



## California Energy Commission

**DOCKET**  
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**IEPR Workshop**

**California Energy Demand (CED)**

**2011 Revised Forecast:**

**SCE Planning Area Electricity**

**Forecasts**

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# Summary

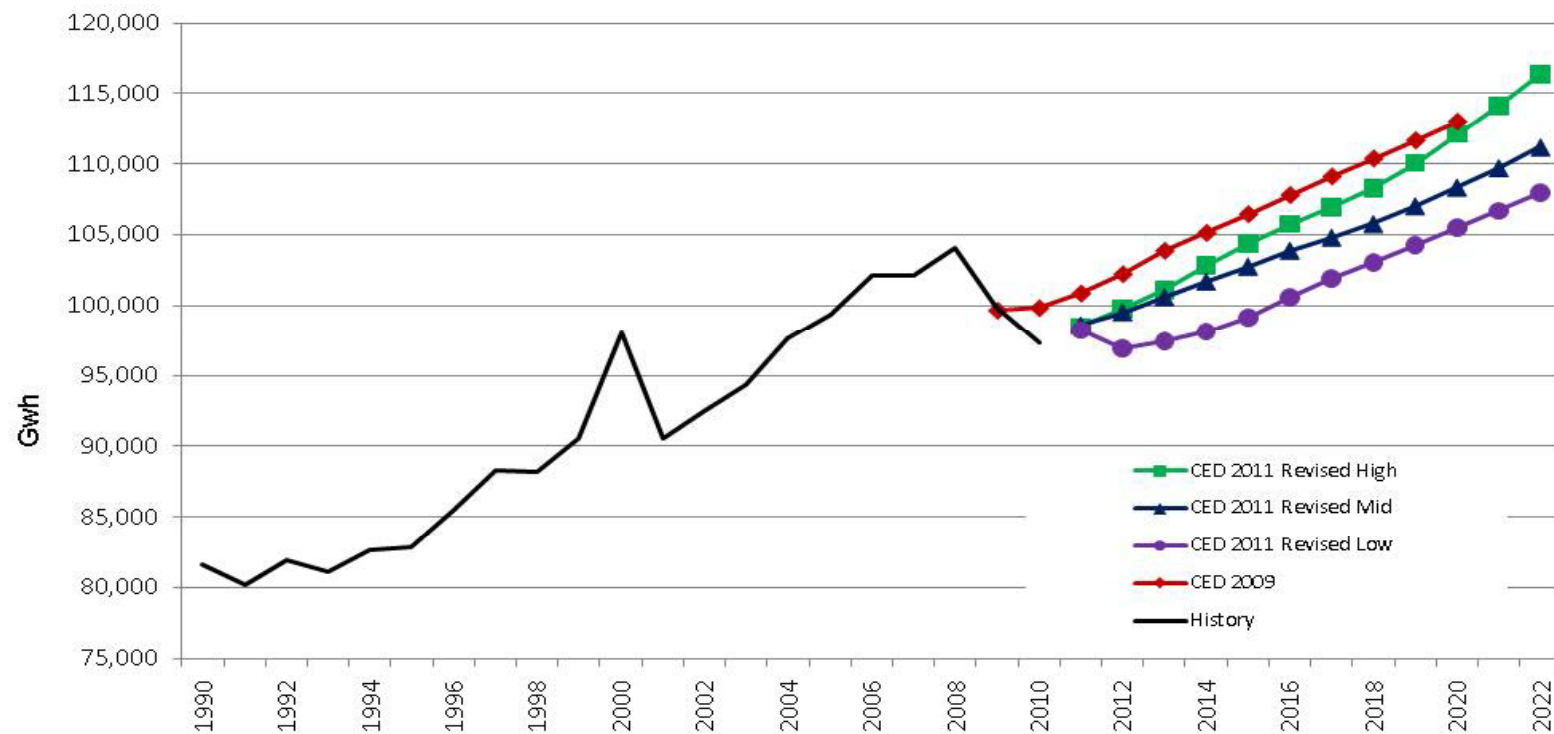
- In general, lowest projected growth over 2011-2022 for consumption, sales, and peak among 3 IOU planning areas
  - Lower manufacturing and agricultural growth
  - Lower employment/commercial floor space growth
  - Relatively high residential growth increases peak
- Climate change adds 370-530 MW of peak demand by 2022 (1.4-2.0%); PV adoption reduces peak by 170-210 MW by 2022 (2-3%)
- TV standards reduce sales by 900 GWh in 2022 (0.8%); EVs increase sales by 950-1,900 GWh (0.9-1.7%) in 2022



## California Energy Commission

# SCE Electricity Consumption

Average annual growth 2011-2022: 1.5% in high case, 0.9% in low case

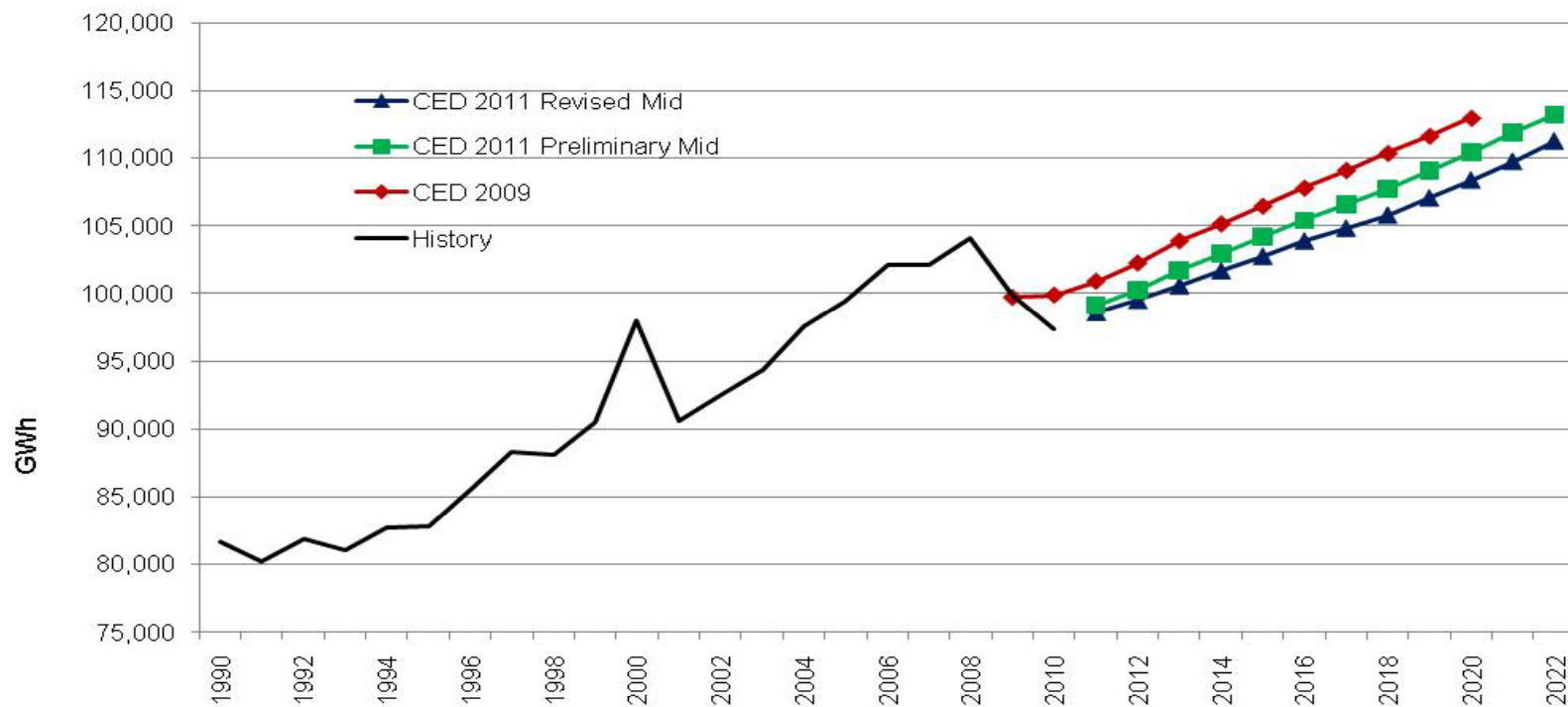




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# SCE Electricity Consumption

