak energy use rates to nudge behavior / save money on energy bills
  - Hydrogen

Tools to Identify Disadvantaged Communities (DACs): Assumptions, Limitations and Advantages

Paul Ong
UCLA Center for Neighborhood Knowledge

Eric Fournier
UCLA California Center for Sustainable Communities

EQUITY DEFINITION

- Equity is the absence of undesirable, unacceptable & unfair disparities defined both objectively and subjectively
- Achieving equity requires concrete action to close an existing disparity or fairly compensate unavoidable disparity or prevent a gap from materializing
- Achieving equity requires identifying the patterns of inequality and disparity.

DAC DEFINITIONS

- Disparities are concentrated in disadvantaged communities defined by populations or neighborhoods.
- DACs are often character by low socioeconomic status, people of color, and other factors.
- The most salient grouping should be empirically determined and policy relevant.

GUIDING PRINCIPLES

- There is no single or simple definition for DACs
- Classification schemes vary (and should vary) with purpose, policy and programs
- Different indicators do not consistently designate the same set of neighborhoods as being disadvantaged.
- Next slide presents several disparity indicators used by California agencies and organizations. (CPUC is in the process of developing its own.)

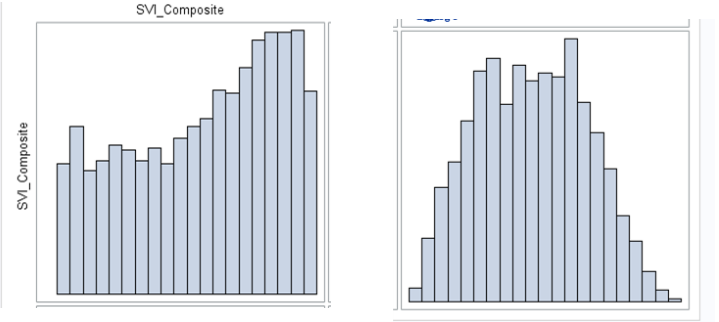
COMMON EXISTING DAC MEASURES

Aency	Indicator Name (Acronym)	Application
CDC	Social Vulnerability Index (SVI)	Disaster planning and response
CalEPA	CalEnviroScreen (CES)	allocating cap-and-trade funding, environmental
CA DPH	Healthy Communities Data and Indicators	social determinants of health
California Energy Commission	Energy Equity Indicators	energy investment
CA Housing & Community Development	Tax Credit Allocation Criteria	affordable housing
UC Berkeley and Urban Displacement	Renter Displacement Indicator	eviction risk and prevention
CNK/CARB	Transportation Disparity	access to clean vehicles and opportunities

Illustration of Differences Among Existing Indicators – Quantitative Example

SVI AND CES 4.0 COMPARISON, LA COUNTY

	SVI v. CES Ranking		
	Rank Low	Rank Middle	Rank High
Rank Low	598	150	6
Rank Middle	153	406	213
Rank High	14	210	546



Of the tracts identified as low by either (921), a third are inconsistent (150+153+6+14=323)

Significant “false positives” & “false negatives”

Illustration of Differences Among Existing Indicators – Mapping Example

[Disadvantaged Community Indicators Webmap]

THE CHOICE OF DAC INDICATOR MATTERS

- ***Choice has real consequences by unintentionally excluding needy neighborhoods and including less needy neighborhoods.***
- ***Adopt the current "best practices" of developing a hybrid approach that utilizes an existing indicator complemented with energy-equity information (e.g., affordability and utility burden)***
- ***Given the expanded scope of UCLA research, develop indicators relevant to small minority owned businesses and to place of employment.***

POTENTIAL PATHS FORWARD

- The default LADWP and this project are using is an existing pollution burden indicator (CES) to complement analysis, monitoring and policy simulations.
- Could combine or overlay this (or CEC measure) with other DAC indicators more relevant to studying specific energy disparities, but less relevant to overall project (ie, HCD or CARB).
- This hybrid approach would balance consistency and flexibility across subprojects.

Potential hybrid example: Constructing a policy-specific (Energy) disparity index

- **Challenges:**
  - Cost
  - data limitations,
  - lagging information,
  - uncertain future and/or technical barriers
- **Opportunities:**
  - Identify possible causal factors, thus identifying addition points of intervention.
  - Conduct distributional analysis
  - Prioritize allocations to the most needy communities
  - Understand cumulative impacts (additive, multiplicative, synergetic effects).
  - Control for other factors in multivariate analyses and forecasting models.

