



California Energy Commission

IEPR Committee Workshop

**CALIFORNIA ENERGY DEMAND 2011-2022
PRELIMINARY STAFF FORECAST**

August 30, 2011 — 10:00 am

Self-Generation

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Self-generation

- ERP, CSI, SGIP, NSHP, POU Programs
- Big industrial and commercial users
(reporting under Form CEC 1304)
- Residential photovoltaic and solar water heating adoption forecast with new predictive model
- Other programs/sectors forecast use trend analysis



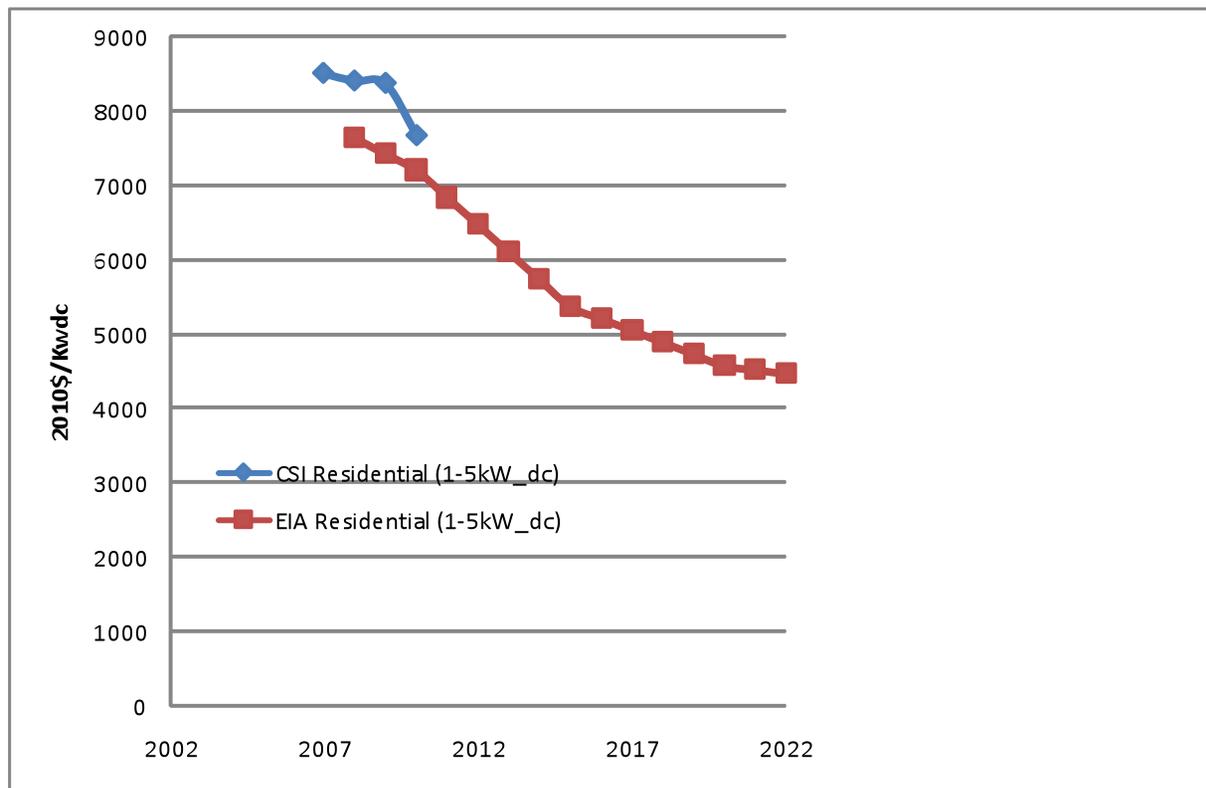
Residential Predictive Model

- Payback calculated using system and maintenance costs, incentives, and energy rates
- Estimated payback applied to payback sensitivity and Bass Diffusion adoption curves
- Results for adoption differ by demand case since projected electricity and natural gas rates and number of homes vary across the cases



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PV Installed Cost (Residential Model)





