LA100 Equity Strategies
Steering Committee Meeting #9
July 20, 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

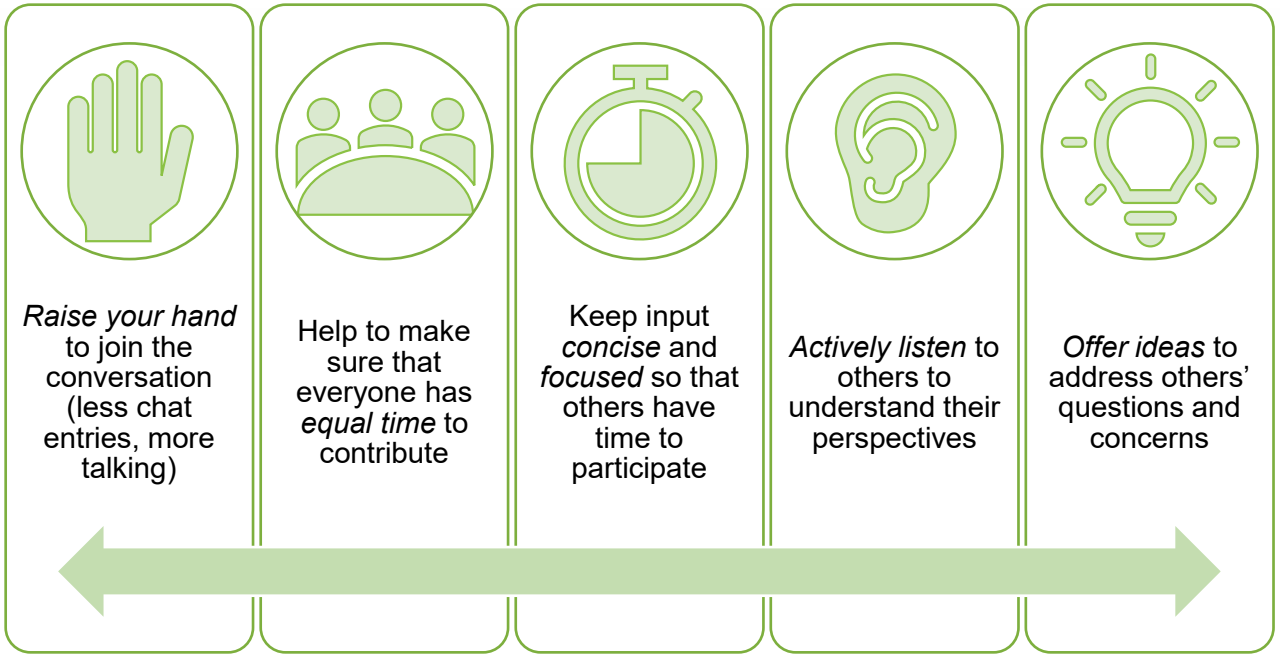
Steve Baule
Utility Administrator
LA100 Equity Strategies Oversight & UCLA Contract Administrator

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.	Affordability, Rates, and Revenue
10:50 a.m.	Equity Scenarios and Metrics Breakout Group Discussions • Buildings • Affordability and Rates • Electric vehicle (light duty) electrification and charging
11:45 a.m.	Strategic Long-Term Resource Plan
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

Including Future Agenda Items

Tentative Schedule

This Meeting

- Affordability
- Feedback on scenarios/metrics
  - Buildings
  - Affordability and rates
  - Electric vehicle (light duty) electrification and charging

August 17, 2022

- Equity scenarios and metrics synthesis from June/July Steering Committee feedback

Future Meetings

- Equity metrics
  - How are we measuring success?
  - Energy justice metrics and guardrails.
  - How are we using equity metrics?
- 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.

Energy Affordability and Policy Solutions Analysis

Greg Pierce, Rachel Sheinberg and Paul Ong
UCLA Luskin Center for Innovation (LCI)
UCLA School of Law
UCLA Center for Neighborhood Knowledge

Affordability, rates and revenue

Customer affordability is among the most key considerations identified throughout the LA 100 ES process, and broader LADWP equity conversations

- The LA 100 transition cost necessitates additional utility *revenue*
- Revenue is primarily recovered through *rates* paid by customers
- Affordability refers to customers' ability to pay their bill, the bulk of which reflects rates
  - Rate (re)design is a primary but not the only affordability policy instrument
  - Folding in of building and transport electrification costs into LADWP bill heightens affordability concerns

LCI's Three Affordability Analyses

Task 1. Structural and Baseline Affordability Considerations

- Assembling existing data sources to assess structural energy affordability and considerations for households across LADWP territory and utility itself

Task 2. Energy Affordability Metrics

- Identifying and analyzing goals and metrics to inform actionable plans

Task 3. Energy Affordability Policy Options

- Identifying and analyzing priority policy options to inform actionable plans

Deliverables

- Each task will result in the equivalent of a report chapter, as well as briefs

Methods and Approach

General Approach

- LCI is synthesizing data from 4 types of sources: existing quantitative data, academic literature, published reports, and stakeholder input
- Complements NREL modeling emphasis, UCLA Law rate structure focus

Goals

- Focus on fewer, meaningful goals and policies, building on internal efforts
- Work with partners to set up a long-term data, analysis, and strategy architecture
- Consider but do not be entirely constrained by legal challenges

Baseline Affordability Considerations

Guiding Research Questions

- What do we (not) know about the transition cost and its impact on rates?
- What are the implications of current rate/bill structure for in-need customers?
- What are prevailing consumption/billing levels among in-need customers?
- What is general and specific points of in-need customer satisfaction with LADWP?
- What is prevailing enrollment in assistance programs among in-need customers?
- Are there barriers to procedural equity in assistance program enrollment?
- What is the ability of in-need customers to maintain thermal comfort?
- How do tenant-landlord split incentives affect customers now and in the transition?