CONCLUDING REMARKS

- There is no single or simple solution to defining DACs
- Different indicators yield different results
- LADWP should aim to use indicators that are as relevant as possible to LA100 Equity Strategies analyses and EDMI policy goals and program objectives
- Using an existing indicator to complement analysis, monitoring and policy simulations
- Pick the other indicator or indicators most relevant to studying energy disparities
- Decision should be made sooner than later

DISCUSSION QUESTIONS TO CONSIDER

- How important is having neighborhood-level (census tract) data/indicators on energy/utility burden for residents?
- How do you, or your organization identify “disadvantaged” when it comes to communities you work with?
- Which tool/ metric/ indicator is most meaningful or useful in your opinion?
- How important is it to develop indicators of energy/utility burden for businesses? Particularly for small minority-owned businesses (MOBs) and for MOBs in minority neighborhoods?

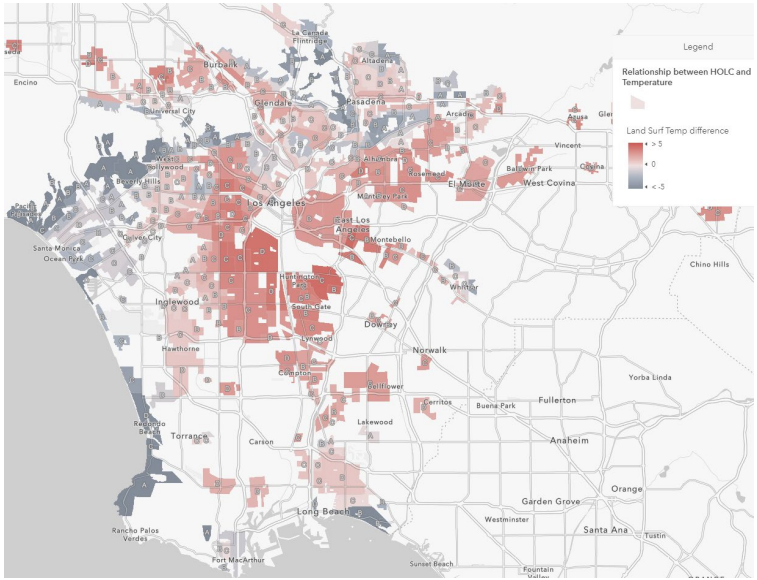
Thank you

Steering Committee Feedback

Highlights of feedback and takeaways for modeling, analysis, and strategy development

Buildings

Feedback	Key Takeaways for Modeling
Success includes ensuring renters—particularly low-income renters—access upgrades, savings, and benefits (e.g., cooling, safe temperatures, safety).	Evaluate technology, billing, deployment strategies to increase access to home cooling, solar/storage, EV charging, energy efficiency in multifamily and renter-occupied buildings.
Focus on the elderly and most vulnerable for excessive heat in homes. Frame as “thermal comfort,” not cooling.	Focus on universal thermal health and safety by analyzing indoor temperatures under various scenarios, not just cooling system access.
Strategies should prioritize cooling deployment in heat island areas.	Overlay thermal health and safety modeling results with heat exposure maps for program design prioritization.
Do not penalize cooling when needed most.	Strategies will avoid penalizing lower-income households for using energy to maintain safe temperatures when it’s hot or cold



Source: The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas. https://www.mdpi.com/2225-1154/8/1/12/htm
Map: https://www.arcgis.com/apps/dashboards/73e329457b6644e7aeff13ecce43c8d8

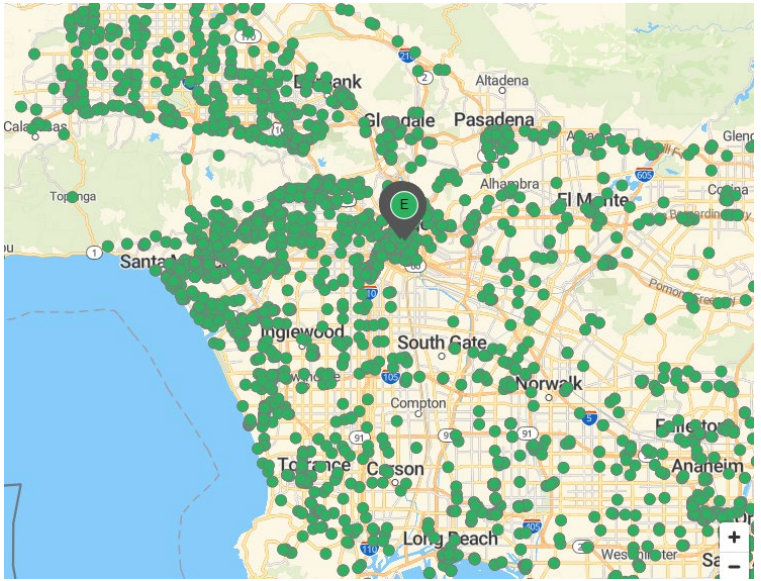
Lightning-Round Q&A

Anything missing from your small group discussions?

