

## DOCKETED

<b>Docket Number:</b>	17-IEPR-08
<b>Project Title:</b>	Barriers Study Implementation
<b>TN #:</b>	217582
<b>Document Title:</b>	Equity Metrics Data Initiative
<b>Description:</b>	5.16.2017: Presentation by John Chen of LADWP
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<b>Organization:</b>	LADWP
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	5/12/2017 2:01:46 PM
<b>Docketed Date:</b>	5/12/2017

# EQUITY METRICS DATA INITIATIVE

May 16, 2017

Putting Customers First   

# What are Equity Metrics?

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- Indicators that provide policymakers and program managers with data to assess how well programs, services, resources, and investments are distributed and utilized geographically and demographically
- Allow managers to modify policies, programs, and services to track toward equitable outcomes
- 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

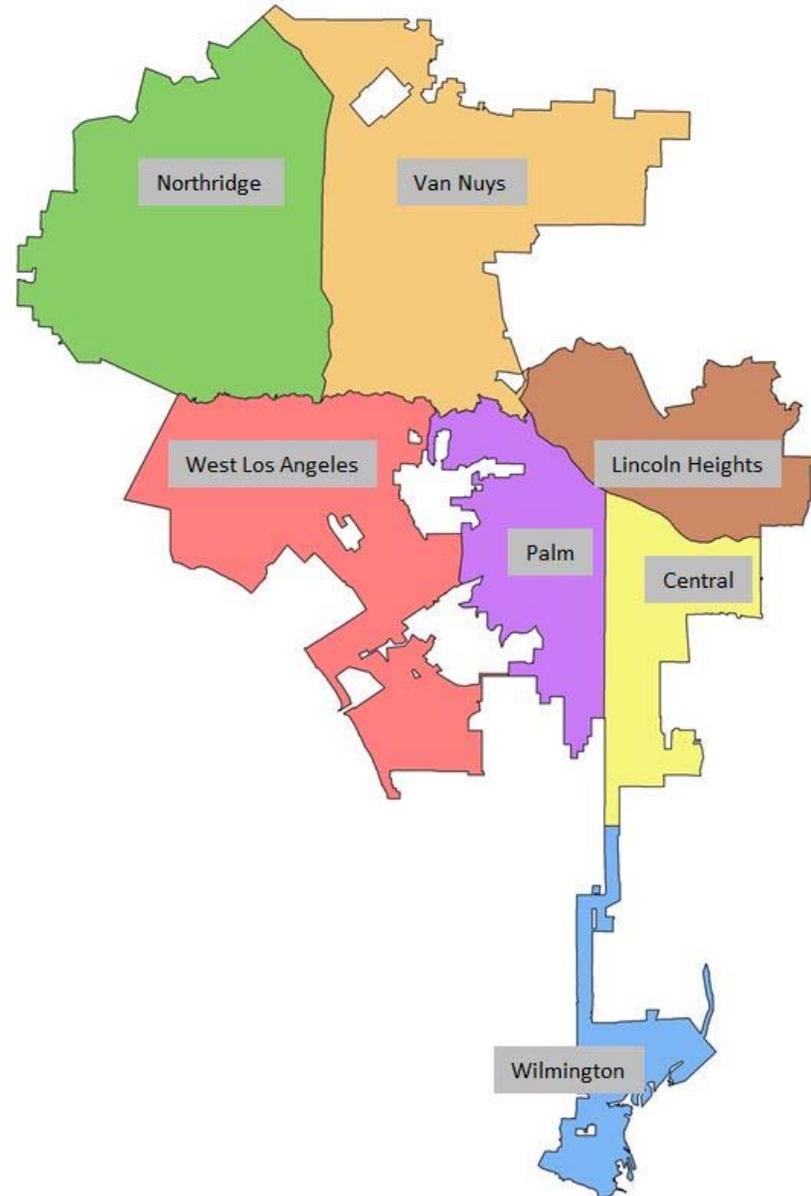
# LADWP Equity Core Areas & Programs

Equity Core Category	Metric
Water & Power Infrastructure Investment	<ol style="list-style-type: none"> <li>1. Water Quality Complaints</li> <li>2. Water System Probability of Failure &amp; Planned Replacements</li> <li>3. SAIDI &amp; SAIFI</li> <li>4. Power System Reliability Program (PSRP) – Pole, Transformer, Cable Replacements</li> </ol>
Customer Incentive Programs/Services	<ol style="list-style-type: none"> <li>5. Rain Barrel/Cistern/Water Tank Rebates</li> <li>6. Turf Removal Rebates</li> <li>7. Tree Canopy Program</li> <li>8. Commercial Direct Install Program</li> <li>9. Home Energy Improvement Program</li> <li>10. Refrigerator Exchange Program</li> <li>11. Consumer Rebate Program</li> <li>12. Electric Vehicle Infrastructure</li> <li>13. Low Income &amp; Lifeline Programs</li> </ol>
Procurement	14. LADWP SBE/DVBE Program
Employment	15. New Hire/Promotion Demographics