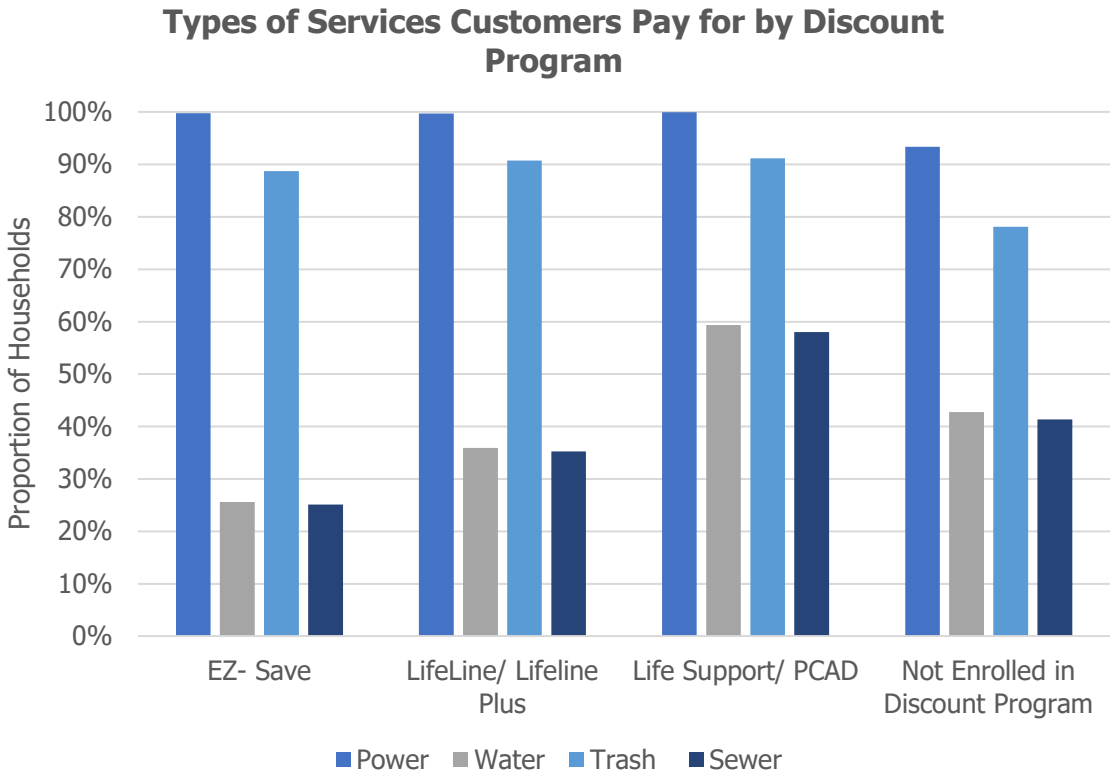
Baseline Affordability Considerations

Data Sources

LCI is using available, representative or census-type data sources that support this assessment, including:

- Survey data from Loyola Marymount University and UCLA
- The California Energy Commission's RASS,
- LADWP CSD Service and Program Enrollment Data,
- The UCLA CCSC Energy Atlas (pending)
- NREL Model data (pending)
- OPA, City Controller several other recent city focused reports

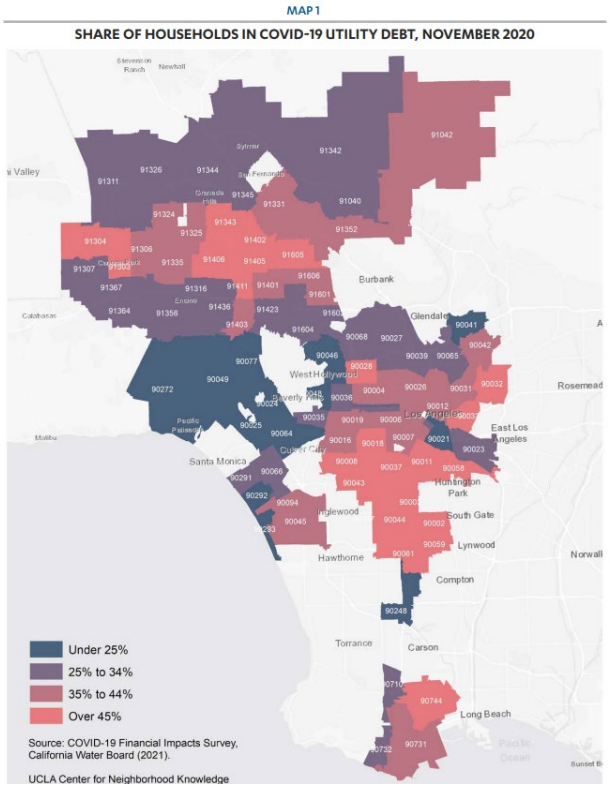
Considerations: Whole Bill Matters



- The whole bill matters for affordability
- There are 15 combinations of the 4 services that can be on an LADWP bill
- The most common are:
  - Power only
  - Power & trash
  - Power, water, sewer & trash

