

Los Angeles 100% Renewable Energy Equity Strategies

Steering Committee Meeting #4 February 23, 2022

Summary¹

Schedule and Location

February 23, 2022, 10:00 a.m. to 12:00 p.m. Conducted virtually

Virtual Meeting #4 Attendees

Steering Committee Members

City of LA Climate Emergency Mobilization Office (CEMO), Marta Segura City of LA Climate Emergency Mobilization Office (CEMO), Rebekah Guerra (alternate) Climate Resolve, Bryn Lindblad (alternate) DWP-NC MOU Oversight Committee, Tony Wilkinson DWP-NC MOU Oversight Committee, Jack Humphreville (alternate) Enterprise Community Partners, Jimar Wilson Enterprise Community Partners, Michael Claproth (alternate) Los Angeles Alliance for a New Economy (LAANE)/ RePower LA Coalition, Kameron Hurt Los Angeles Alliance for a New Economy (LAANE)/ RePower LA Coalition, Alicia Morales-Perez (alternate) Move LA, Eli Lipmen (alternate) Pacific Asian Consortium in Employment (PACE), Susan Apeles (alternate) Pacoima Beautiful, Melisa Walk (alternate) The South Los Angeles Transit Empowerment Zone (SLATE-Z), Zahirah Mann The South Los Angeles Transit Empowerment Zone (SLATE-Z), April Sandifer (alternate) South LA Alliance of Neighborhood Councils, Thryeris Mason Strategic Concepts in Organizing and Policy Education (SCOPE), Augustin Cabrera Strategic Concepts in Organizing and Policy Education (SCOPE), Tiffany Wong (alternate)

City of Los Angeles Department of Water and Power (LADWP) Staff

Ashkan Nassiri Carol Tucker Cathleen Chavez Morris Dawn Cotterell Iris Castillo Monique F. Earl

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.



Pjoy Chua Ramon Gamez Simon Zewdu Stephanie Spicer Steve Baule Vanessa Gonzalez

Project Team

Eda Giray, National Renewable Energy Laboratory (NREL) Kate Anderson, NREL Megan Day, NREL Nicole Rosner, NREL Patricia Romero-Lankao Sonja Berdahl, NREL Christian Mendez, Kearns & West Jasmine King, Kearns & West Joan Isaacson. Kearns & West Abel Valenzuela, UCLA Alberti Murillo, UCLA Cassie Rauser, UCLA Greg Pierce, UCLA Kelly Trumbull, UCLA Raul Hinojosa, UCLA Stephanie Pincetl, UCLA



Welcome Remarks

Joan Isaacson, facilitator from Kearns & West, welcomed Steering Committee members to the fourth Los Angeles 100% Renewable Energy Equity Strategies (LA100 Equity Strategies) Steering Committee meeting and thanked them for joining. She introduced Simon Zewdu, Director of Transmission Planning, Regulatory, and Innovation Division at LADWP and Project Manager for LA100 Equity Strategies, who welcomed members and expressed LADWP's appreciation for their participation. Simon Zewdu said that the project team has listened to the Steering Committee feedback and identified themes that are guiding the process. This feedback was shared with the Advisory Committee and is also available in the meeting summaries that will be posted on the website at LADWP.com/LA100ES.

Meeting Purpose and Agenda Overview

Joan Isaacson reviewed the meeting agenda (see slide 3 in Appendix A). She explained that the project team has been working to incorporate Steering Committee input and that members will be able to provide ideas on future Steering Committee meeting agendas. After noting the upcoming Community Meetings schedule and additional public outreach efforts, she reviewed the guide for productive meetings and shared that the project team will continue to share any changes to the Steering Committee roster.

Roundtable: Co-Designing Meeting Agendas

Joan Isaacson invited the Steering Committee to provide input on discussion items for future meetings using a virtual whiteboard explaining that Steering Committee members suggested greater involvement in agenda formulation. Steering Committee were also invited to upvote others' ideas. She further noted that at the end of each Steering Committee meeting, agenda items for upcoming meetings will be reviewed to collaborate on agenda formulation. Agenda ideas noted on the whiteboard are documented in Appendix B.

Major Themes from Steering Committee Questions and Discussion

In the discussion summary below, round bullet points indicate questions and comments from Steering Committee members and dashes indicate the project team's response.

- What is the timeline for the LA100 Equity Strategies? What are some benchmarks that have been set so we can generate ideas based on that?
 - Paty Romero-Lankao, Equity Strategies Technical Lead from NREL, explained that the timeline and framework of the LA100 Equity Strategies will be developed by May 2023, noting that the Community Meetings, Steering Committee meetings, and Advisory Committee meetings will occur throughout the process. Major benchmarks include identifying the proposed goals, metrics and methodologies, data sources, and assumptions; developing a detailed study plan, modeling, analysis, and strategy development; and combining the proposed goals, modeling, analysis, and strategies to develop the preliminary and final results.
- Can we get a report on how feedback was integrated?
- It would be helpful to announce the interactive activity prior to the meeting.
- Can we also get a report today on the responses to the Request for Information (RFI) for green hydrogen and updates on the LADWP proposal to obtain funding for green hydrogen via the Port of Los Angeles?
- How and when will we address equity metrics for the Strategic Long-Term Resource Plan (SLTRP) process for use in the Equity Strategies and going forward?



What We Heard: Report Out from Last Meeting

Joan Isaacson introduced the overview of what was heard from Steering Committee members on what just energy outcomes would look like for specific topics, stating that Megan Day, Equity Strategies Project Manager and NREL Senior Energy Planner, and Paty Romero-Lankao would co-present on this item. Megan Day introduced the topics for discussion and Paty Romero-Lankao reviewed themes of what was heard from members on the topic-specific equity outcomes.

Residential Buildings

Megan Day overviewed the topic of residential buildings (see slides 11-14 in Appendix A), explaining that equitable deployment of building efficiency includes installation of energy-saving equipment and improving building insulation, air sealing, and building electrification (space heating, water heating, clothes drying, cooking). Paty Romero-Lankao, shared six high-level themes on residential building efficiency and electrification, including affordable transition, displacement prevention, customer programs, workforce and jobs, habitable space, and measuring inequity. Some examples included coordinating across City agencies to prevent displacement and using incentives rather than rebates.

Commercial Buildings

Megan Day next presented on commercial buildings (see slides 15-18 in Appendix A), commenting that the technical team is looking at electrification and energy efficiency for all types of commercial buildings, including small businesses, office buildings, warehouses, community buildings, large buildings, and others. Paty Romero-Lankao explained that the feedback was organized into four high-level themes, including affordable transition; City infrastructure, programs, and policies; habitable space; and workforce development. She also noted key takeaways shared by Steering Committee members, including new financing models to address upfront cost concerns, and that City buildings should set the example for the clean energy transition.

