



California Energy Commission

LADWP Planning Area Demand Forecast

**IEPR Workshop on Preliminary Electricity and
Natural Gas Demand Forecasts 2014-2024**

California Energy Commission

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Presentation Organization

1. Planning area results
2. Efficiency and self-generation
3. Climate zone results
4. LADWP forecast comparison



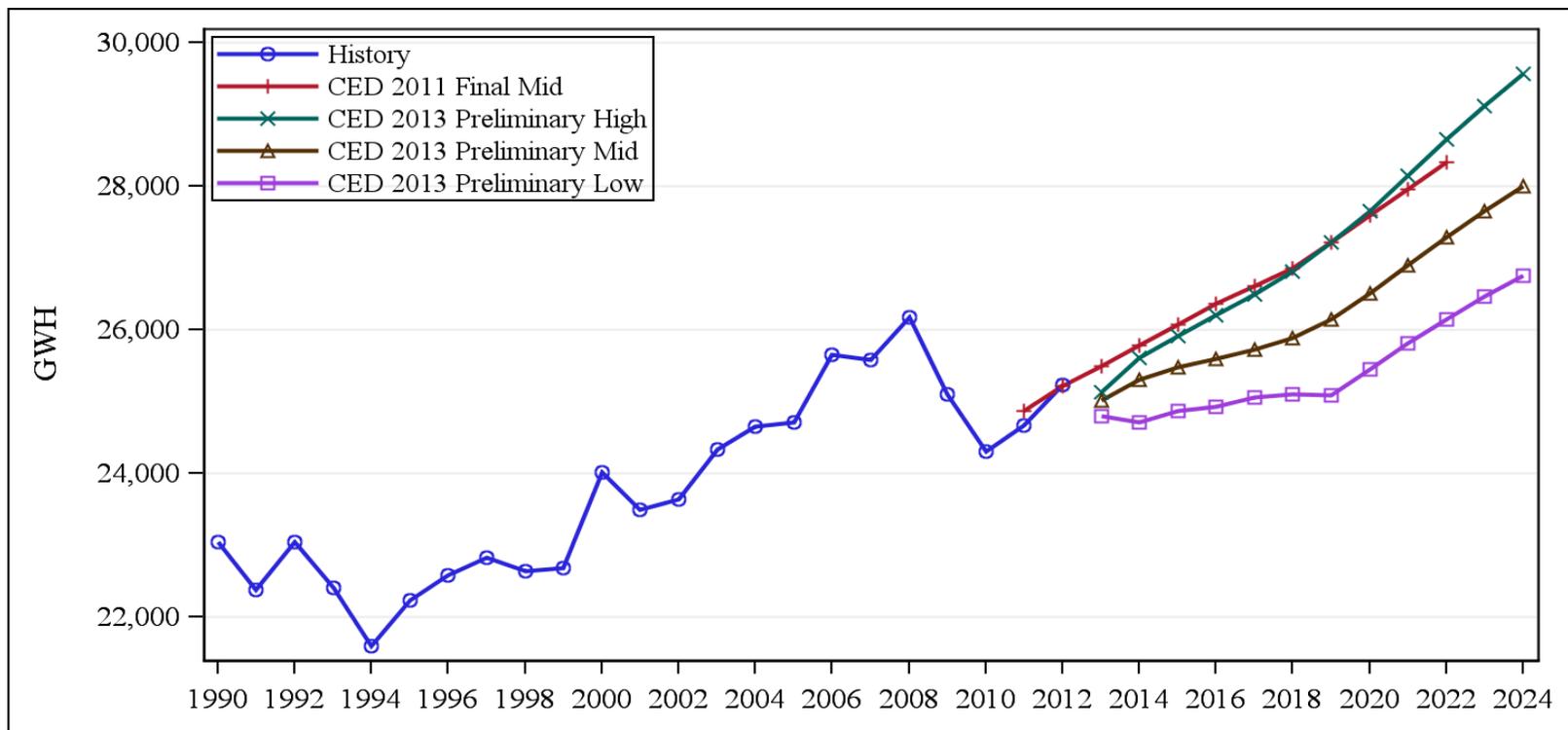
LADWP Planning Area Overview

- Mid case energy consumption is 3.7 percent lower than *CED 2011* in 2022
- Lower growth rate over forecast caused partially by higher electricity rates and addition of standards
- New residential housing stock numbers directly influence residential demand forecast