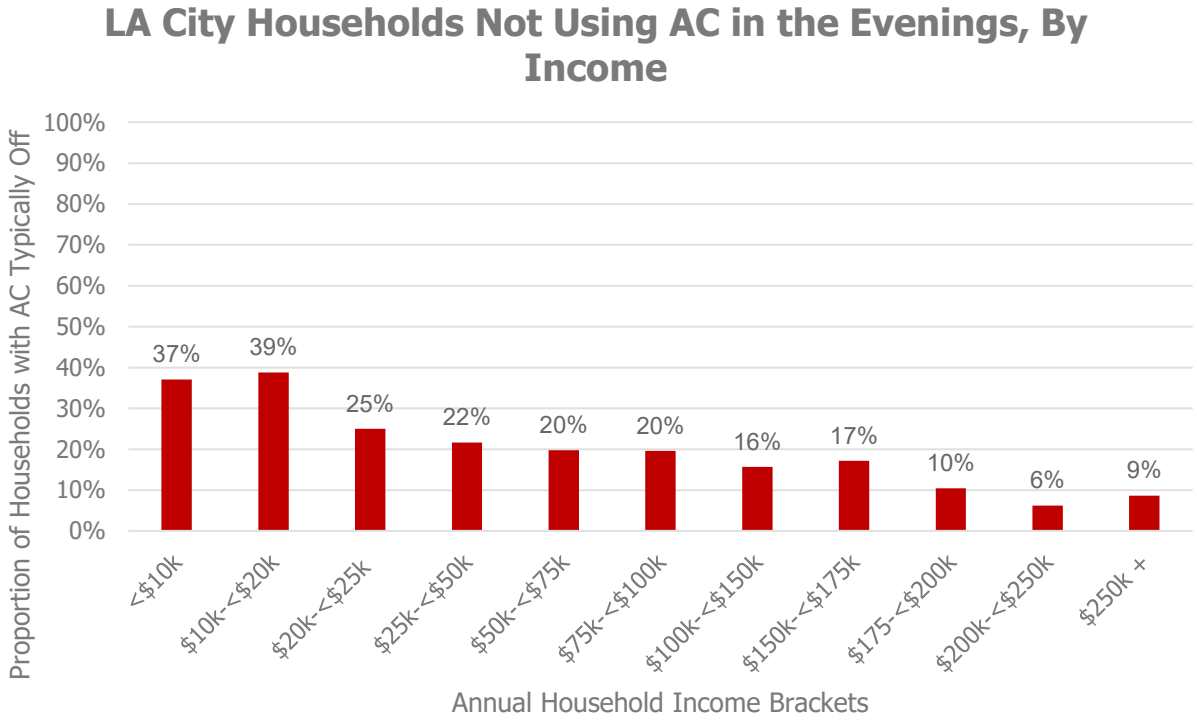
Source: Calculation based on LADWP Service and Program Enrollment Data

Considerations: Inequitable debt burden



Source: Keeping the Lights and Water on: Covid-19 and Utility Debt in Los Angeles' Communities of Color (2021). Silvia R. González, Paul M. Ong, Gregory Pierce, and Ariana Hernandez. UCLA Centers for Neighborhood Knowledge and Luskin Center for Innovation