Local Solar and Storage

Megan Day introduced the local solar and storage topic (see slides 19-22 in Appendix A), noting that this topic includes residential and commercial rooftop solar and community or shared solar. Storage refers to residential- or commercial-scale battery storage of electricity. Paty Romero-Lankao shared four high-level themes, affordable transition; socio-spatial distribution of risk; City infrastructure, programs, and policies; and targeted outreach and implementing equity. Examples included increasing financial benefits to community solar participants and increasing outreach about solar/storage options in low-income communities of color.

Transportation

Megan Day provided an overview of transportation (see slides 23-26 in Appendix A). She explained that clean transportation includes electric vehicles (EVs), trucks, buses, e-scooters, and other alternative fuel vehicles; equipment to charge/fuel them; and active forms of transportation like walking and biking. Paty Romero-Lankao shared five high-level themes on transportation, including environmental risk and opportunities; equitable socio-spatial distribution; City infrastructure, programs, and policies; targeted outreach and implementing equity; and workforce development. Some examples included reducing greenhouse gas emissions and setting up low-income communities for EV infrastructure.

Electricity Reliability and Resilience

Megan Day reviewed electricity reliability and resilience (see slides 27-30 in Appendix A). She explained that reliability includes how often local electricity outages occur and the ability to connect new technologies like solar energy and EVs to the grid. She described resilience as the preparation for and capacity to recover quickly from electricity outages. Paty Romero-Lankao shared five high-level themes on this topic, including affordable transition; technological opportunities and strategies; City infrastructure,



programs, and policies; implementing equity; and workforce development. She noted examples such as businesses that need reliability paying a premium and job opportunities related to storage.

Air Quality, Health, and Environment

Megan Day provided an overview of air quality, health, and environment (see slides 31-34 in Appendix A). She explained that air quality and health impacts and benefits related to the energy system include particulate matter and ozone from fuel combustion in vehicles and energy generation. Paty Romero-Lankao shared three high-level themes: collaboration across sectors and agencies, health and environmental infrastructural strategies, and health impact factors. Some examples included the need for partnerships across Citywide agencies and the biggest health danger being from transportation.

Jobs and Workforce Development

Megan Day presented an overview of jobs and workforce development (see slides 35-38 in Appendix A). She shared that clean energy jobs and workforce development refer to access to and training for energy efficiency and renewable energy jobs. Paty Romero-Lankao shared three high-level themes on jobs and workforce development, including labor and hiring practices, workforce development funding, targeted education, and training. Some examples included supporting funders of workforce development programs with strong labor standards and practices, paid apprenticeship training programs, and intentional gender inclusivity.

Major Themes from Steering Committee Questions and Discussion

- It is important that we debrief all community listening sessions and meetings to make sure community priorities are being integrated into the Equity Strategies and technical plans.
- This set of questions is focused on the delivery of "good" kinds of energy and misses the issue of the cost of all of these "good things" and how low-income equity customers will deal with the big costs and higher rates of doing all these good things.
- It is critical that criminal justice reform is addressed in workforce development. This was mentioned and underscored by others during the last meeting, including the use of people that were incarcerated as a workforce source and provision of training for those incarcerated. When they are paroled or released, they can enter a viable job with equitable wages, which reduces recidivism.
- Simon Zewdu explained that LADWP is working to adopt project-level agreements that include provisions to hire and integrate individuals with past convictions into the workforce.
- Support the use of formerly incarcerated in work programs like the LADWP Pre-Craft Utility training program.
- How can criminal justice reform be implemented in the LA100 Equity Strategies project?
- Local solar and storage are uneconomic today. It is also a big financial risk to a home structure in terms of roof maintenance. Forcing this good thing on environmental justice (EJ) communities can result in unintended negative impacts on the typically marginalized and not-heard-from EJ populations.
- The air quality result is a case where 100% vs. 90% of renewable energy makes almost no difference and may hurt the ability to electrify transportation through reasonable power rates. The air quality issues are not from the low-use, in-basin combustion power plants but rather from cars, trucks, and trains.
- These are expenses that should be borne by the City and not by LADWP. We need to distinguish between the sources of funding.
- Including formerly incarcerated as a part of the workforce pipeline is worth supporting. Pilot projects have attempted to integrate the formerly incarcerated and low-income communities. Best practices in other cities can be used as examples.



- It is the responsibility of both the City and LADWP to address historical injustices. Equitable climate policies and energy policies can only happen with distribution justice at all agencies, including LADWP.
- It is important to prioritize the accessibility of information about peak energy use rates. Avoiding high energy bills may be difficult if there are few behaviors changes that customers can make to shift the time of their energy use.
- LA100 Equity Strategies is a socially responsible power generation program. It is not a source of funds to address "other" social interests, mainly because we are going to need lots of cost-shifting between customers (who are the only source of LADWP funds) to lower the costs of the clean energy transition for EJ communities.

Joan Isaacson invited Steering Committee members to continue providing feedback throughout the meeting and via email to Dawn Cotterell at <u>dawn.cotterell@ladwp.com</u>.

Community Meetings

Stephanie Spicer, Community Affairs at LADWP, provided information on the Community Meetings, highlighting several specific steps taken directly based on Steering Committee input (see slides 39-44 in Appendix A). She explained that as the project team moves forward, there is still room to adjust the structure to reach as many people as possible. Paty Romero-Lankao then explained that the Community Meetings add breadth to the project, reaching Angelenos across the city, while the Listening Sessions are community-specific and intended to provide the depth needed to understand specific local context and needs.

Paty Romero-Lankao explained that Steering Committee members are welcome to attend and observe the Community Meetings. Paty Romero-Lankao described the format and structure of the virtual Community Meetings, noting that in breakout rooms participants will discuss the following three questions related to energy justice:

- 1. What is your vision for a just energy future?
- 2. What are barriers to energy justice in your community?
- 3. What are your desired outcomes from this project?

Paty Romero-Lankao explained the format of the Listening Sessions, stating that they are intended to be planned in conjunction with the Steering Committee member organizations.

Major Themes from Steering Committee Questions and Discussion

- There are parallel meetings with the 2022 Power SLTRP Roadmap to be 100% Carbon-Free by 2035. The SLTRP is a capital investment plan that we should know more about here.
- What does energy justice actually mean?

Public Outreach

Stephanie Spicer, ___<<title>>, provided an overview of the public outreach being conducted for LA100 Equity Strategies (see slides 46-49 in Appendix A). The outreach tools and materials include:

- Website: <u>ladwp.com/LA100ES</u>
- Fact sheet
- Flyer
- Press releases
- Features and articles
- Social media promotional campaigns



- Video (in development) to be shared on YouTube and Vimeo
- Terms and definitions
- Community input questionnaire

Stephanie Spicer noted that all materials will be available in English and Spanish. She then invited Steering Committee members to sign up for the LADWP Community Newsletter: <u>https://www.ladwpnews.com/community-newsletter/</u>

Joan Isaacson invited Steering Committee members to provide input on the Community Outreach efforts.