LADWP Electricity Consumption

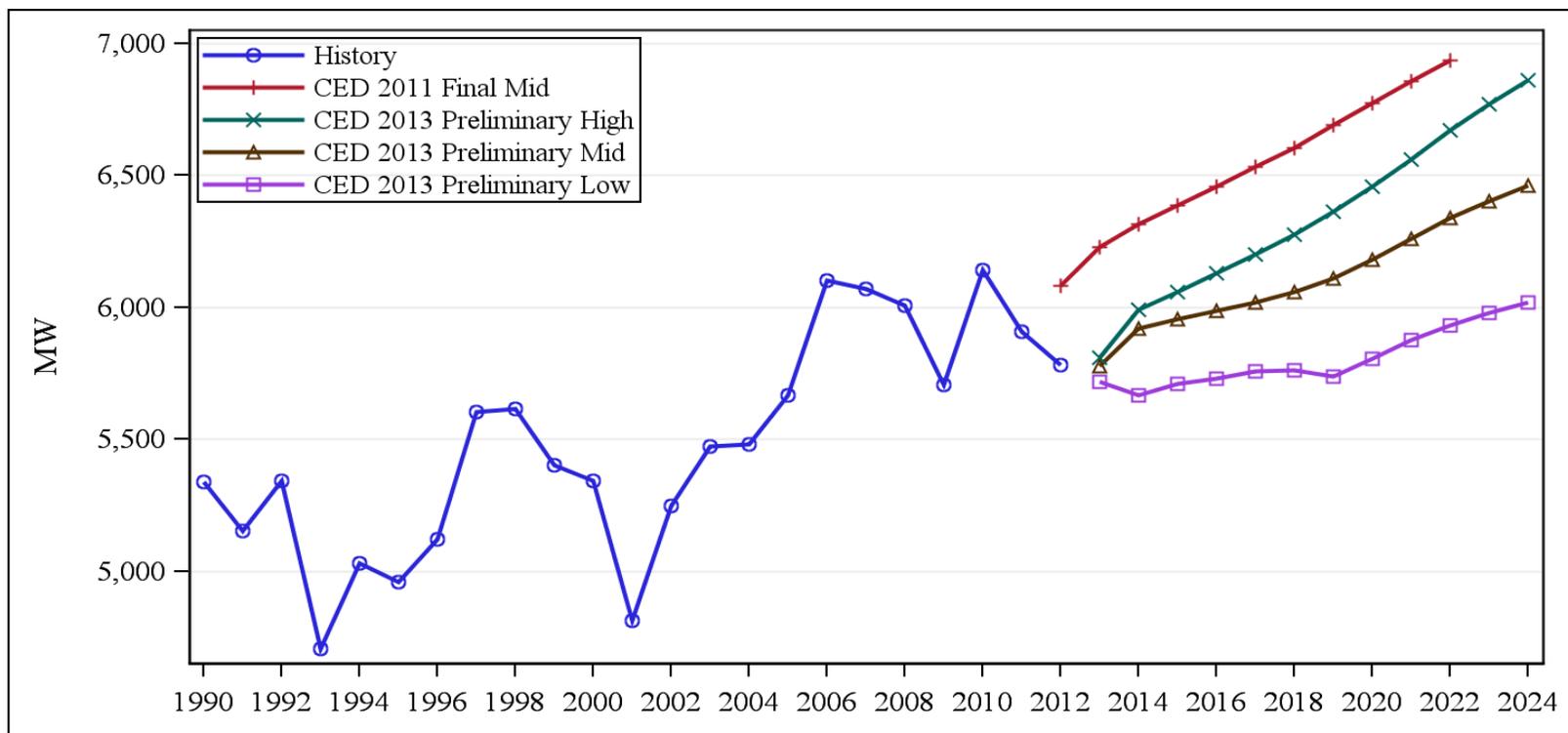
Average annual growth: 0.49, 0.87, and 1.33 percent for the low, mid, and high cases, respectively.





