California Energy Commission

IEPR Workshop

California Energy Demand (CED) 2011 Revised Forecast:

SDG&E Planning Area Electricity Forecasts

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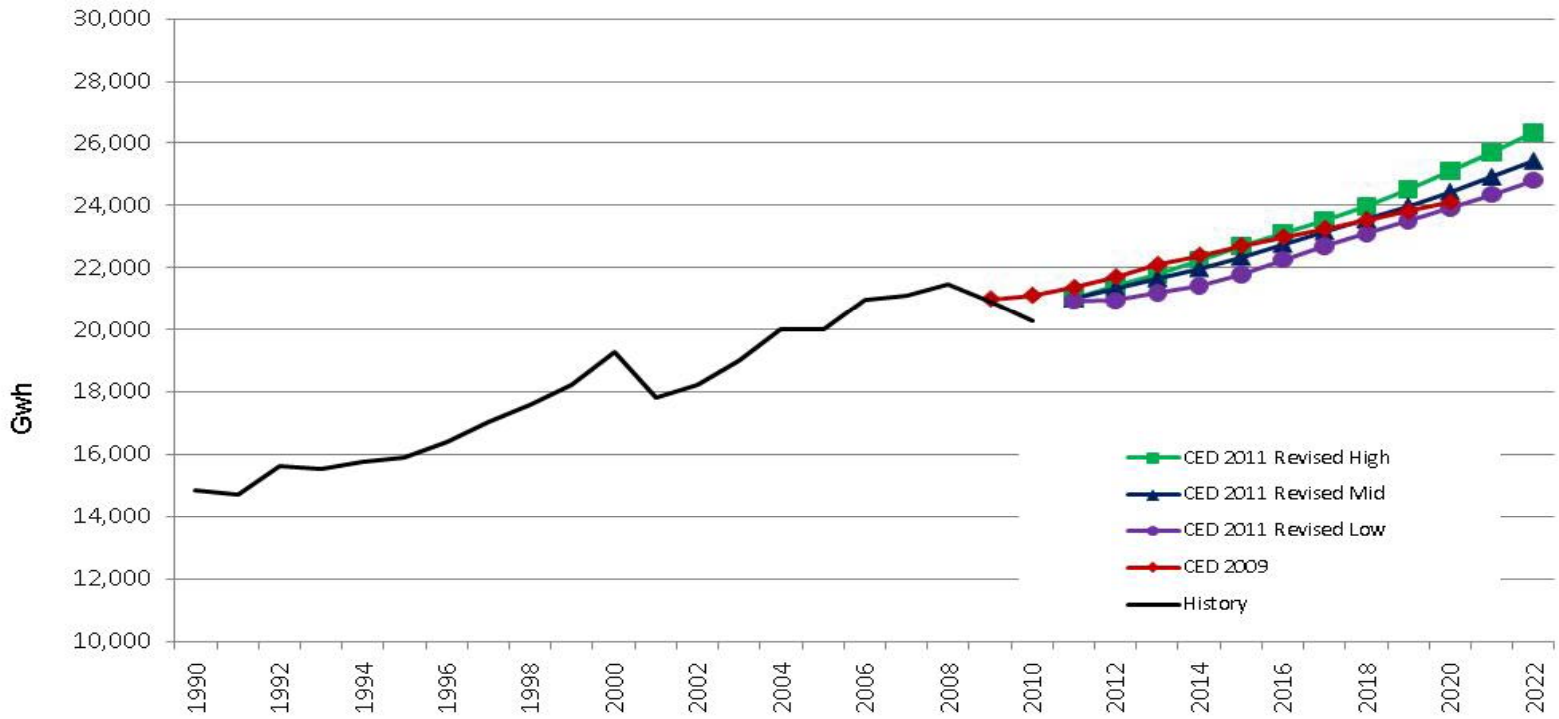
Chris Kavalec
Demand Analysis Office
Electricity Supply Analysis Division
Chris.kavalec@energy.state.ca.us / 916-654-5184

Summary

- In general, fastest projected growth over 2011-2022 for consumption, sales, and peak among 5 major planning areas
  - High population growth
  - Strong manufacturing growth
  - High employment/commercial floor space growth
- Climate change adds 80-90 MW of peak demand by 2022 (1.5%); PV adoption reduces peak by 170-210 MW by 2022 (3-4%)
- TV standards reduce consumption by 250 GWh in 2022 (1%); EVs increase sales by 250-500 GWh (1-2%) in 2022

