



California Energy Commission

IEPR Committee Workshop

CALIFORNIA ENERGY DEMAND 2012-2022

REVISED STAFF FORECAST:

Self-Generation Forecast

Sacramento, CA

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Data Sources

- DG programs (ERP, NSHP, CSI, SGIP, and similar programs offered by POUs)
- Large industrial and commercial users reporting under QFER
- Energy and Peak factors come from annual CSI and SGIP program evaluation reports



Revisions and Updates

- Corrected for data entry errors in QFER reporting
- Updated program data for CSI, NSHP, Solar Hot Water, and POU PV
- Updated capacity and peak factors to reflect 2010 CSI/SGIP program evaluation report



Forecast: Residential

- Residential PV and solar water heating adoption forecast with new predictive model
 - PV system cost and performance data come from a study sponsored by EIA
 - Solar water heating system cost and performance data based on an assessment undertaken by CPUC



Forecast: Residential

- Residential Predictive Model
 - Payback calculations based on system and maintenance costs, incentives, and fuel rates
 - Estimated payback applied to a Bass Diffusion adoption curve
 - Results for adoption differ by demand scenario since projected fuel rates and number of homes vary by scenario



Forecast: Non-Residential

- No predictive model
- Forecast based on trend analysis
 - Examine rate of growth in adoption based on historic DG incentive program data
 - Estimate growth and then estimate energy and peak impacts based on capacity/peak factors from CSI/SGIP evaluation reports

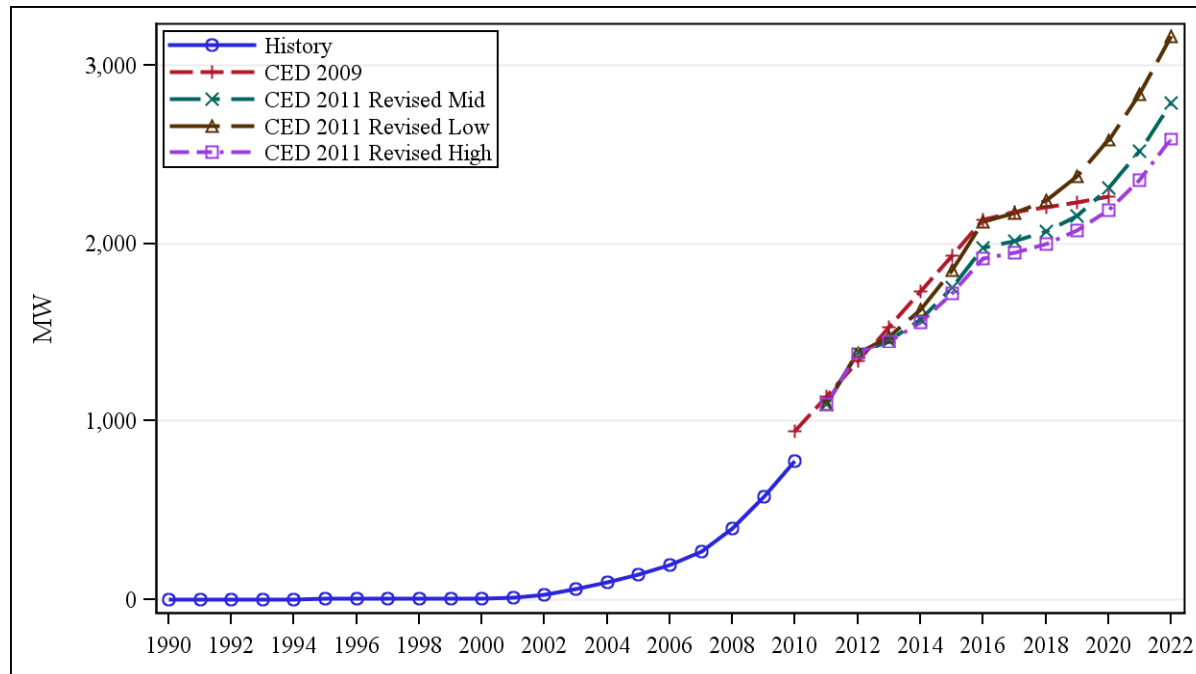


Focus on Installed PV Capacity

- Non-PV and PV energy and peak impacts to be discussed in main presentation of each planning area