# 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

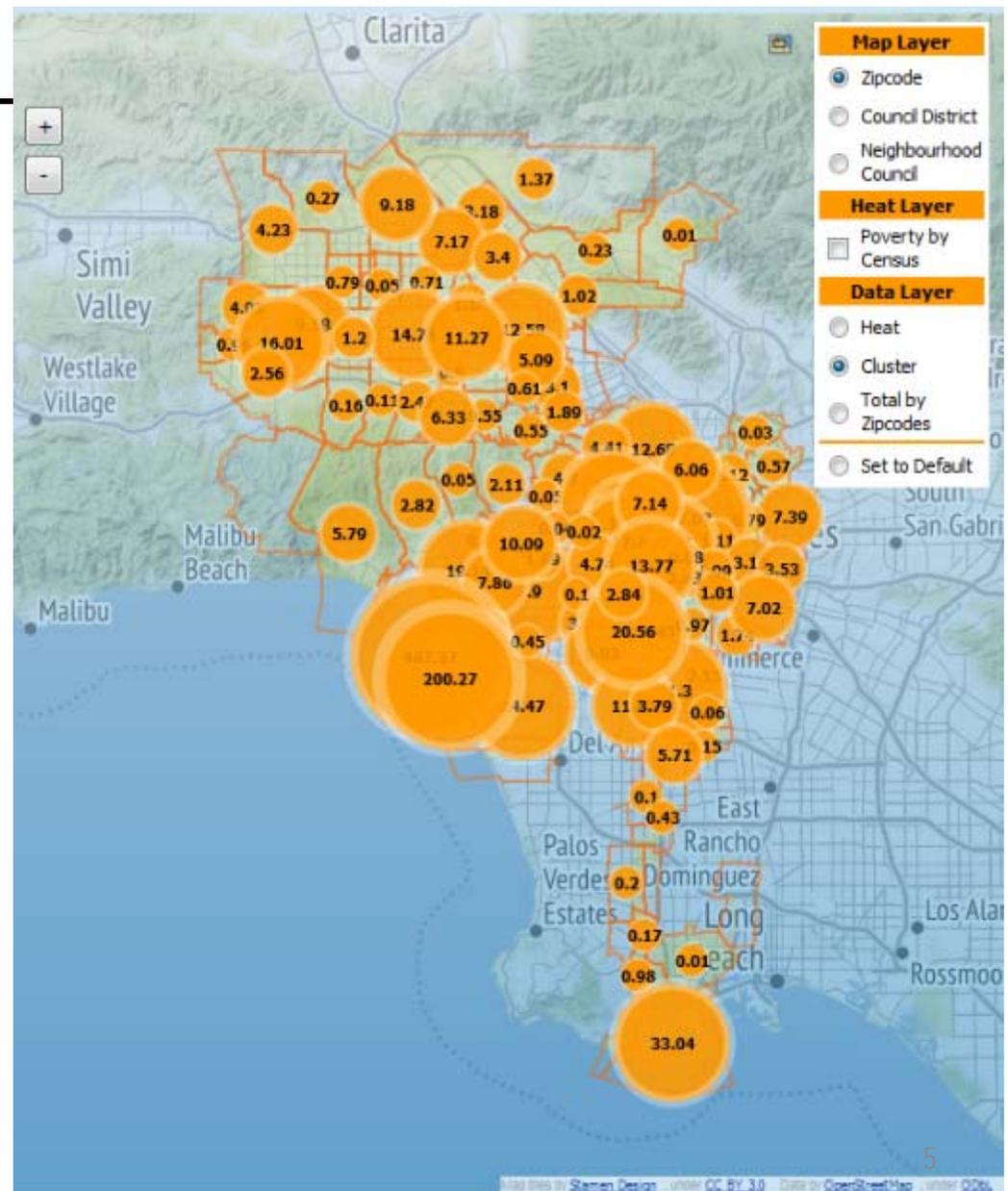
**(SAIDI):** Average # of minutes a customer power is out in a year for the system

## Customer Average Interruption Duration

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

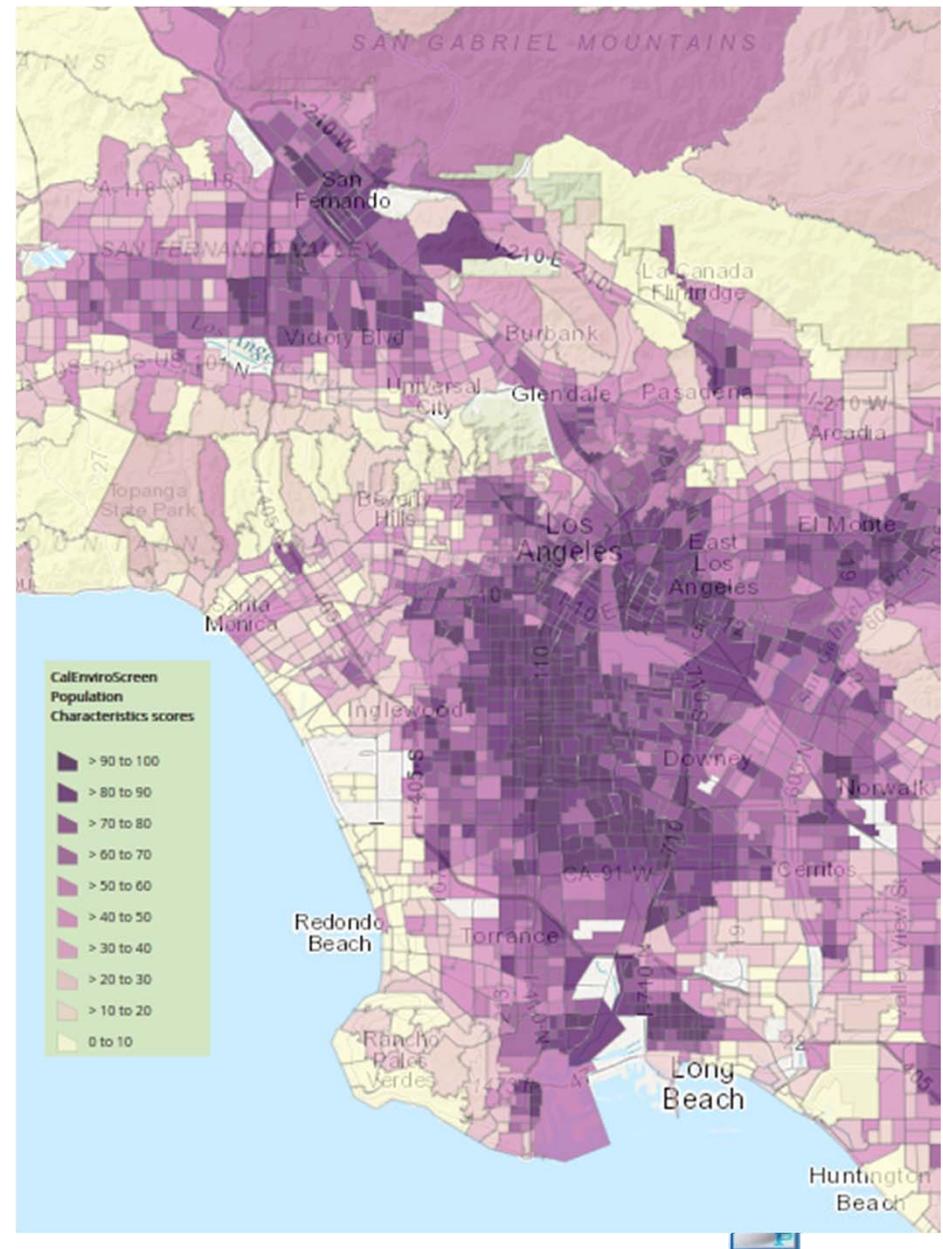
# SAIDI

- 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 Angeles Fire Department request to de-energize 5 circuits for 12 hours
- Data collection points increased from 10,000 to over 1 million per year (4 months effort)