LADWP Planning Area Peak

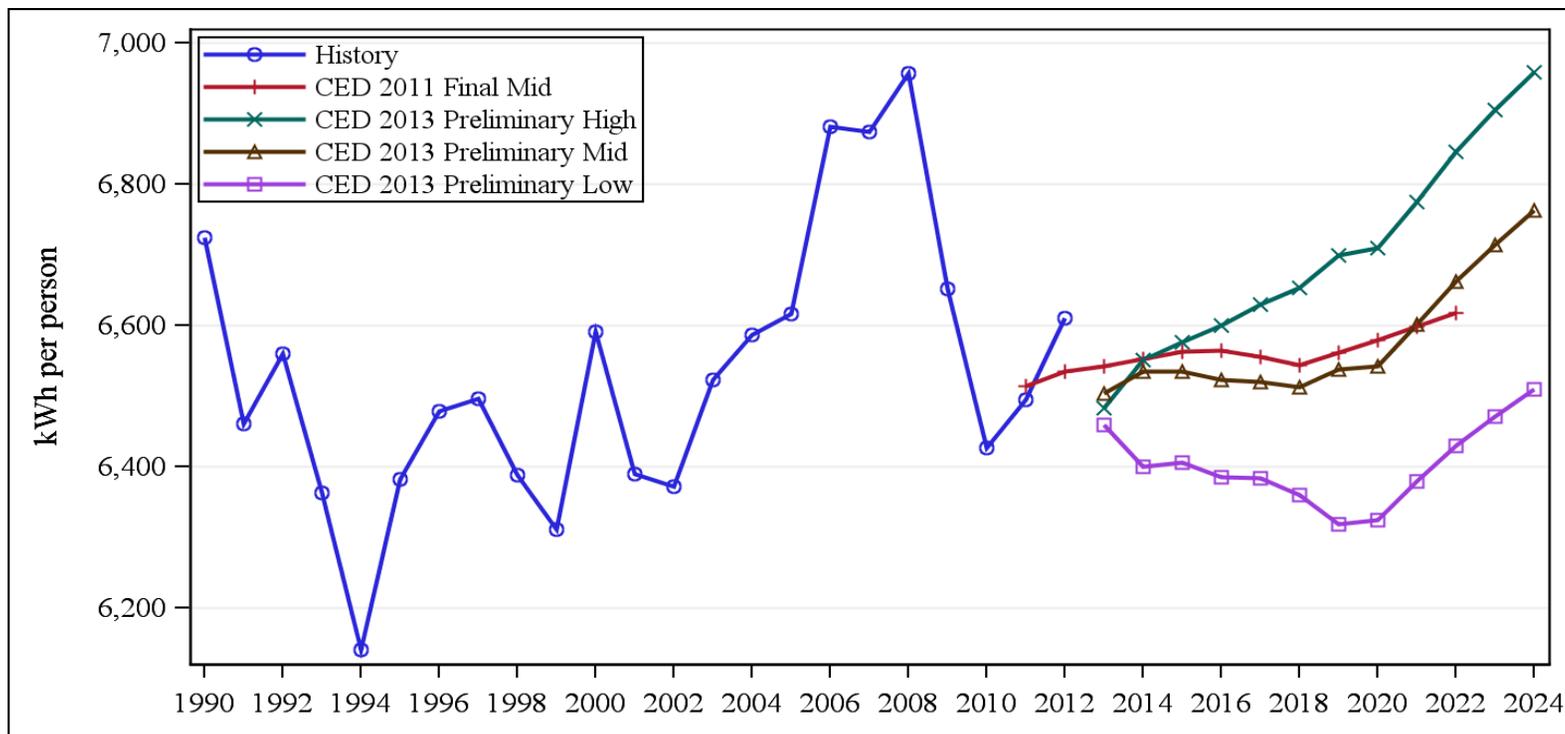
Average annual growth: 0.34, 0.93, and 1.43 percent for the low, mid, and high cases, respectively.