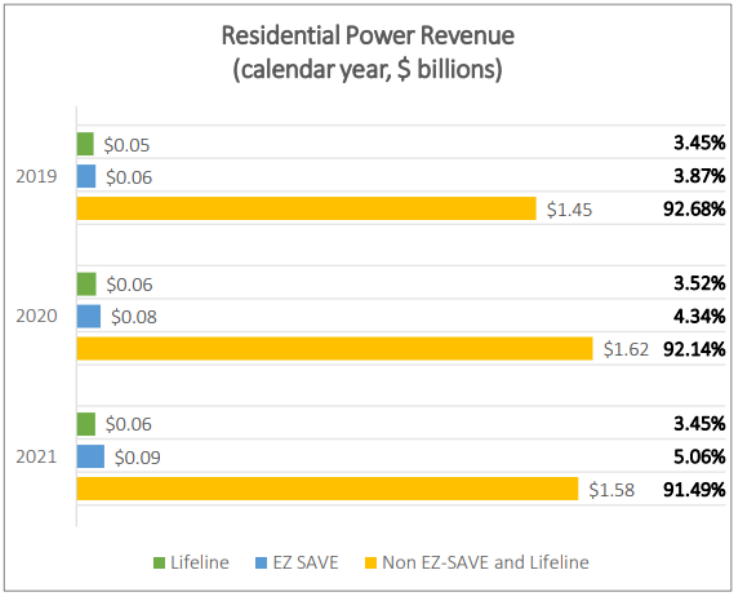
Considerations: AC Under-Consumption

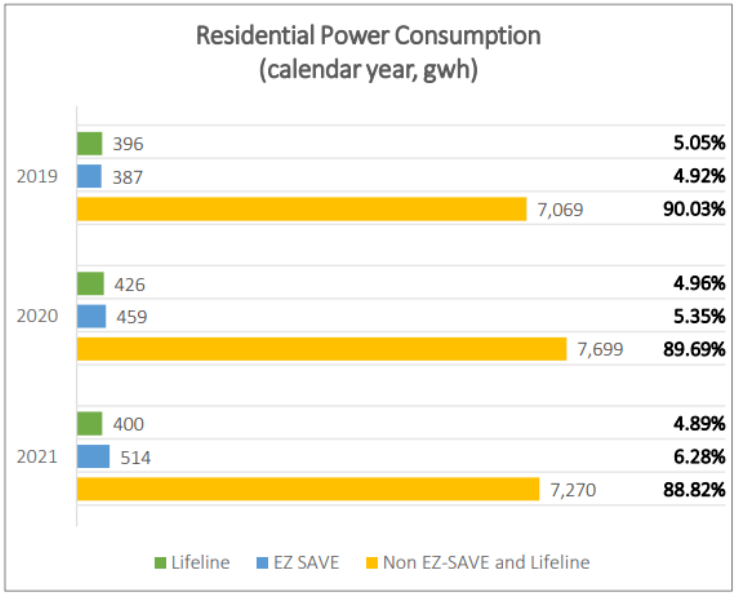


Source: CEC's 2019 Residential Appliance Saturation Survey (RASS)

Considerations: Revenue Impacts

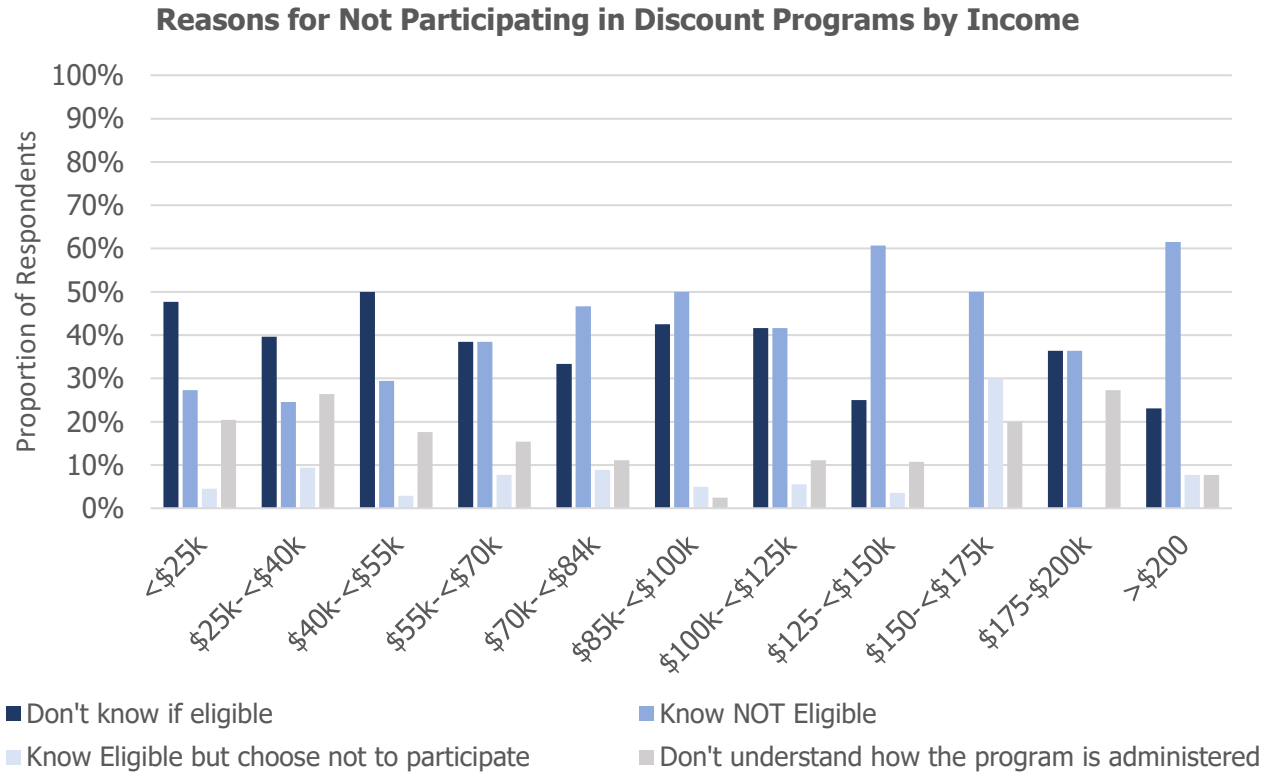
Power Revenues and Consumption





Source: LADWP CSD and FSO Estimate

Considerations: Program Barriers



Source: Loyola Marymount University Survey Data

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

Metrics Discussion

- Which metrics are a priority to consider to track progress on affordability?
- Are there metrics which we missed, or should be discarded?

Policy Categories in 1st-Stage Analysis

- **8 policy categories analyzed by:** policy mechanism, LADWP offerings and other relevant policy models, barriers to enrollment and scaling up, and impact of policy approach
- **Data:** primary data, academic literature, reports, and comparative utility offerings review (alongside Law analysis)
- **Next steps:** narrow to 3-5 policy options for deeper analysis

Policy Categories in 1st-Stage Analysis

Policy/Program	LADWP Offerings	Barriers to Enrollment/ Scaling	Magnitude of Impact
Appliance Energy Efficiency			
Structural Energy Efficiency			
Demand Response			
Direct Assistance and Crisis Relief			
Microgrids			
Rate and Billing Design			
Community Solar			
Rooftop Solar and NEM			

Ranking of Policy Categories Poll

See SurveyMonkey link in Zoom chat.