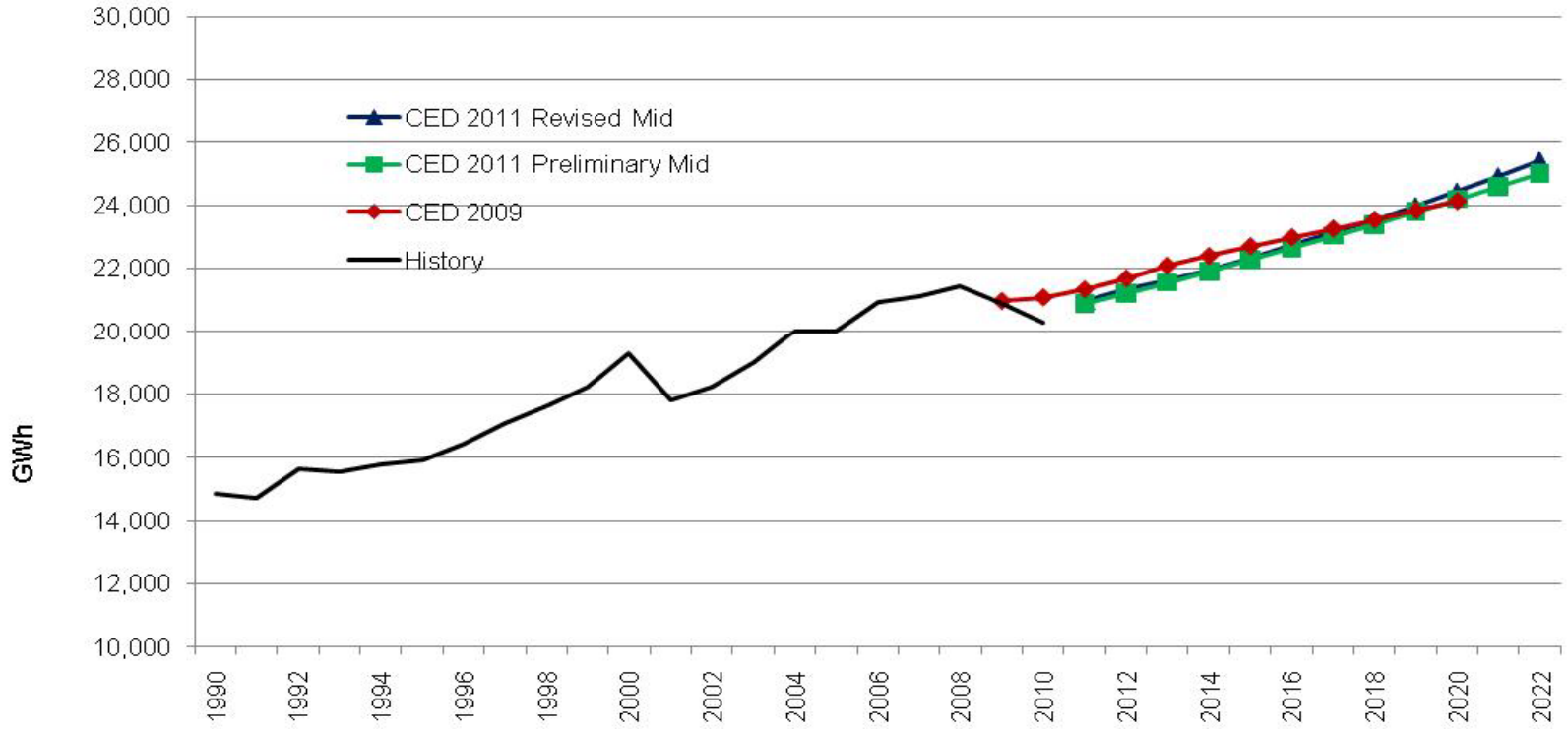
SDG&E Electricity Consumption

Average annual growth 2011-2022: 2% in high case, 1.5% in low case



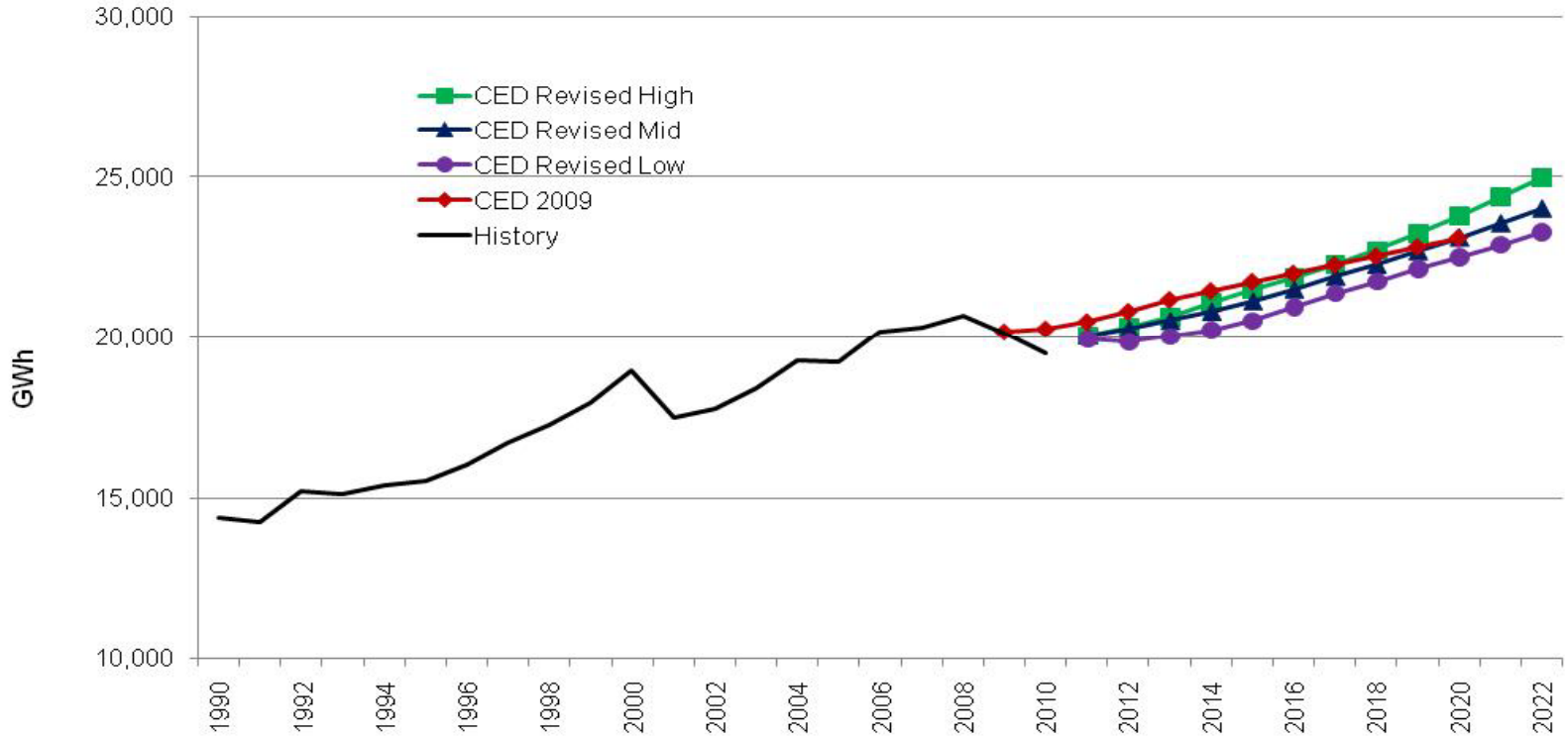
SDG&E Electricity Consumption

Average annual growth 2011-2020: 1.70% in revised mid, 1.64% in preliminary mid, 1.36% in CED 2009