LADWP Per Capita Consumption

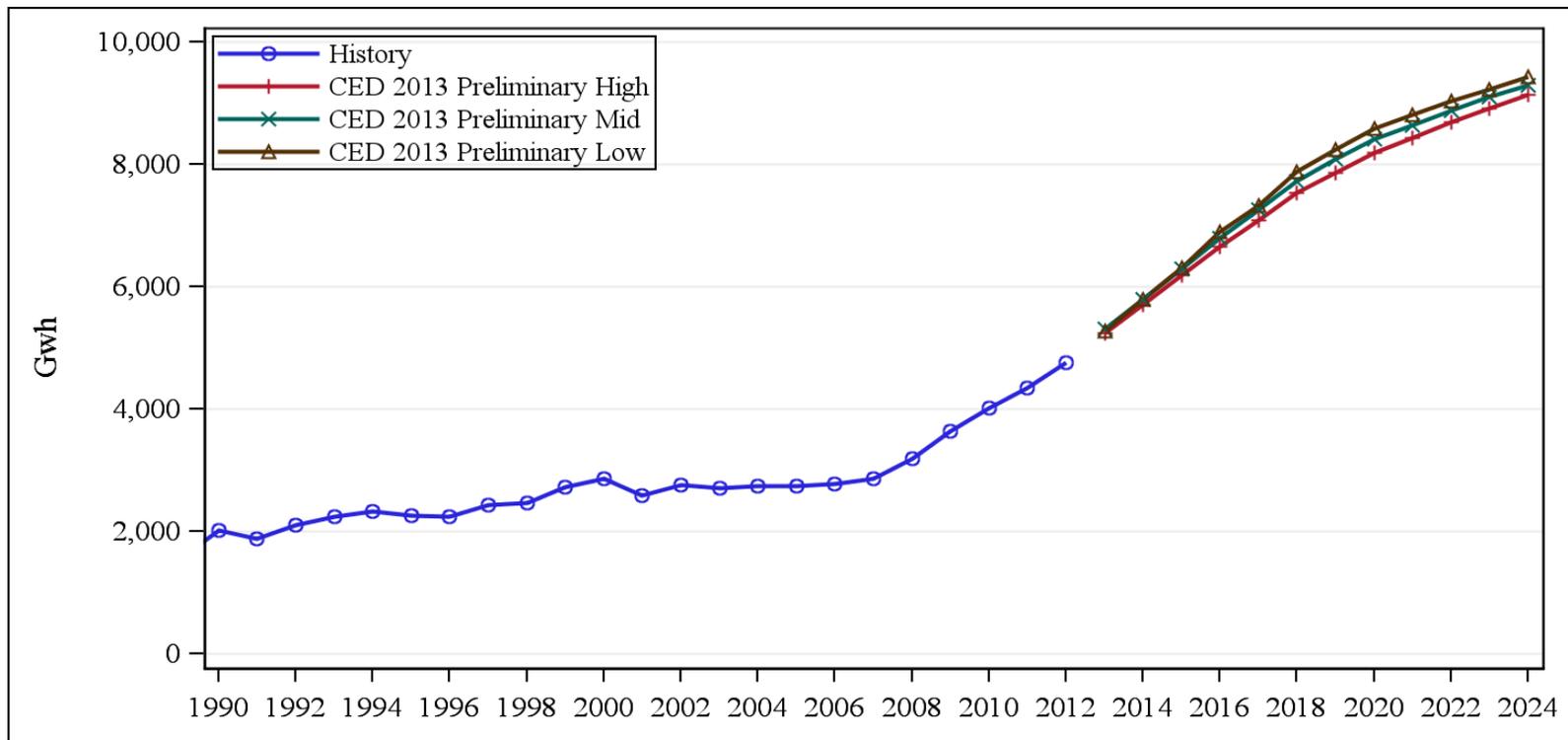
Increased EV adoption leads to increasing per capita electricity consumption toward end of the forecast.