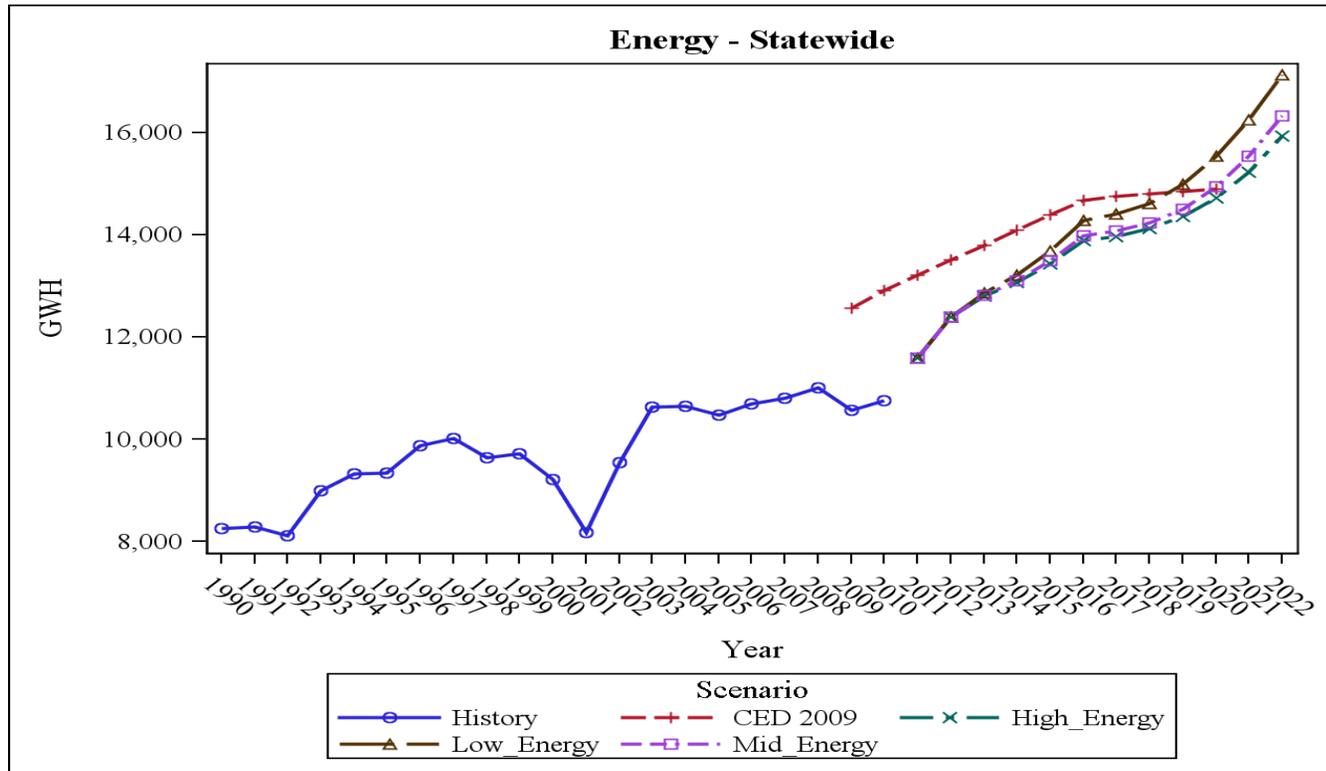
Non-Residential Sector

- POU PV and CSI– average rate of growth between 2008-2010
- SGIP – average rate of growth between 2006-2010
- Solar Hot Water adoption based on ratio of non-residential/residential PV adoption between 2007-2010
- On-site use from Form 1304 held constant



