

EQUITY METRICS DATA INITIATIVE

Los Angeles City Council
Energy, Climate Change and Environmental Justice Committee
August 1, 2017



What are Equity Metrics?

- Equity Metrics are performance indicators that provide policymakers and program managers with data to assess how well programs, services and resources are distributed and utilized geographically and demographically
- On August 16, 2016, the Board of Water and Power Commissioners' (Board) approved Resolution No. 017036 establishing the LADWP's Equity Metrics Data Initiative (EMDI)
- On December 6, 2016, the Board approved Resolution No. 017107 finalizing fifteen (15) equity metrics within four core categories

EMDI Reporting Timeline

- ✓ August 2016 Board of Water and Power Commissioners' (Board) approved Resolution No. 017036 establishing the LADWP's Equity Metrics Data Initiative (EMDI)
- ✓ **December 2016** Board approved Resolution No. 017107 finalizing fifteen (15) equity metrics within four core categories
- ✓ January 2017 EMDI report presented to OPA
- ✓ February 2017 EMDI report presented to Board
- ✓ February 2017 EMDI graphs available on the LADWP website: <u>www.ladwp.com/equitymetrics</u>
- ✓ August 2017 EMDI report to Board



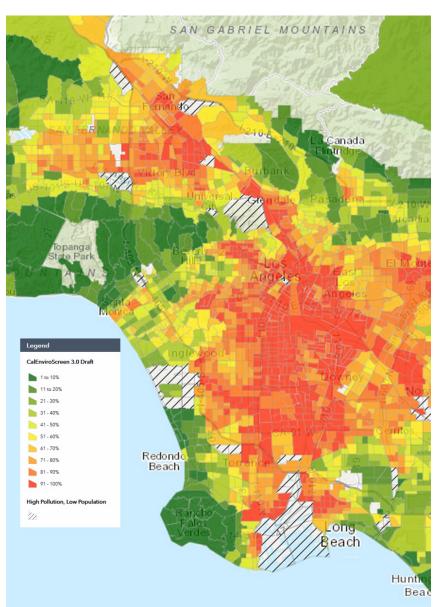
LADWP Equity Core Areas & Programs

Equity Core Category	Metric		
Water & Power	Water Quality Complaints		
Infrastructure Investment	Water System Probability of Failure & Planned		
	Replacements		
	3. SAIDI & SAIFI		
	4. Power System Reliability Program (PSRP) – Pole,		
	Transformer, Cable Replacements		
Customer Incentive	5. Rain Barrel/Cistern/Water Tank Rebates		
Programs/Services	6. Turf Removal Rebates		
	7. Tree Canopy Program		
	8. Commercial Direct Install Program		
	9. Home Energy Improvement Program		
	10. Refrigerator Exchange Program		
	11. Consumer Rebate Program		
	12. Electric Vehicle Infrastructure		
	13. Low Income & Lifeline Programs		
Procurement	14. LADWP SBE/DVBE Program		
Employment	15. New Hire/Promotion Demographics		

CalEnviroScreen Map

- This CalEnviroScreen map represents the CalEnviroScreen 3.0 score calculated from the Pollution Burden and Population Characteristic groups of indicators (12 Pollution Indicators and 7 Population Characteristics Indicators)
- Source: Office of Environmental Health Hazard Assessment (OEHHA)