LADWP Planning Area Electricity Consumption Savings Estimates

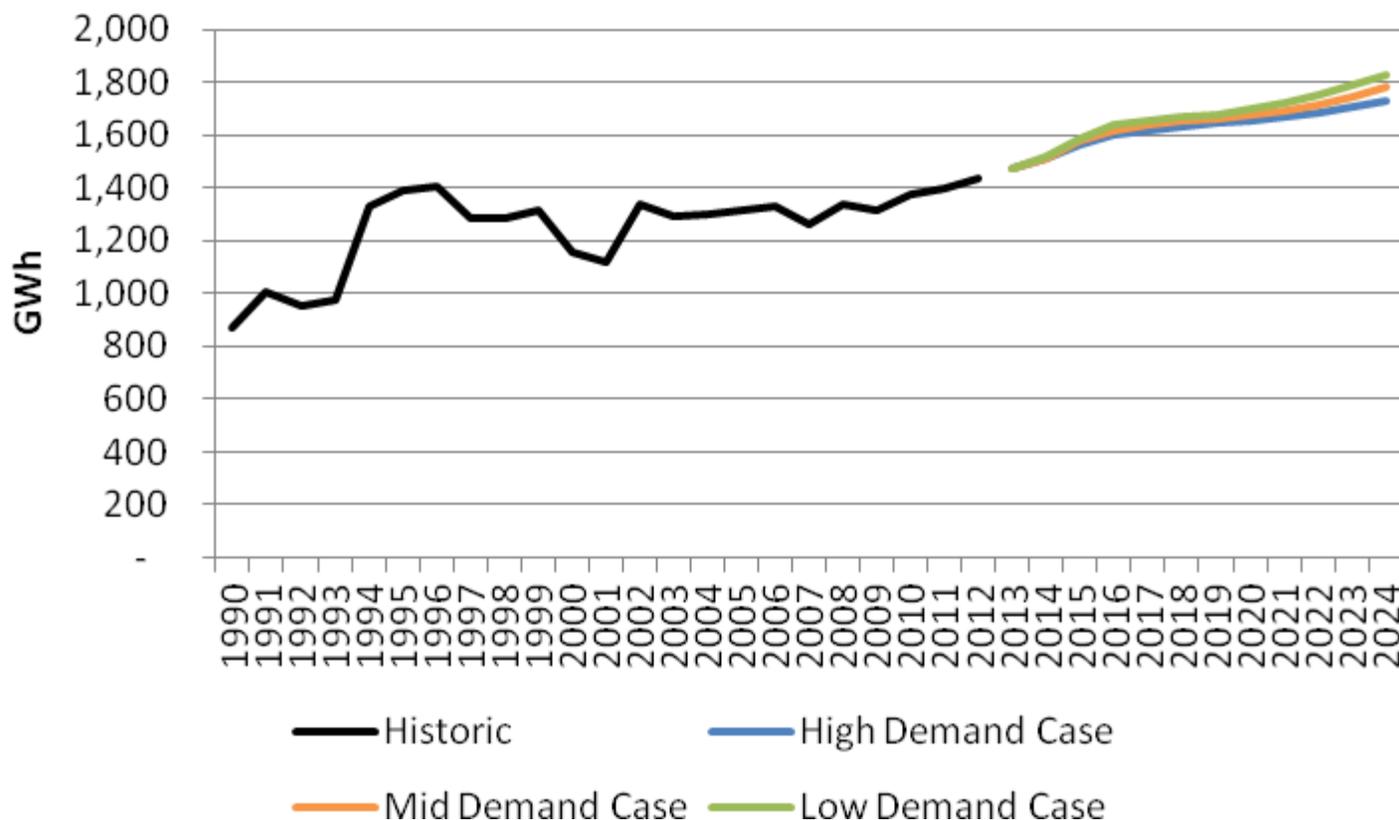
Nearly 4,500 GWh of additional savings projected from 2012 to 2024.