**Average annual growth 2011-2020: 1.05% in revised mid, 1.21% in preliminary mid, 1.26% in CED 2009**

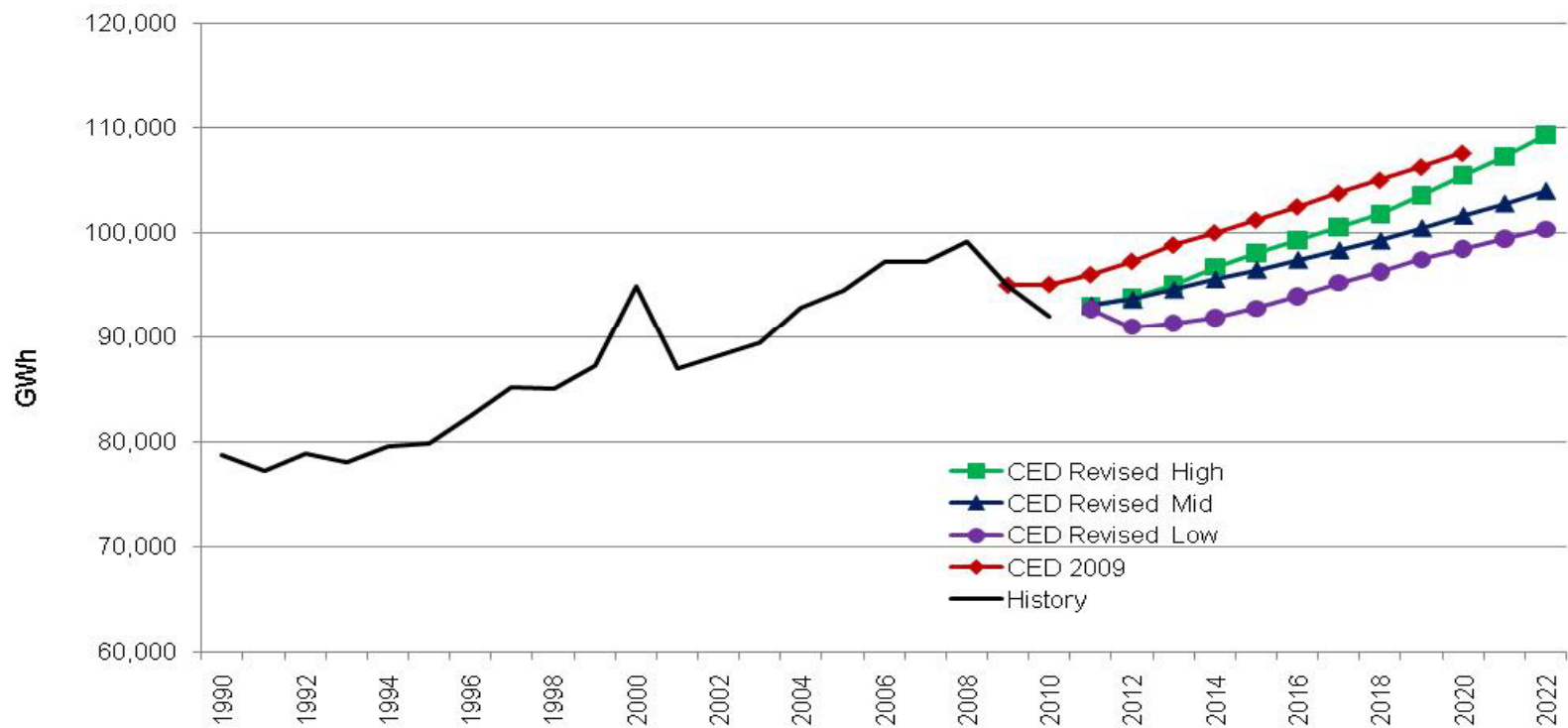




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# SCE Electricity Sales

**Average annual growth 2011-2022: 1.5% in high case, 0.7% in low case**

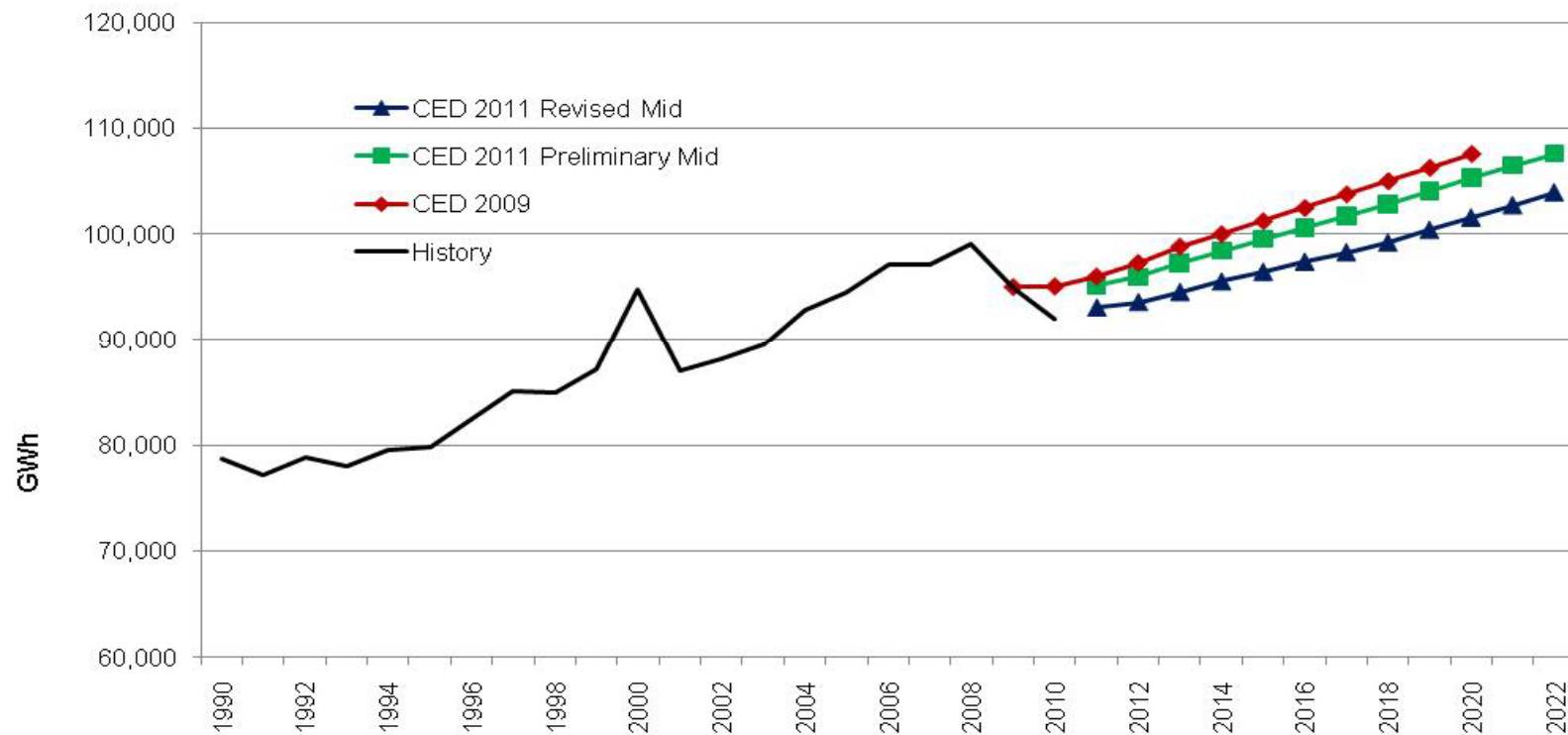




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# SCE Electricity Sales