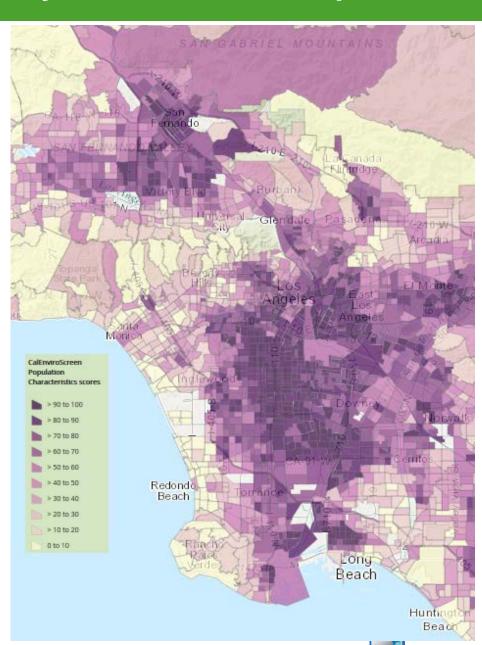
http://oehha.ca.gov/calenviroscreen



CalEnviroScreen Poverty Characteristic Map

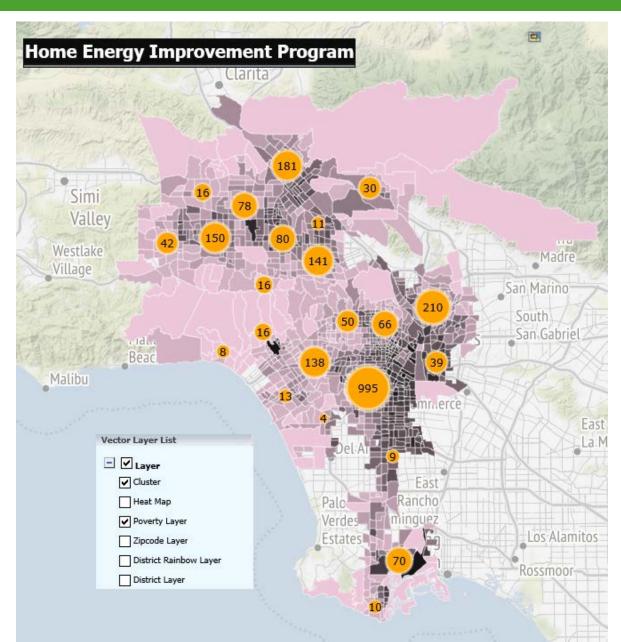
- This CalEnviroScreen map represents the Poverty Indicator from the set of Population Characteristic Indicators. We will use this as one of the base maps for Equity Metrics
- Source: Office of Environmental Health Hazard Assessment (OEHHA)

http://oehha.ca.gov/calenviroscreen



Home Energy Improvement Program Cluster Map

- Home EnergyImprovement Program(HEIP) by CensusTract
- This Program offers LADWP residential customers the opportunity to improve the energy and water performance in their homes, which can improve their comfort level and potentially reduce their energy and water cost



Water Mainline Conditions & Planned

Replacement Map

Decisions to replace Water
 Mainlines take into consideration
 the Mainlines' Likelihood of
 Failure (LOF) Grade

 The factors that contribute to the LOF Grade are:

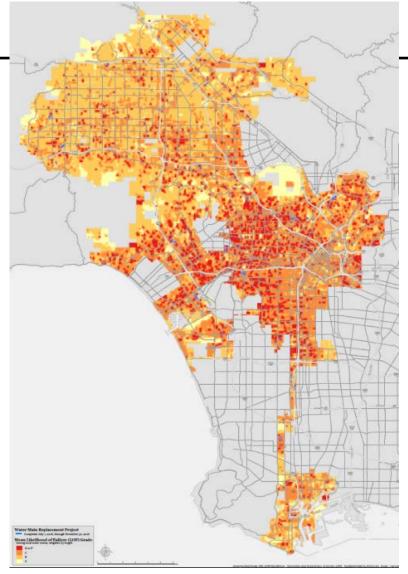
Leaks Age

Material Diameter

Pressure Elevation

Soil Corrosiveness Hillside/Ground

Movement



Sample Dashboard Reports

LADWP RATES METRIC - Pole Replacement (Power)

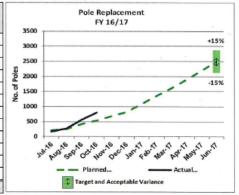
RESPONSIBLE MANAGER: Bill Herriott, Power Transmission and Distribution

REPORTING PERIOD: October 2016

DEFINITION OF RATES METRIC: Number of Poles Replaced Against Plan

TARGET & ACCEPTABLE VARIANCE (FY 16/17): Target = 2,500; Acceptable Variance = ± 15%

FYTD as of:	Planned (No.)	Actual (No.)	Variance		Re-Estimate
			No.	%	(If Applicable)
Jul-16	208	167	-41	-19.8%	
Aug-16	250	271	21	8.4%	
Sep-16	403	549	146	36.2%	
Oct-16	534	788	254	47.6%	
Nov-16	675				960
Dec-16	822				1,221
Jan-17	1,072				1,482
Feb-17	1,347				1,743
Mar-17	1,607				2,003
Apr-17	1,900				2,264
May-17	2,200	-			2,544
Jun-17	2,500				2,787
Acceptable Variance ± 15%					11.5%



SOURCE OF DATA: Jobs P6322/O3610/X3054 (KPI # 04.01.01.03)

BACKGROUND / PURPOSE

· Replace 2,500 deteriorated poles due to age or other damage. The overhead power system has approximately 321,000 poles in its system. These poles have an average life span of fifty years; they are designed to sustain our infrastructure and to address LADWP pole replacement backlog. These poles' primary function is to support various sizes of transformers, various range and types of underground cables transitioning from the underground to an overhead termination and related equipment, communication cables, a range of size and type of crossarms. These crossarms support various sizes of conductors at different voltage levels, various type of equipment such as transformers, switches, light fixtures, etc. Work is done by Distribution Construction & Maintenance (DC&M) district crews and contract crews. This work is to maintain compliance with California Public Utilities Commission (CPUC) General Order 165- Inspection Cycles for Electric Distribution Facilities, also related to Power System Reliability Program (PSRP). Poles are identified through the DC&M aggressive Inspection

2. ACHIEVEMENTS / MILESTONES MET

 To date, the target was to replace 534 poles and the current actual number of poles replaced is 788.

