



California Energy Commission

Impact of Energy Efficiency Programs on the Preliminary Demand Forecast

Chris Kavalec

Energy Commission Staff

May 21, 2009

DOCKET

09-IEP-1C

DATE May 21 2009

RECD. May 19 2009



Demand Forecast

- Preliminary, Revised, and Uncommitted Forecasts
- Preliminary Forecast: Released June 12, 2009; Workshop June 26, 2009
- Revised Forecast: Released August 3, 2009; Workshop August 17, 2009
- Uncommitted Forecast: Released September 4, 2009; Workshop September 21, 2009



Demand Forecast

- Today: Brief Discussion meant to put the impact of energy efficiency programs in context relative to total consumption and changes compared to previous (2007) forecast
- In-depth discussion on June 26
- Comments today on energy efficiency impacts will be incorporated in revised forecast in August

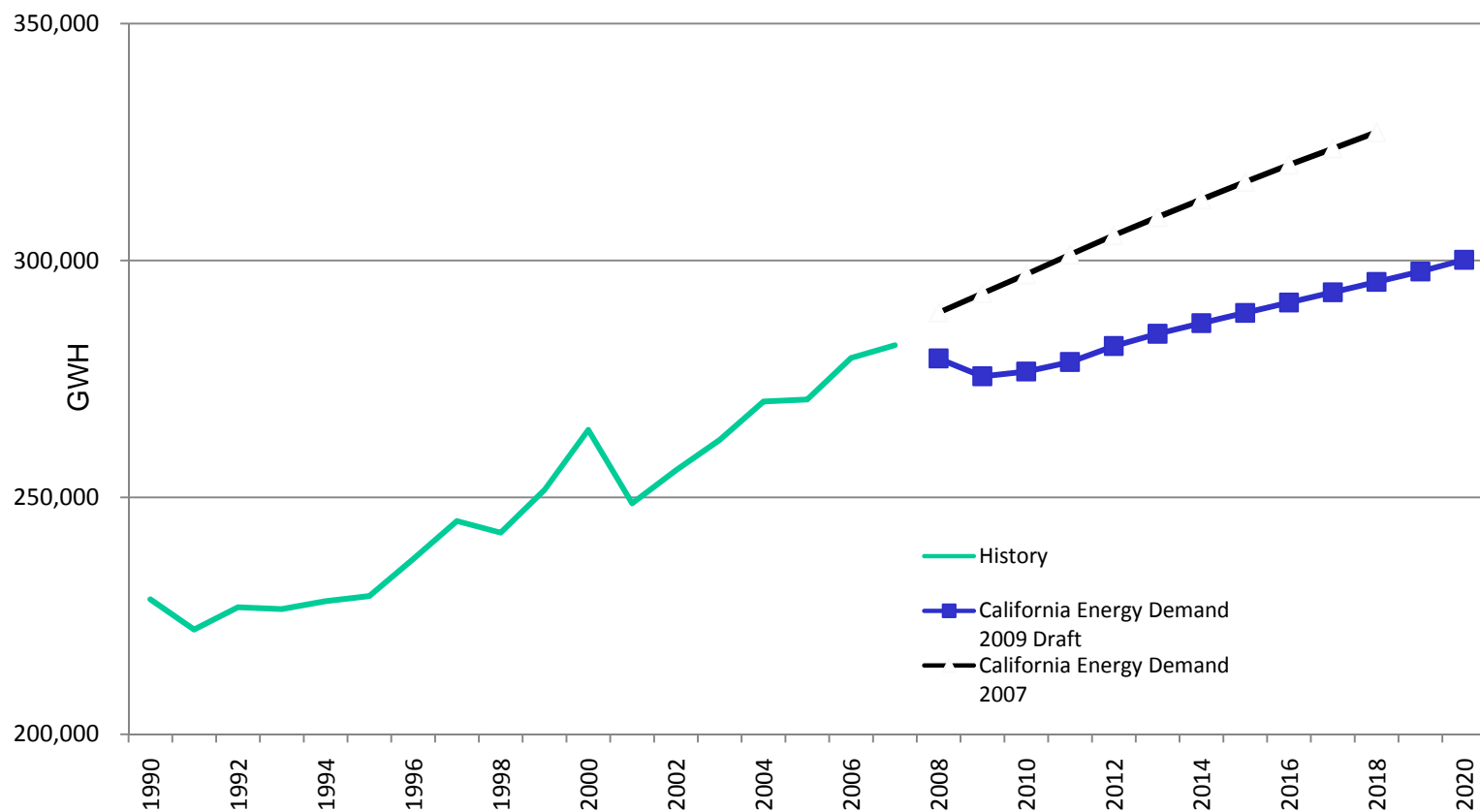


Changes in Demand Forecast

- Projected electricity consumption is down 9.6 percent statewide by 2018 compared to 2007 forecast, due to:
 - Pessimistic outlook for the next two years plus slower long-term growth (Economy.com)
 - Efficiency impacts are higher relative to previous forecasts