**Average annual growth 2011-2020: 0.97% in revised mid, 1.13% in preliminary mid, 1.27% in CED 2009**

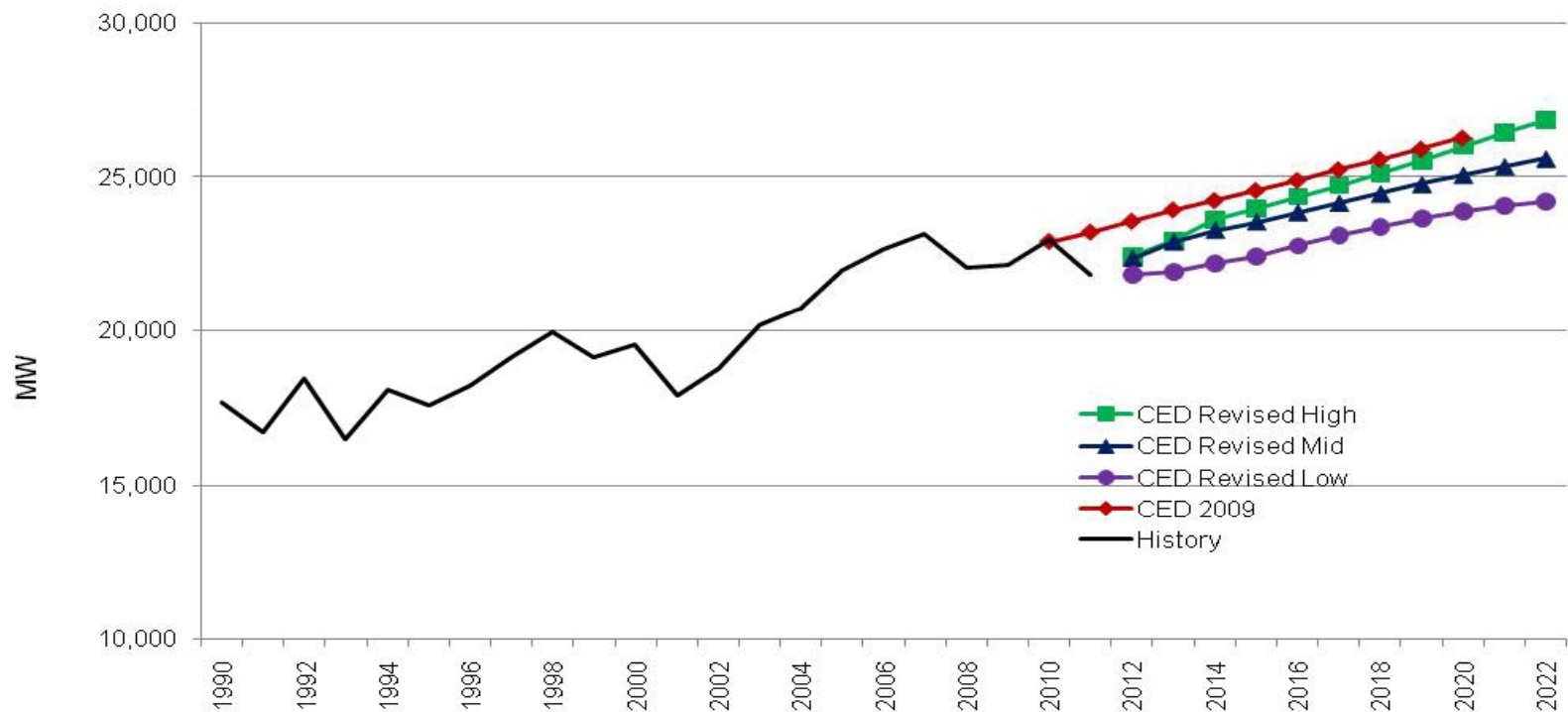




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# SCE Peak Demand

**Average annual growth 2011-2022: 1.9% in high case, 0.95% in low case**

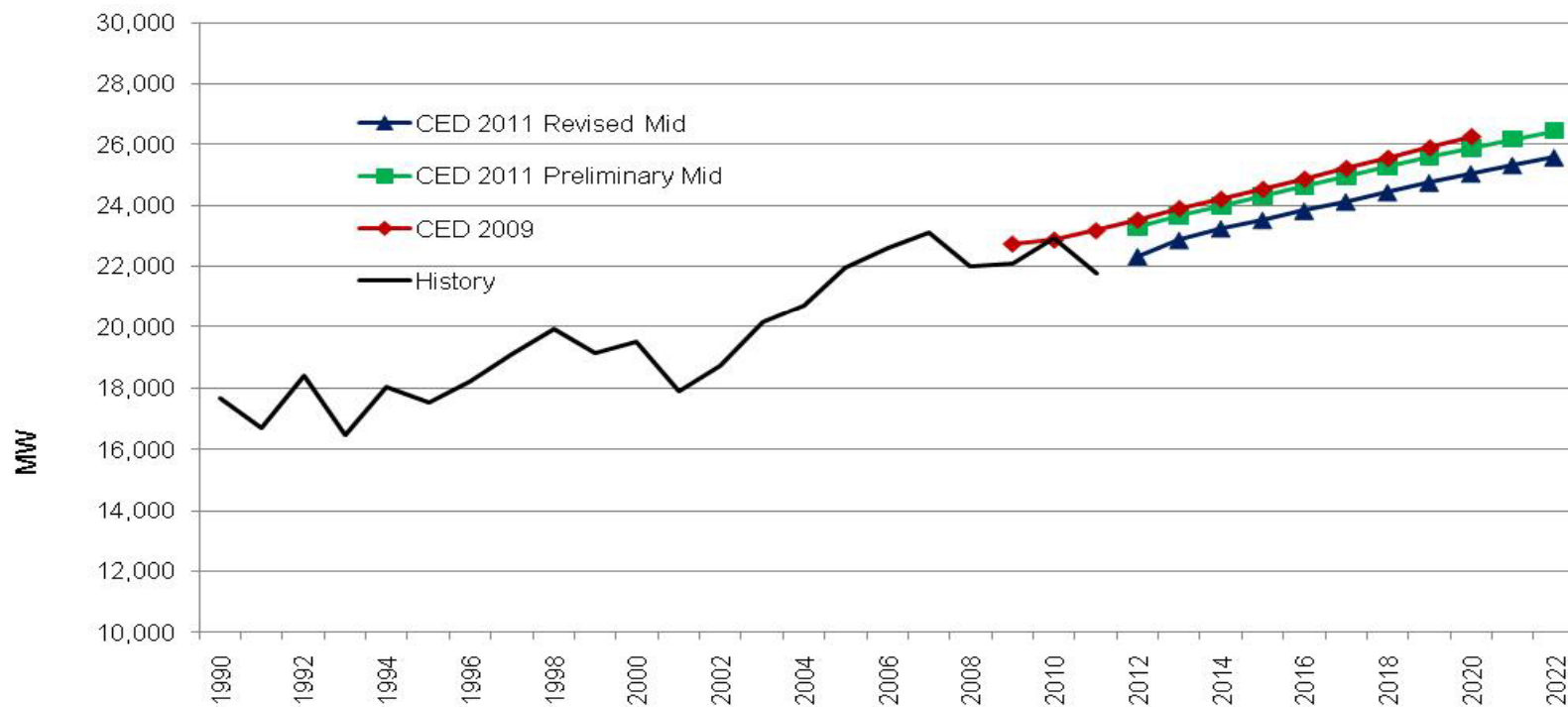




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# SCE Peak Demand