Please answer the second question.

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Scan QR code to access poll

Policies Discussion

- Which policies are a priority to consider to effect progress on affordability?
- Are there policy options which we missed, or should be discarded?
- What type of further analysis would you like to see on the prioritized policies and metrics?

Rate Structure Analysis for Affordability and Distributed Energy Access

Exploring Electricity Ratemaking for Affordability, Access, and DER Implementation

Lead: UCLA School of Law; Dr. William Boyd and Rachel Sheinberg

Goal: Inform how LADWP can implement and adapt to carbon-free energy in a way that does not further existing distributional injustices

Research Questions:

How can creative ratemaking be utilized to protect Low-Income residents from increasing energy costs?

How will LADWP's business model be impacted by increasing renewable penetration?

Tasks:

Create a high-level portfolio of rate design and utility financing strategies informed by other states' and countries' programs

Analyze impacts of potential rate structures on bills using the energy atlas and NREL modeling

Rate Structure Analysis for Affordability and Distributed Energy Access

Discussion Questions

Are there affordability programs that have been mentioned today or from other utilities that we should explore further?

How do you think that rate structures such as time-of-use pricing, where electricity cost varies throughout the day, would be received by your communities? Would a changing price create additional burden on residents?

Small Business Affordability

Assessing Energy Affordability Barriers and Opportunities for Ethnic Minority-Owned Small Businesses (MOBs)

Lead: UCLA Latino Policy and Politics Institute; Drs. Paul M. Ong & Silvia R. González
Leverages larger research project focused on California's ethnic businesses

Goal: formulate evidence-based policy recommendations that promote an equitable clean energy transition for racial/ethnic minority small businesses

Tasks:

1. Analysis of secondary and administrative data to identify minority-owned businesses to assess their current energy use
2. Assessment of participation in previous DWP energy savings programs
3. Design, test, and administer a survey of minority-owned businesses in Los Angeles with support from small business serving community-based organizations

Small Business Affordability

Assessing Energy Affordability Barriers and Opportunities for Ethnic Minority-Owned Small Businesses

Survey Data Collection

- **10-15 minutes**
- **Phone, internet, and in-person** in partnership with small business serving CBOs
  - Citywide
  - Prioritize ethnic economic enclaves
- **Key Modules**
  - COVID impacts and access to relief programs
  - Sustainability practices
  - Structural elements of energy burden

Small Business Affordability

Discussion Questions

- Are there particular issues facing minority-owned businesses which we should consider further examining?

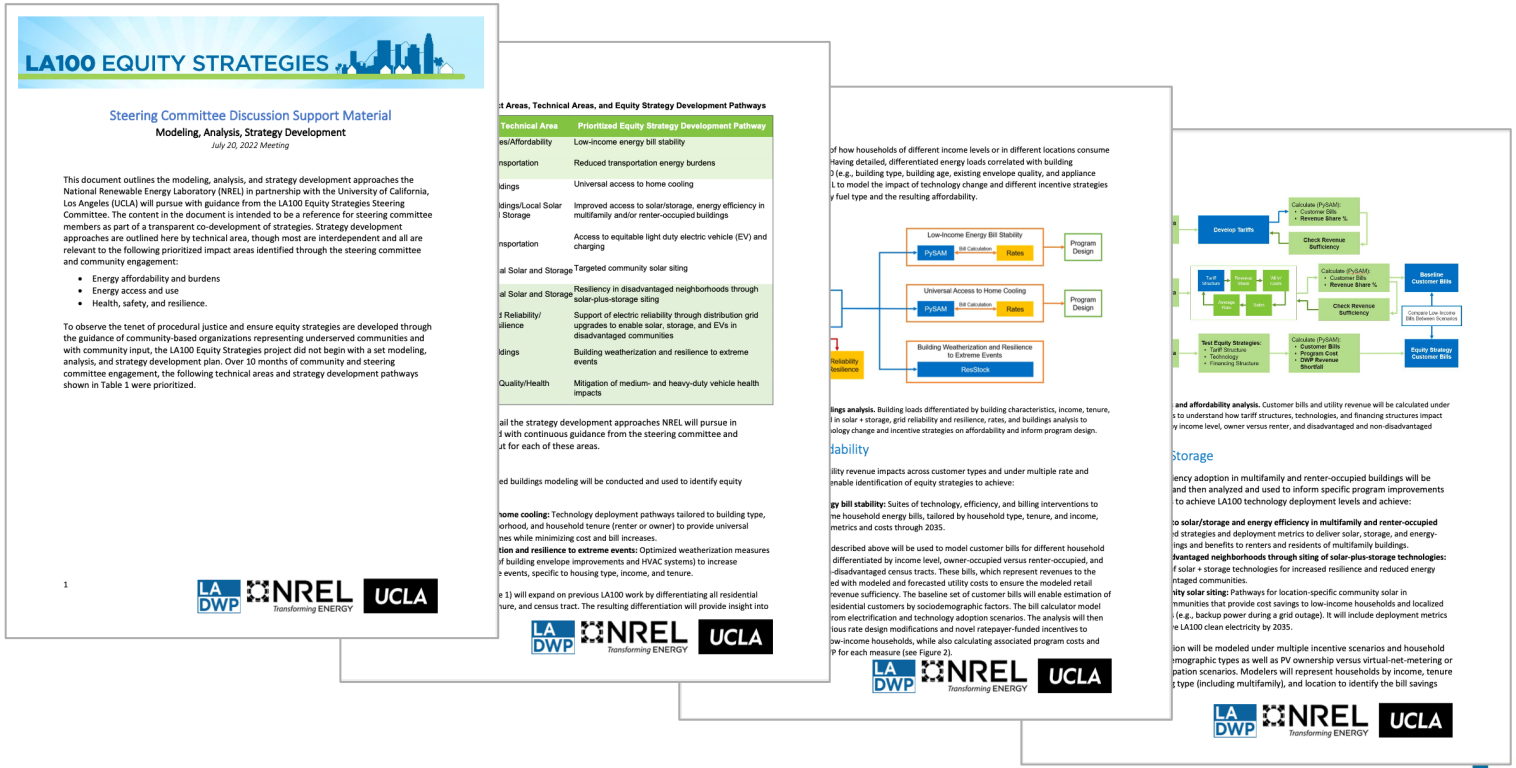
- Are there other organizations that we should contact as part of the survey outreach effort?