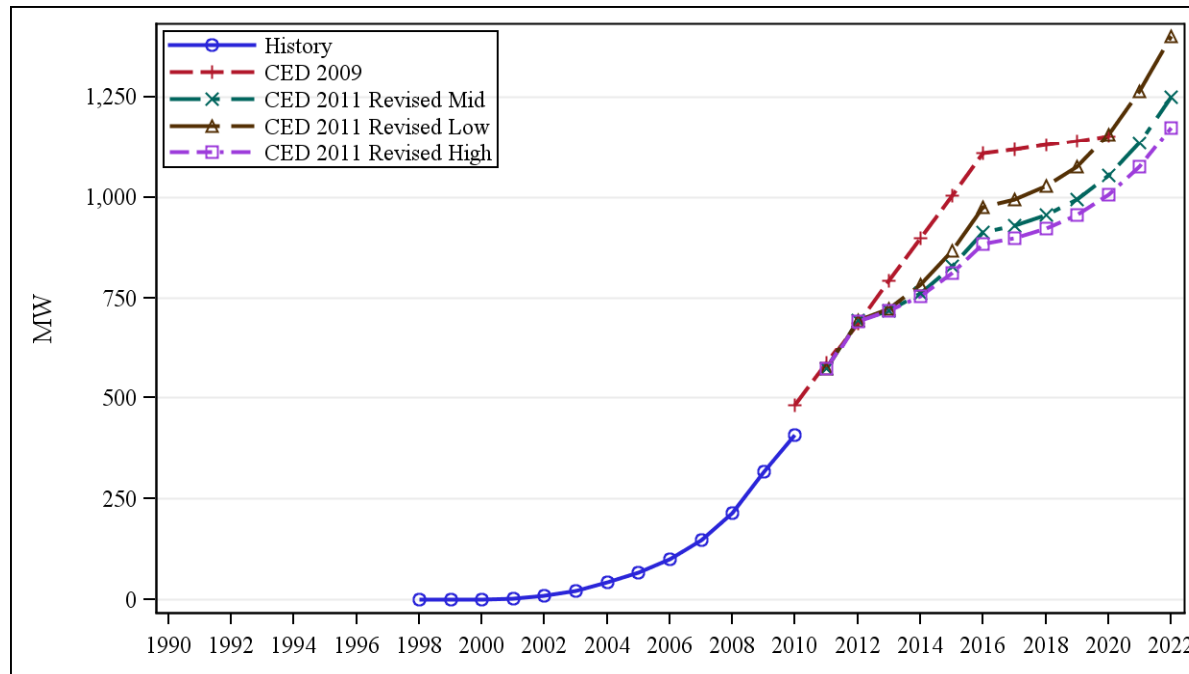
Statewide Installed PV Capacity





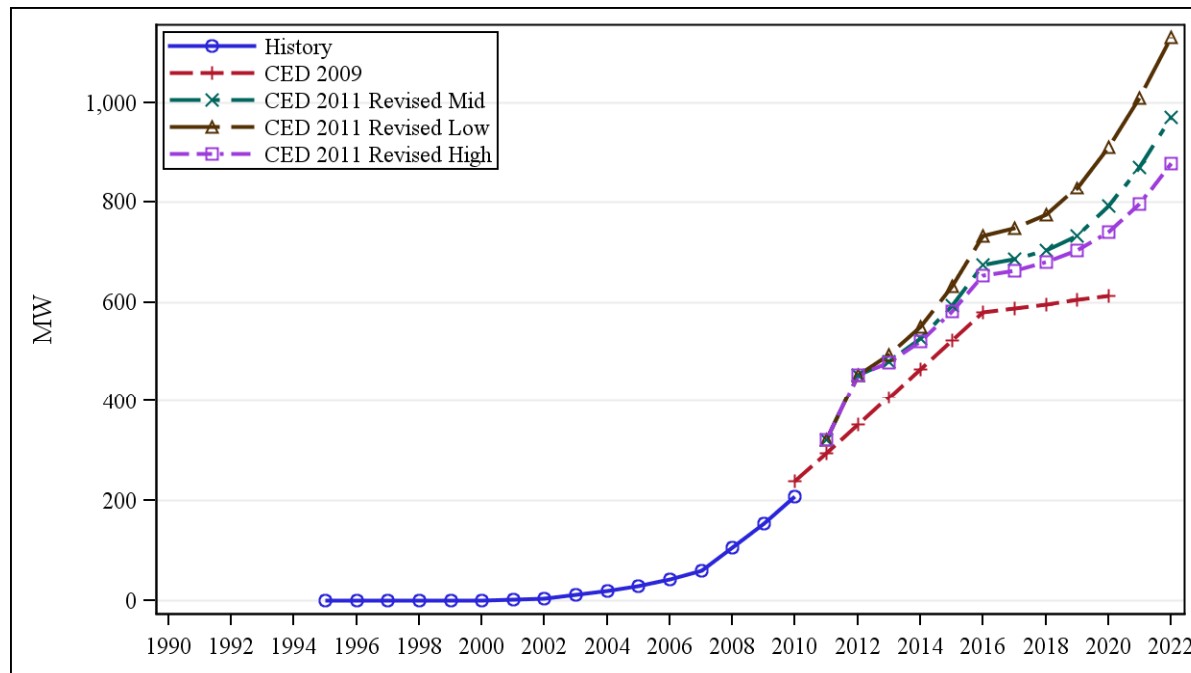
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PGE Installed PV Capacity