**Average annual growth 2011-2020: 1.56% in revised mid, 1.31% in preliminary mid, 1.40% in CED 2009**



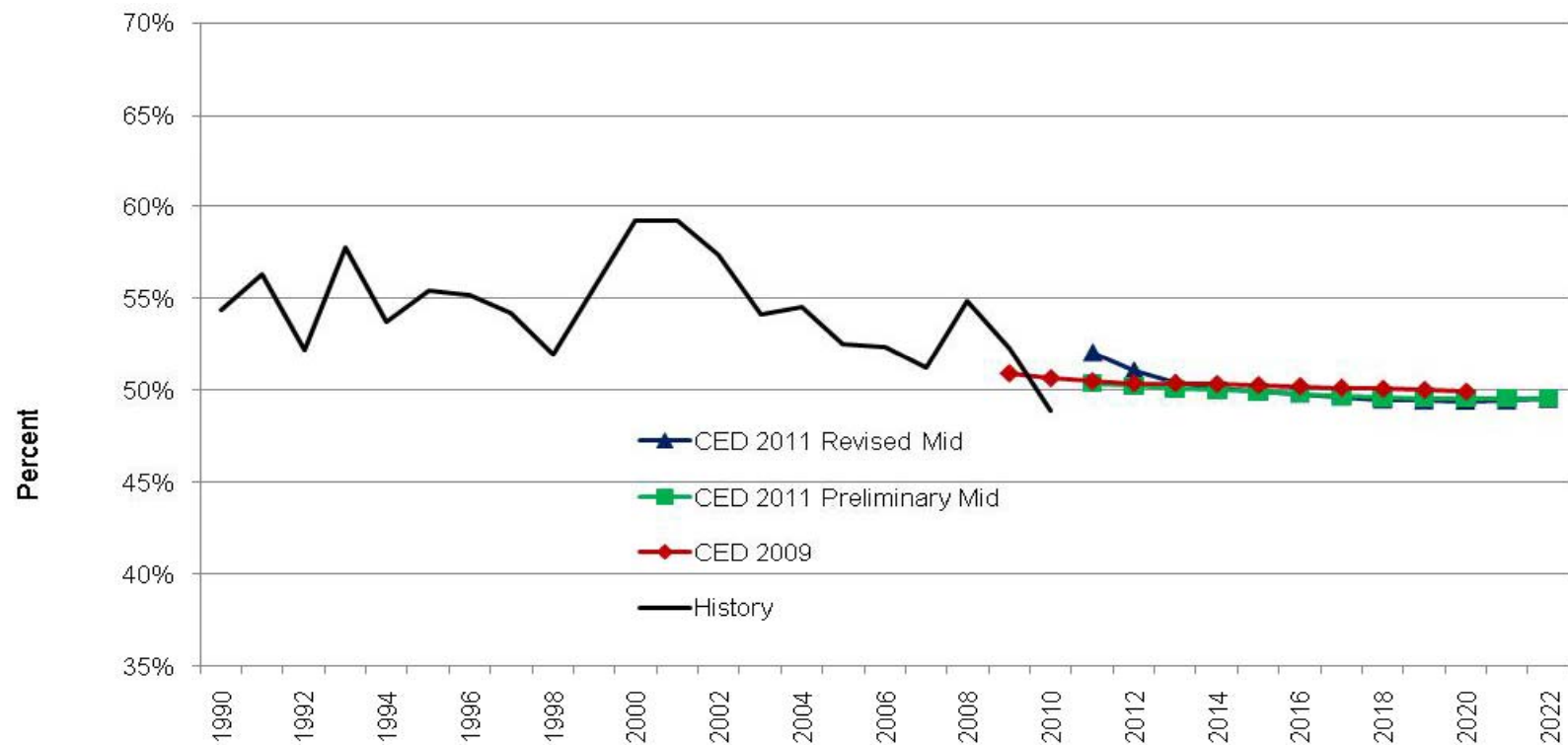




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# SCE Load Factors

**CED 2011 Revised falls slightly below preliminary toward end of forecast period due to climate change**

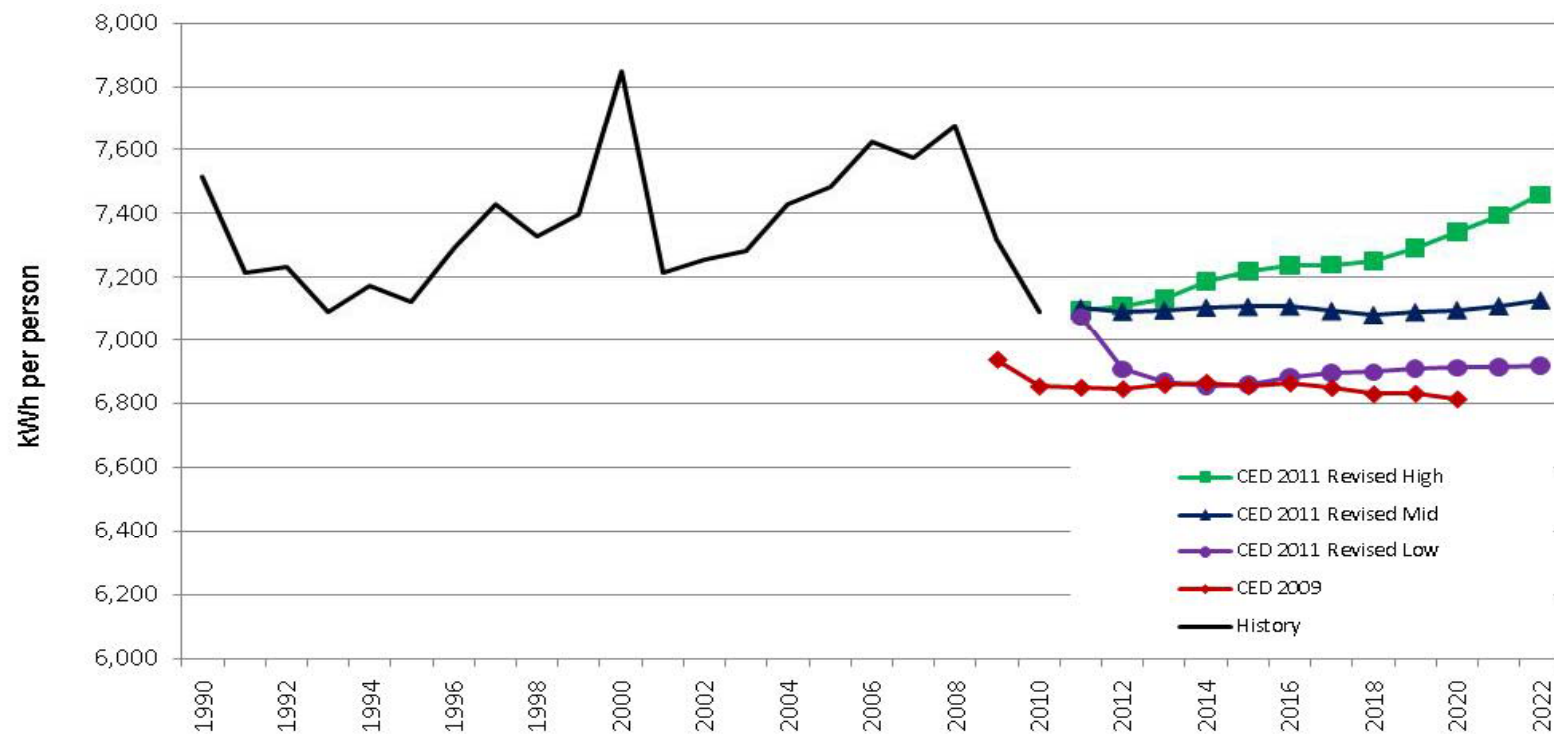




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# SCE Per Capita Consumption