# 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>

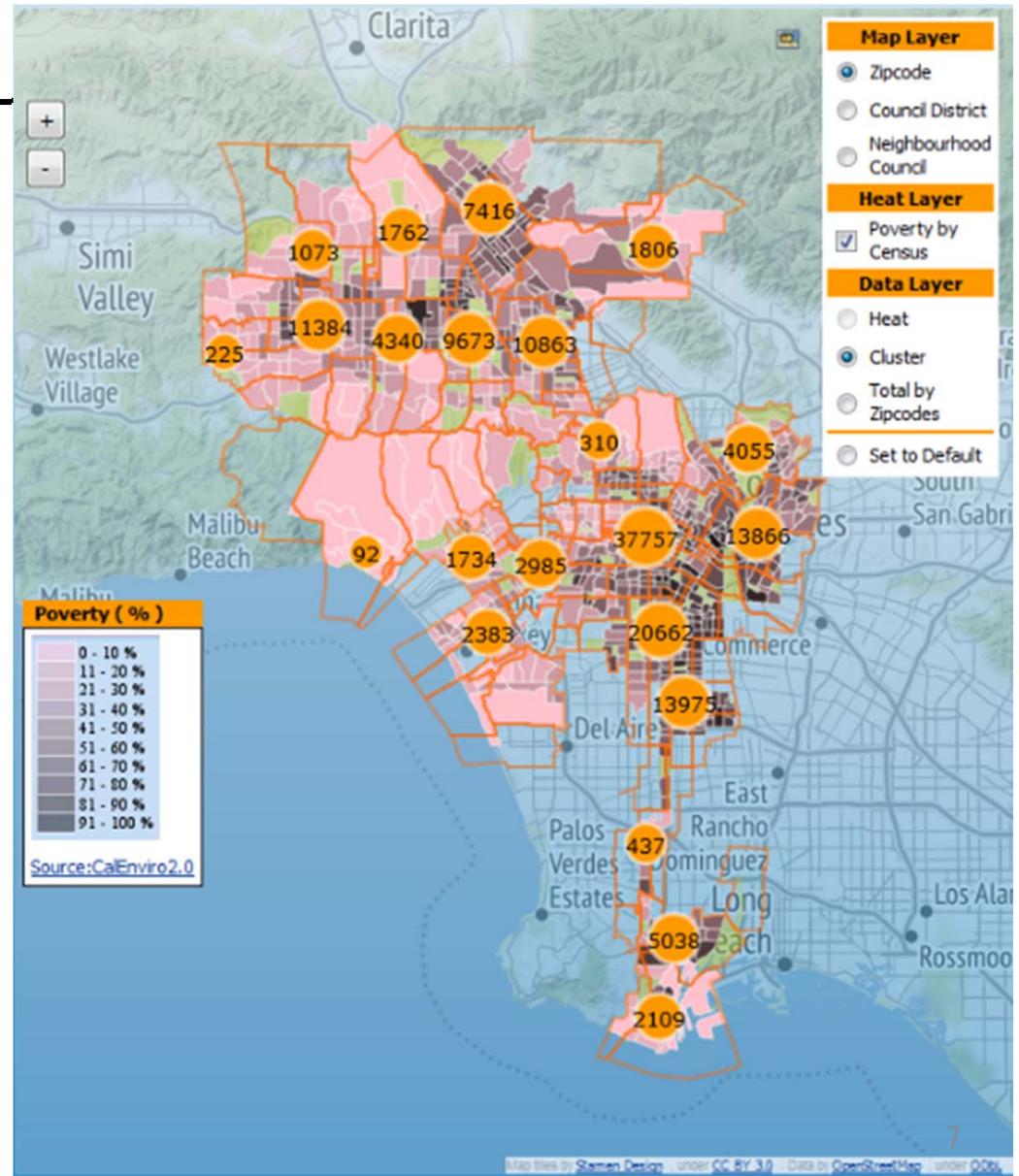


# Low Income Program

Customers may qualify to have a discount applied to their electric and/or water bills based on their income and household size