Thank you

Equity Scenarios and Metrics Discussion

- Buildings
- Affordability and Rates
- Light duty vehicle electrification and charging

Discussion Support Material



Modeling, Analysis, & Strategy Development

Equity Outcomes & Metrics

The goal of today's discussions is to hear feedback on **how we should measure success** in just distribution of:

Building efficiency upgrades and electrification

Rates and affordability

Light duty vehicle electrification and charging

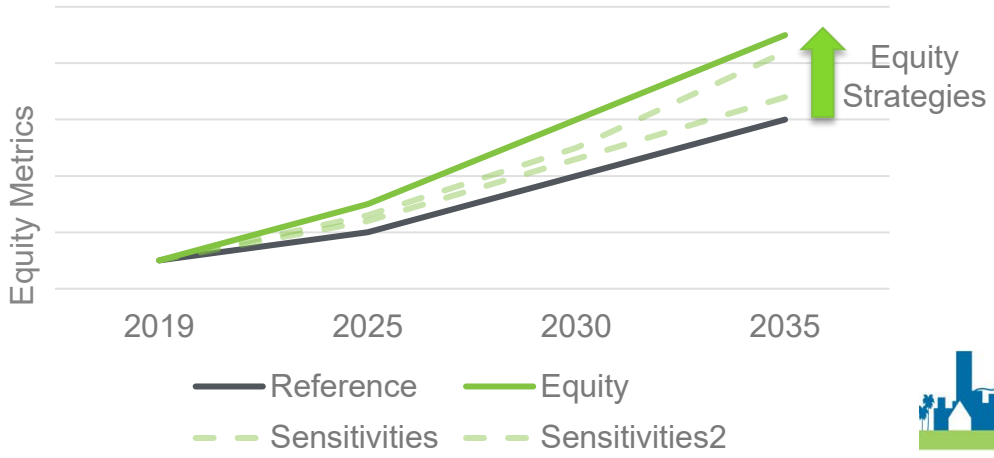
Modeling, Analysis, & Strategy Development

Shared:

100% clean electricity by 2035 with high electrification and efficiency

LA100 Equity Strategies **common scenarios:**

- **Reference:** LA100 (100% by 2035 with High electrification) without equity considerations
- **Equity strategies:** Achieve LA100 in ways that improve energy justice
- Some topics will explore variations (sensitivities) to explore which strategies achieve greater equity



Breakout Groups

- Buildings
- Affordability and Rates
- Light duty vehicle electrification and charging

Breakout Groups

Group	1	2
Steering Committee Member	Alliance of River Communities (ARC)	City of LA Climate Emergency Mobilization Office (CEMO)
	The South Los Angeles Transit Empowerment Zone (SLATE-Z)	Move LA
	Strategic Concepts in Organizing and Policy Education (SCOPE)	RePower LA
	Pacific Asian Consortium in Employment (PACE)	South LA Alliance of Neighborhood Councils
	DWP-NC MOU Oversight Committee	Community Build, Inc.
	Climate Resolve	Pacoima Beautiful
	Esperanza Community Housing Corporation	Enterprise Community Partners
	Los Angeles Alliance for a New Economy (LAANE)	

Buildings

How do we measure success?

- Does success in improving access to energy efficiency in multifamily and/or renter-occupied housing mean prioritizing
  - Resident-owned technologies or
  - Building or utility-owned technologies?
- What would an impactful and compelling strategies look like to:
  - ensure universal home cooling?
  - deploy weatherization measures for health and comfort?

  How might they be differentiated by community or housing type?

Affordability and Rates

How do we measure success?

- What strategies/approaches should be analyzed:
  - Expansion of existing programs?
    - e.g., Low-Income, Lifeline programs
  - Income-adjusted rates?
  - Maximum bills as fraction of income?
  - Rental/leasing/direct install with attractive financing for high energy efficiency equipment?
- Should strategies look for higher impacts in fewer, greatest need households, or look for reduced impacts for a larger group of the population?