Statewide Electricity Consumption





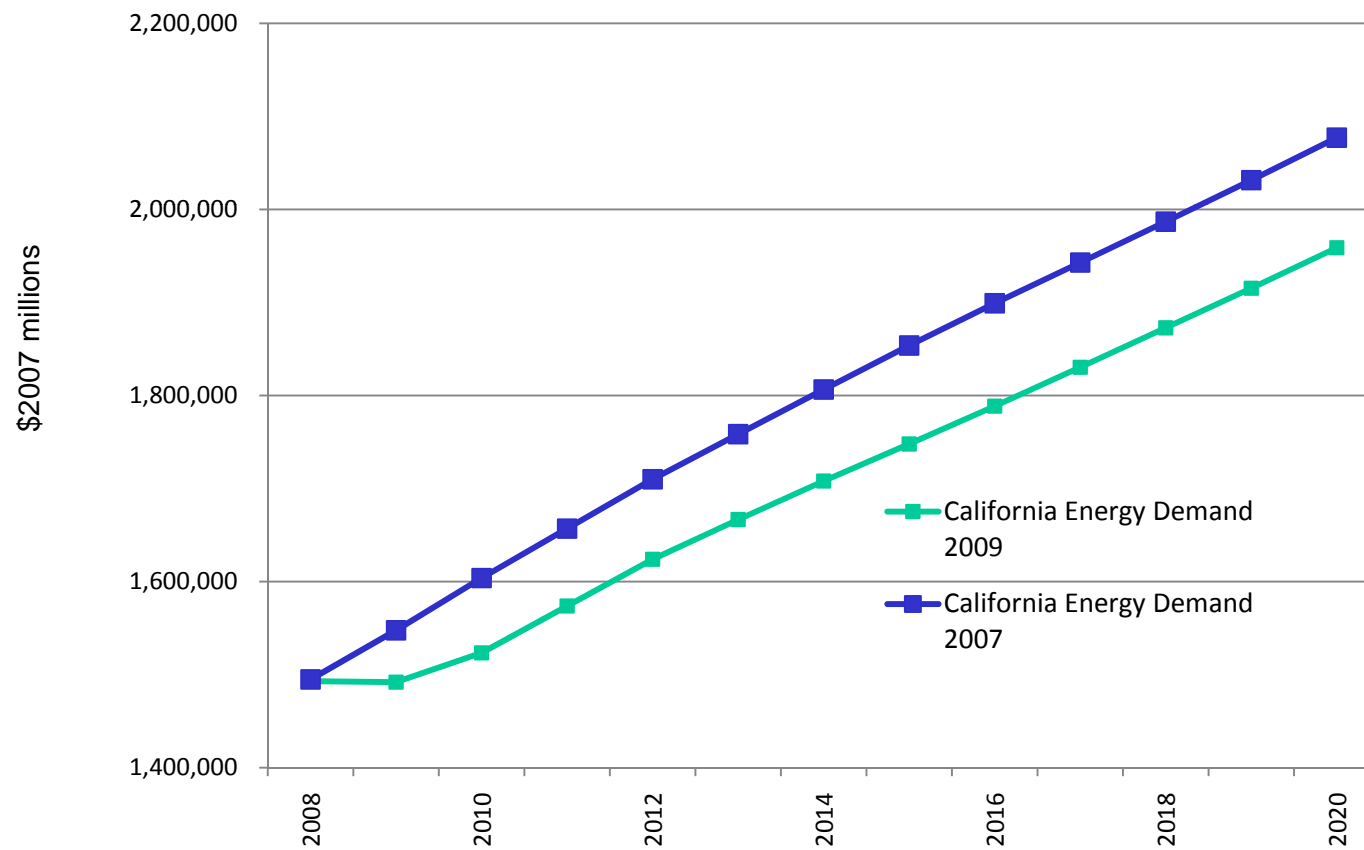
Economic Inputs

- Projected real personal income down 5.7% statewide relative to previous forecast by 2018
- Projected total employment down 5.9% statewide relative to previous forecast by 2018
- Key economic indicators show short-term drop followed by slower long-term growth