Significant increase in high demand case only

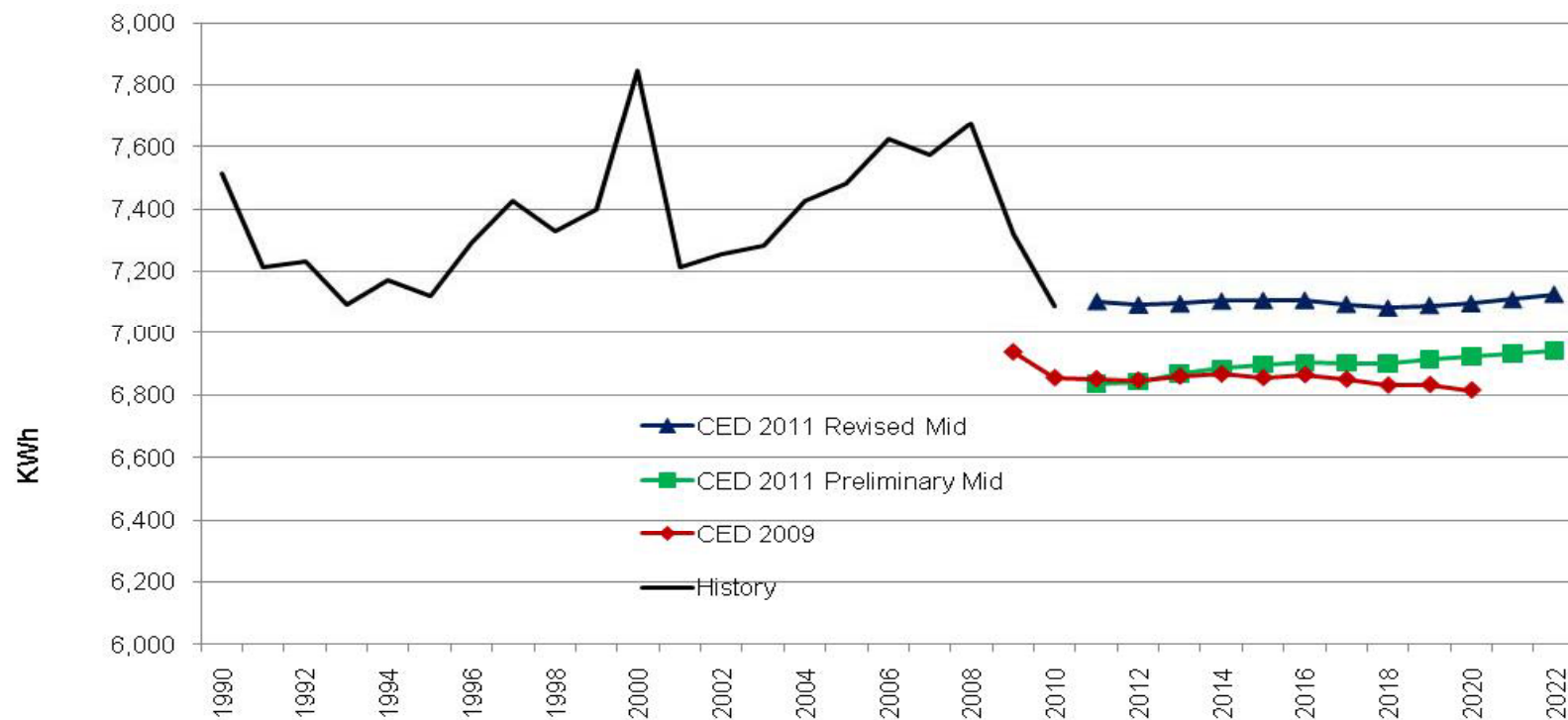




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# SCE Per Capita Consumption

Population adjustment increases per capita consumption by 270 kWh in 2011 vs. preliminary





# SCE Forecast: Factoids

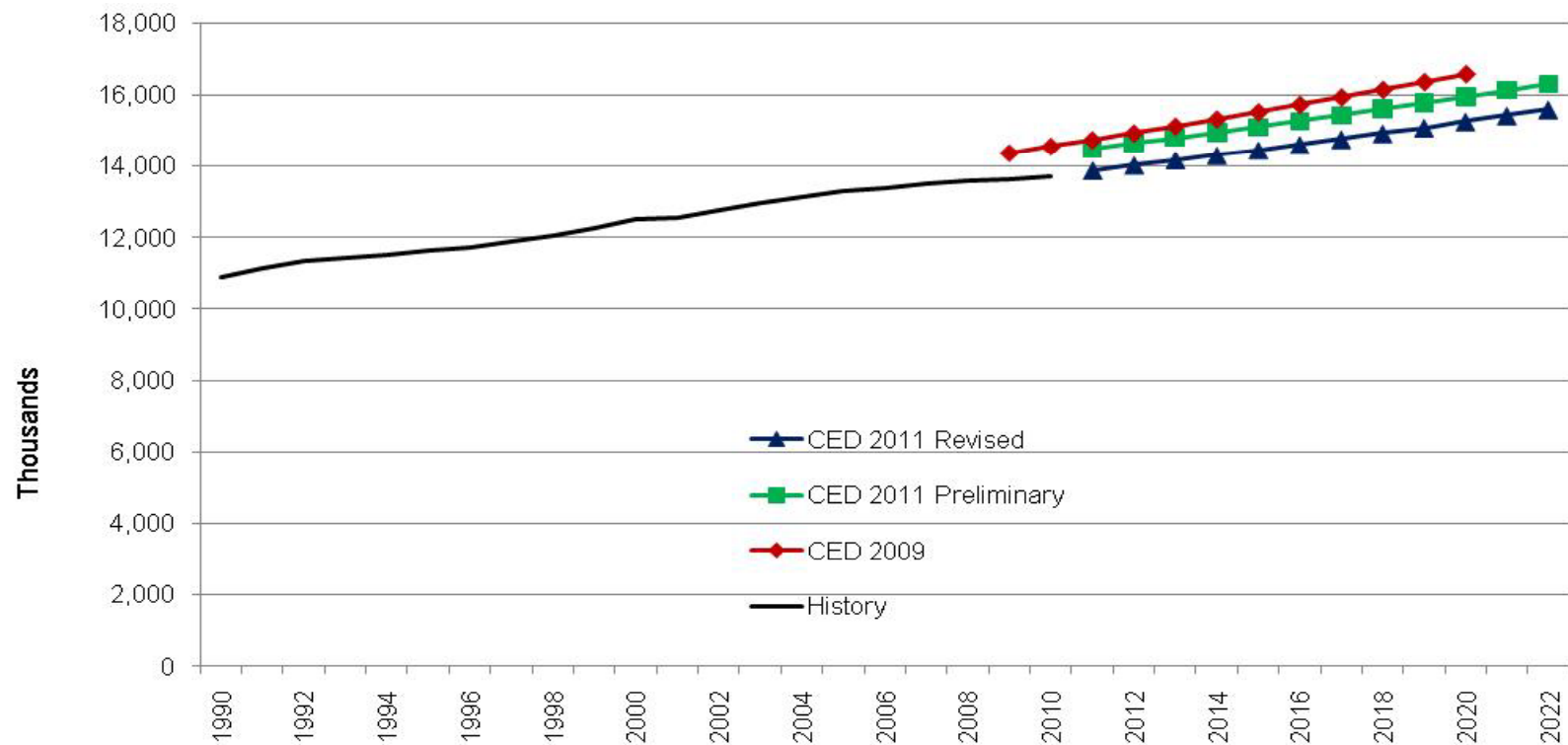
- Of three major sectors, growth in consumption is fastest in residential sector (1.81% per year 2011-2022 in mid case), followed by commercial (1.2%), and industrial (0.05%)
- Relatively high residential consumption growth results in higher peak vs. consumption growth
- Decline in manufacturing sector contributes to lower growth in mid and low cases vs. other planning areas
- Growth 2011-2022 in agricultural sector is flat; TCU/streetlighting sector grows at annual rate of slightly less than 1 percent