Electric vehicles (bikes, scooters and personal cars) and charging

How do we measure success?

- **Access**
  - The number of people or households in disadvantaged communities who can access EV chargers – home, workplace, and public?

- **Use (Adoption)**
  - The number of people or households in disadvantaged communities who use EVs (e-bikes and/or personal cars) and electric vehicle charging? Or another metric?

- **Affordability**
  - Potential economic impact on or benefits of using or owning EVs for disadvantaged communities in terms of household income-expenditure?

LADWP's
Strategic Long-Term Resource Plan

Roadmap to an Equitable Carbon-Free Future

SLTRP Outcomes

Outcomes of 2022 SLTRP

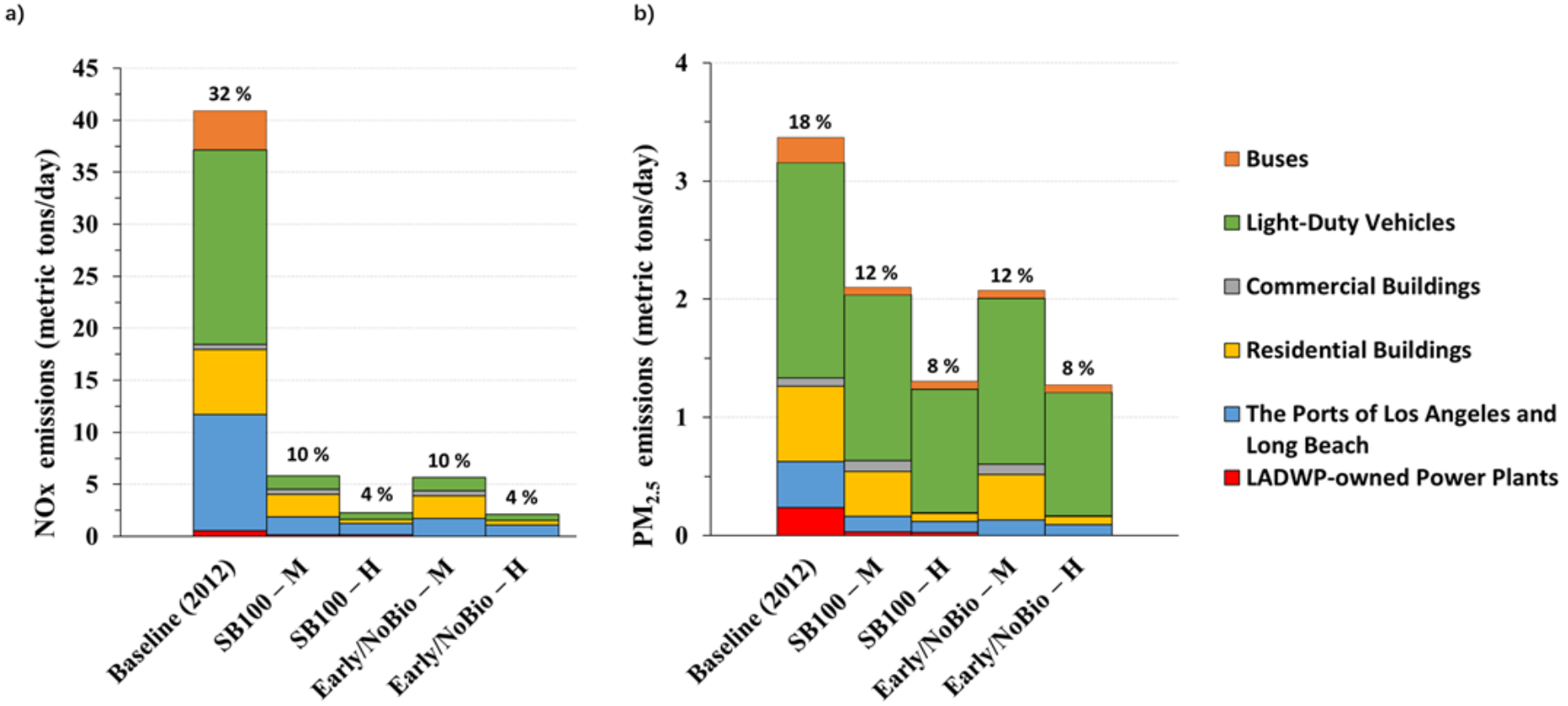
- High-level roadmap to 100% carbon free by 2035, driven by LADWP with stakeholder input
- Focus on big buckets of resources (large-scale renewables and energy storage, small-scale local solar and storage, EE and demand response, etc.)
- Modeling scenarios to determine best path to meet our mandates based on the guiding principles
- Integrates total Power System costs, infrastructure, resource planning, etc.