Major Themes from Steering Committee Questions and Discussion

- Before the project team defines "energy justice," remember that the Steering Committee is charged with answering that question and that definition will be informed by questions asked to the EJ communities that the Steering Committee serves.
- The Climate Equity LA Virtual Series occurs on March 3, 10, 17 and 24 from 6:00 to 8:00 p.m. with the Climate Emergency Mobilization Office (CEMO), Board of Public Works (BPW), and the City of Los Angeles. Part 1 is on Equitable Decarbonization of Buildings and Homes for Los Angeles. Announcement link: <u>bit.ly/CELA-Part1Flyer</u> | Register here: <u>bit.ly/CEMOmar2022</u>
- The challenge lies in operationalizing energy justice, climate justice, and climate equity. Legislation authorized at the state level operationalized climate justice. This was done to ensure communities hardest hit receive resources and investments.
- The recent City Council resolution on the 2035 100% Carbon-free Energy goal provides explicit instruction to use equity metrics in the SLTRP program going forward. These will probably come up in the public meetings before the LA100 Equity Strategies Community Meetings are held. The equity metrics include a list of items and the Steering Committee is invited to provide input on what is relevant to Los Angeles communities.
- Metrics for an Equitable and Just Energy System: <u>https://www.pnnl.gov/sites/default/files/media/file/Metrics%20for%20Energy%20Equity.pdf</u>
- Operationalizing Environmental Justice: The Justice40 Initiative: <u>https://www.eli.org/vibrant-environment-blog/operationalizing-environmental-justice-justice40-initiative</u>
- The SLTRP Update presentation was listed on the 2/22 Board Meeting agenda: <u>https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-whoweare/a-wwa-boardofcommissioners</u>. Item I.4. LADWP will keep the Steering Committee posted on the new presentation date.

Paty Romero-Lankao provided the project team's current working definitions:

- Energy justice/equity: The goal of energy justice or energy equity is to achieve equity in both the social and economic participation in the energy system while also remediating social, economic, and health burdens on those historically harmed by the energy system.
- Environmental justice: Environmental justice is the recognition and remediation of the disproportionately high and adverse human health or environmental effects on communities of color and low-income communities.
- Energy equity outcomes: The results or effects of strategies intended to increase energy equity. These outcomes may include fostering energy affordability and reducing environmental burdens; expanding clean energy jobs; increasing access to rooftop solar and clean mobility, such as electric cars and bicycles; assessing impacts to housing; and improving reliability.

In April or May 2022, the SLTRP team will present preliminary findings to the Steering Committee and seek feedback to be incorporated into the SLTRP report. SLTRP and LA100 Equity Strategies efforts are complementary and will merge. LADWP is making an effort to ensure the LA100 Equity Strategies effort informs the equity metrics process.



Feedback on Proposed Equity Strategy Development Pathways

Joan Isaacson invited Simon Zewdu to introduce the Potential Equity Strategy Development Pathways (see slides 50-54 in Appendix A). Simon Zewdu explained that the project team reviewed the feedback received over the past three meetings and that modeling, analysis, and strategy development topics were identified by the Steering Committee. Simon Zewdu commented on the question of how to measure success and said targets should be set for equity with this study determining those targets. Simon Zewdu noted that some additional topics may be looked at in the future, but this is the starting place based on Steering Committee feedback. Megan Day presented an overview of the five Potential Equity Strategy Development Pathways considered at this meeting and asked the Steering Committee to provide feedback.

Rate Reform

Megan Day overviewed rate reform pathways (see slide 55 in Appendix A), explaining that the project team is looking at lowincome energy bill stability by designing tariffs and billing strategies to achieve 100% clean energy without increasing bills for lowincome households (renter- and owner-occupied). She then described rate structure options for solar affordability, including developing more equitable rate structure options to facilitate solar adoption in disadvantaged communities.

Major Themes from Steering Committee Questions and Discussion

- Regarding the concept of keeping bills for low-income households flat with no rate increases, what is the impact on the remainder of the population?
- Appeals need to be made for state legislation to allow for more rate shifting to relieve costs on EJ community customers. Otherwise, the costs may be too high for EJ customers to bear and will therefore impact what Equity Strategies can be adopted.
- The proposed policies are probably illegal under the current requirement for fair and equitable power pricing for all customers. Current laws require that the most expensive power be delivered to those that use the most power. Permitting legislation is needed.
- Rate reform cannot be separated from distributed energy resources and investments, particularly in most low-income, hard-hit communities and all communities, including middle-income. Rate reform cannot be separated from capital investment and infrastructure reform and how equitably we distribute clean energy throughout the city. A lack of adoption in some communities may make this difficult.
- Enrollment in rate subsidy programs should be part of this topic. It cannot just be theoretical but needs to be about actual outcomes.
- Include split incentives, especially for affordable housing operators and owners. Property owners and affordable housing owners cannot recoup the cost of solar because of the issue of split incentives, as developers are the only ones to receive the incentives. It is important to toe the line of making sure low-income tenants receive financial benefits and operators of affordable housing can get some return on investment for energy upgrades as well.
- More resources created for, and assistance provided to, EJ communities are needed.
- Just like long-term capital planning, there is a lead time before we get results. Waiting until we see limits that must be addressed with legislation before asking for relief adds two or three years of legislative processes before we can move forward with what needs to be addressed.

Buildings

Megan Day described the buildings pathways (see slide 56 in Appendix A), explaining that the project team is looking at improving access to demand flexibility programs that would increase the technological readiness of renter- and owner-occupied low-income households, small businesses, and schools to participate in programs to lower bills and/or access payments (e.g., direct and



indirect demand response, solar/storage incentives, electrification, and energy efficiency programs). She then described options for improving access to solar/storage and energy efficiency in multi-family and/or renter-occupied buildings, including modeling various approaches' bill savings potential.

Major Themes from Steering Committee Questions and Discussion

- Rooftop solar and batteries do not make economic sense as the return on investment do not make them cheaper than LADWP utility-scale solar.
- Ensure gap financing or programs that serve multi-family buildings to provide progress payments, not rebate programs.
 Many property owners do not have the capital to front all the costs. Explore options for gap financing to ensure property owners can participate in retrofit programs.
- Funded technical assistance is needed to inform tenants and property owners about upgrades on their buildings and financial benefits (e.g., modeling bill savings).
- LADWP's <u>Comprehensive Affordable Multi-family Retrofits (CAMR)</u> is a great program being implemented. What percentage of the power system does CAMR fulfill? What percentage can it fulfill in the future? CAMR should collaborate with the Housing Authority of the City of Los Angeles (HACLA) and the federal government to bring microgrids to make retrofits more widespread and available.
- Low-income buildings owners have no leeway for additional expenses or have the capital for installing home solar.
- Homeowners can pay down the cost of solar and storage with low-interest loans. The Jewish Free Loan Association provides no-interest loans to anyone for solar projects. LADWP can work with organizations that have the capital to provide no-interest loans. This contributes to building equity for low-income communities.
- How can CAMR be expanded? An opportunity exists to bring the home energy improvement program to scale that includes decarbonization efforts and retrofits.
- LADWP should be coordinating with other partners and efforts to create a "one-stop-shop" for solar retrofits.
- LADWP bondholders would view the use of LADWP capital for improving access to solar/storage in multi-family or renteroccupied buildings as disadvantageous to them and lower the bond rating, thus increasing rates.