Self-generation Energy Impact-Statewide

- All 3 cases above *CED 2009* after 2020

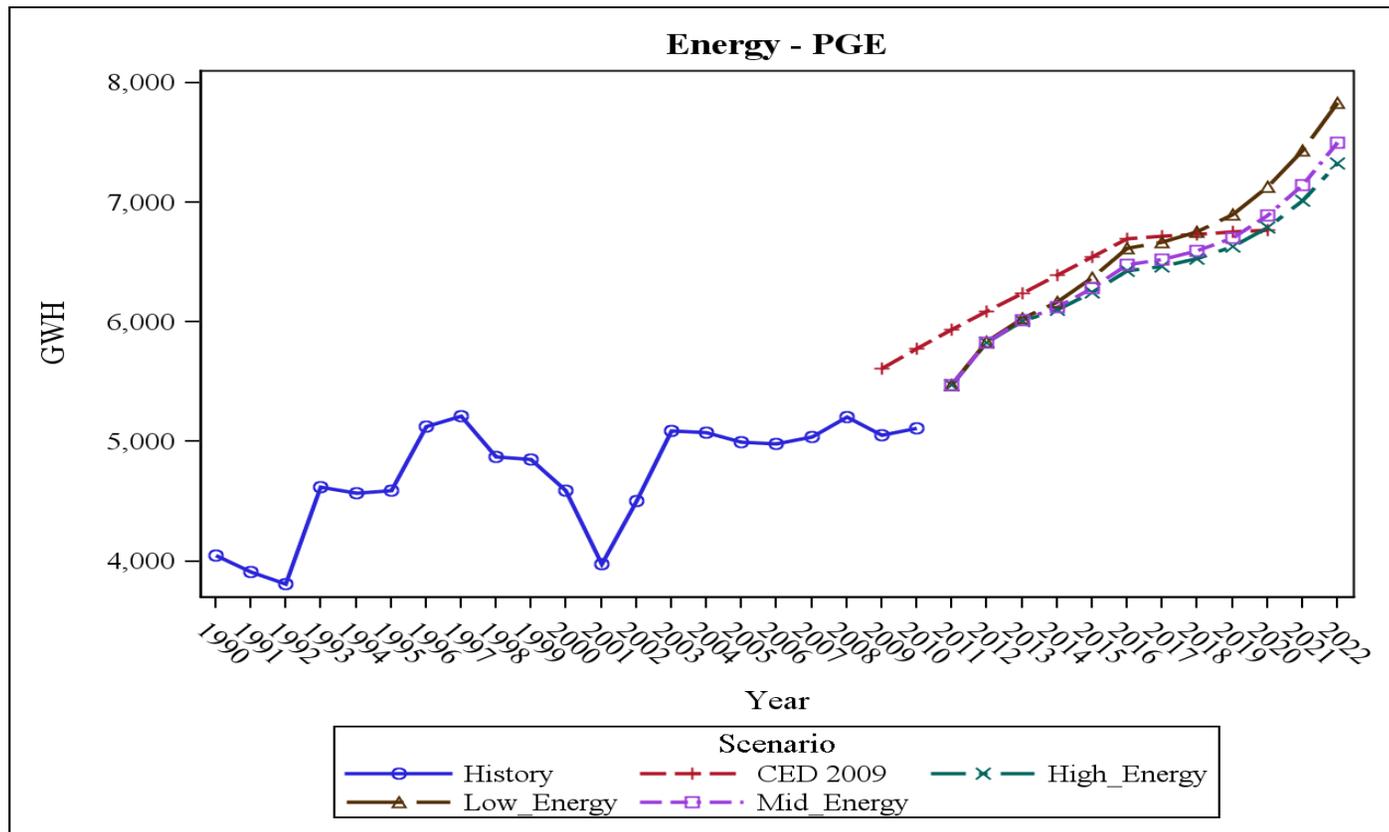




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Self-generation Energy Impact-PGE