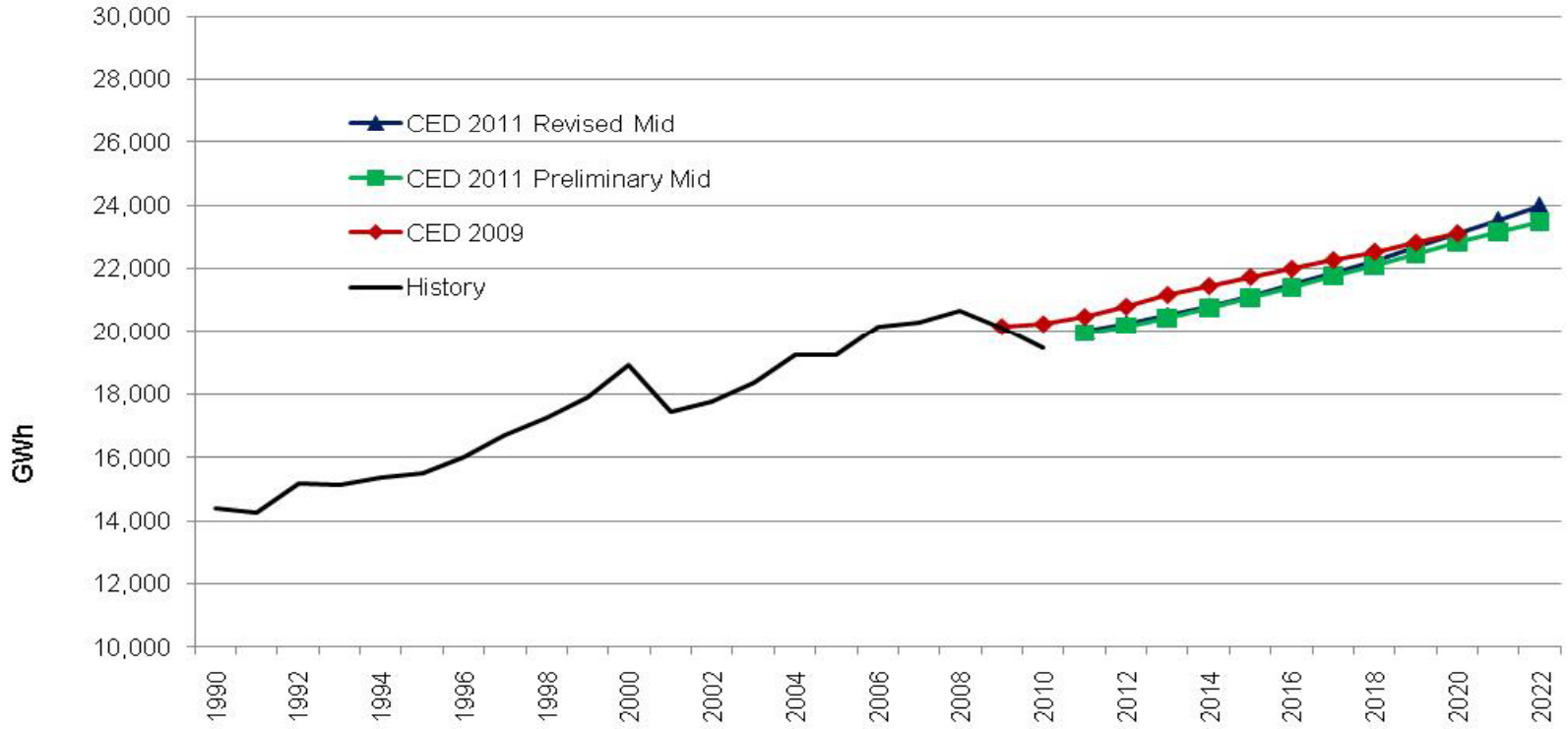
SDG&E Electricity Sales

Average annual growth 2011-2022: 2% in high case, 1.4% in low case



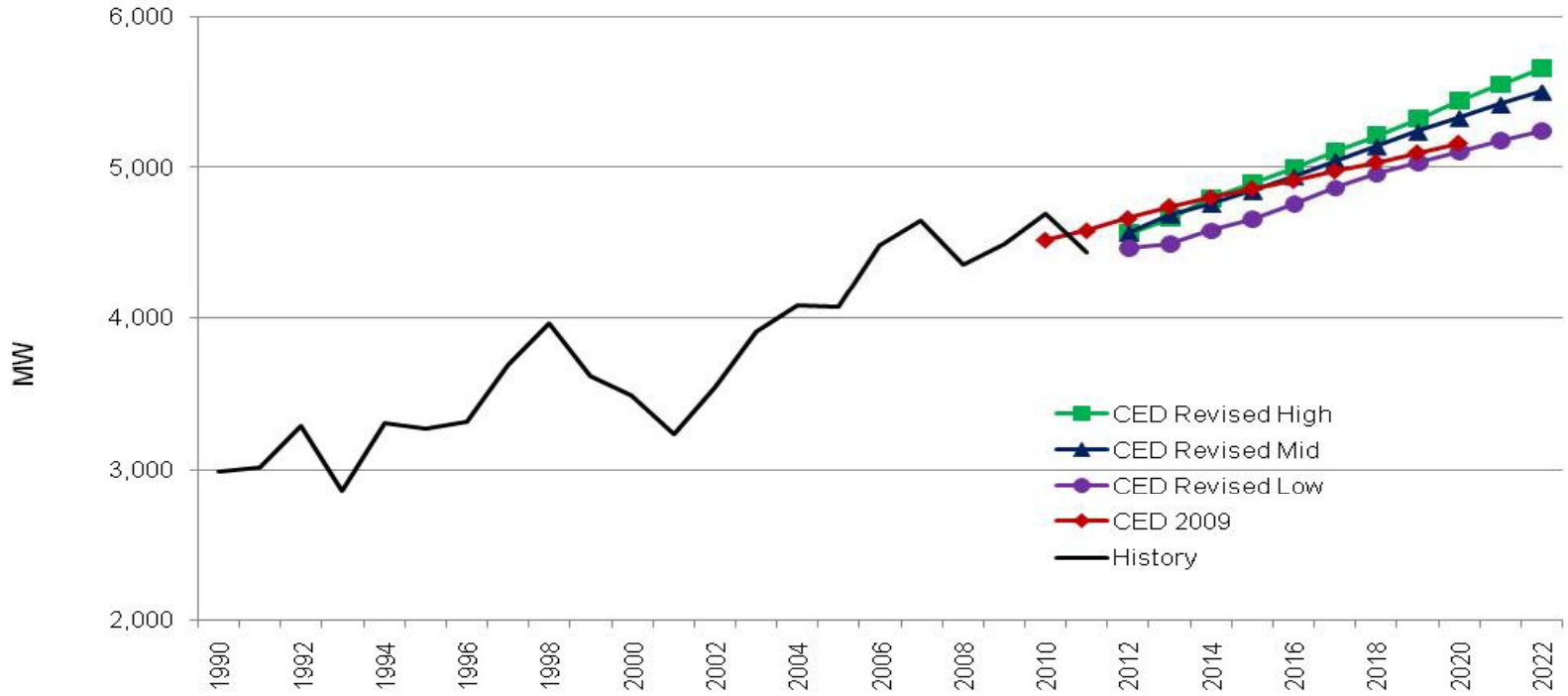
SDG&E Electricity Sales

Average annual growth 2011-2020: 1.61% in revised mid, 1.50% in preliminary mid, 1.34% in CED 2009