Are these the right pathways to study & model?

Electric Vehicles

Feedback	Key Takeaways for Modeling
Address electric vehicles (EV) affordability and EV supply equipment (EVSE) access	Model new and used EV adoption, home/work charging access, home readiness
Recommend “use” metric to capture affordability, range, parking, access	Include adoption and use rates
Interest in e-bikes and micromobility infrastructure, concern about limited impact on power consumption	Quantify avoided energy use to assess mitigated demand
Consider distribution system limitations on the transition to EVs	Model grid upgrades needed to support equitable electrification



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

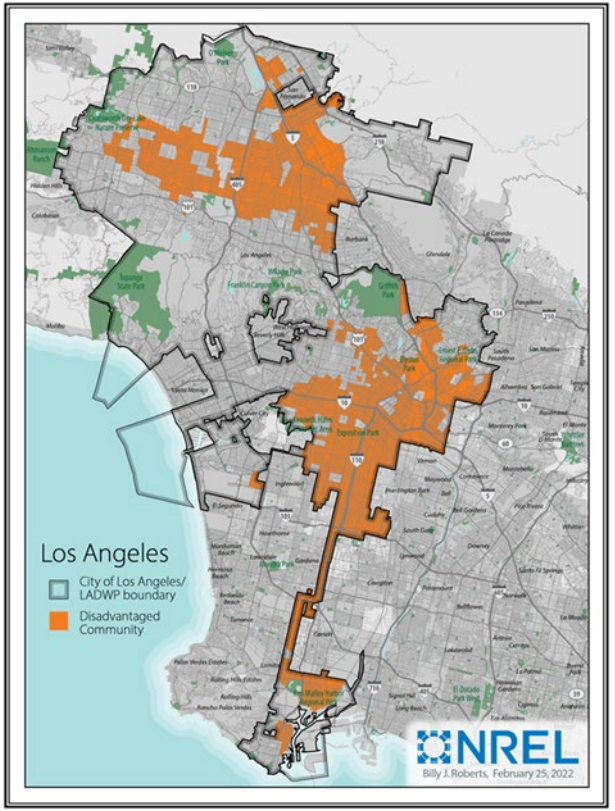
Lightning-Round Q&A

Anything missing from your small group discussions?

Are these the right pathways to study & model?

Truck Electrification Air Quality and Health Impacts

Feedback	Key Takeaways for Modeling
Use multiple criteria (e.g., air quality related to vehicle emissions, high rates of asthma)	Study several metrics to measure impacts on disadvantaged communities (DAC) & create a traffic-affected DAC definition
Consider truck idling, freeway corridors, and port/ airport air quality and health impacts	Truck electrification analysis will focus on neighborhoods most impacted by medium- and heavy-duty truck traffic