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# Key Input: Household Population

## Slower growth 2011-2020 in CED 2011 vs. CED 2009

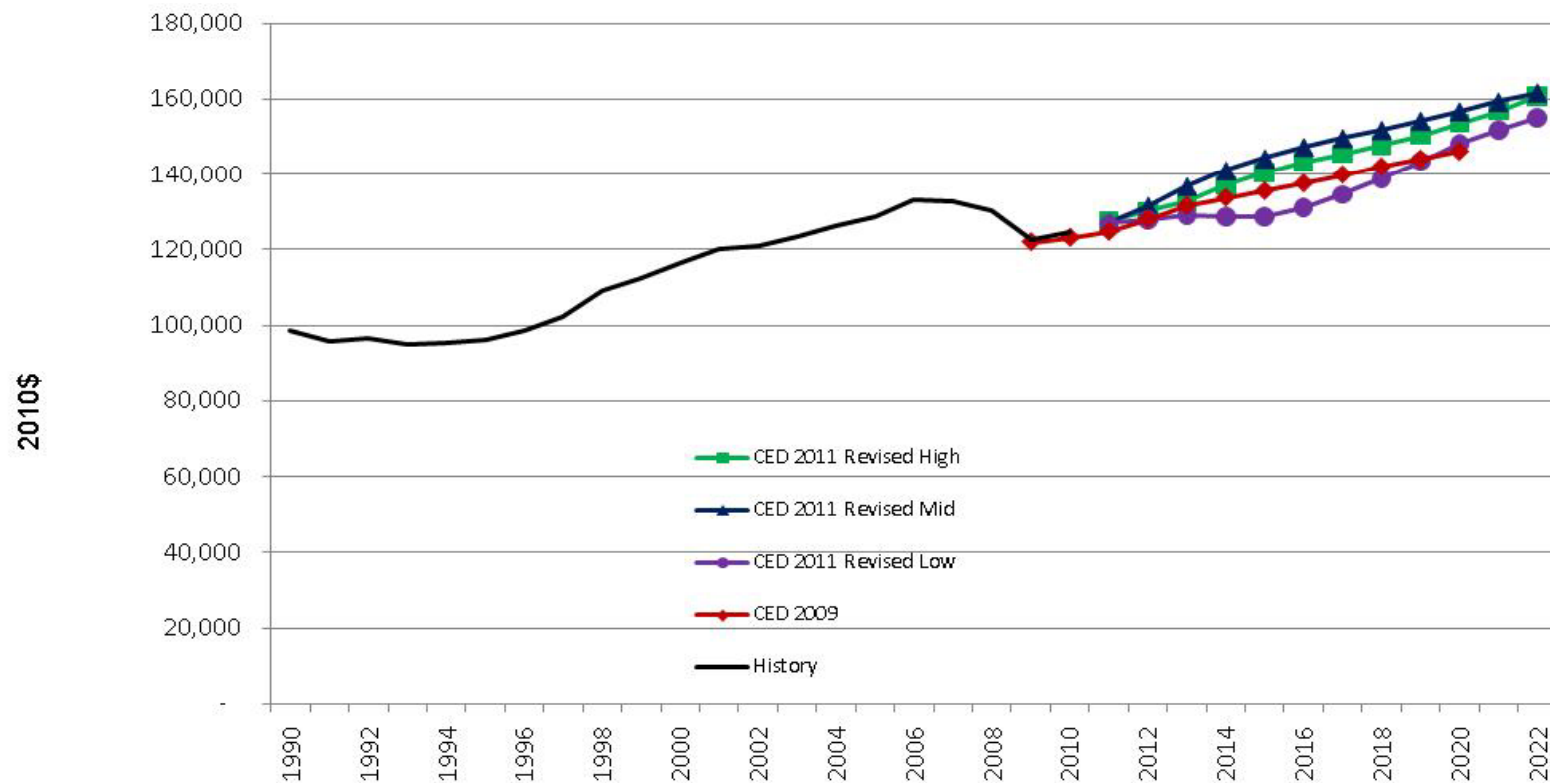




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# Key Input: Income per Household

Faster growth in mid and high cases vs. CED 2009

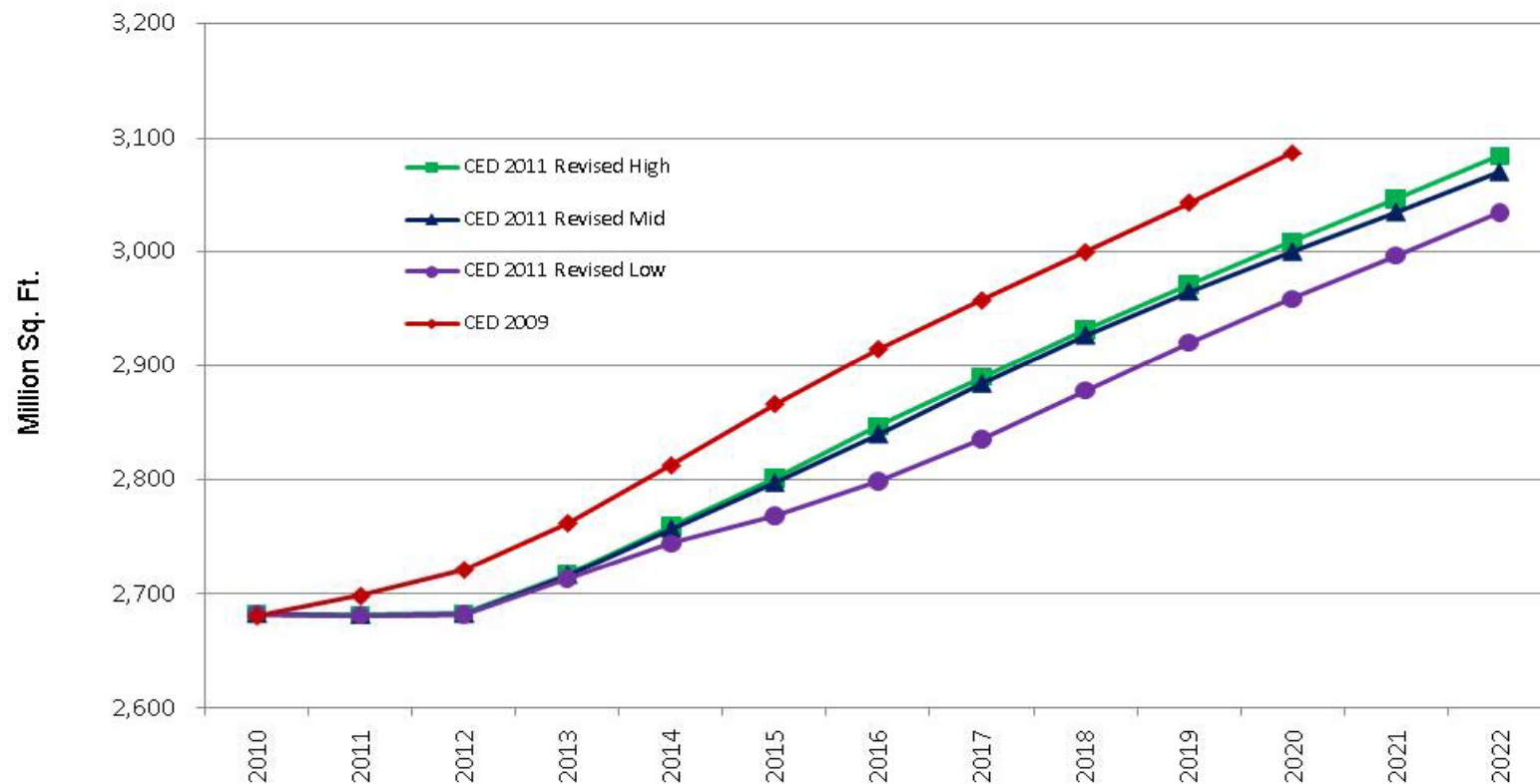




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# Key Input: Commercial Floorspace