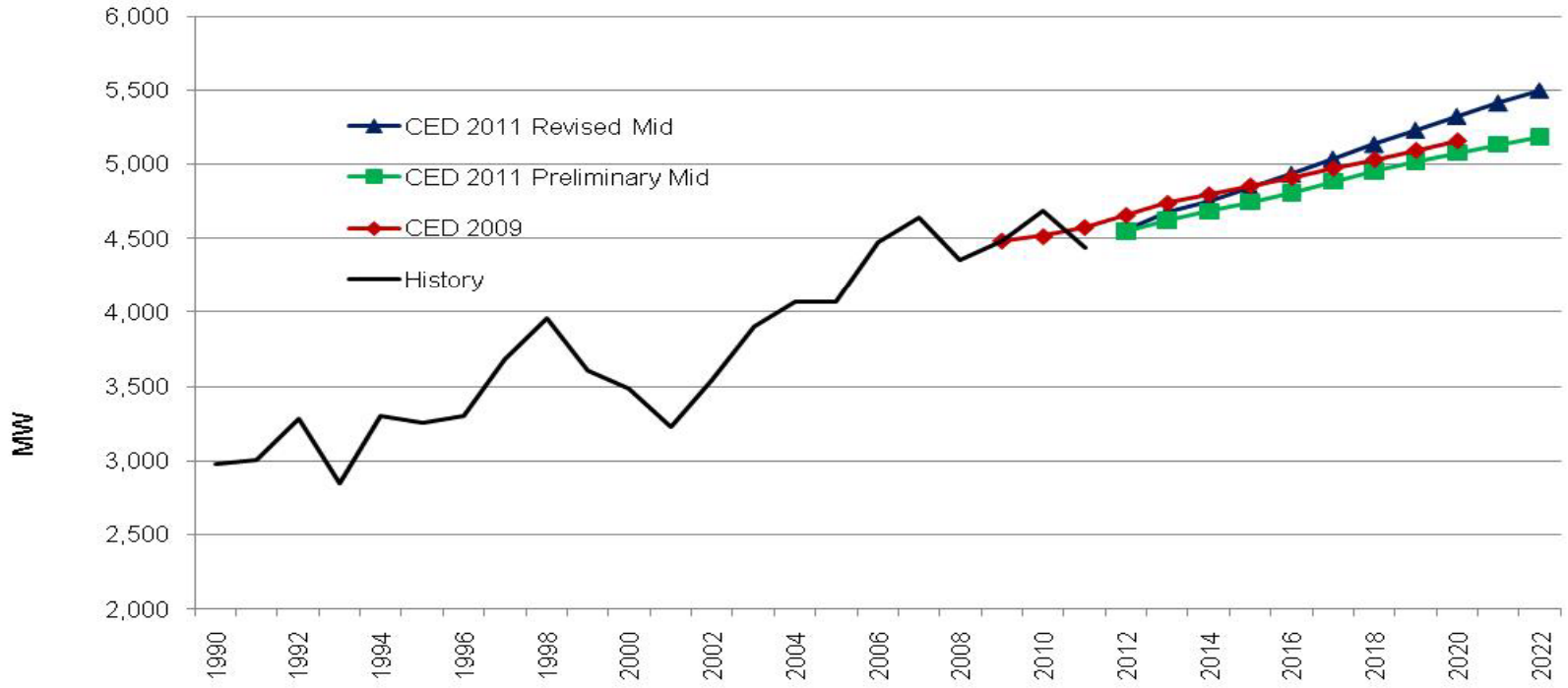
SDG&E Peak Demand

Average annual growth 2011-2022: 2.2% in high case, 1.5% in low case



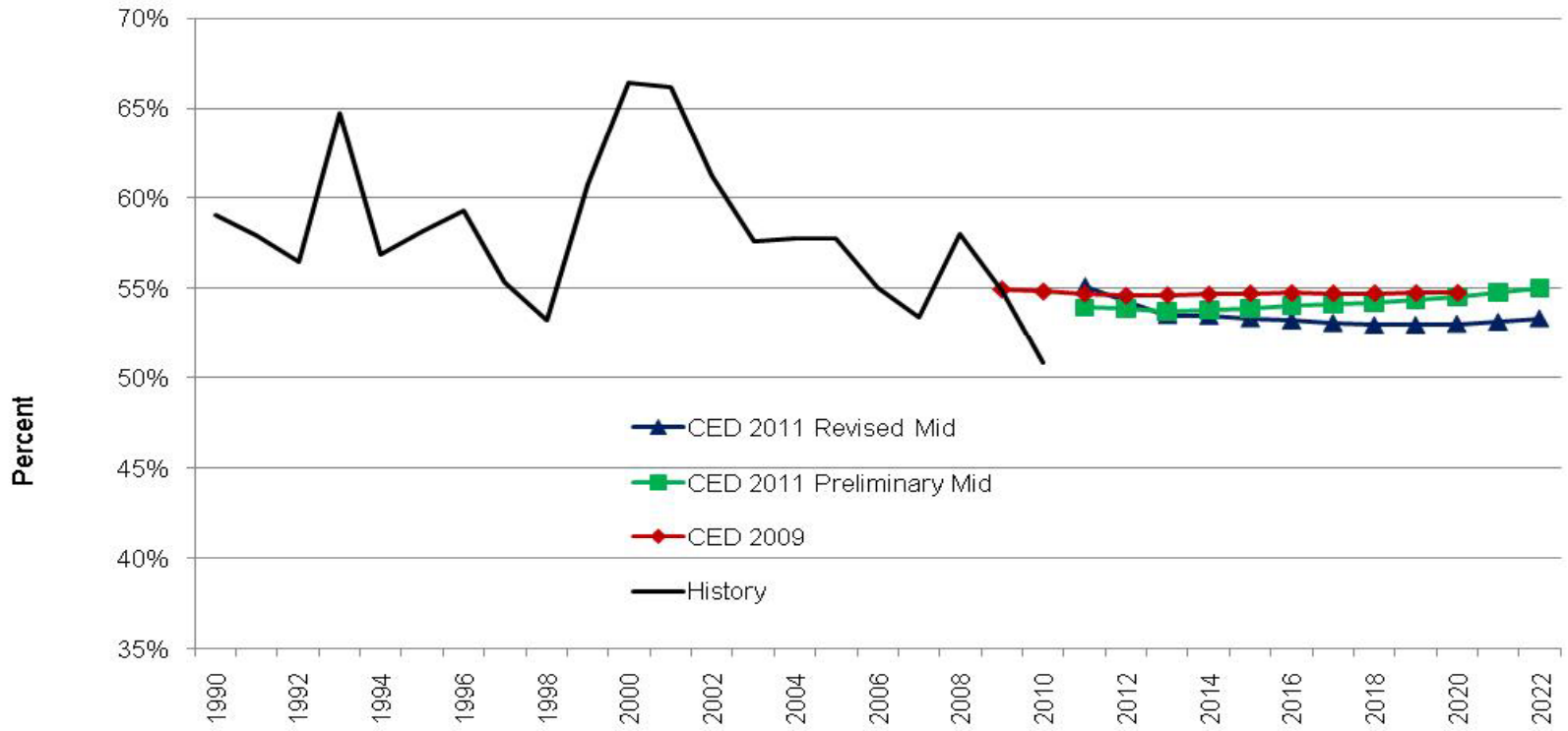
SDG&E Peak Demand

Average annual growth 2011-2020: 2.05% in revised mid, 1.37% in preliminary mid, 1.33% in CED 2009