California Energy Commission

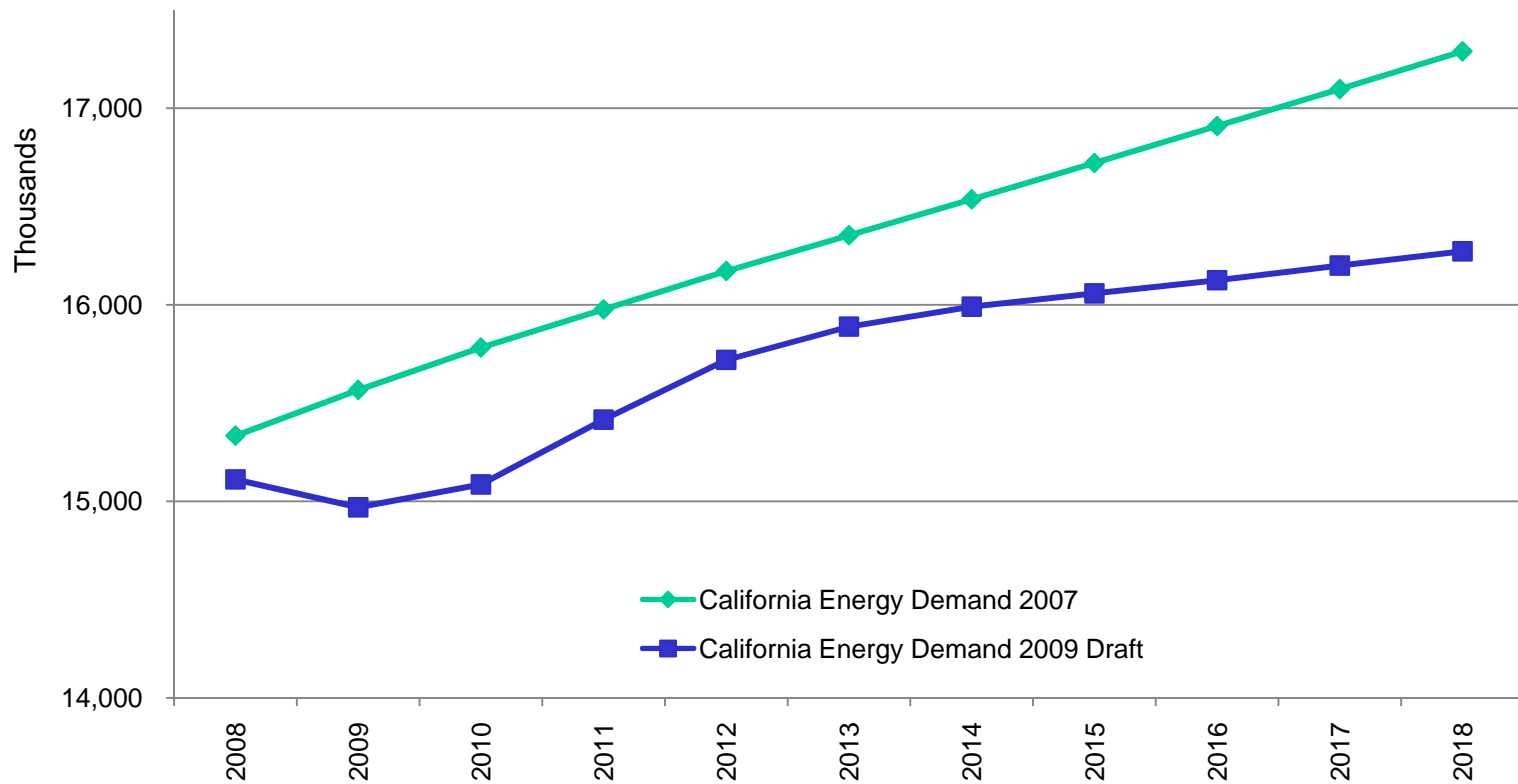
Statewide Personal Income



Source: Economy.com



Statewide Employment



Source: Economy.com



Efficiency Program Impacts

- Staff set out to re-estimate the historical electricity savings from utility programs as well as to measure the impacts of the 2009-2011 program plans, with the idea of estimating program savings not previously incorporated in Energy Commission forecasts
- Itron provided estimates and analysis that fed into Energy Commission staff work, supplemented by the Demand Forecasting Energy Efficiency Quantification (DFEEQP) working group