LADWP Self-generation Energy Impacts

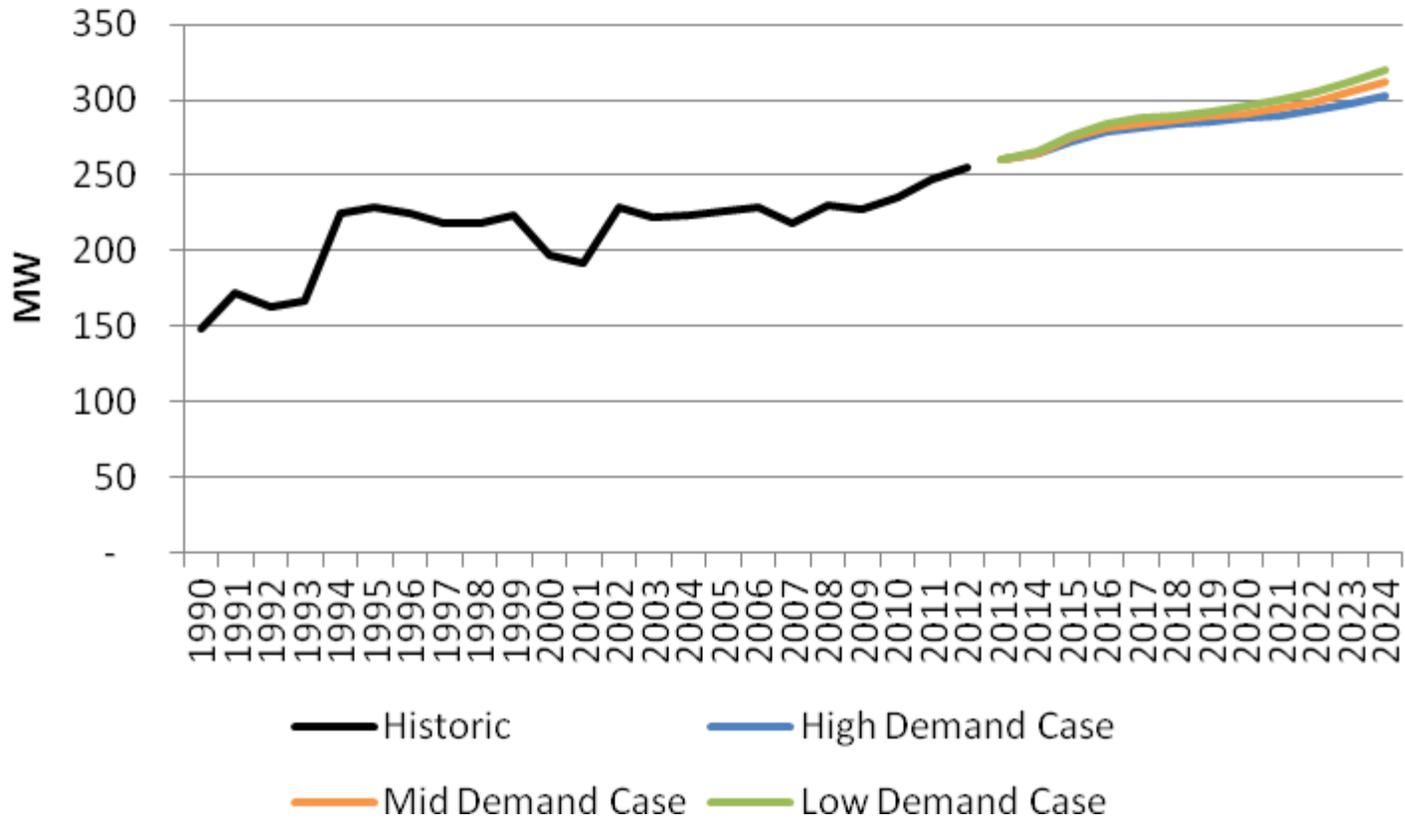
PV Energy impacts increase by 193 GWh in mid case