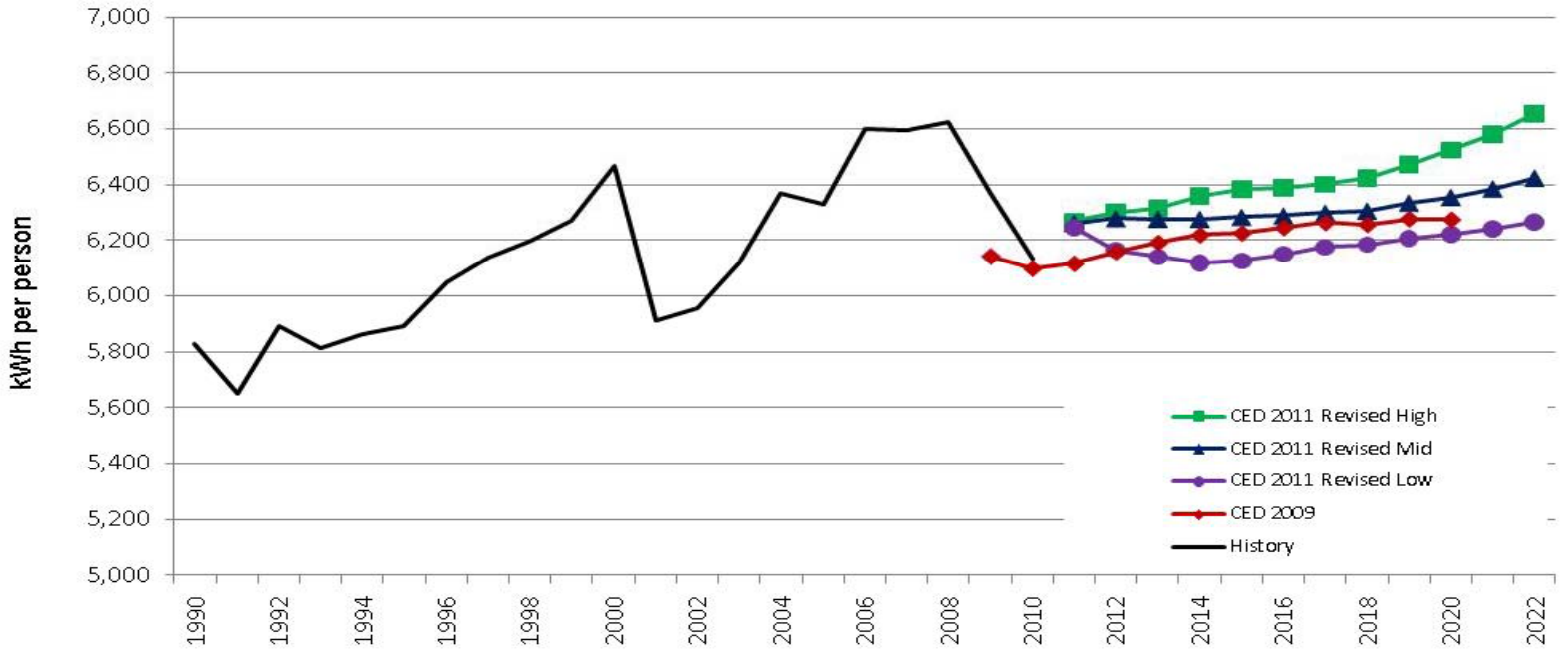
SDG&E Load Factors

CED 2011 Revised reflects high peak growth



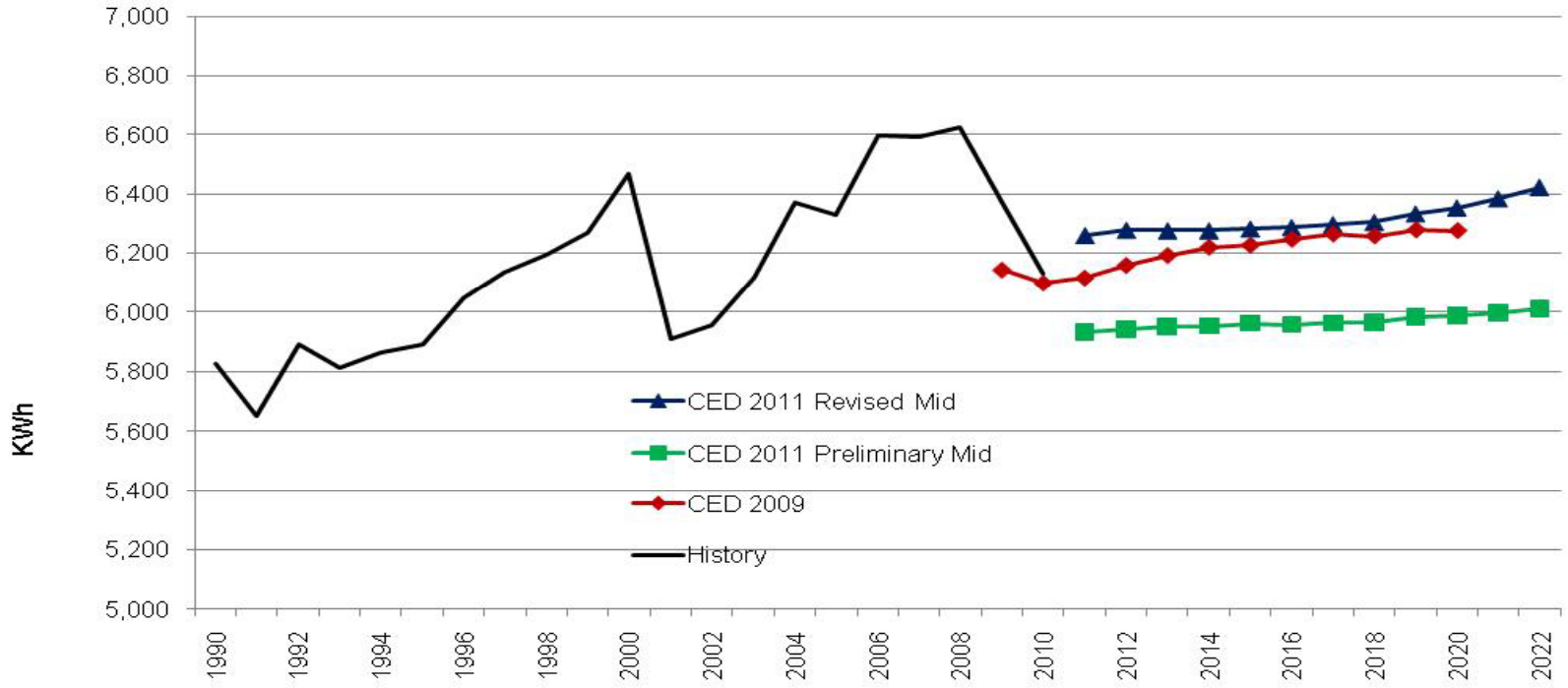
SDG&E Per Capita Consumption

EVs push per capita consumption up toward the end of the forecast period



SDG&E Per Capita Consumption

Population adjustment pushes per capita consumption above CED 2009 levels

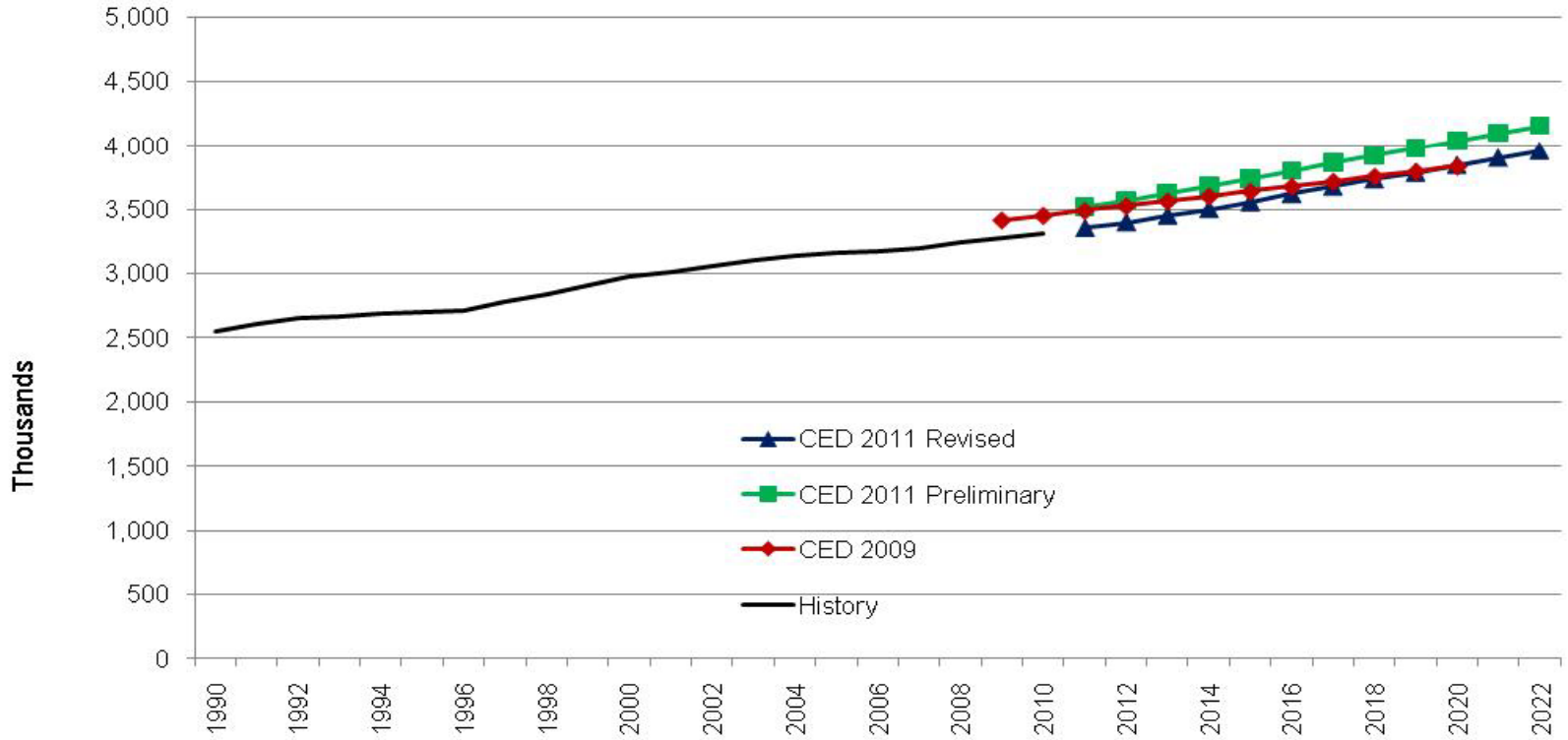


SDG&E Forecast: Factoids

- Of three major sectors, growth in consumption is fastest in residential sector (2.26% per year 2011-2022 in mid case), followed by commercial (1.8%), and industrial (0.54%)
- Residential consumption growth is faster compared to previous forecasts, resulting in high peak growth
- Growth in industrial sector in high case is key reason for faster growth vs. mid and low cases
- Average annual growth 2011-2022 in agricultural and TCU/streetlighting sectors slightly less than 1 percent