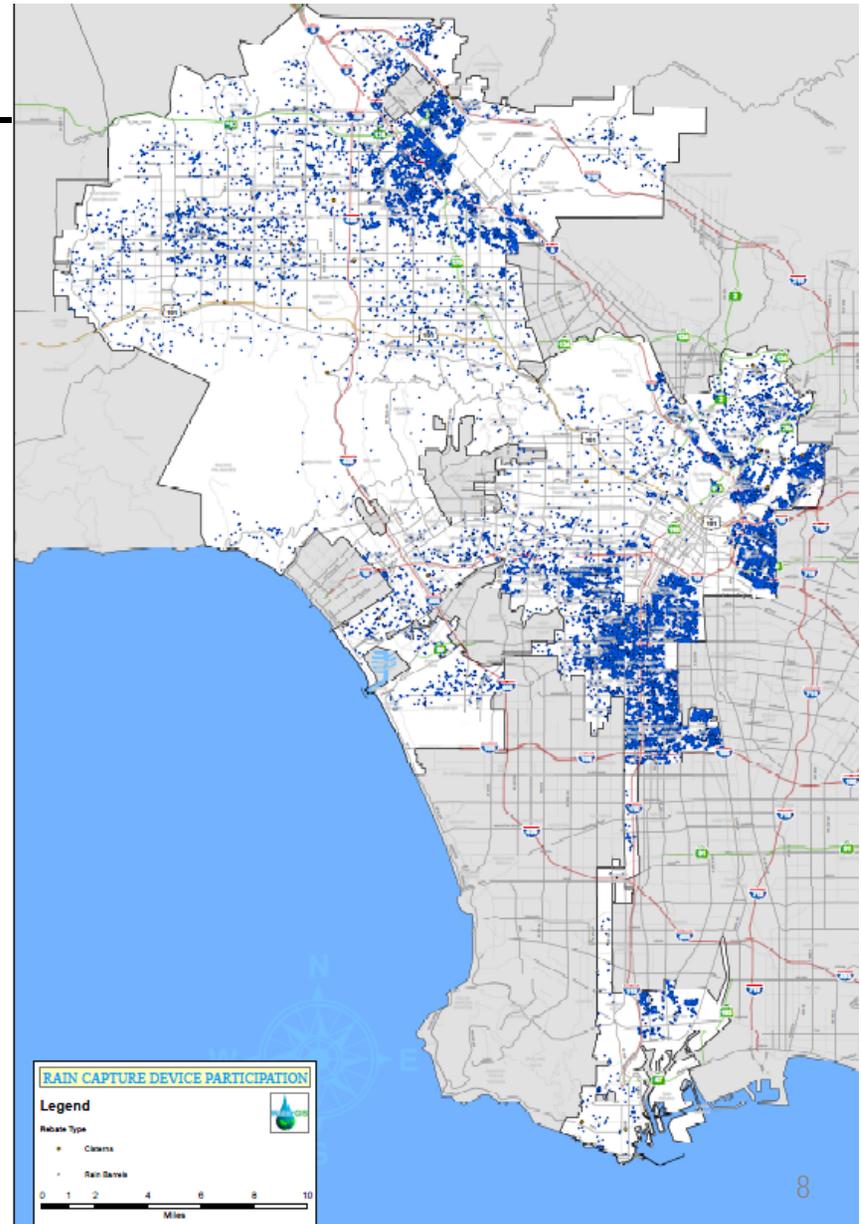
Household Income Requirements – Effective July 1, 2016

Members in Household	Maximum Annual Gross Income*
1	\$32,040
2	\$32,040
3	\$40,320
4	\$48,600
5	\$56,880
6	\$65,160
7	\$73,460
8	\$81,780
Each additional member:	Add \$8,320 to income



# Rain Barrel/Cistern/Water Tank Rebates

- LADWP provides residential customers rebates for up to two 50-gallon rain barrels or one cistern
- Rain capture device for FY 16-17 YTD



# Data Issues

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- More Granular Data Needed for Heat Map
  - SAIFI & SAIDI Data from 10k to over 1Mil per year
  - 4 Months Effort
- Address
  - No Central Source
  - Constantly Changing – People Move
  - Synchronize Address between County, City, USPS
- Geo Coding
  - Time Consuming
  - Address Mismatch

# Community Solar: Addressing Solar Access Disparity in LA

- SIP 200-2015

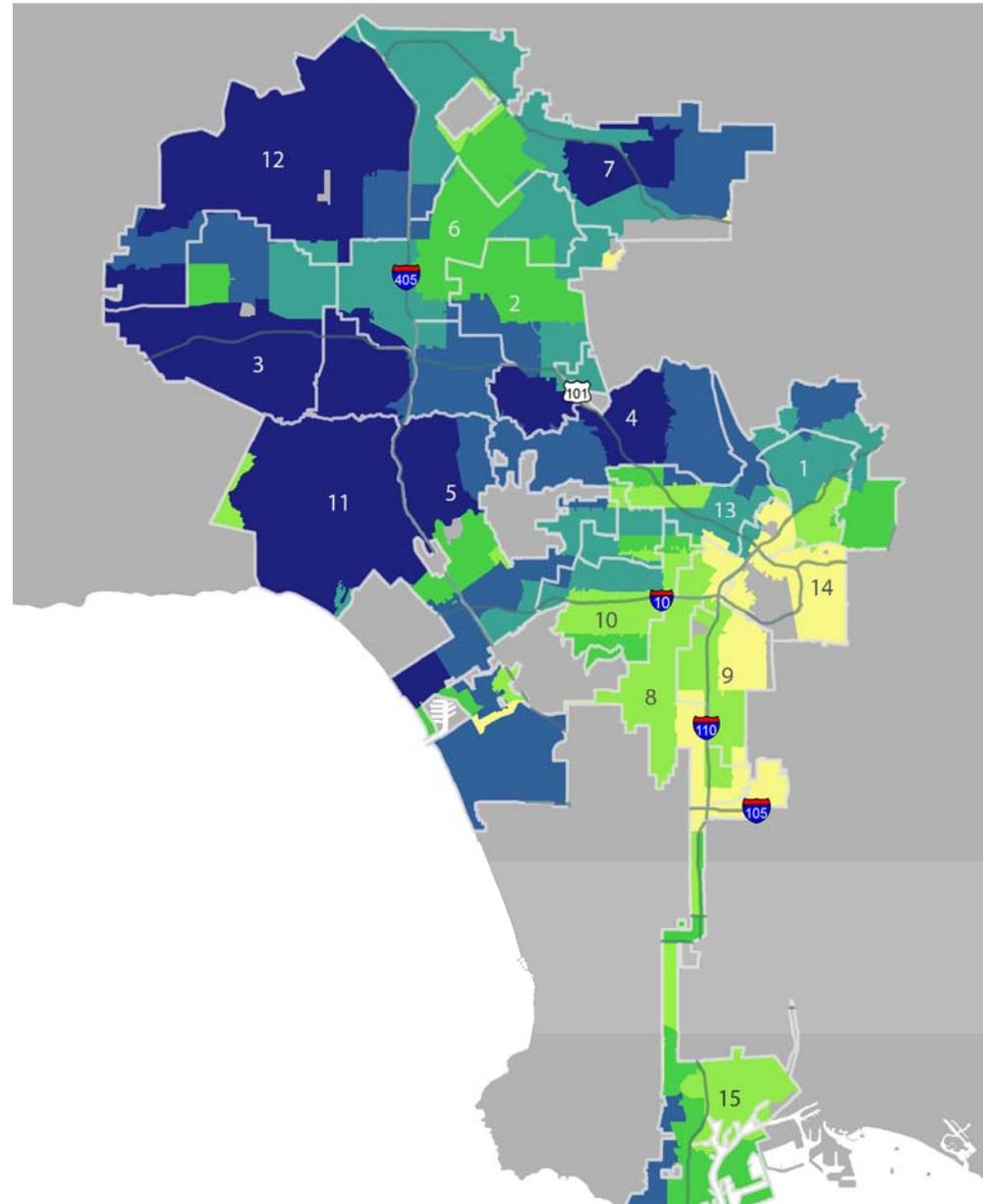
## Per capita solar incentives for residential customers