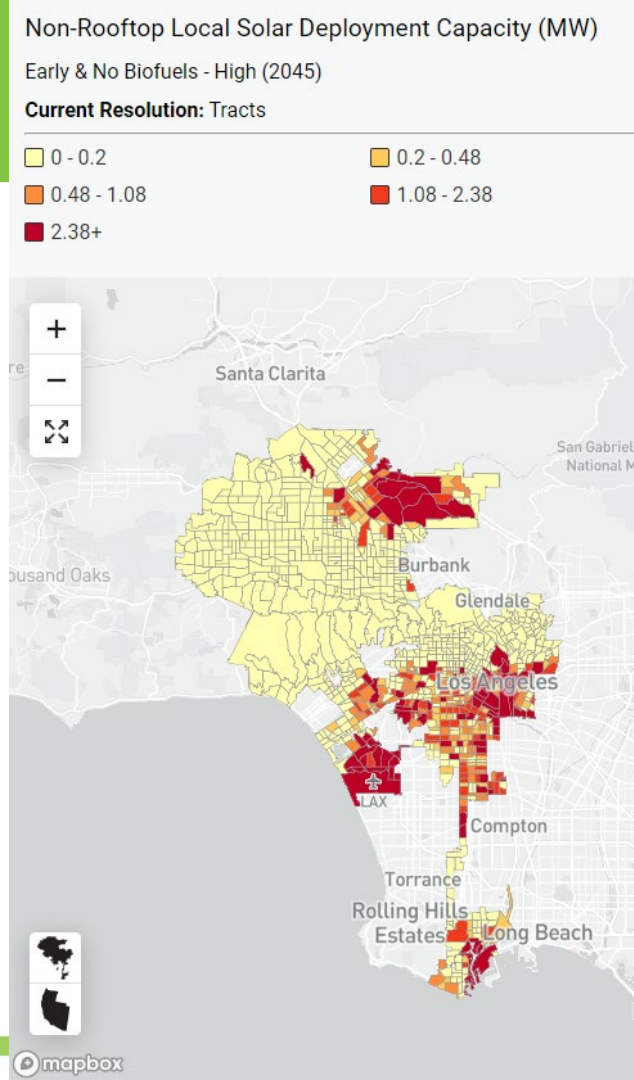
Lightning-Round Q&A

Anything missing from your small group discussions?

Are these the right pathways to study & model?

Local Solar and Storage

Feedback	Key Takeaways for Modeling
Consider DAC utility bill savings, particularly renters, as a primary measure of success.	Designate utility bill savings across status groups as a key metric.
Financing, funding to pay the utility bills, and subsidizing bills are options worth considering.	Include on-bill financing as part of the scenario analysis.
Don't use rebates; just lower the cost of installation.	Rebates will not be considered. Incentives that lower the cost of installation will be considered in scenario analysis.
Shared community solar is a good option if compensation is equitable.	NREL will analyze the economics of community solar and siting options.



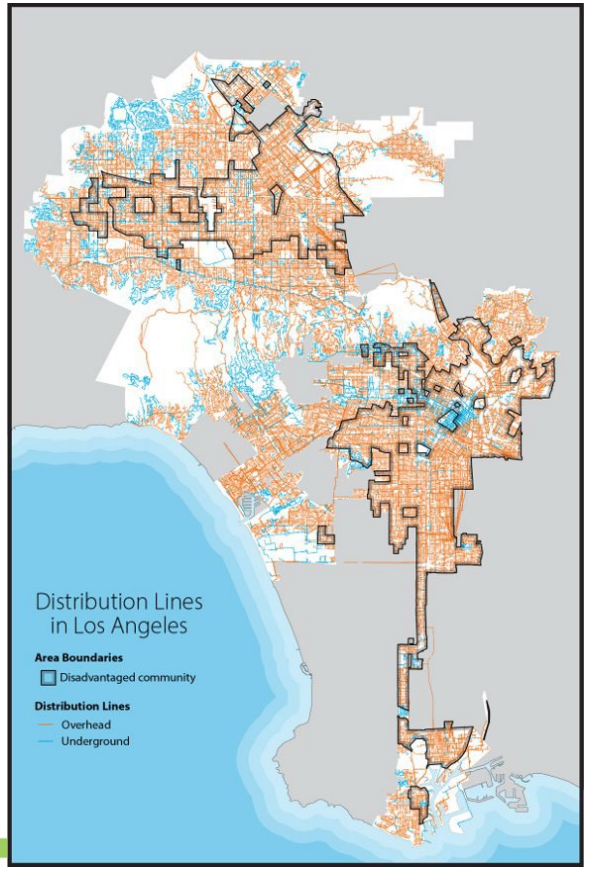
Lightning-Round Q&A

Anything missing from your small group discussions?

Are these the right pathways to study & model?

Grid Resilience and Distribution Grid Impacts

Feedback	Key Takeaways for Modeling
Note parts of the grid, especially in DACs, already require upgrades	Incorporate today's required upgrades with upgrade schedules that prioritize DACs
Prioritize resilience hub-type opportunities (e.g., community centers) for cooling, vehicle and phone charging, potentially water purification above "cooling centers."	In-home or other close-to-the-customer solutions will be prioritized.
Older electrical panels/wiring in disadvantaged homes is a bigger challenge than grid reliability.	Include scenarios with and without electrical panel upgrades as part of the scenario sets.