Local Solar and Storage

Megan Day reviewed the local solar and storage pathways (see slide 57 in Appendix A), explaining that the project team is looking at targeted siting of community solar that assesses opportunities and financing strategies for locating local/community solar to supply clean and affordable energy to disadvantaged communities. She further shared that the intent is to target communities that did not have access to solar in the past.

Major Themes from Steering Committee Questions and Discussion

- Strategy is dependent on how much financing can be brought in from the federal government. There will be \$8 billion for eight cities across the nation to build green hydrogen. The federal government can be influenced to do this for other programs.
- Have we looked at alternatives to solar? Other technologies could be considered to protect energy security and affordability. Solar is the low-hanging fruit, but it may not be the best alternative for our community.
- Resilience hubs, a community space with reliable power when the power goes down, are worth considering. State funding is coming for resilience hubs in about one year. If community solar can be paired with a localized microgrid and backup, state funding could be leveraged to develop community resilience, particularly in climate-vulnerable communities.
- Low-income communities should be prioritized, especially tenants at risk of displacement. It may be difficult to implement due to current laws, but we should continue to push for changes, funding, and research on solutions.



• Communities need access to resilience hubs and community social networks that prepare them for climate hazards.

Transportation

Megan Day provided an overview of the transportation pathways (see slide 58 in Appendix A), explaining that the project team is looking at equitable EV and charging access. This includes identifying strategies to accelerate access to charging infrastructure across communities to achieve high EV adoption rates through increased EV ownership equitably, increased access to shared EV usage, and siting or incentivizing EV charging in disadvantaged communities. Megan Day also described reducing transportation energy burdens, which includes identifying transportation electrification strategies that can increase access to mobility opportunities (EV car share, taxis, ride-hail fleets, scooters, bikes, or walking) and reduce transportation burdens (e.g., costs, pollution, traffic).

Major Themes from Steering Committee Questions and Discussion

- LADWP is encouraged to have a conversation with the contractor for the City of Los Angeles bus shelter program. During hotter temperatures and with the heat island effect, bus shelters could be used and include hydration stations and charging for scooters and e-bikes.
- What can be done to reduce the pollution caused by traffic and the use of gas or diesel medium-duty trucks (e.g., UPS, USPS, Amazon) and other burdens on low-income workers?
- Incentivize the movement of goods to use clean power.
- More publicly accessible charging stations are needed. Very few exist in low-income areas and this needs to be addressed before EVs are pushed for in disadvantaged communities.
- Focus on electrifying public transportation and fleets through public investments.

Reliability and Resilience

Megan Day introduced pathways on reliability and resilience (see slides 59-60 in Appendix A), explaining that the project team is looking at building weatherization, thermal storage, and resilience to extreme events; access to public and community cooling; increasing resiliency in disadvantaged neighborhoods through targeted solar-plus-storage siting; and identifying grid upgrades needed to support reliability and solar/storage/EVs in disadvantaged communities. Megan Day shared an example of where infrastructure upgrades are needed, such as improving the capacity of the infrastructure to adopt solar and EVs in Black communities.

Major Themes from Steering Committee Questions and Discussion

- In April 2022, CEMO will hold a series on climate resilience.
- Invest in social community infrastructure to be accessible and include the community in the design process.
- LADWP can collaborate to create climate resilience for the San Fernando Gardens in terms of building weatherization. The San Fernando Gardens need an energy audit to assess what it would take to retrofit the energy system and tenants' spaces. Housing Authority of the City of Los Angeles (HACLA) could be a participant to build the leadership capacity of residents.
- LADWP is currently relying on private industry to place EV charging stations, with no economic incentive to locate in lowincome areas. LADWP should become the installer of EV charging stations and collect on the higher power rates they charge rather than giving private businesses the capital that allows them to collect the higher power revenues from users.
- Reliability and resilience also include resilience hubs and bringing community solar into this conversation.
- The City of Los Angeles is working on building decarbonization and building performance standards. What would it take to make equitable building improvements? What will it take to green existing and new buildings? How much solar energy do





we need? Do we need microgrids? If so, how often do we place them? A good model is an equitable community solar program where tenants get savings on their utility bills and LADWP sacrifices its profit.

- How much will all of this cost?
- In terms of all renters, what kind of rate breaks would they get and what are going to be the costs? Are ratepayers willing to pay for this? These rate breaks and costs need to be quantified.
- Efforts at the City and ports are also looking at clean fuel sources (green ammonia and green hydrogen) that can ensure reliability and be used immediately, particularly during summer months. With hydrogen hubs, Los Angeles has an opportunity to clean up its existing systems and create good-paying jobs where other jobs will be lost.
- A rate break on 10% of total revenues from renters is doable.

Wrap Up and Next Steps

Joan Isaacson shared that the upcoming Steering Committee meetings will be on March 23, 2022, and April 20, 2022, from 10:00 a.m. to 12:00 p.m. She explained that subsequent meetings will take place on the third Wednesday of each month from 10:00 a.m. to 12:00 p.m. Joan Isaacson also noted that the meetings will remain virtual, but the project team welcomes input on this topic. She then invited members to provide their thoughts on upcoming agenda items (draft modeling, analysis, and strategy development) in the chat or via email.

Simon Zewdu expressed gratitude to the Steering Committee for the perspectives shared and encouraged members to maintain contact with the project team between meetings. He also noted that the website is live at <u>www.LADWP.com/LA100ES</u> and that all documents will be uploaded on the website.