By zip code



\*Median per capita incentive is \$14.26

LA City Council District Boundaries



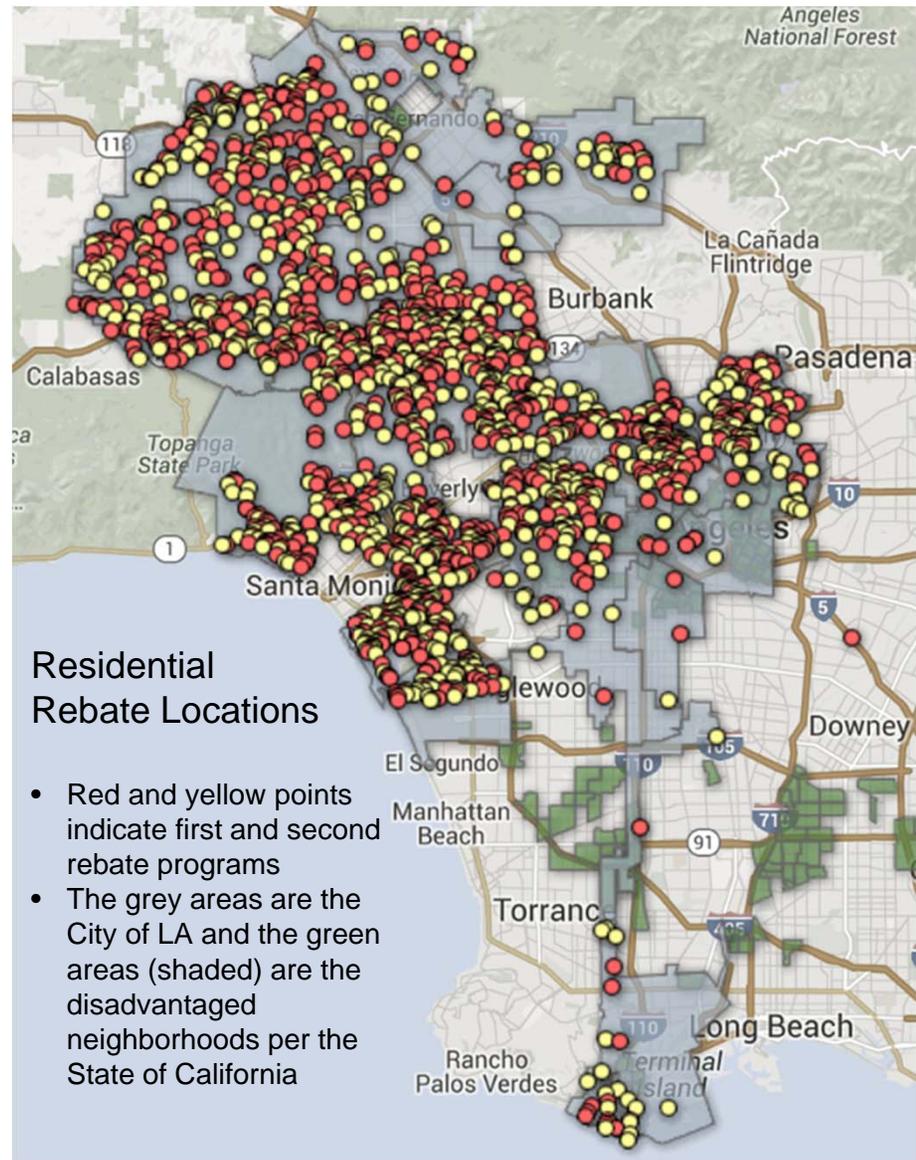
# Projects & Services/Customer Incentives Core Area Example - EV Infrastructure