- All 3 cases above *CED 2009* after 2020

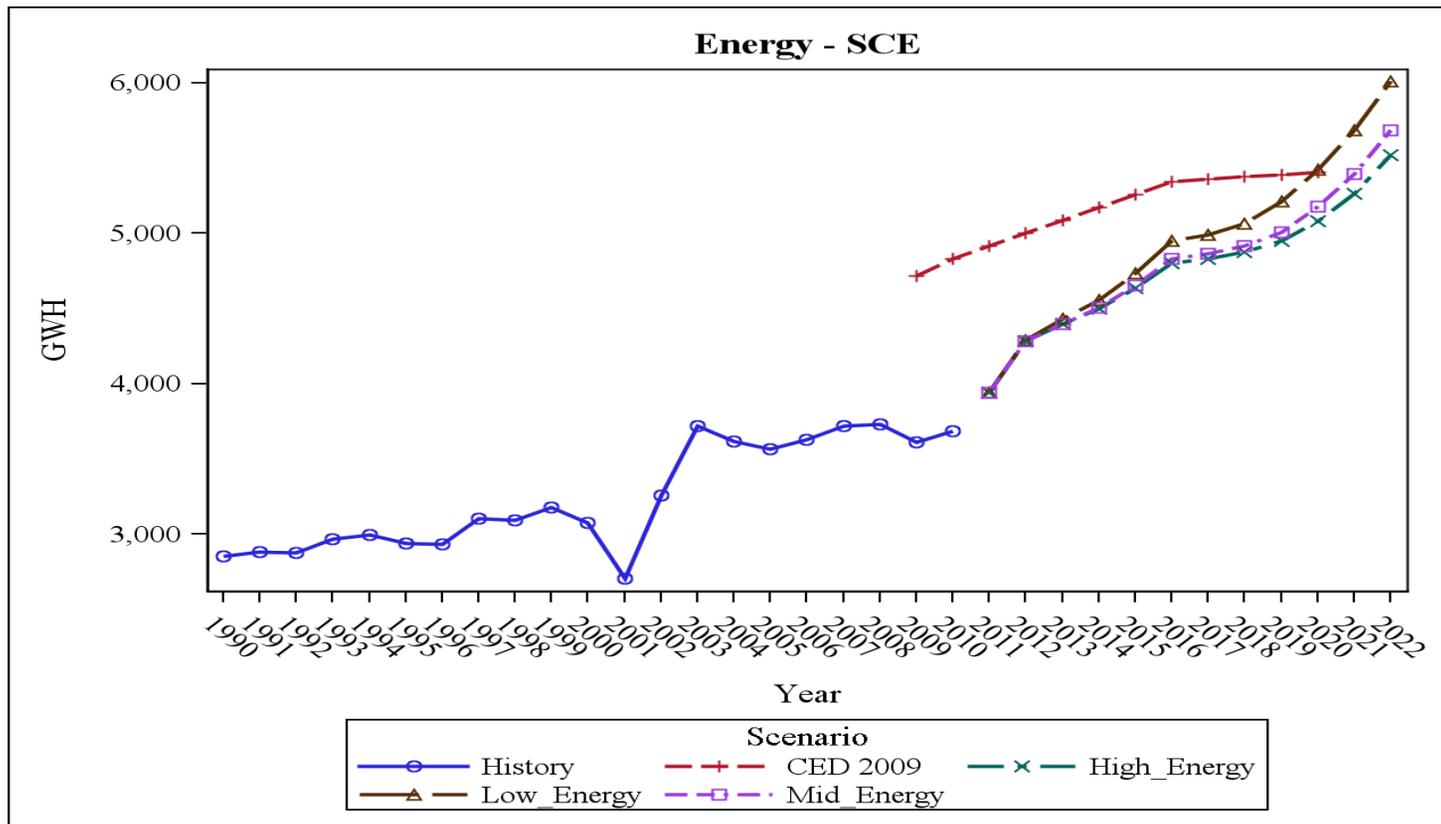




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Self-generation Energy Impact-SCE