Efficiency Program Impacts

- Upcoming presentations will detail staff and Itron work and the role of the DFEEQP working group.
- Some impacts incorporated in models, others through “post-processing”
- It is important to stress that these are preliminary estimates: staff spent much of the time thus far for this analysis gathering the data itself and creating a consistent series, and further examination of the numbers may change these results
- 2009-2011 programs still in the approval process

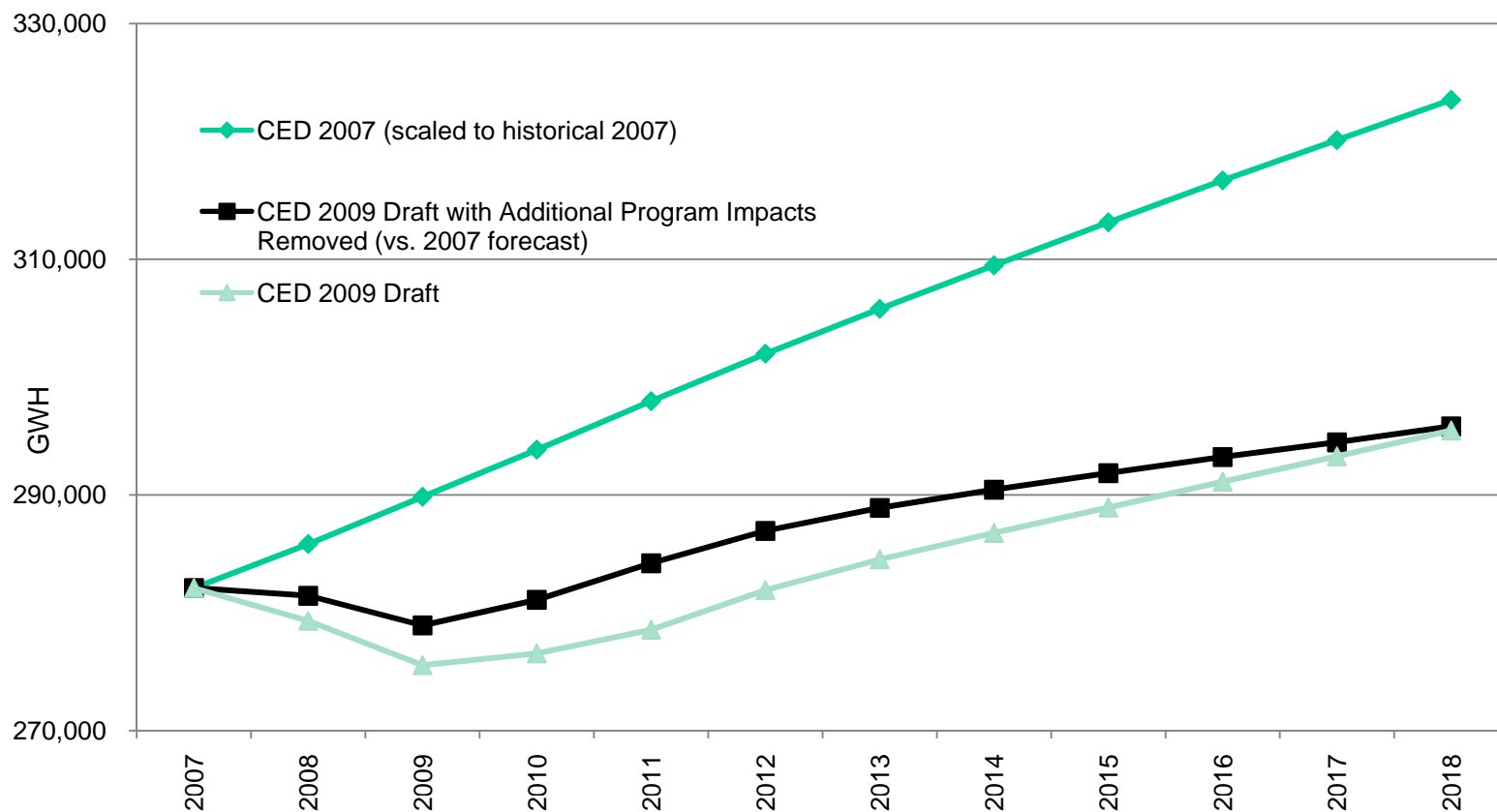


Efficiency Program Impacts

- The impact of IOU utility programs reaches a maximum in 2011, the end of the three-year 2009-2011 program cycle, and then declines as the effects decay
- Biggest difference in impacts relative to previous forecast occurs in 2008 and beyond