## DWP is a Top Supporter of EV Infrastructure in California

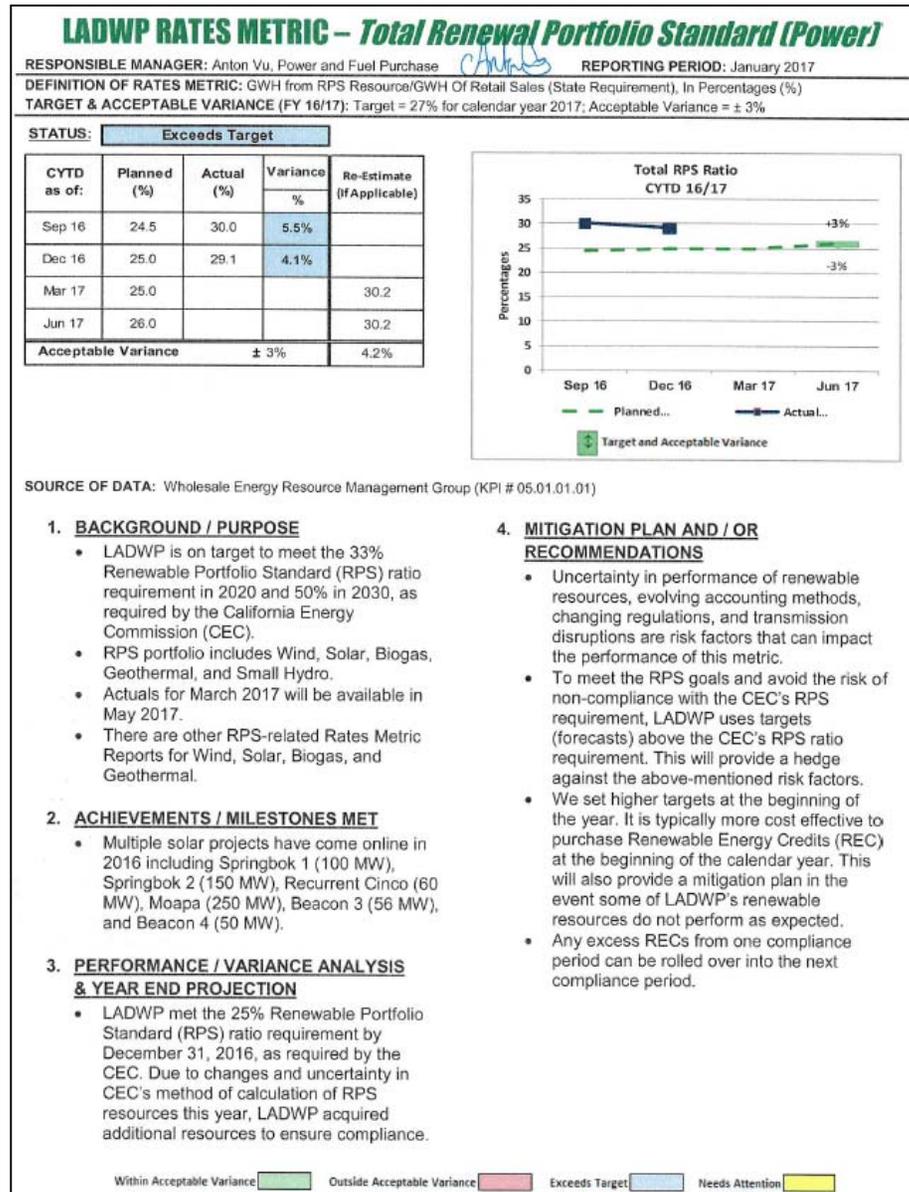
- Completed first and second rebate program (2011 to 2016)
- Over 300 level 2 chargers on City Property (100 public)
- 16 DC Fast Chargers (20 min charge), including Zoo and LAX
- Residential rebates for 5 years
- Commercial rebates for 2.5 years
- Discount EV rates

## Proposed New Charger Rebate Program

- Effective March 1, 2016 through June 30, 2018
- Residential Customers
- Commercial Customers
- Disadvantaged Neighborhood Ride-Share Program
- LADWP to Monitor Rebate Locations