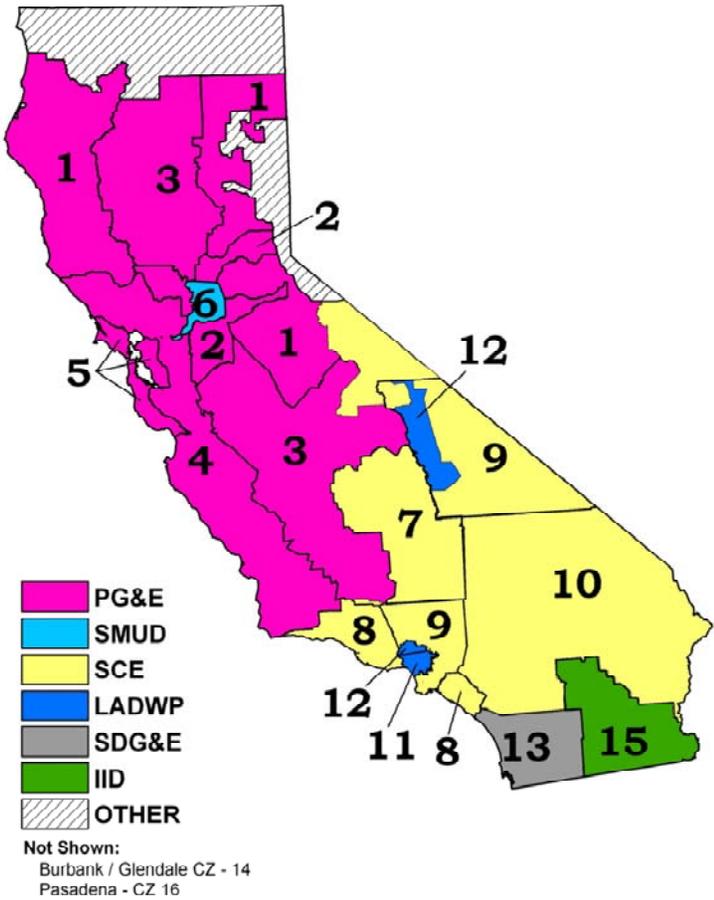
LADWP Self-Generation Peak Impacts

PV Peak impacts increase by 40 MW in mid case





Climate Zones



- Climate Zone 11 represented by Long Beach weather station.
- Climate Zone 12 represented by Burbank weather station (includes Owens Valley).



Consumption and Peak Growth by Climate Zone

Highest growth occurs in climate zone 12 which is north and inland.

| Demand Case | Year | Consumption by Climate Zone (GWh) | | Peak Demand by Climate Zone (MW) | |
|------------------|----------------------|-----------------------------------|--------|----------------------------------|-------|
| | | 11 | 12 | 11 | 12 |
| Low Demand Case | 2013 | 10,284 | 14,509 | 1,681 | 4,039 |
| | 2024 | 10,935 | 15,823 | 1,745 | 4,274 |
| | Ave Growth 2013-2024 | 0.51% | 0.73% | 0.32% | 0.47% |
| Mid Demand Case | 2013 | 10,364 | 14,652 | 1,697 | 4,079 |
| | 2024 | 11,392 | 16,609 | 1,876 | 4,588 |
| | Ave Growth 2013-2024 | 0.79% | 1.05% | 0.84% | 0.98% |
| High Demand Case | 2013 | 10,403 | 14,725 | 1,707 | 4,103 |
| | 2024 | 11,906 | 17,654 | 1,991 | 4,869 |
| | Ave Growth 2013-2024 | 1.13% | 1.52% | 1.29% | 1.44% |



LADWP Forecast Comparison

- LADWP submitted a managed forecast
- LADWP adjusted the managed forecast which included incremental uncommitted energy efficiency measures to create an unmanaged forecast for comparison purposes.
- The following forecast comparison utilizes the created unmanaged forecast.