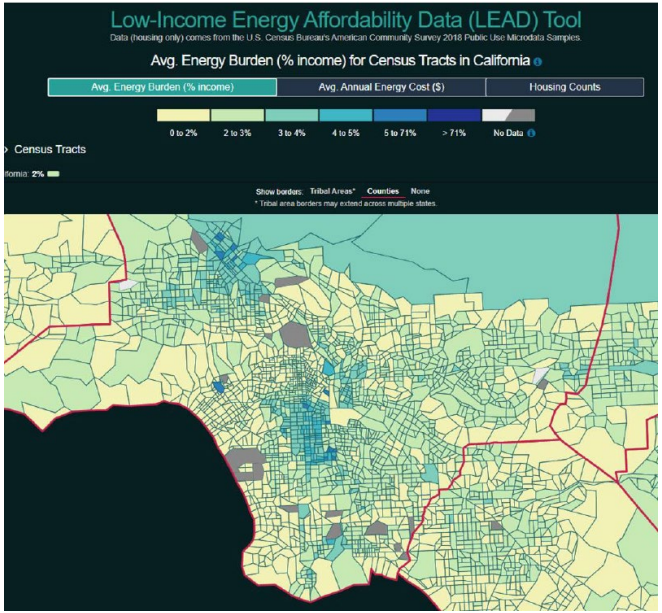
Lightning-Round Q&A

Anything missing from your small group discussions?

Are these the right pathways to study & model?

Affordability and Rates

Feedback	Key Takeaways for Modeling
Strategies should include: -Income-adjusted rates -Maximum bill as share of income -Expanding existing program participation -Technology-install approaches	Model suggested strategies
Consider whole costs to the customer (i.e., trash, water, power, housing, and gas)	Include gas and water costs, explore feasibility of including trash services in final bill estimation and analysis.
Consider household size—energy use increases with multiple families in same dwelling	Model adaptable retail tariffs that change based on number of people in the home
Anticipate administrative barriers to income-adjusted rates (i.e., collecting income data)	Model increased program costs due to administrative barriers



Source: Low-Income Energy Affordability Data Tool. Average Energy Burden (% income) for Census Tracts. https://www.energy.gov/eere/slsc/maps/lead-tool.

Lightning-Round Q&A

Anything missing from your small group discussions?

Are these the right pathways to study & model?

Metrics in 1st stage analysis

Concept	Description (potential goal)
Bill discount enrollment	30% discount on electricity portion of LADWP bill
Electricity burden/ Percentage of Income Payment Plan	Limit “in need” household expenditure on electricity to 4- 6% of pre-tax income
Household-based energy budget	Lowest rate tier set at level above necessary household consumption level
Shutoffs due to non-payment	Reduction or elimination in residential customer shutoffs
Thermal comfort	# of households reporting they can(not) keep their indoor space cool
Rating of electricity service based on cost	# of in-need households rating their service as ‘poor’ on cost basis
Electricity Insecurity	# of households reporting they need to make tradeoffs between paying electric bill and other essential services
Electricity use intensity	Unclear precedent. Helps get at equitable efficiency and use v. end service disparities

- **Analyzed by:** example goals, magnitude of impact addressed, impact ability, implementation and tracking feasibility, downsides, and precedents
- **Data:** academic literature, report review, and precedent of use by other utilities
- **Next steps:** narrow to 2-4 metric concepts for deeper analysis

Ranking of Metrics Poll

See SurveyMonkey link in Zoom chat.

Please answer the first question only.

https://www.surveymonkey.com/r/LA100SC9

Scan QR code to access poll

Affordability priorities for stage 2 analysis
(Results of UCLA polling @ July Steering Committee)

Ranking	8 Metrics (16 responses)	8 Policies (11 responses)
Most popular	• Shutoffs due to non payment • Bill discount enrollment	• Direct assistance and crisis relief • Rate and billing design • Structural efficiency
Moderately popular	• Thermal comfort • Electricity insecurity	• Community solar
Mixed opinion	• Electricity burden • Household-based energy budget	• Rooftop solar • Appliance efficiency
Least popular	• Rating of electricity based on service cost • Electricity use intensity	• Microgrids • Demand response

Wrap Up and Next Steps

Steering Committee Meetings

Going Forward

Tentative

September 21, 2022
Virtual

- Steering Committee member check-in report out
- LADWP diversity, equity, & inclusion overview
- Air quality and health medium- and heavy-duty vehicle emissions impact modeling approach
- Workforce development

Subsequent Meetings

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

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

Thank you!