Appendix A

Steering Committee Meeting #4 February 23rd, 2022 Presentation Slides





LA100 Equity Strategies Steering Committee Meeting #4 February 23, 2022







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

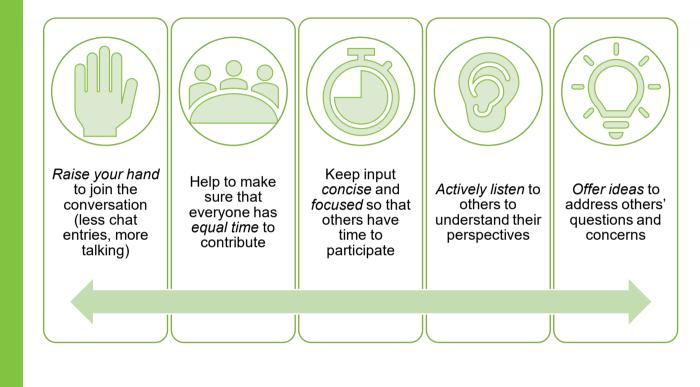


Agenda

Start Time	Item
10:00 a.m.	Welcome
10:05 a.m.	Meeting Purpose and Agenda Overview
10:10 a.m.	Roundtable Co-Designing Meeting Agendas
10:30 a.m.	What We Heard Report Out from Last Meeting
11:00 a.m.	Community Meetings
11:15 a.m.	Public Outreach
11:20 a.m.	Feedback on Proposed Equity Strategy Development Pathways
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, Alicia Morales- Perez	
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	Gina Palencar	
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	



Roundtable

Co-Designing Meeting Agendas



Discussion items for future meetings?

Add ideas to the whiteboard!

Whiteboard will remain open one week for additional input

Report Out from Last Meeting

What We Heard



We asked: What do just energy outcomes look like for each topic?

Ideas were captured on whiteboards and will be used to inform strategy analysis pathways.

Topics:

What do just energy transitions and outcomes look like in:

- Residential buildings
- Commercial buildings
- Local solar and storage
- Transportation
- Electricity reliability and resilience
- Air quality, health, and environment
- Jobs and workforce development



Residential Building Efficiency & Electrification

- Building efficiency includes installing energy saving equipment, improving building insulation, and air sealing.
- Building electrification includes electrification of space heating, water heating, clothes drying, and cooking.



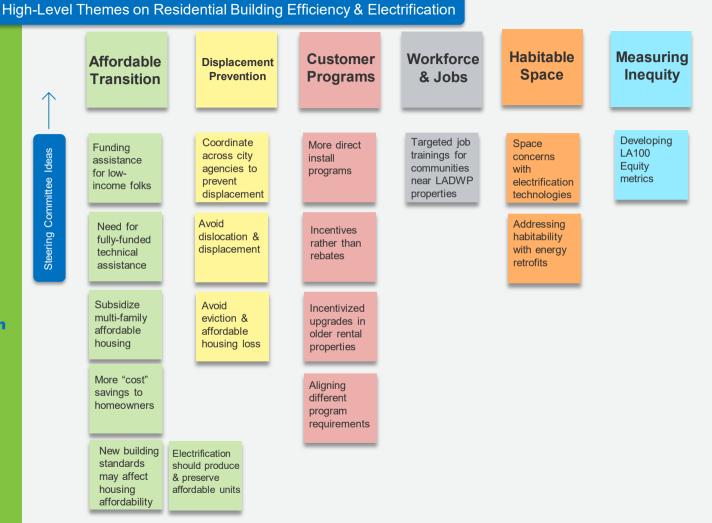
What do *just energy outcomes* look like for homes and households?

Highlights

Residential Building

Efficiency & Electrification

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High-Level Themes on Residential Building Efficiency & Electrification



Residential Building

Efficiency & Electrification



Affordable Transition	Displacement Prevention	Customer Programs	Workforce & Jobs	Habitable Space	Measuring Inequity
Funding assistance for low- income folks	Coordinate across city agencies to prevent displacement	More direct install programs	Targeted job trainings for communities near LADWP properties	Space concerns with electrification technologies	Developing LA100 Equity metrics

High-Level Themes on Residential Building Efficiency & Electrification



Residential Building

Efficiency & Electrification



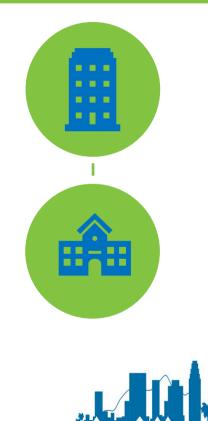


Commercial Building Efficiency & Electrification

What do just energy outcomes look like for

schools, community buildings, and local businesses?

- Building efficiency includes installing energy saving equipment, improving building insulation, and air sealing.
- Building electrification includes electrification of space heating, water heating, clothes drying, and cooking.





High-Level Themes on Commercial Building Efficiency & Electrification

Highlights

Commercial Building

Efficiency & Electrification



\uparrow	Affordable Transition		City Infrastructure, Programs, & Policies	Habitable Space
Steering Committee Ideas	Technical assistance for businesses to achieve transition	Help small business understand affordable options	City buildings should be the example	Heat pumps more efficient than air conditioners
Steering Co	Rent burden for small & large employers	Ensure rent increases don't force small business closures, esp. in BIPOC communities	Formalize & expand commercial direct install program	
	New financing models to ameliorate upfront cost concerns		Affordable incentives for building owners to transition	
	Affordability of energy savings			
	Consideration of economic effects			

Workforce Development

Creating highroad workforce standards & pathways Multi-benefit solutions: building trades collaborate for funding & workforce

Local & targeted hiring Mitigate any job loss from transition

Work with impacted unions

Community LADWP job entry in commercial direct install programs

High-Level Themes on Commercial Building Efficiency & Electrification

Highlights

Commercial Building

Efficiency & Electrification



Affordable
Transition

Technical assistance for businesses to achieve transition

Steering Committee Ideas

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Highlights

Commercial Building

Efficiency & Electrification

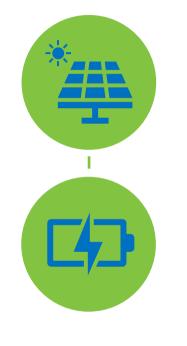


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	mo am	ew financing odels to neliorate front cost	City buildings should be the		
	Affordabili of energy savings	ncerns	example		

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Local Solar & Storage

- Local solar includes residential and commercial rooftop solar and community or shared solar.
- Storage refers to residential- or commercial-scale battery storage of electricity.



What do *just energy outcomes* look like in design and deployment of solar and storage?



High-Level Themes on Local Solar & Storage

Highlights

Local Solar & Storage



Affordable Transition

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Steering Committee Ideas

Increase financial benefits to community solar participants

Consider sharing of infrastructure for rooftop solar

Effect on affordable housing financing model

Organizational capacity of low-income solar & storage owners Socio-spatial Distribution of Risk

Consider community impact of storage location

Rooftop solar location may be less important over time

Potential environmental dangers of batteries City Infrastructure, Programs, & Policies

Program alignment: solar/storage with selfgeneration

Coordinate & align programs (solar & storage)

Technical assistance on both solar and storage Targeted Outreach & Implementing Equity

Communicate how battery storage helps with daily needs

Increase solar/storage options outreach in low-income communities of color

Maintenance

Structural integrity of older roofs

High-Level Themes on Local Solar & Storage

Highlights

Local Solar & Storage



Affordable Transition

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Steering Committee Ideas

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High-Level Themes on Local Solar & Storage



Local Solar & Storage



Affordable Transition

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> Structural integrity of older roofs

Transportation

- Clean transportation includes
 - electric cars, trucks, buses, and e-scooters, and other alternative fuel vehicles
 - equipment to charge/fuel them
 - and active forms of transportation like walking and biking.