## Slower growth vs. CED 2009

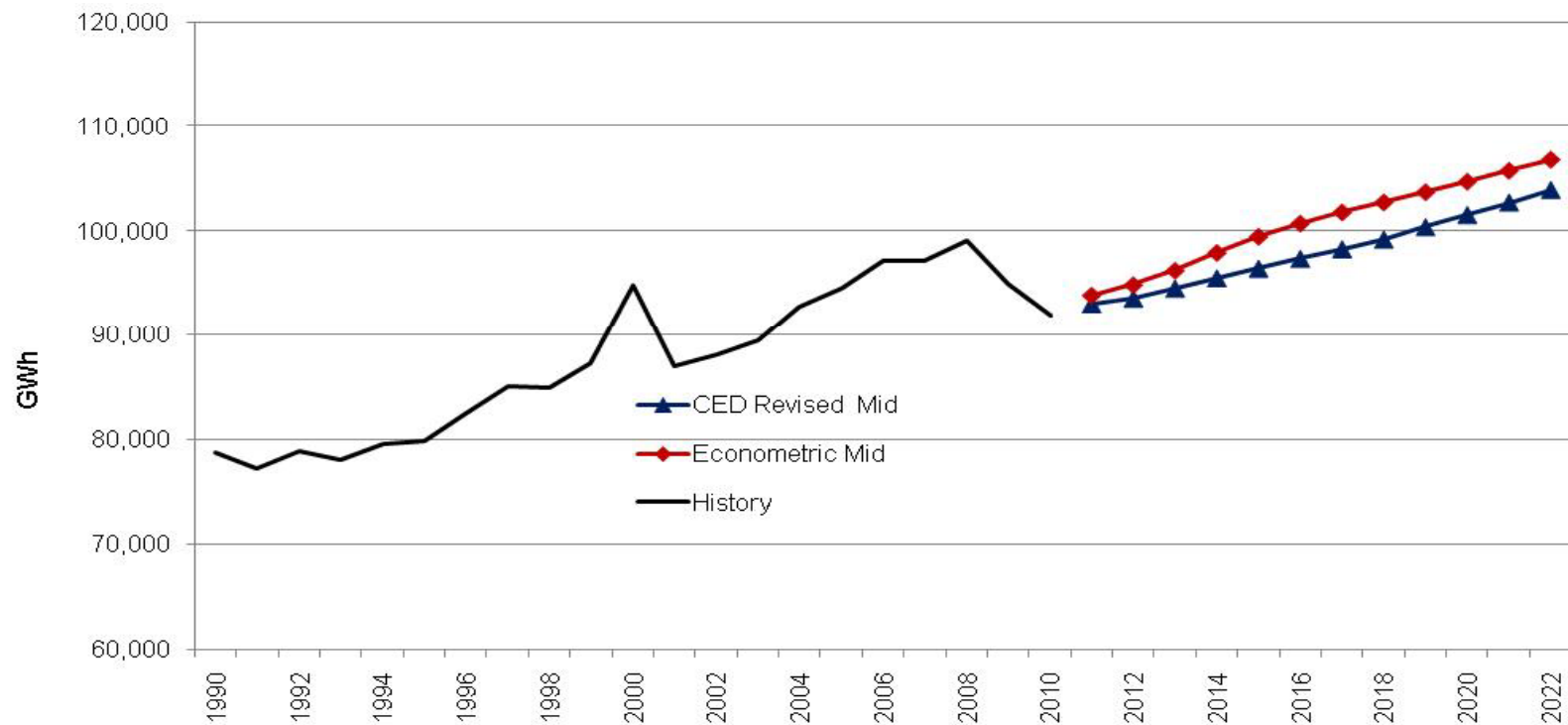




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# SCE Electricity Sales: CED 2011 Revised vs. Econometric Forecast (Mid Case)

**Econometric 2.8% higher in 2022**



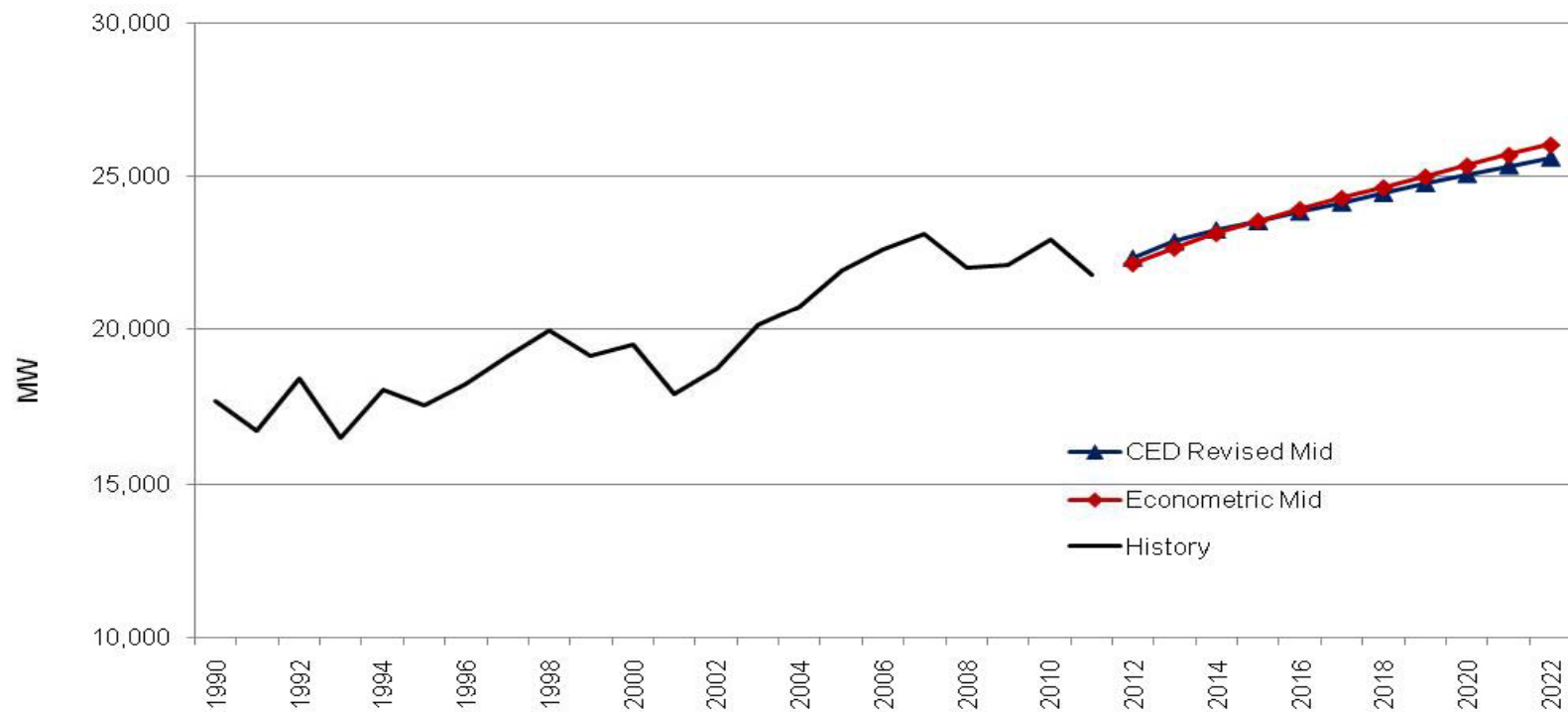




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# SCE Peak Demand: CED 2011 Revised vs. Econometric Forecast (Mid Case)