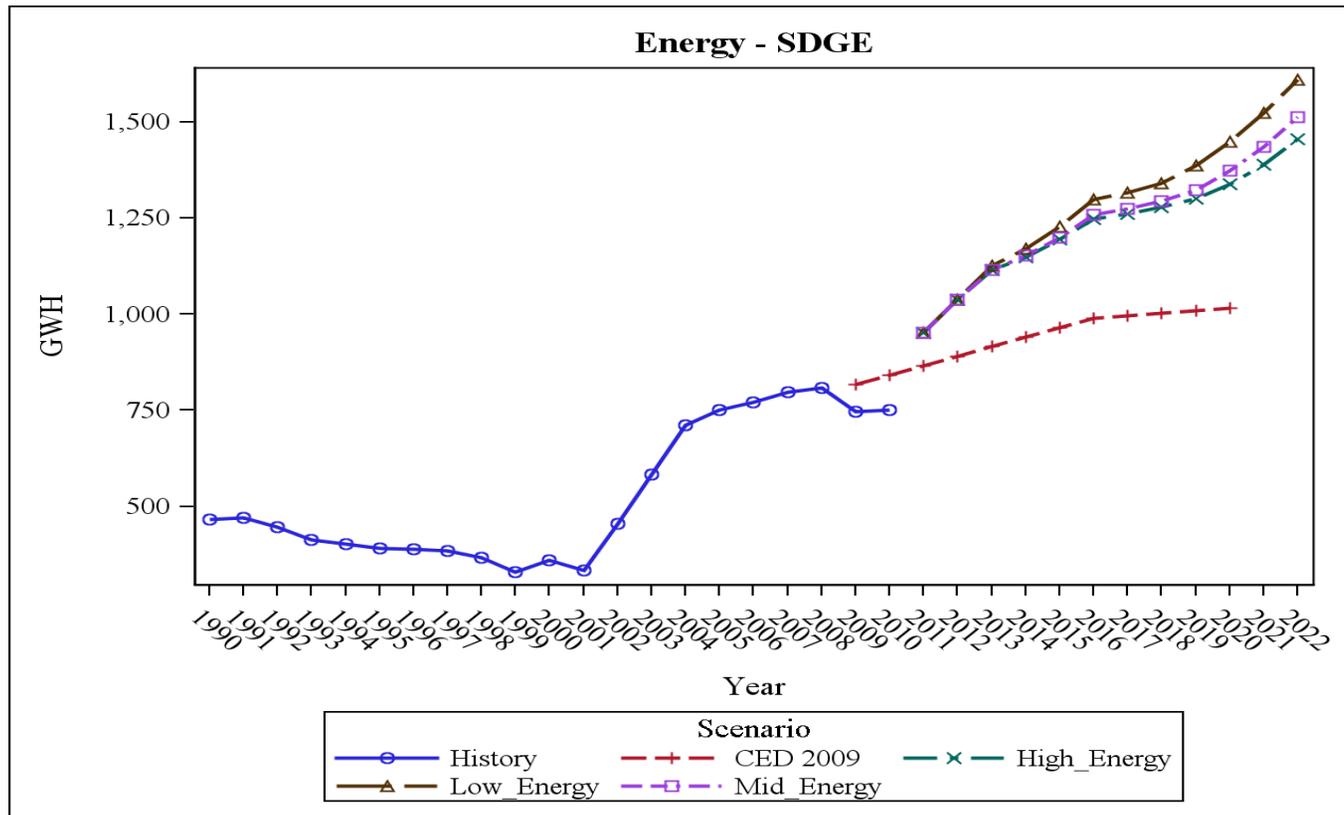
•Low case above *CED 2009* after 2020





Self-generation Energy Impact-SDGE

- All 3 cases above *CED 2009* after 2012