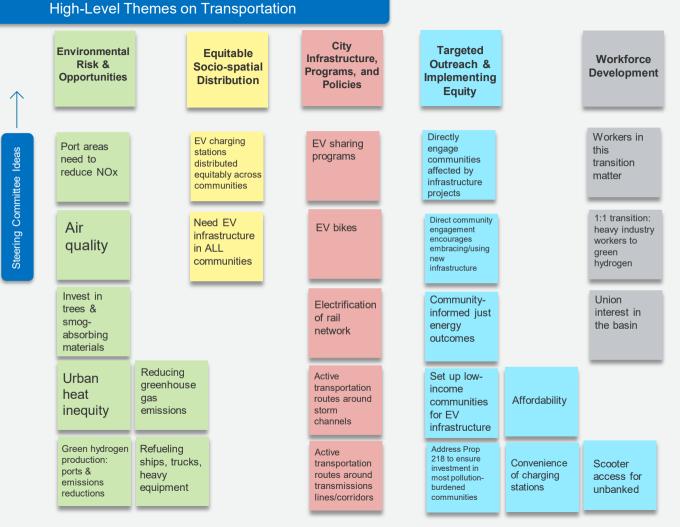
What do *just energy outcomes* look like in the transition to clean transportation?



Highlights

Transportation

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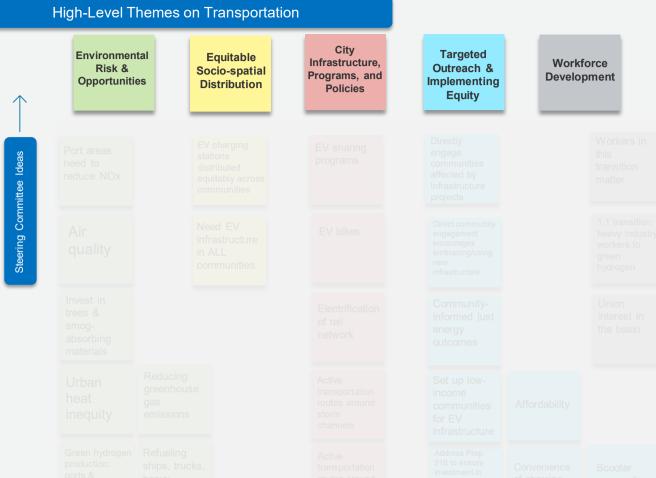


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Highlights

Transportation

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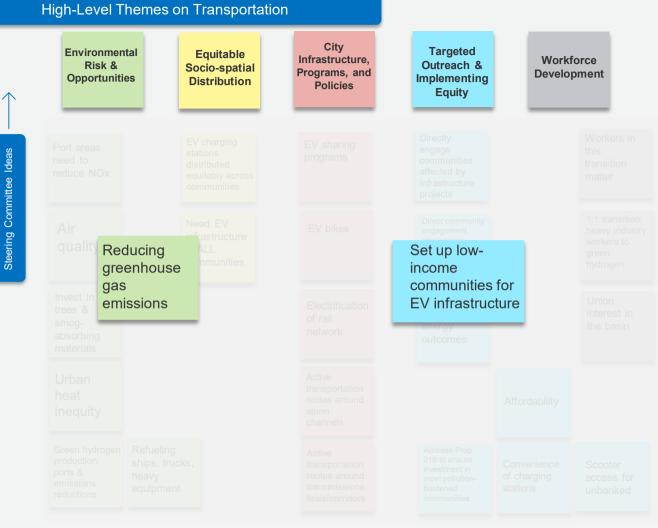


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Highlights

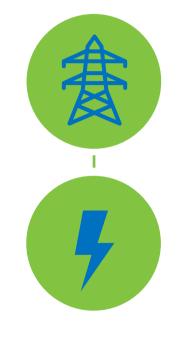
Transportation

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Electricity Reliability & Resilience

- Electricity reliability includes how often there are local electricity outages and the ability to connect new technologies like solar energy and electric vehicles to the grid.
- Resilience refers to the preparation for and capacity to recover quickly from electricity outages.



What do *just energy outcomes* look like in reliability and resilience?

High-Level Themes on Electricity Reliability & Resilience



High-Level Themes on Electricity Reliability & Resilience



Highlights

Electricity Reliability

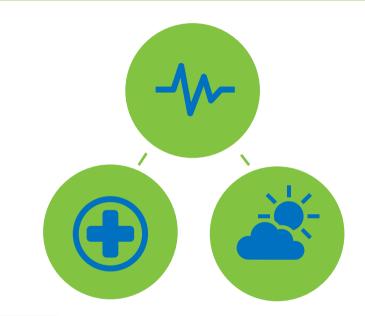
& Resilience

High-Level Themes on Electricity Reliability & Resilience



Air Quality, Health, & Environment

 Energy system air quality and health impacts and benefits include particulate matter and ozone from fuel combustion in vehicles and in energy generation.



What do *just energy outcomes* in air quality, health, and environment look like?

High-Level Themes on Air Quality, Health, & Environment

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Steering Committee Ideas

Highlights

Air Quality, Health,

& Environment



Collaboration Across Sectors & Agencies

Crosscollaboration: LADWP can lead transitioning cityowned polluting facilities

Failure to meet federal air quality standards could lead to federal transportation funding loss

Need for partnerships across citywide agencies Health & Environmental Infrastructural Strategies

Need to address pollutants produced by peaker plants

Electrifying transportation will reduce greenhouse gases Health Impact Factors

Power generation pollutes less than transportation

Biggest health danger from transportation

High-Level Themes on Air Quality, Health, & Environment

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Steering Committee Ideas

Highlights

Air Quality, Health,

& Environment



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Steering Committee Ideas

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Health

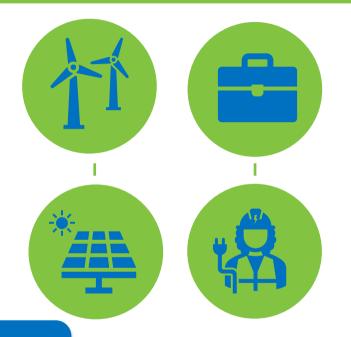
Power generation pollutes less than transportation

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Biggest health danger from transportation

Jobs & Workforce Development

 Clean energy jobs and workforce development refers to access to—and training for—jobs and career pathways in energy efficiency and renewable energy.



What do *just energy* jobs and workforce development outcomes look like?