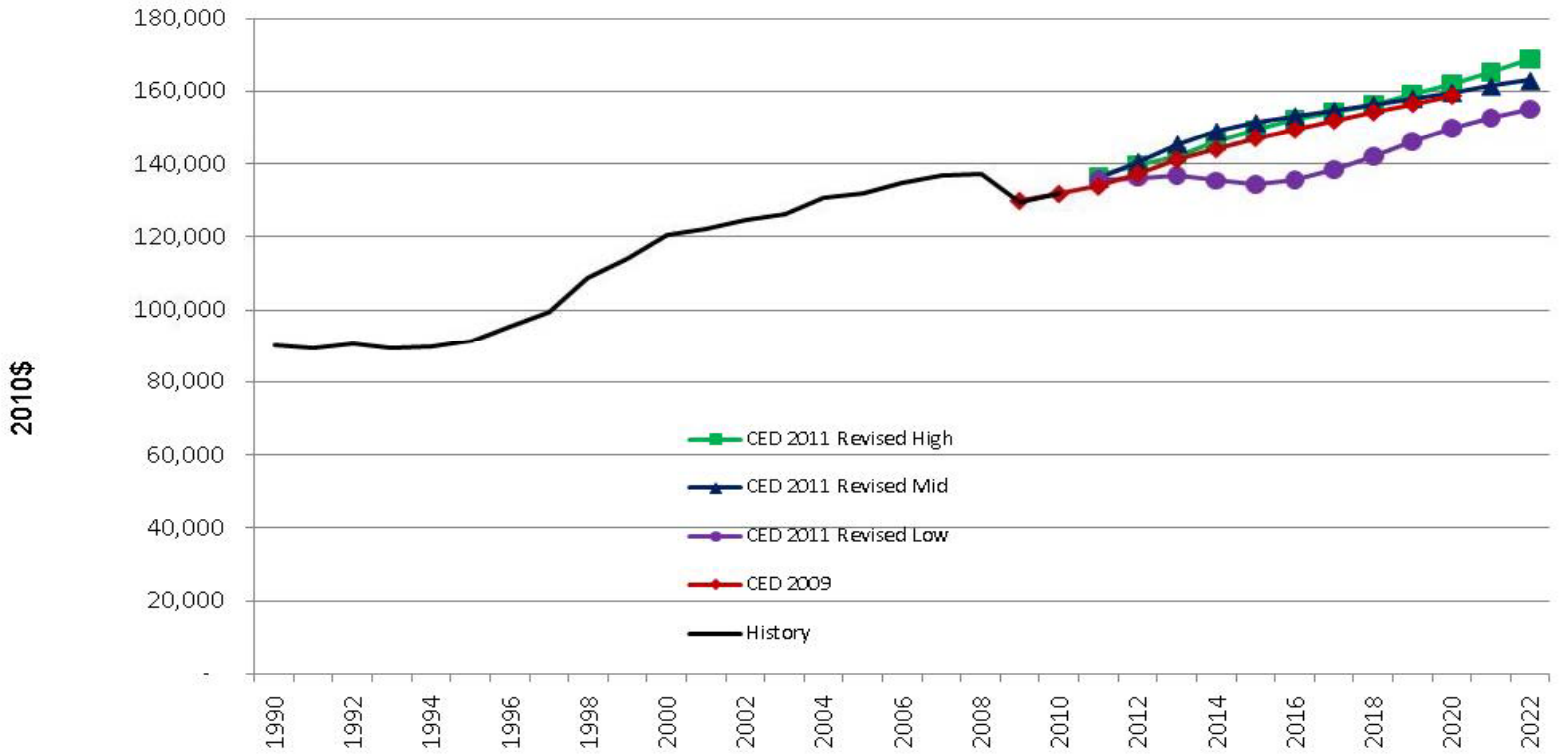
Key Input: Household Population

Faster growth 2011-2020 in CED 2011



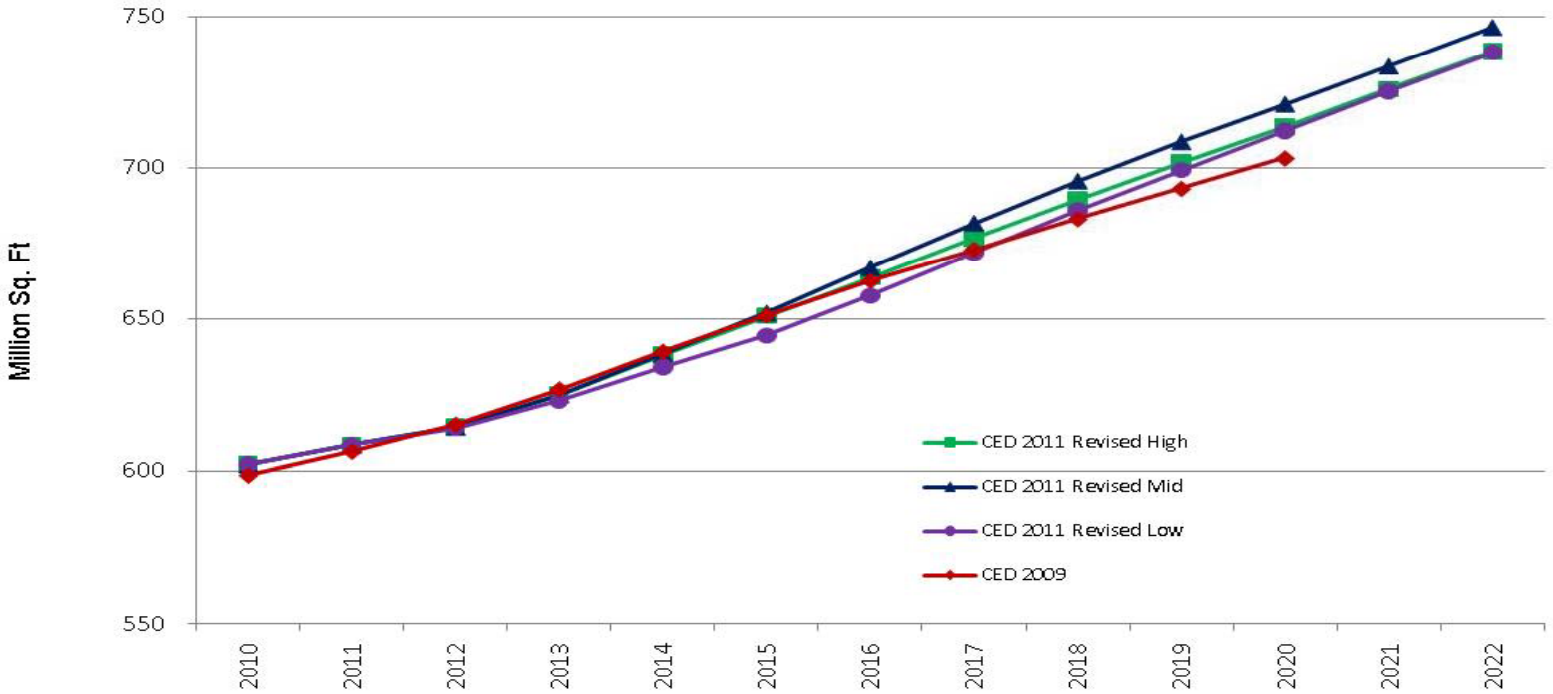
Key Input: Income per Household

Rapid growth coming out of recession in mid and high