SLTRP Examples that relate to LA100 Equity Strategies

Reducing Use of Valley Generating Station

- LADWP to dramatically reduce utilization of Valley Generating Station:
  - The combination of **80% renewables** by 2030, **Haynes recycled water cooling,** and **Scattergood capacity** reduces Valley usage
  - Valley usage to be reduced from 30% to 5% thereby reducing adverse impacts on the local community
- Utilize significant space at Valley Generating Station for future clean energy projects

Electrification Drives Air Quality and Health Benefits



Deploying Distributed Energy Resources Equitably

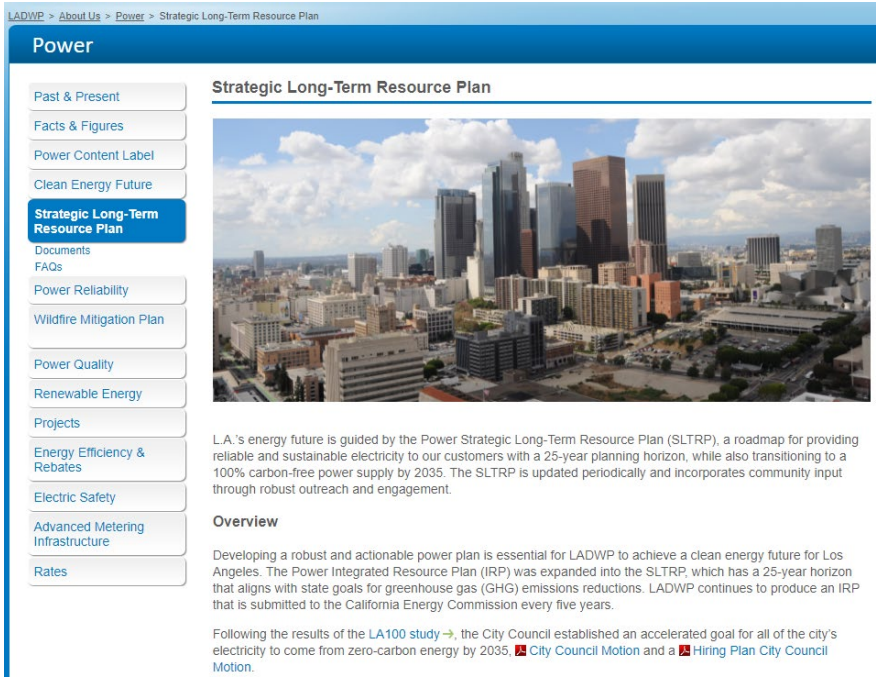
- We need: 1,000 MW of local solar, 500 MW of demand response, double energy efficiency, and support 580,000 electric vehicles by 2030.
- Progress:
  - LA100 Equity Strategies study through 2023
  - Expanded FiT from 150 MW to 450 MW
  - Launched FiT+ allowing energy storage
  - Launched VNEM Pilot Program
  - Expanded Power Savers (residential DR program)
  - More DER proposals under negotiations

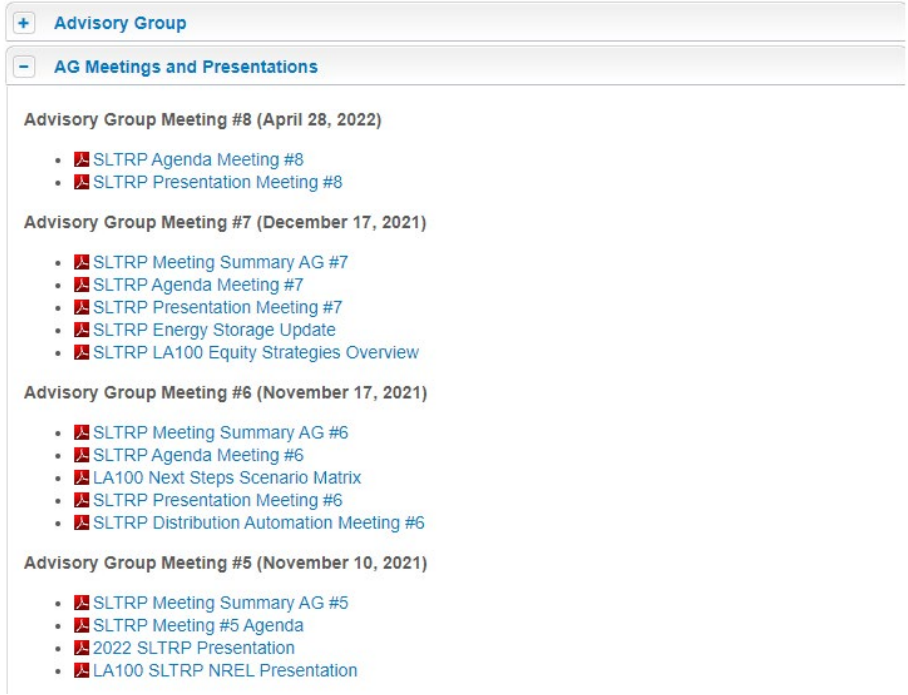
Key Takeaways on the 2022 SLTRP

- SLTRP is a living document; updated each year with stakeholder engagement every 2 years.
- 2022 SLTRP will identify the buckets for achieving goals. Within these buckets, LADWP will incorporate the LA100 Equity Strategies findings.
- Expect to fully incorporate LA100 Equity Strategies recommendations in 2024 SLTRP update.
- LA100 Equity Strategies recommendations will inform future programs designs and bulk power development.

Communications & Public Affairs

- Website: *ladwp.com/sltrp*
- Email address: *powerSLTRP@ladwp.com*





Q&A

Wrap Up and Next Steps

Going Forward

Tentative

Steering Committee Meetings

August 17, 2022
Virtual

- Update on project progress
- Summary and metrics synthesis from June and July breakout groups and the impact on equity scenario development

September 21, 2022
Virtual

- Air quality and health medium- and heavy-duty vehicle emissions impact modeling approach – presentation and feedback
- 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!