High-Level Themes on Jobs & Workforce Development

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Steering Committee Ideas



Jobs & Workforce

Development



Labor & Hiring Practices			Workf Develop Fundi	oment	
Create workforce potential from transition	Targeted hiring	Who will finance an equitable workforce transition?		Find available financing strategies & policies (local, state, federal) fo LA	
Support for just transition measures: pension security, bridges to retirements	Expand existing workforce			stron	ers with g labor lards &
Labor standards	Expand Utility Pre-Craft Trainee Program (UPCT): successful model to scale up		0		
High-road jobs necessary for just & equitable process		comp	ng has ponents gh-road		
Concern: solar installation not always union jobs		Major invest neede relate labor	tment ed		

Training Include noncollege-bound high school students Prison population as workforce training option

Targeted Education &

Integrate criminal justice reform/climate solutions/just green energy workforce

Education: provide training in key communities

Paid apprenticeship training programs & intentional gender inclusivity

High-Level Themes on Jobs & Workforce Development

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Steering Committee Ideas

Hihglights

Jobs & Workforce

Development



Labor Hirin Practio	g	opment ding	Targeted Education & Training

High-Level Themes on Jobs & Workforce Development

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Steering Committee Ideas

Highlights

Jobs & Workforce

Development



Labor Hirin Practio	g	Workforce Development Funding			
		Best practices on financing the just transition Support funders with	P		
		Collaborat harnessing existing funding	in		

Targeted Education & Training

Include noncollege-bound high school students

Prison population a

Paid apprenticeship training programs & intentional gender inclusivity

workforce

Education: provide training in key communities

Community Meetings

and Listening Sessions



Community Meetings

8

Listening Sessions



Citywide community meetings are public events where all Angelenos are encouraged to attend, give input, and participate in LA100 Equity Strategies.



Community-specific listening sessions are a form of focus group, adapted to each local context, aiming to understand the energy priorities and needs of 8–10 participating community members.



Community Meetings

Community Meeting Dates

- Saturday, February 26, 10:00 a.m. 11:30 a.m. PT
 (English with Spanish translation)
 - ✓ (English with Spanish translation)
- Thursday, March 3, 6:30 p.m. 8:00 p.m. PT
 - ✓ (Spanish with English translation)

Steering Committee outreach help needed to ensure broad participation.



LADWP will share invitations and registration links via email.

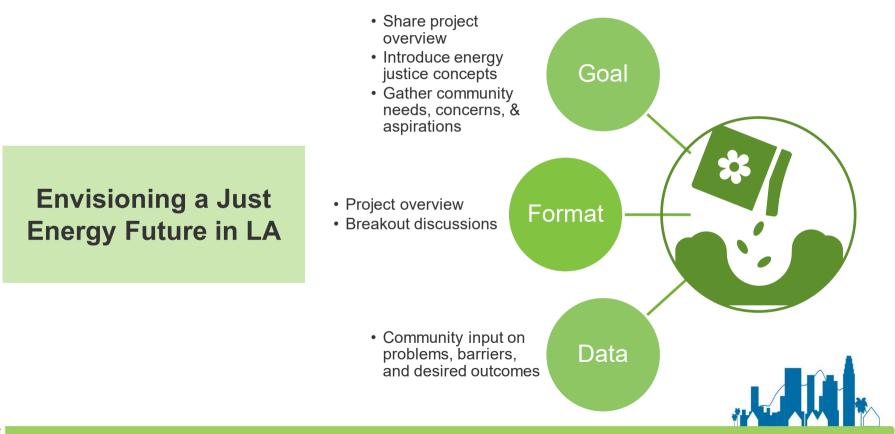


Please share with your communities!

Steering Committee members are welcome to attend and observe these meetings, but we respectfully ask you not to participate.



First Two Community Meetings



Community Meeting Breakout Groups

Breakout groups will discuss three questions related to energy justice. The questions aim to understand:



1. What is your vision for a just energy future?



2. What are barriers to energy justice in your community?

3. What are your desired outcomes from this project?



Listening Sessions

5 Listening Sessions

- Conducted with underserved LA communities
- Will gather ideas on *energy system inequities* and *strategies for achieving a just energy transition*

Proposed approach

- Energy justice community-specific meetings held
 virtually but focused on neighborhoods including
 - South LA
 - East LA (Eastside)
 - San Fernando Valley
 - Harbor Region/Port Area
 - Southeast LA
- Co-hosted with Steering Committee member organizations
- 8 10 participants
 - Drawn from Steering Committee member organization constituents



Discussion / Q&A

General recommendations? Additional resources to engage the community?

Public Outreach



Outreach Tools and Materials

Tools and materials prepared to help demystify the project and drive community engagement including:

- Website: ladwp.com/LA100ES
- Fact sheet
- Flyer
- Press releases
- Features and articles
- Social media promotional campaigns
- Video (in development) to be shared on YouTube & Vimeo
- Terms and definitions
- Community input questionnaire

All materials will be made available in English & Spanish



Social Media + Newsletter Follow on social media



Sign up for the LADWP Community Newsletter





https://tinyurl.com/ladwpsignup



Website ladwp.com/LA100ES

LA100 Equity Strategies



Following the release of the groundbreaking Los Angeles 100% Renewable Energy Study (LA100) →, LADWP launched LA100 Equity Strategies to ensure the path to 100% carbon-free energy is equitable as well as achievable. LA100 Equity Strategies, a two-year study in partnership with the National Renewable Energy Laboratory (NREL) and UCLA, brings together L.A.-based community justice organizations and stakeholders in a Steering Committee to guide this unprecedented effort.

Together with our research partners and Committee members, we will conduct extensive community engagement, through Listening Sessions with equitydeserving members of our community, as well as broader outreach through Community Meetings with communities across L.A.

Virtual Community Meetings - Get Involved! Sat, February 26 @ 10 AM – ENGLISH [Register ?] Thurs, March 3 @ 6:30 PM – SPANISH (EN ESPANOL) [Register ?]

Learn More

Press Release: LADWP Launches Groundbreaking LA100 Equity Strategies Initiative Feature Story: Community-Driven Effort to Ensure Equitable Transition to 100% Clean Energy for L.A.

- + Steering Committee
- + Advisory Committee
- Research Partners
- + Outreach Toolkit



Potential Equity Strategy Development Pathways

Steering Committee Feedback and Guidance



As NREL moves toward detailed distributional justice strategy development,

CONTRACTOR IN

we will rely on Steering Committee feedback and guidance on priorities.