3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Although the actual number of poles replaced exceeds the 15% threshold set for the monthly target, this KPI is in good standing.
- There were construction work packages which had multiple pole replacements written in the job. Some of these jobs were completed in WMIS, which had attributed to the spike in pole replacements for the month.

4. MITIGATION PLAN AND / OR RECOMMENDATIONS

 Some of the work performed in this metric is incident driven and will continue after goals are met. However, upon meeting the fiscal year end goal, crews will be reassigned to other PSRP priority work, such as 4.8kV feeders and 34.5kV trunk lines.



Residential Water and Power Reliability Core Area Example - Power Reliability

Reliability indices are used to measure the reliability performance of LADWP's distribution system in a 12-month rolling average.

District	SAIFI	SAIDI	CAIDI
Northridge	0.64	62.56	97.05
Van Nuys	0.65	83.75	128.09
West Los Angeles	1.22	172.88	141.81
Palm	0.97	149.95	154.82
Lincoln Heights	0.78	101.15	129.06
Central	1.08	148.56	138.15
Wilmington	1.05	116.11	110.22

System Average Interruption Frequency

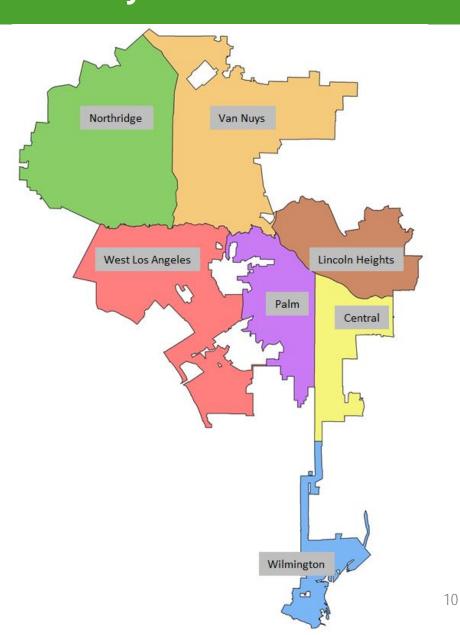
Index (SAIFI): Average # of interruptions per year for the system

System Average Interruption Duration Index

(SAIDI): Average # of minutes a customer power is out in a year for the system

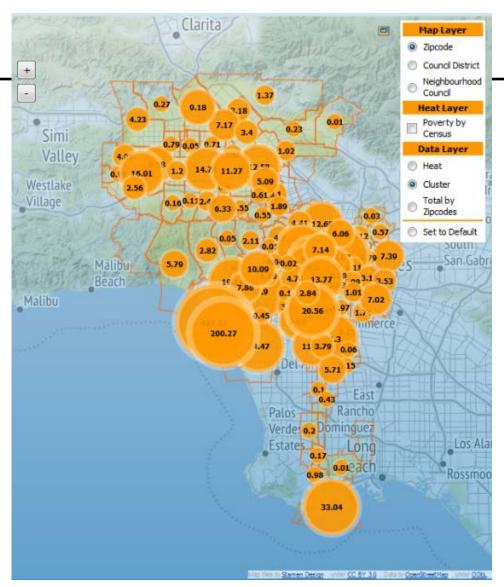
Customer Average Interruption Duration

Index (CAIDI): For customers that have a power outage, the average # of minutes that it takes to restore service



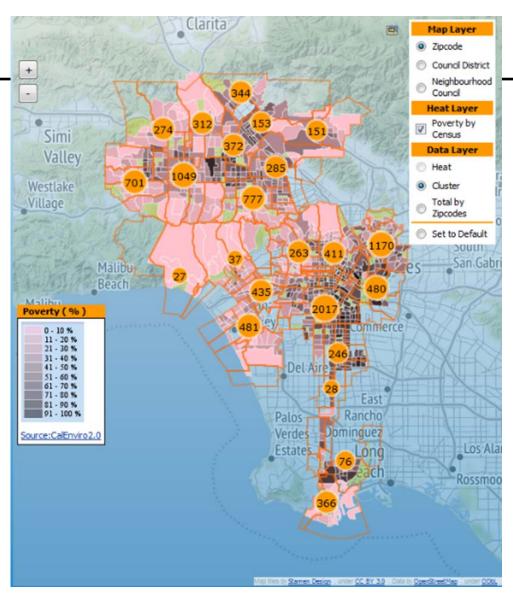
SAIDI

- System Average Interruption Duration Index (SAIDI) for Dec 2016. It is the average outage duration for each customer served per year
- High outage duration in Venice area is due to Los Angels Fire Department request to deenergize 5 circuits for 12 hours



Tree Canopy Program

- Continuing its extensive tree planting involvement since 1998, LADWP recently signed an agreement with the Los Angeles City Plants program to fund 42,000 additional trees to be planted throughout the City of Los Angeles over the next two years.
- City Plants addresses the low tree canopy cover in the City, which averages 21%, well below the national average of 27%
- Trees Planted from Jan 2015 through Dec 2015



New Hire and Promotional Demographics