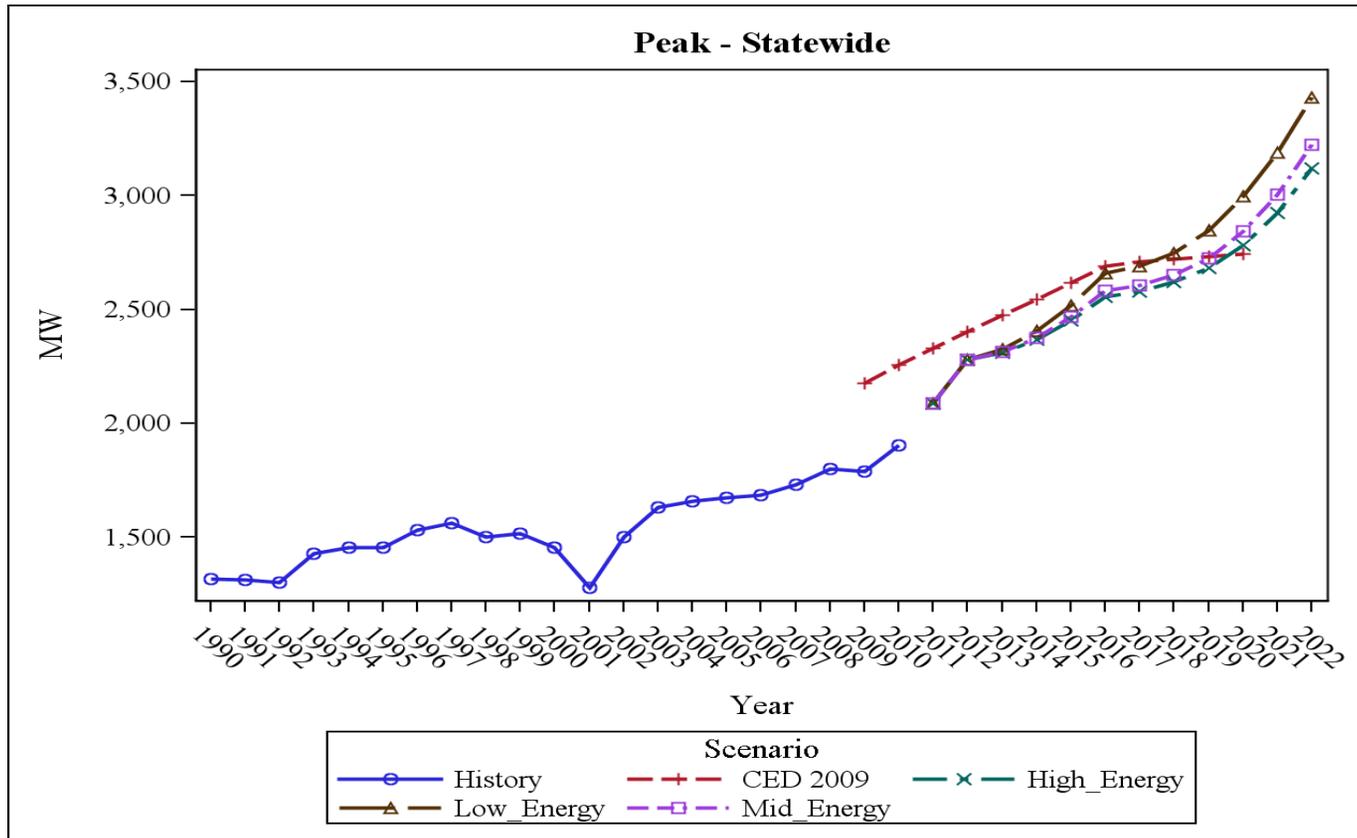




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Self-generation Peak Impact-Statewide