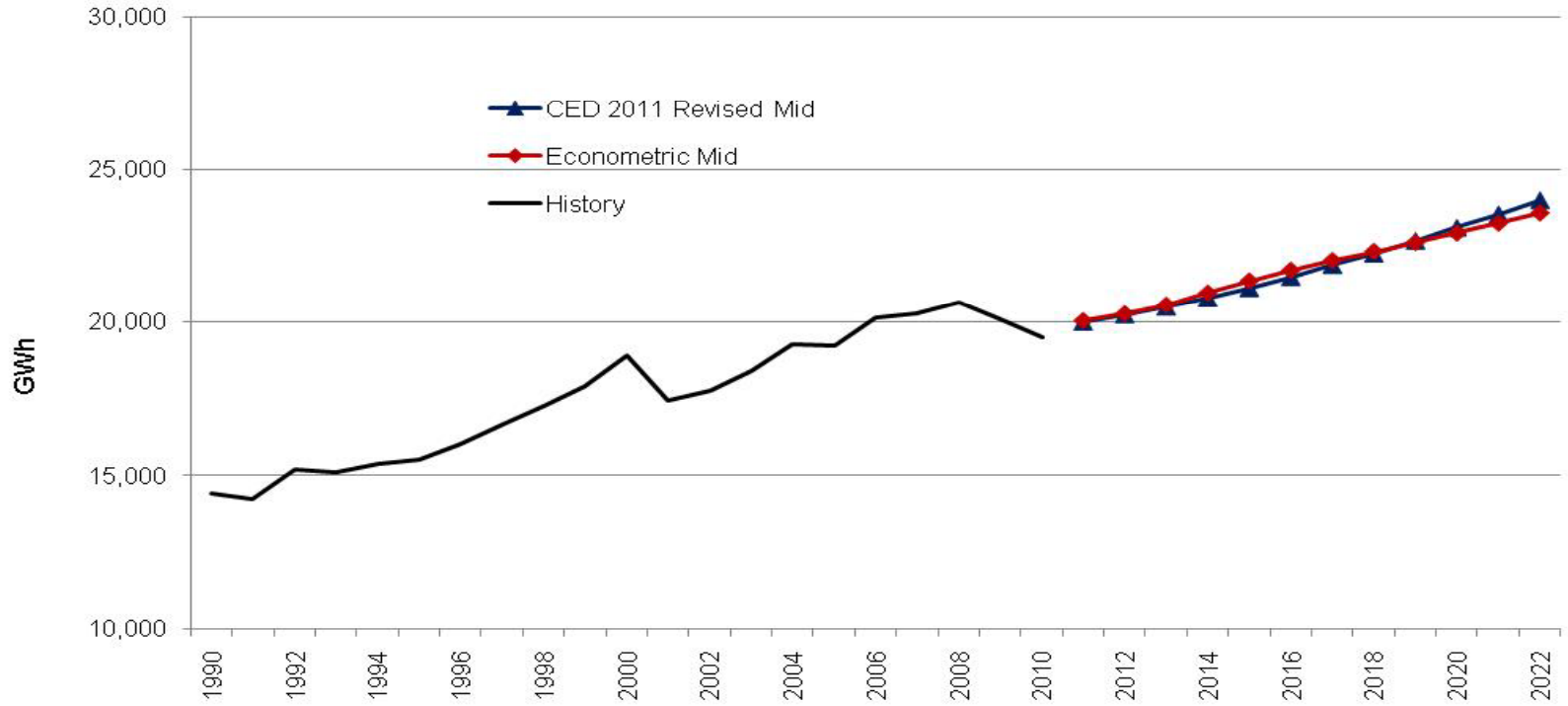
Key Input: Commercial Floorspace

Faster growth vs. CED 2009 toward end of forecast period



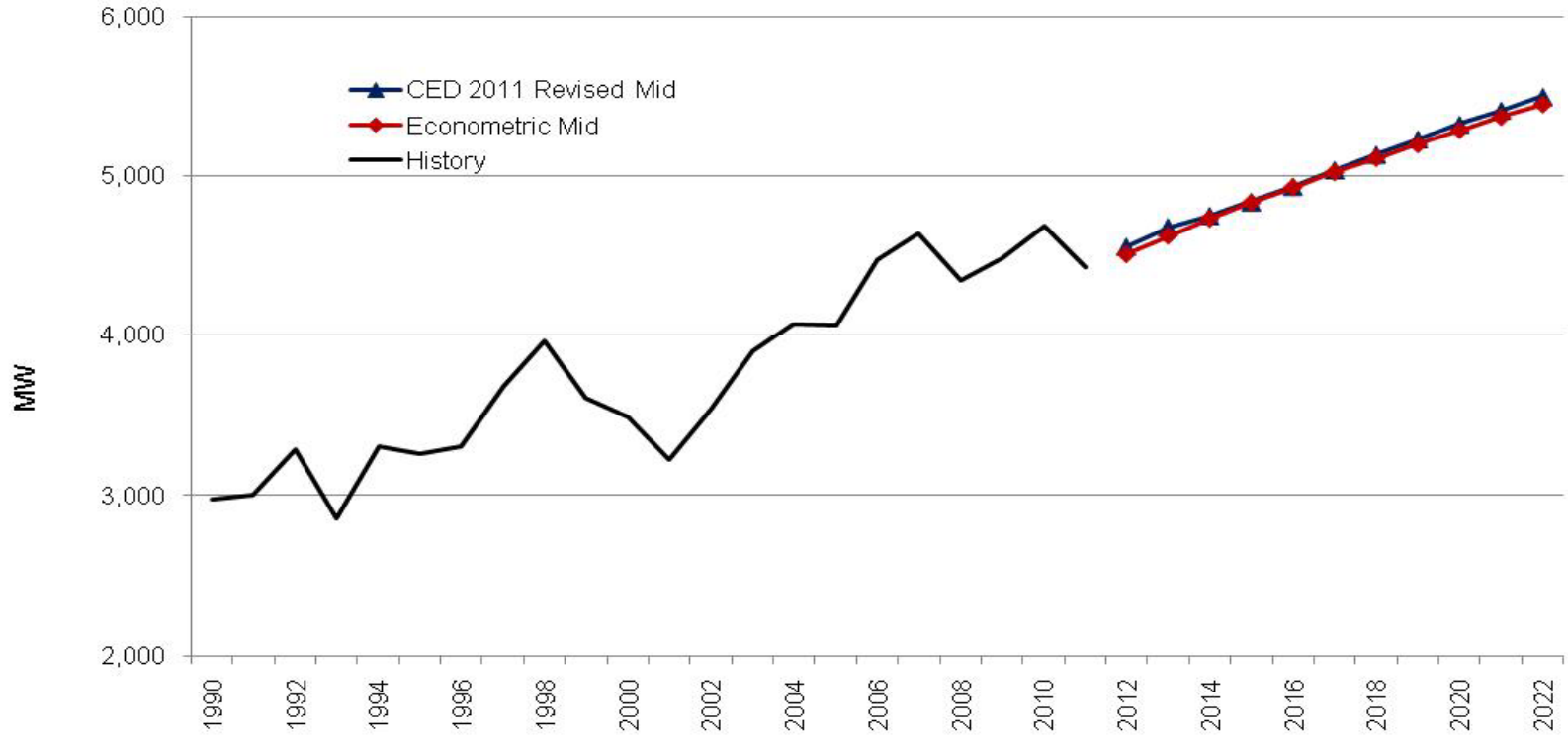
SDG&E Electricity Sales: CED 2011 Revised vs. Econometric Forecast (Mid Case)