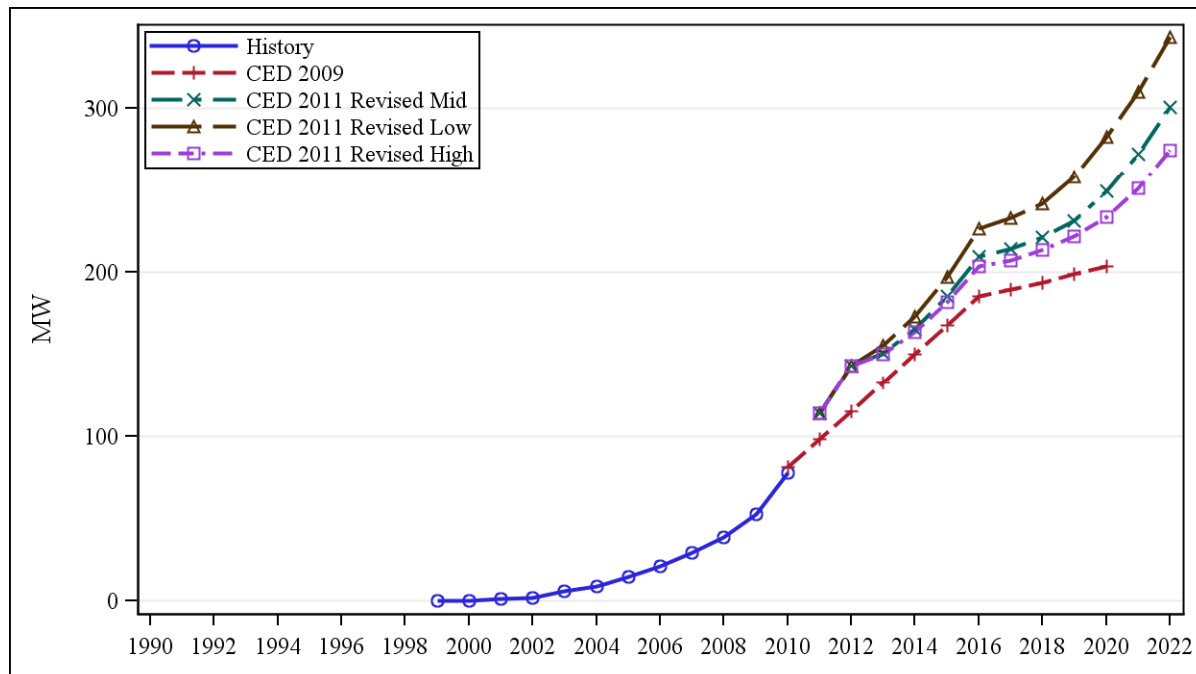


SCE Installed PV Capacity



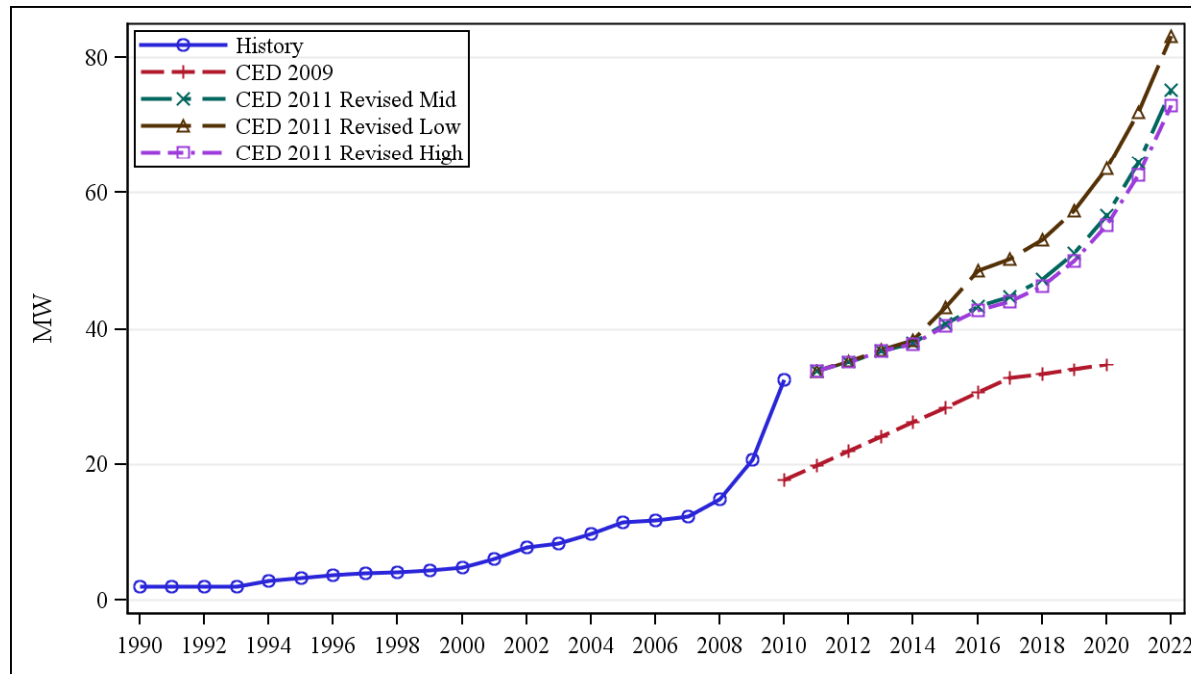


SDGE Installed PV Capacity





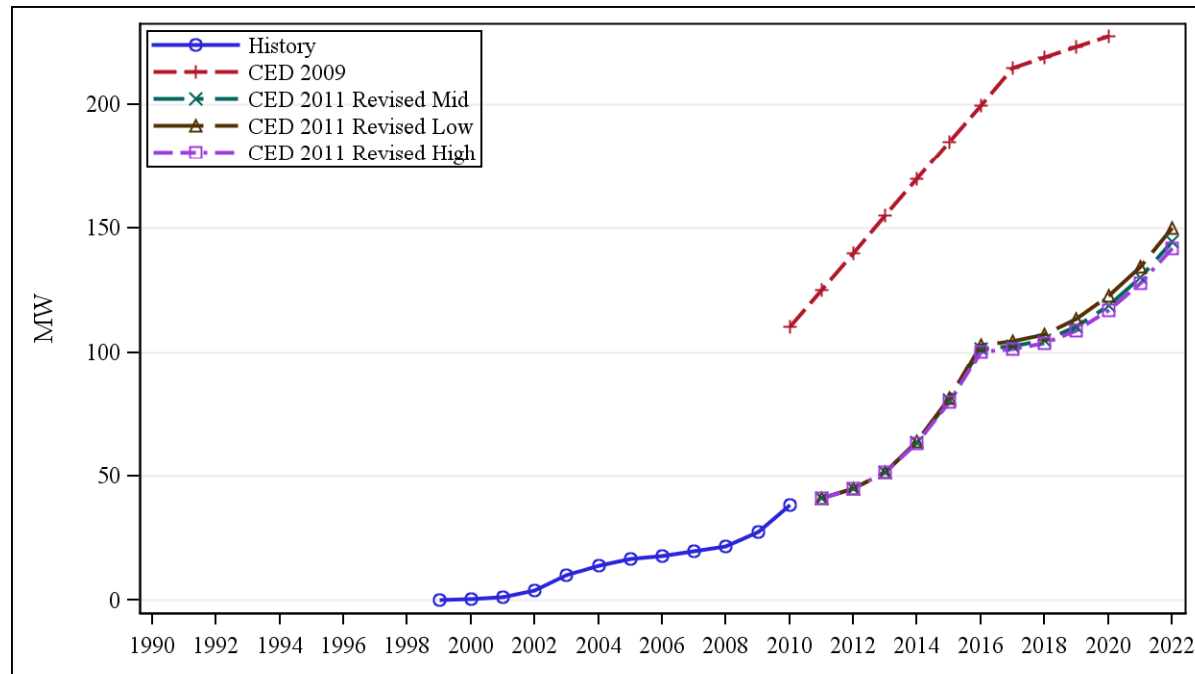
SMUD Installed PV Capacity





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LADWP Installed PV Capacity





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- Note – Evaluation Report uses a different dataset than what was used by CEC staff for the revised forecast

Utility	Capacity (MW)		
	Report*	CEC	% Difference
PGE	420	409	-2.6%
SCE	212	208	-1.9%
SDGE	77	78	1.3%

- Total project capacity of projects having the following status :
“Cancelled”, “System Removed”, “Withdrawn”

Utility	Capacity (MW)
PGE	114
SCE	55
SDGE	16



Next Steps

- Finish work on Non-Residential sector predictive models
- Update QFER database to align CHP capacity per ICF report
- Monitor developments in CHP projects per CHP Settlement
- Monitor participation of CHP projects in revised SGIP program
- Monitor participation of CHP under AB 1613