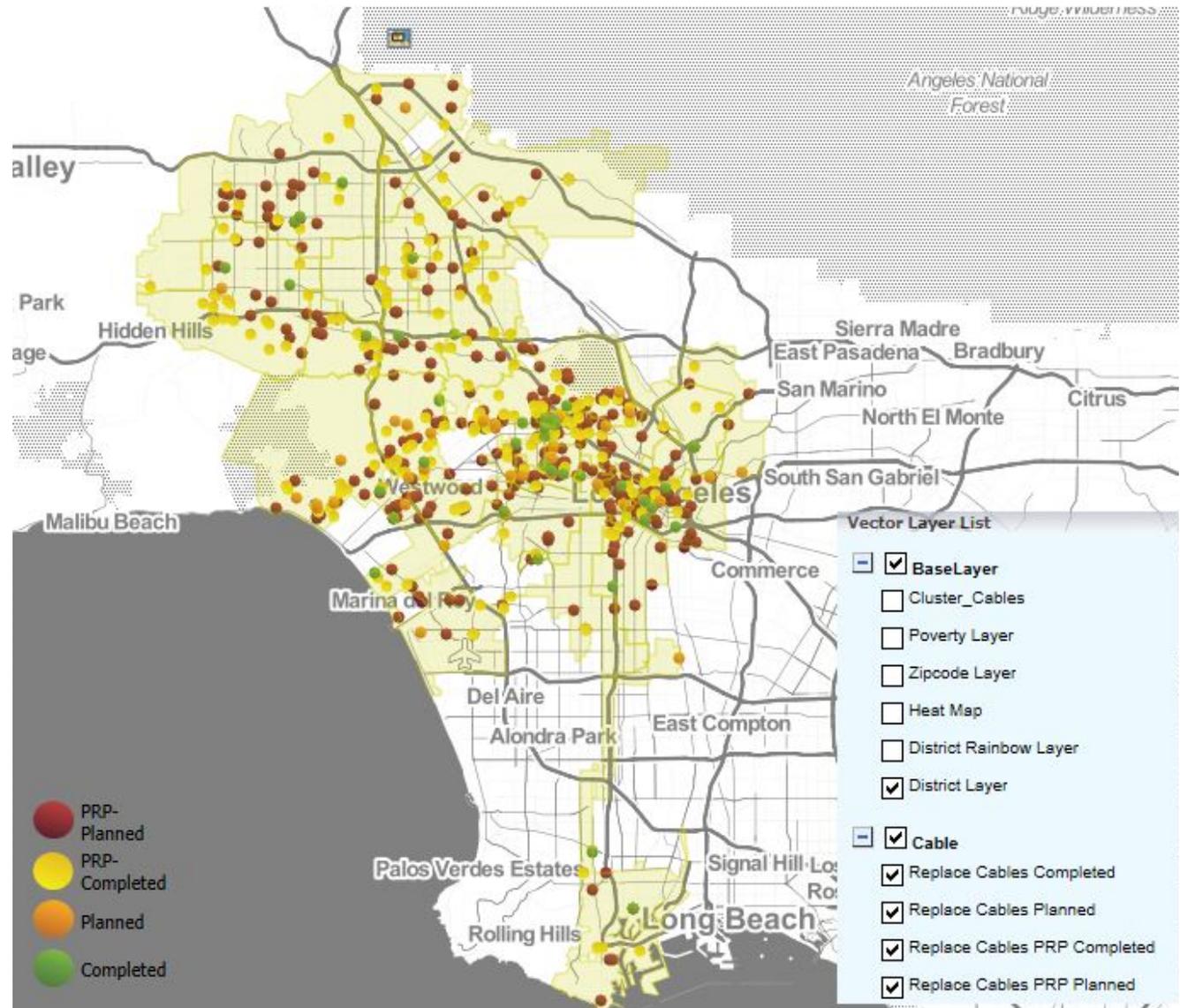


# Sample Dashboard Reports



# Cable Replacement Program Scatter Map

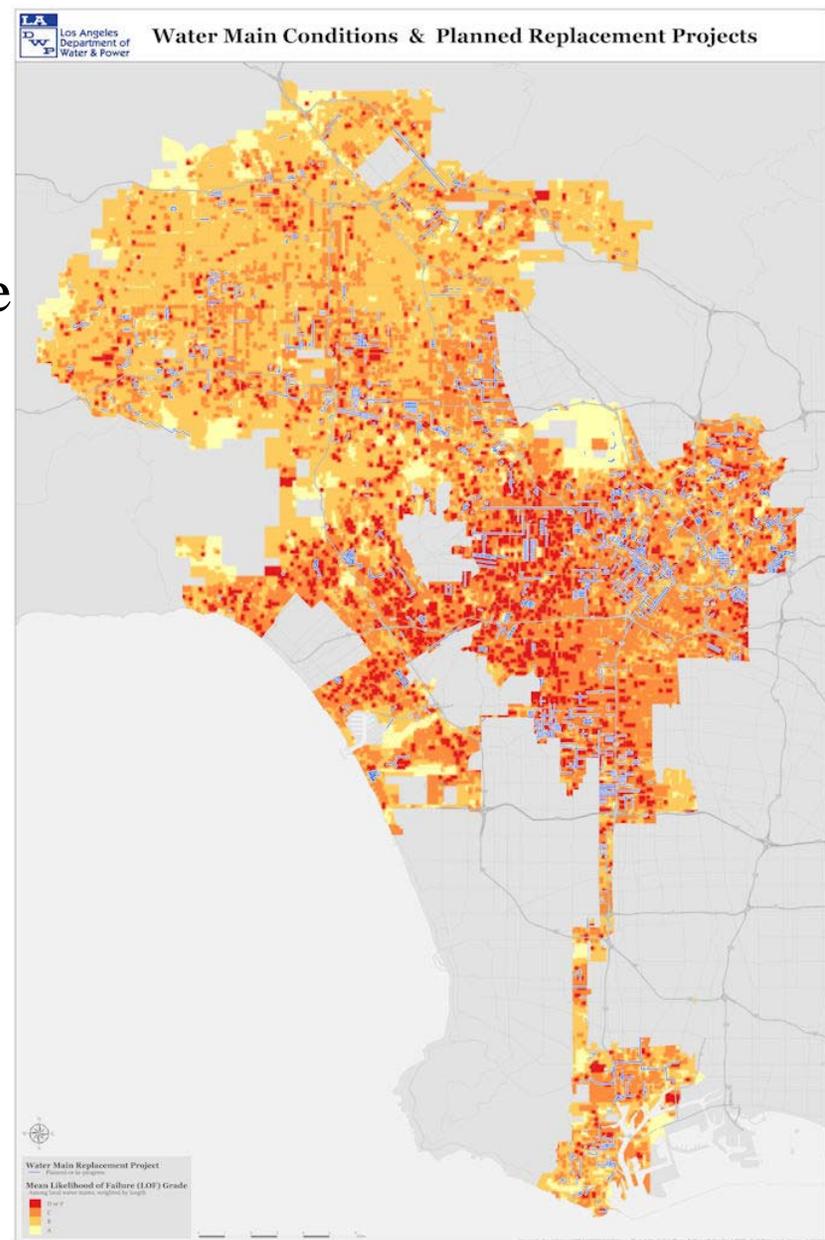
Replacement of critical aging infrastructure to ensure continued reliability for customers - CABLE



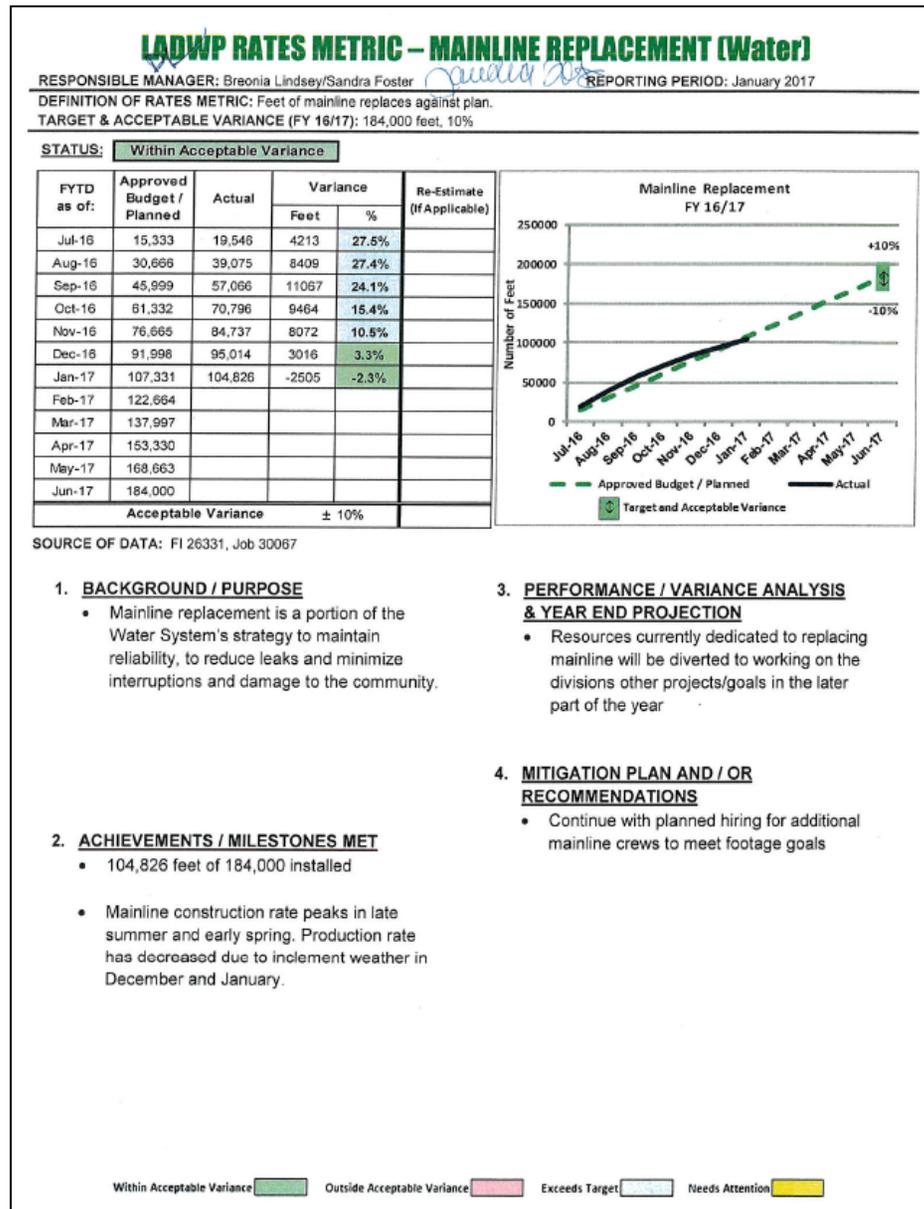
# Water Mainline Conditions & Planned Replacement Map