Modeling, Analysis, & Strategy Development

tegy elopment	Rate Analysis/ Affordability	Buildings	Solar & Storage	Reliability & Resilience	Transportation	Air Quality, Health, Environment	Jobs & Workforce Development
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LA100 2035 100% Clean Energy Metrics	\$86 Billion to achieve 100% clean electricity by 2035	 ↓ 54% residential natural gas consumption ↑ 27% residential electricity consumption 	2,362 MW residential 366 MW commercial rooftop PV 986 MW storage	\$831 Million distribution system upgrade costs	80% electric vehicles	\$1.4 Billion in annual health benefits based on 2 sq km air quality modeling	15,561 in-basin 3,594 out-of-basin clean energy jobs
Community Engagement			- Prioritized equity pathways & outcomes Policy and program knowledge & guidance - Procedural justice				
LA100 Equity Strategies Modeling and Analysis	dGen utility bill rate impact analysis for 600,000+ buildings by income, renter/ owner, electricity/ natural gas	ResStock modeling of all residential buildings by income, renter/owner to optimize efficiency and electrification for affordability	dGen modeling of residential, commercial rooftop and community solar optimized for DACs	Distribution grid modeling of upgrades required to support PV, EV adoption, building and transportation electrification and reliability in DACs	Sustainable transportation scenario modeling to optimize benefits for DACs	Neighborhood-level air quality modeling and health-impacts analysis to target benefits to DACs	Job training and readiness and workforce standards analysis
Metrics		Mea	surable, interi	n & final distril	outional justice	metrics	
Outcomes			Impleme	ntation-ready s	trategies		

Feedback on Potential Equity Strategy Development Pathways

Торіс	Potential Equity Strategy Development Pathways				
Rate Reform	 Low-income energy bill stability Rate options for solar affordability 				
Buildings	 Low-income access to demand flexibility programs Improve access to solar/storage and energy efficiency in multifamily and/or renter-occupied buildings 				
Local Solar & Storage	Targeted community solar siting				
Transportation	 Equitable electric vehicle (EV) access Reduced transportation energy burdens 				
Reliability & Resilience	 Building weatherization and resilience to extreme events Access to public and community cooling Improve resiliency in disadvantaged neighborhoods through solar plus storage siting Identify grid upgrades needed to support reliability and solar/storage/EVs in disadvantaged communities 				

The following topics will be covered at a future meeting:

- Air Quality, Health, Environment
- Jobs & Workforce Development
- Policy design for affordability



Rate Reform

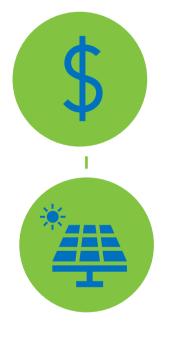


Low-Income Energy Bill Stability

 Design tariffs and billing strategies to achieve 100% clean energy without increasing energy bills for low-income households (renter- and owner-occupied)

Rate Structure Options for Solar Affordability

 Develop more equitable retail rate structure options that will facilitate solar adoption in disadvantaged communities





Buildings

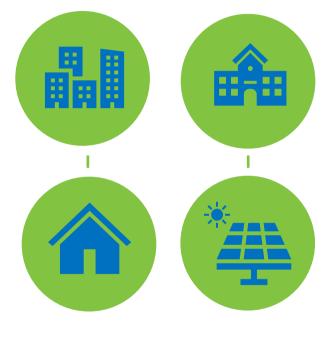


Low-Income Access to Demand Flexibility Programs

 Develop strategies that increase technological readiness of low-income households (renter- and owner-occupied), small businesses, and schools to participate in direct and indirect demand response, solar/storage incentive, and energy efficiency programs to lower bills and/or access payments

Improve Access to Solar/Storage and Energy Efficiency in Multifamily and/or Renter-Occupied Buildings

 Develop optimized implementation strategies by modeling bill savings potential of various approaches based on detailed multifamily building modeling and renter-occupied and low-income efficiency, solar, and storage deployment potential



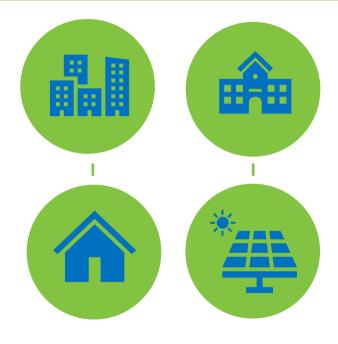


Local Solar & Storage

Thoughts?

Targeted Community Solar Siting

 Assess opportunities and financing strategies to site local solar/community solar in disadvantaged communities to supply local clean and affordable energy to these communities





Transportation

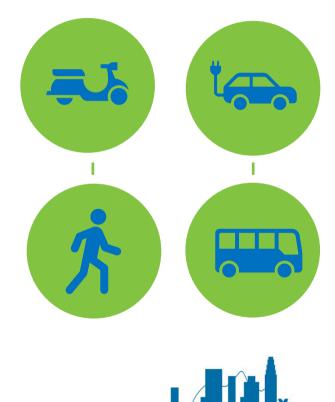
Thoughts?

Equitable Electric Vehicle (EV) & Charging Access

- Identify strategies to accelerate light duty EV and EV charging infrastructure access across communities to equitably achieve high EV adoption rates through:
 - Increased EV ownership
 - Increased access to shared EV (car sharing, electric buses, ride-hailing services) usage
 - Siting or incentivizing of EV charging In disadvantaged communities

Reduced Transportation Energy Burdens

• Identify transportation electrification strategies that can increase access to mobility opportunities (electric care share, taxis, ride-hail fleets, scooters, bikes, or walking) and reduce transportation burdens (i.e., costs, pollution, traffic, etc.)



Reliability & Resilience

Thoughts?

Building Weatherization, Thermal Storage, and Resilience to Extreme Events

 Increase building weatherization to reduce morbidity and mortality during extreme heat events in low-income households

Access to Public and Community Cooling

 Improve non- residential community access to public or commercial heating and cooling spaces for vulnerable households



Reliability & Resilience

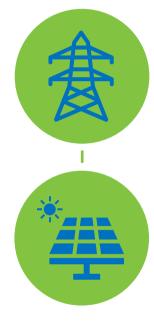


Increase Resiliency in Disadvantaged Neighborhoods through Targeted Solar-plus-storage Siting

 Increase hours/days of electricity service in an outage situation through targeted solar and storage for distribution grid resilience in disadvantaged communities

Identify Grid Upgrades Needed to Support Reliability and Solar/Storage/EVs in Disadvantaged Communities

- Identify infrastructure upgrades needed in disadvantaged communities to:
 - Ensure electricity reliability
 - Support community solar, rooftop solar, storage, EV adoption
- Assess potential deferral of distribution upgrade costs due to behind the meter and community scale solar and storage





Discussion / Q&A



Wrap Up and Next Steps



Going Forward

Steering Committee Meetings

March 23, 2022 Virtual

• Refining a plan for modeling and analysis for strategy development

April 20, 2022 Virtual

- · Summary of what we heard at community meetings
- Feedback on draft modeling, analysis, and strategy development plan

Subsequent Meetings

- Last 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!



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Thank you!



Appendix B

Steering Committee Agenda Setting Activity February 23rd, 2022 Miro Board



LA100 Equity Strategies

Discussion Items for Future Meetings

Miro Instructions:

- Click on sticky note to add comments
- Click on here existing note to support