Impact of Efficiency Programs



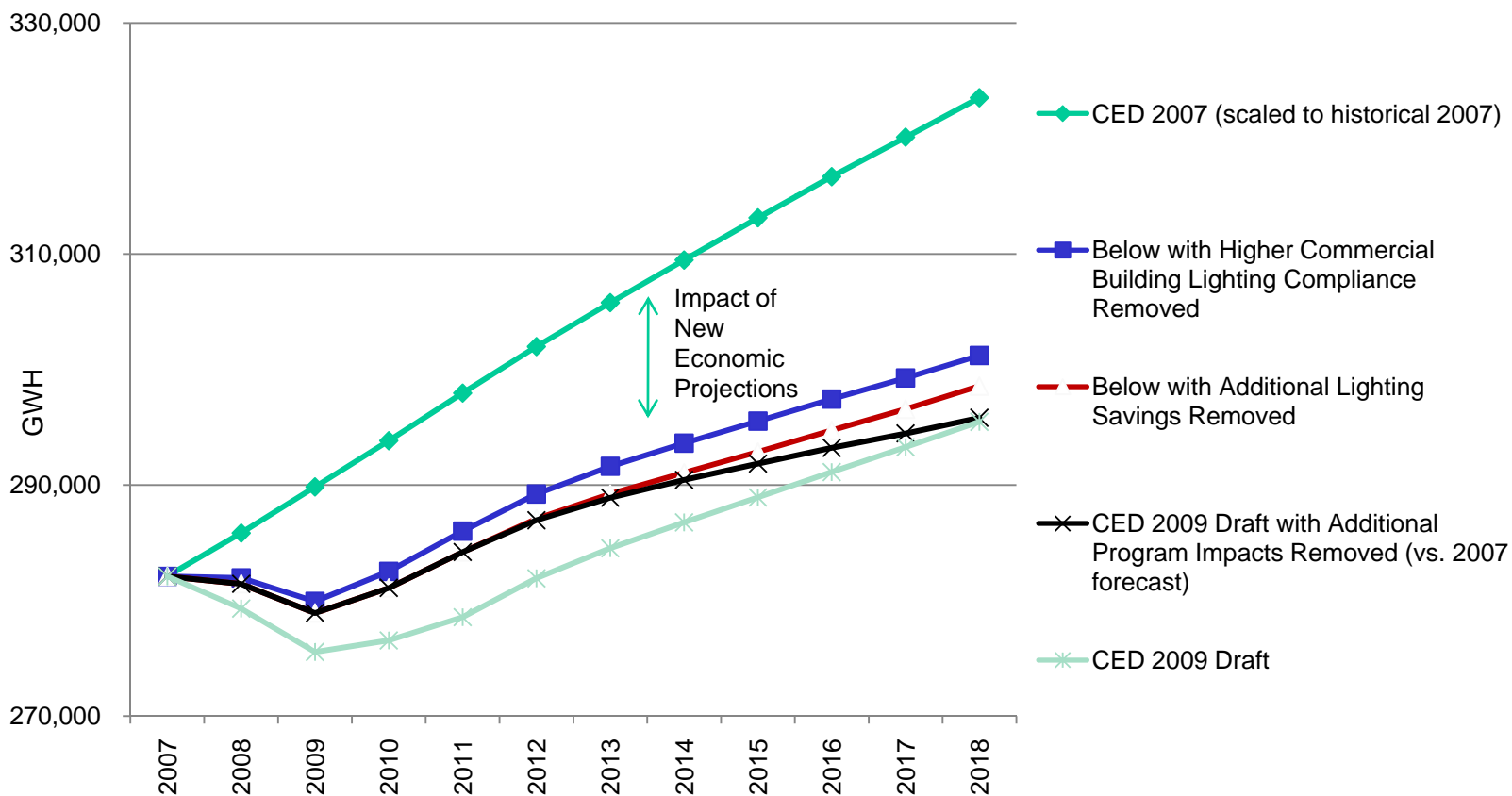


Other Impacts on Forecast

- Economic Inputs
- Additional Lighting Savings—residential consumers assumed to continue purchasing CFLs beyond the 2009-2011 program period
- Assumed higher rate of compliance for commercial lighting standards for existing buildings



Other Impacts on Forecast





Revised Forecast

- Refinement of energy efficiency program numbers and how they impact the forecast based on staff and Itron analysis and comments/suggestions
- Scenarios for economic projections