- 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

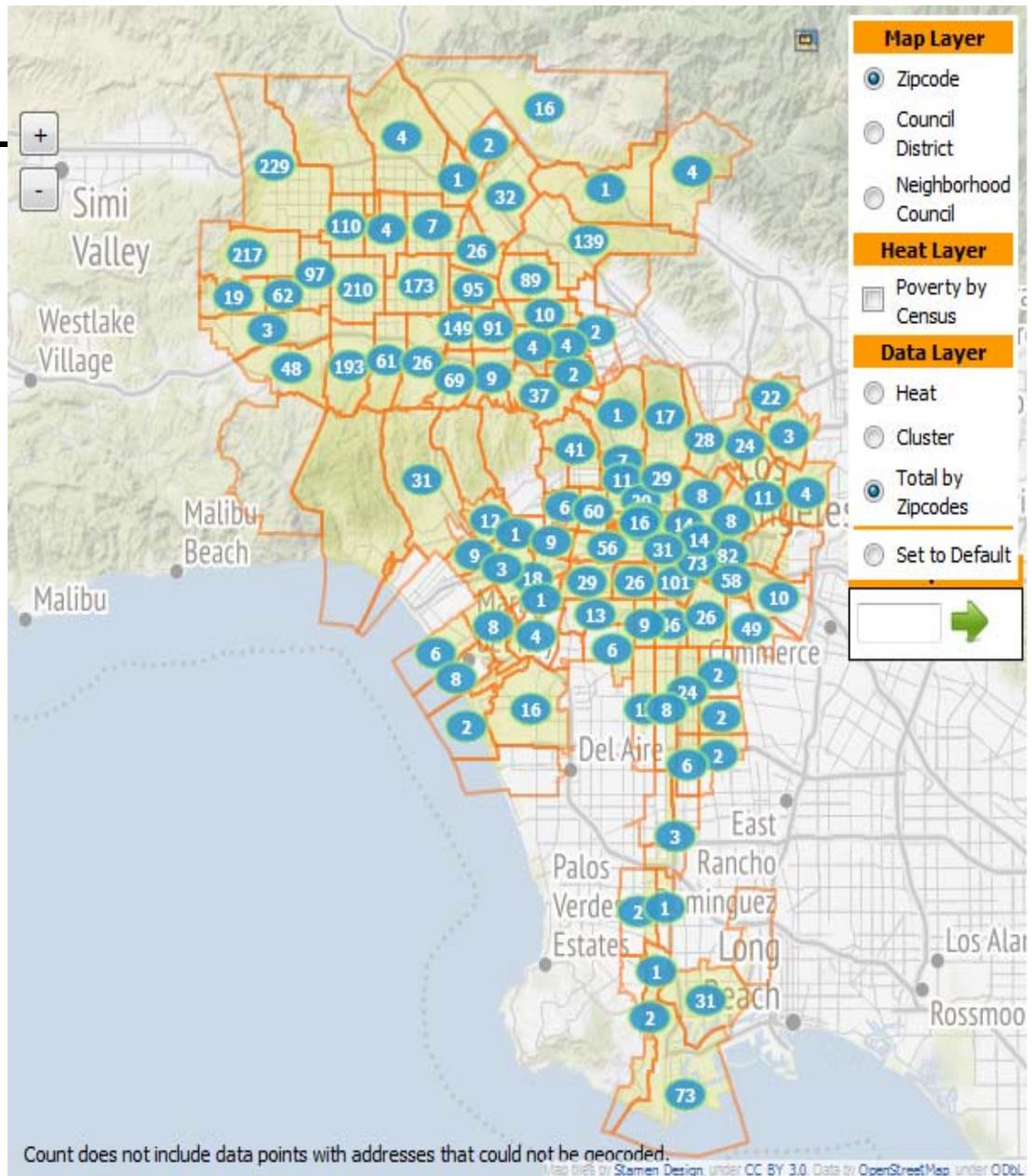


# Sample Dashboard Reports



# Commercial Direct Install

LADWP's Commercial Direct Install Program is available to qualifying businesses whose average monthly electrical demand is 200 kilowatts (KW) or less. After an energy and water use assessment is made, energy and water saving equipment is installed at the business at no cost to the business owner.



# Key Features

1. Dashboard to Improve Performance
2. Dollar vs Number of Rebates/Installations
3. Internal and External Audit of Data Collection Process
4. Standardization of Data format
5. Frequency of Data Collection
6. System Platform – Oracle Business Intelligence and ESRI Software