Econometric 1.0% higher in 2022

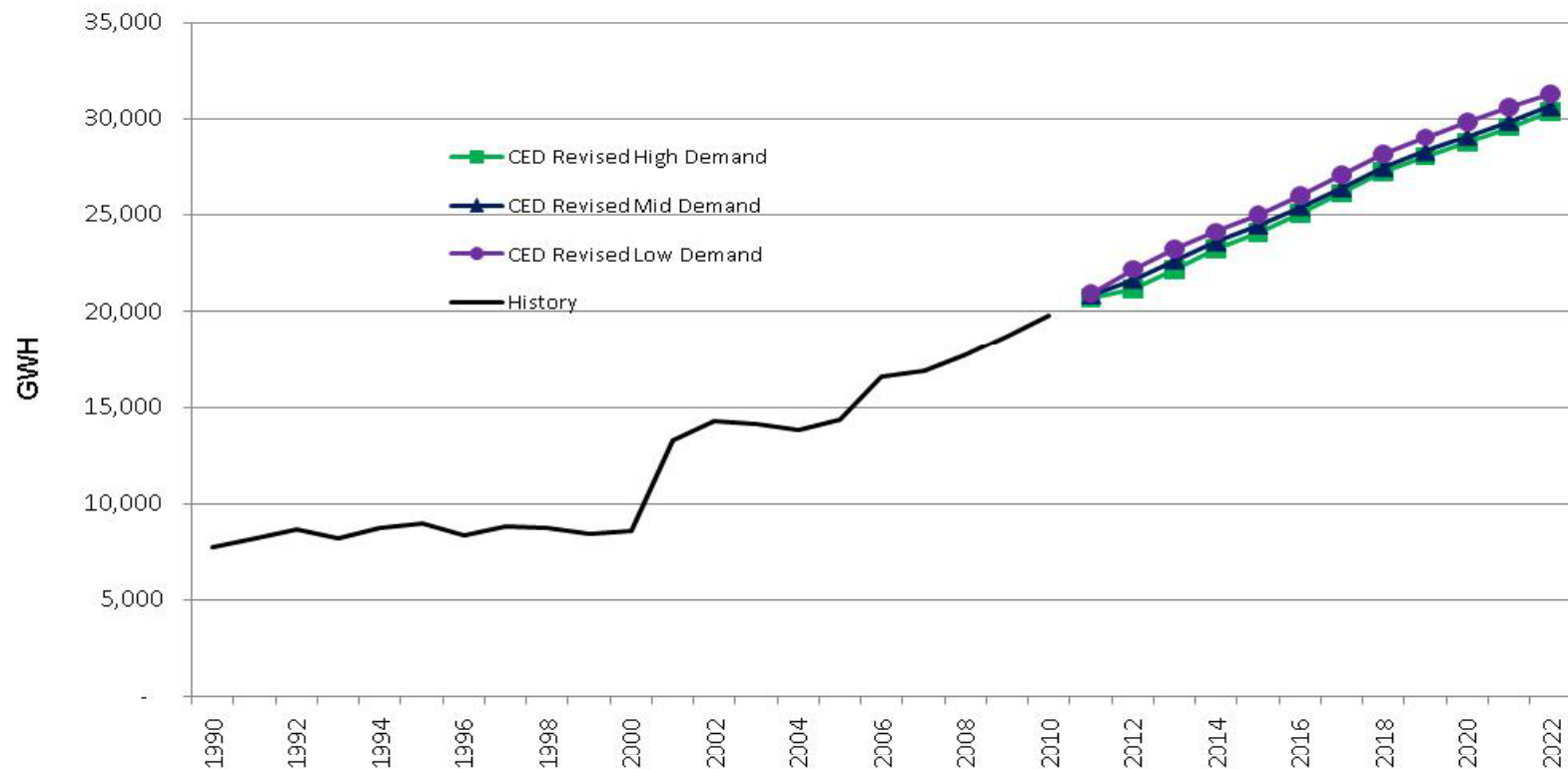




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# SCE Efficiency Impacts

9.5-10.5 k additional GWh savings 2011-2022

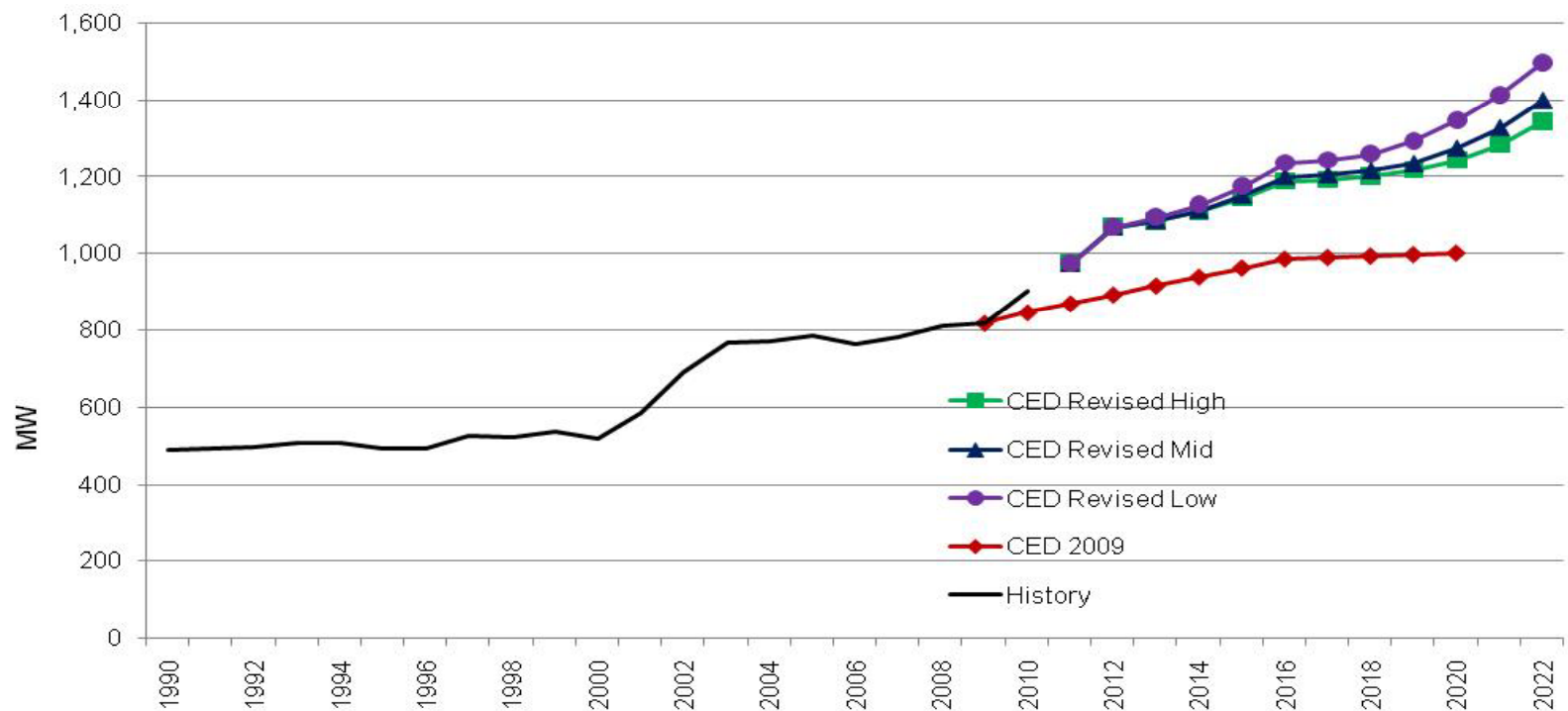




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# SCE Self-Generation Peak Impacts

## PV Peak impacts increase by 300-450 MW 2011-2022





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# SCE Electric Vehicles

700 GWh lower in mid case compared to preliminary forecast mid case