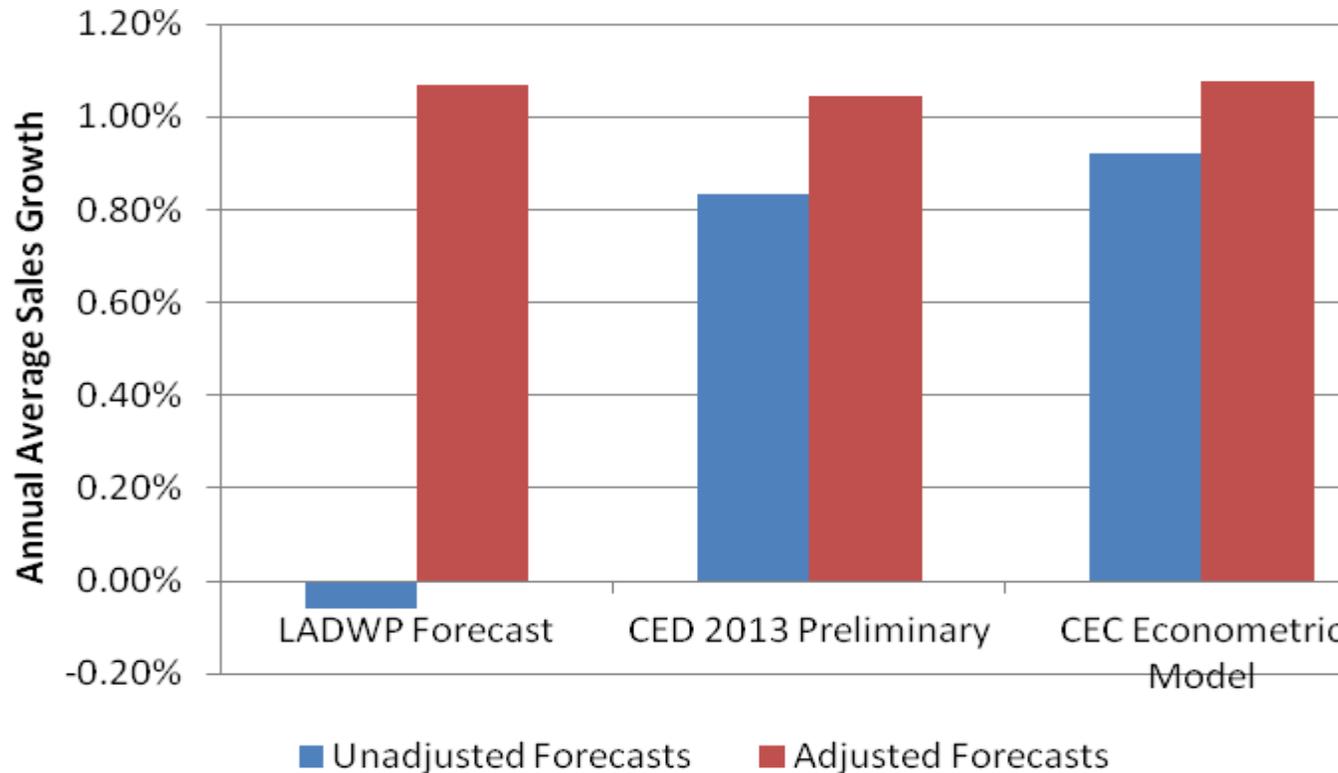
LADWP Forecast Comparison

- LADWP unmanaged sales for 2022 is reported as 26,281 GWh
- *CED 2013 Preliminary* forecast mid case for 2022 is 25,574 GWh
- Adjusting the *CED 2013 Preliminary* forecast for our higher rates brings us up to 26,214 GWh
- LADWP has 20% increase 2012-2022 and we have around 45% in our mid case



LADWP Forecast Comparison

Annual average growth in unmanaged sales is similar after accounting for key input discrepancies.





LADWP Forecast Comparison

- LADWP unmanaged peak demand forecast for 2022 is reported as 6,545 MW
- The *CED 2013 Preliminary* peak forecast for 2022 is 6,339 MW.
- Adjusting for rate differences increase the 2022 *CED 2013 Preliminary* peak forecast to 6,450 MW.



LADWP Forecast Comparison

Annual average growth in unmanaged peak is similar to econometric peak after accounting for key input discrepancies.