- All 3 cases above *CED 2009* after 2020

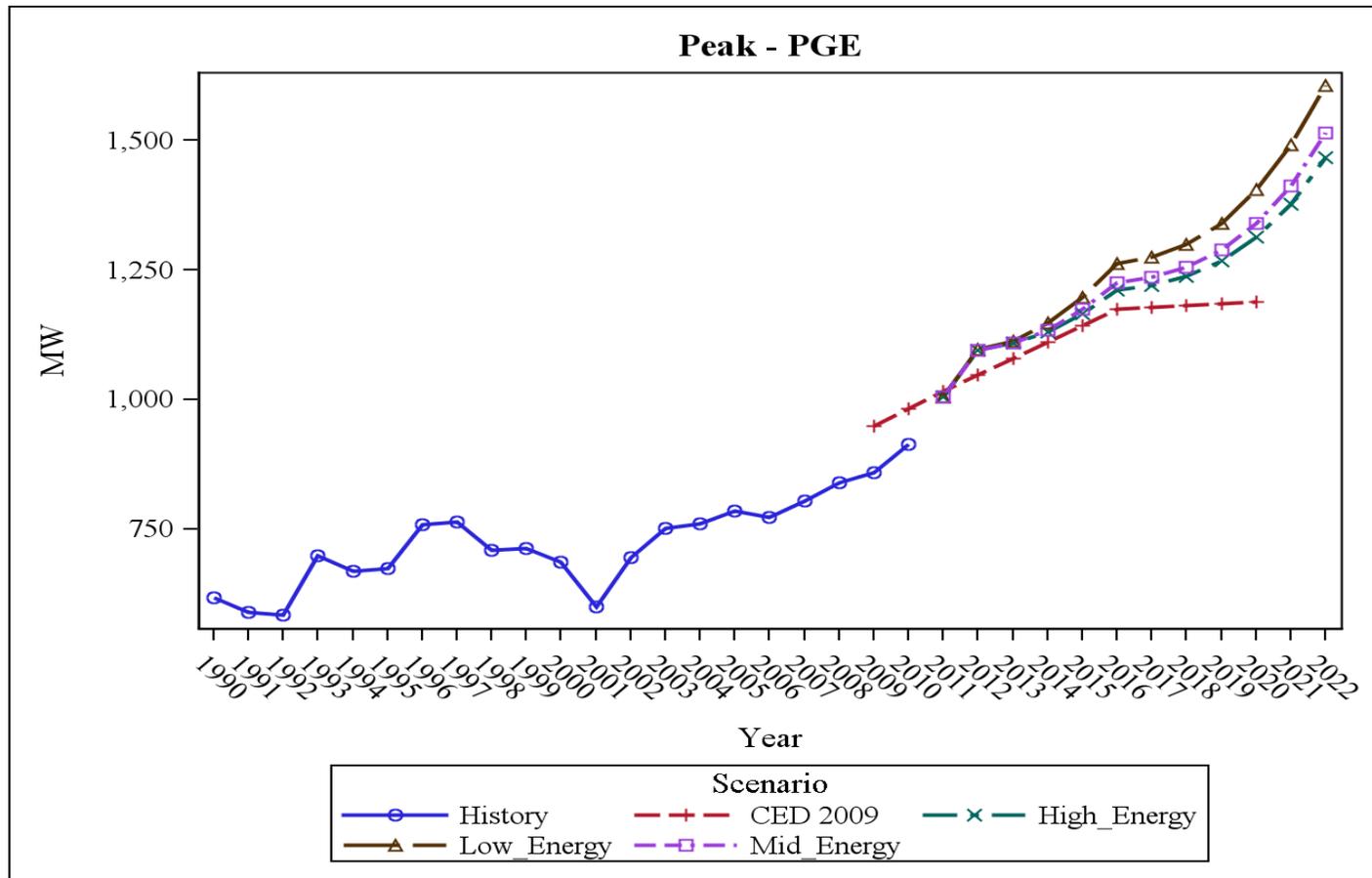




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Self-generation Peak Impact-PGE