Econometric 1.8% lower in 2022



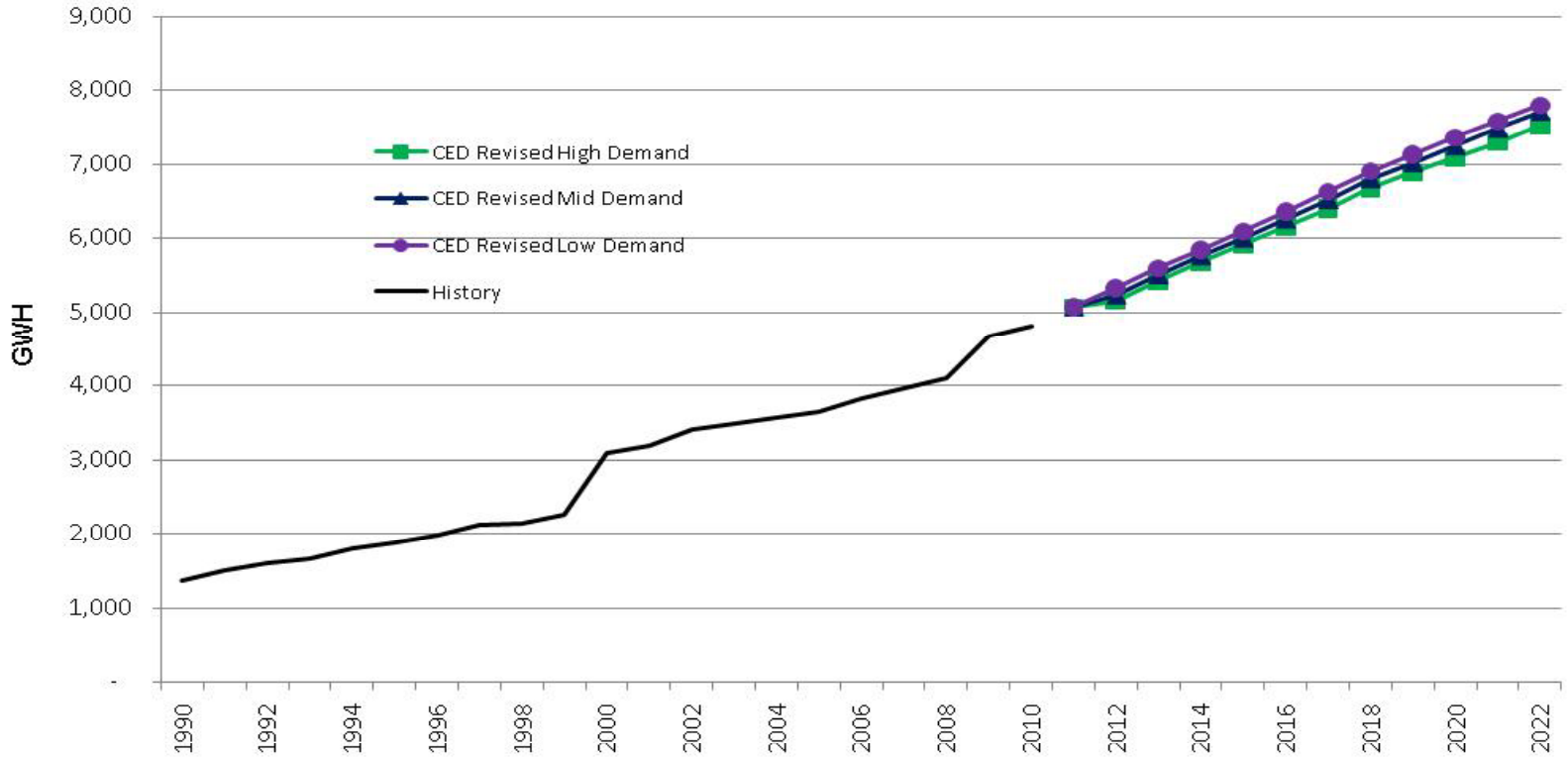
SDG&E Peak Demand: CED 2011 Revised vs. Econometric Forecast (Mid Case)

Econometric 0.9% Lower in 2022



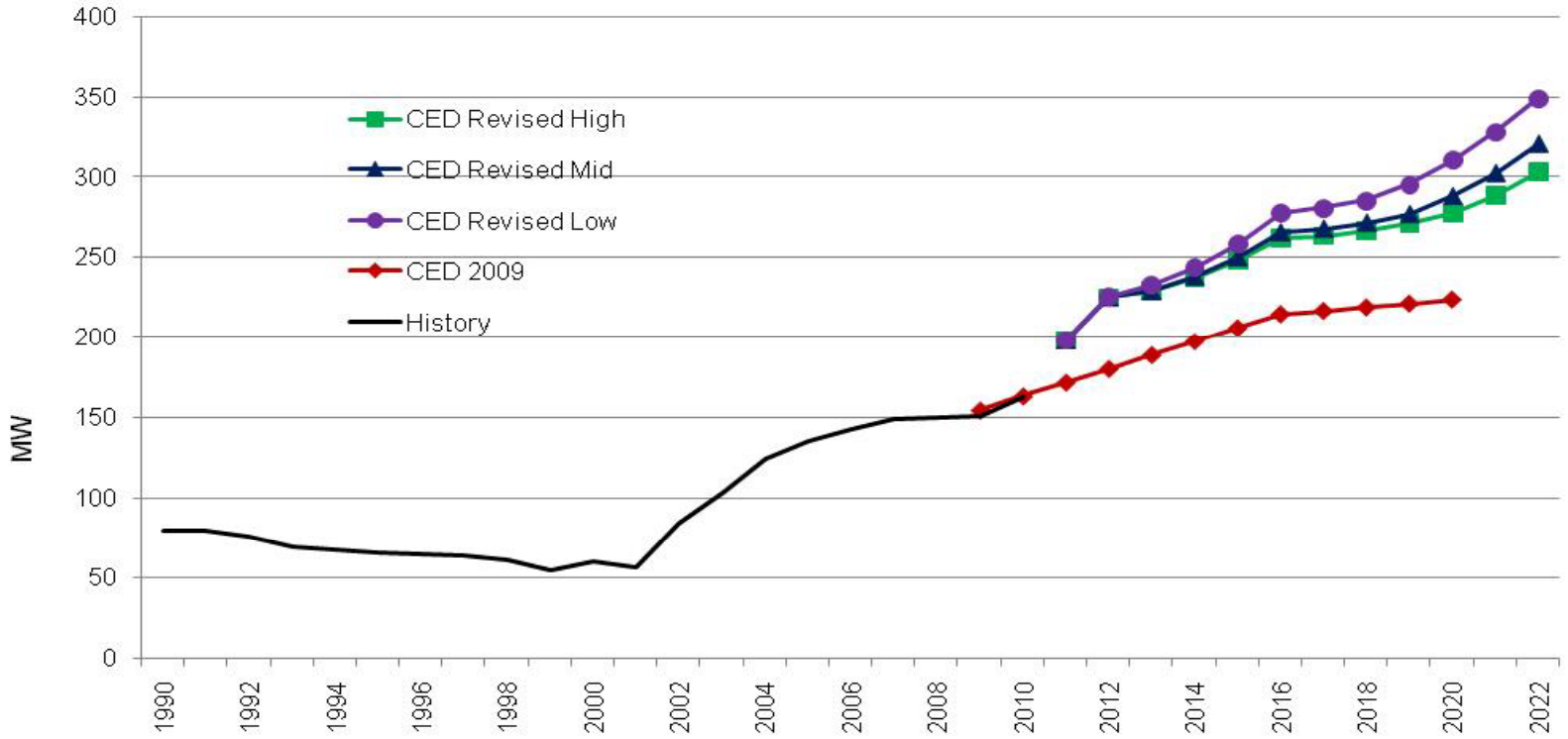
SDG&E Efficiency Impacts

2,500 additional GWh savings 2011-2022



SDG&E Self-Generation Peak Impacts

PV Peak impacts increase by over 100 MW in mid case 2011-2022



SDG&E Electric Vehicles

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