- All 3 cases above *CED 2009*

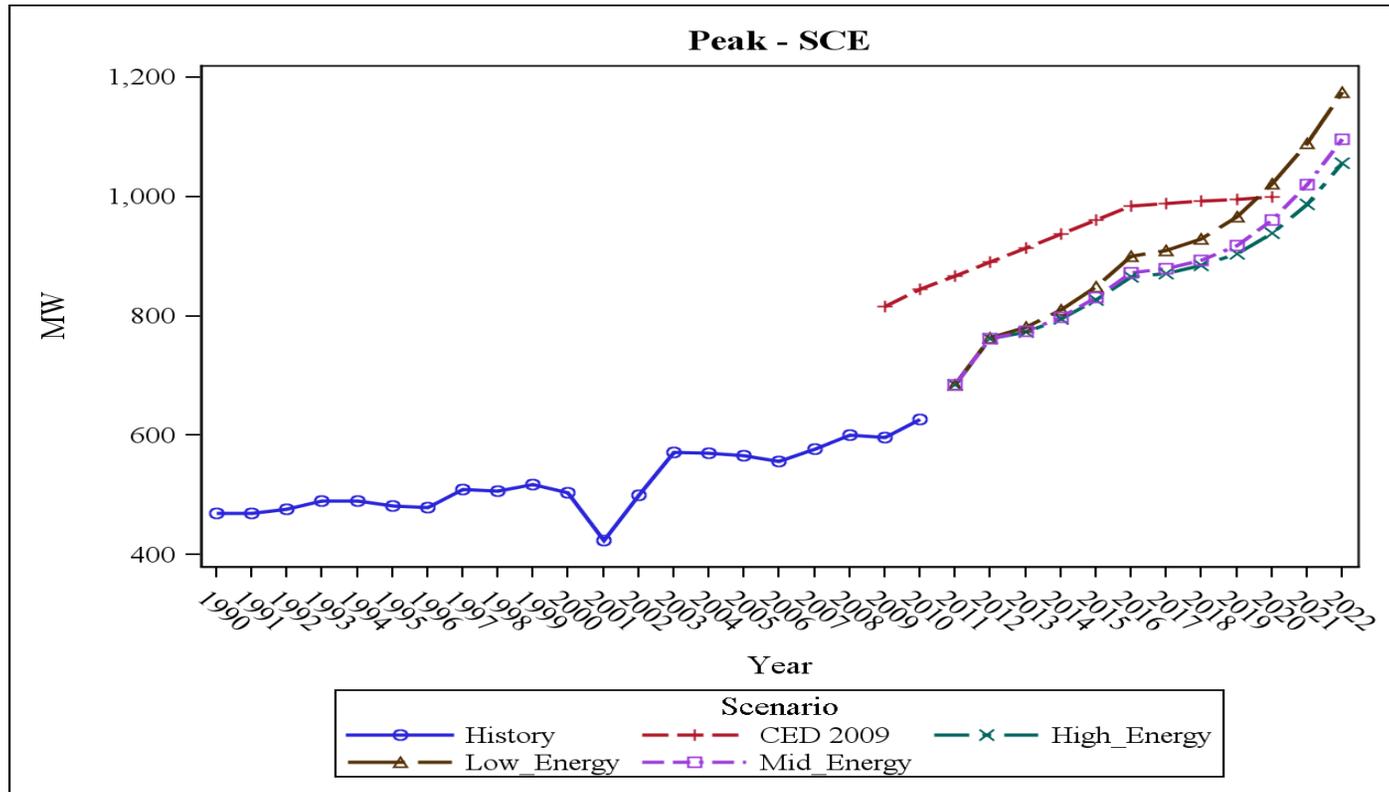




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Self-generation Peak Impact-SCE

- All 3 cases above *CED 2009* by 2022

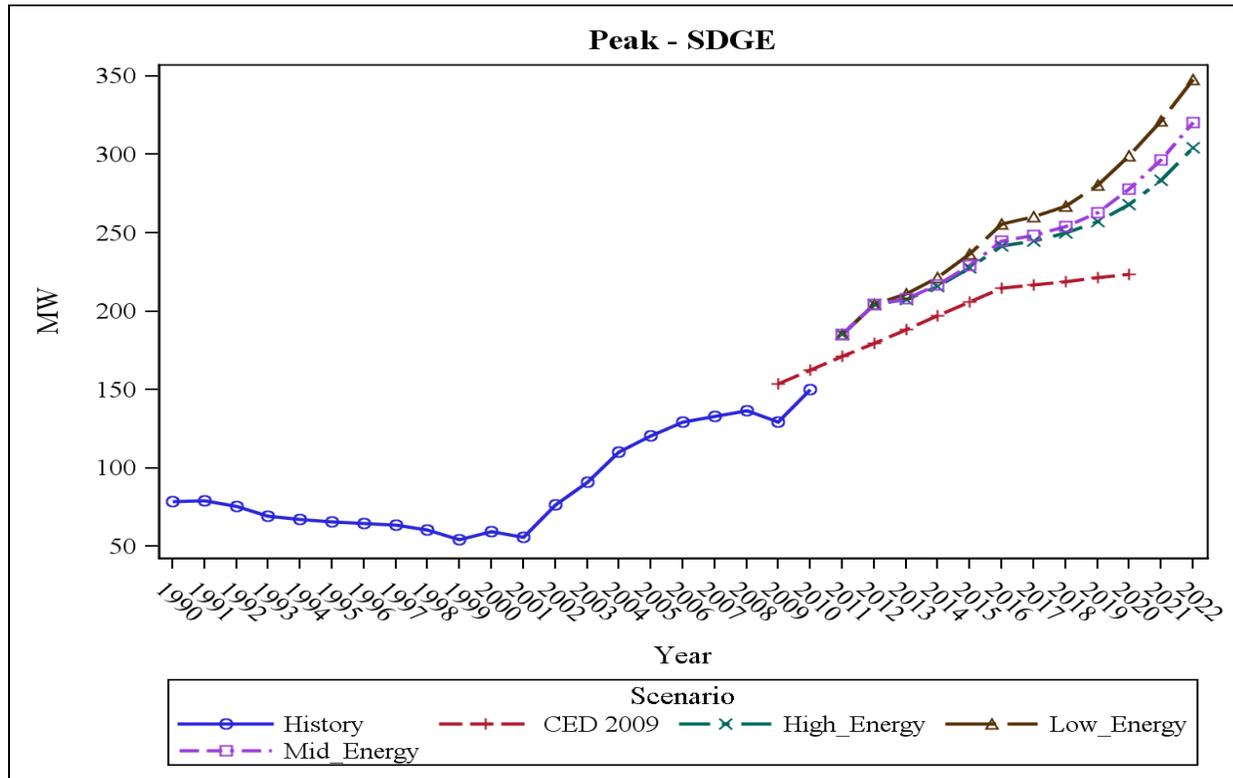




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Self-generation Peak Impact-SDGE

- All 3 cases above *CED 2009*





Next Steps

- Examine CHP/PV/SHW potential in Commercial/Industrial sectors
- Collect baseline DG technology performance and cost data
- Develop unified CHP database (CPUC)
- Develop model for Commercial/Industrial sectors