



2015 California Demand Response Potential Study

Phase 1 Study Results

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ENERGY TECHNOLOGIES AREA

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DR Potential Study Context

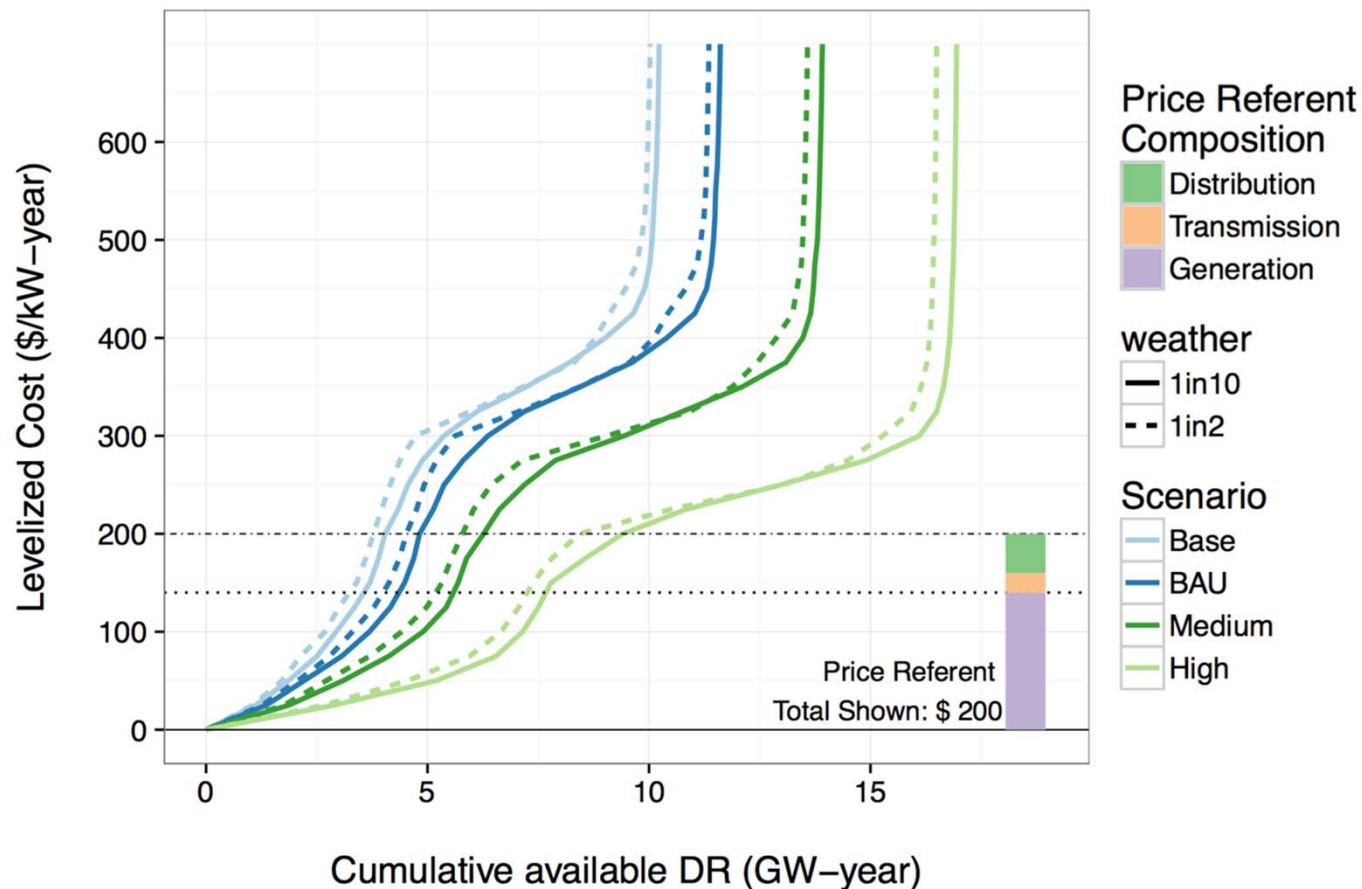
Motivation for Study

- ◆ Study is part of CPUC “*Order Instituting Rulemaking (OIR) to Enhance the Role of Demand Response in Meeting the State's Resource Planning Needs and Operational Requirements*” (13-09-011).
- ◆ Study’s purpose:
 - ❑ How to **enhance role of DR** in meeting California’s resource planning needs & operational requirements.
 - ❑ Assist in **setting goals & policy based on potential size of available DR** resources.
 - ❑ Identify opportunities for DR products & programs to meet long term **clean energy goals**.
 - ❑ **Analyze the impact of bifurcation of DR resources** into “load-modifying” or “supply” measures. DR bifurcation is core to CPUC rulemaking.

DR potential with Price Referent of Capacity Resources

2025 DR Potential Supply Curve with Price Referent Line

Includes: All DR | CEC Medium Growth Building Stock

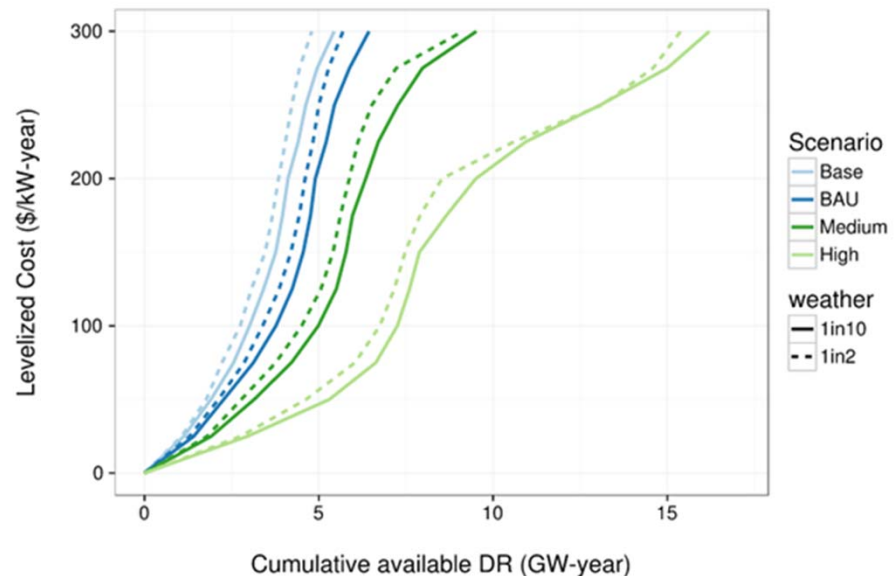


Cost Competitive DR by Scenario & Year

Scenario	Year	Below \$200/kW-year (MW yr)
BAU	2014	3,200
	2020	3,900
	2025	4,500
Medium	2014	3,200
	2020	4,400
	2025	5,800
High	2014	3,200
	2020	5,400
	2025	8,400

Research suggests that California could achieve approximately 6 GW of cost competitive DR by 2025 under the medium scenario.

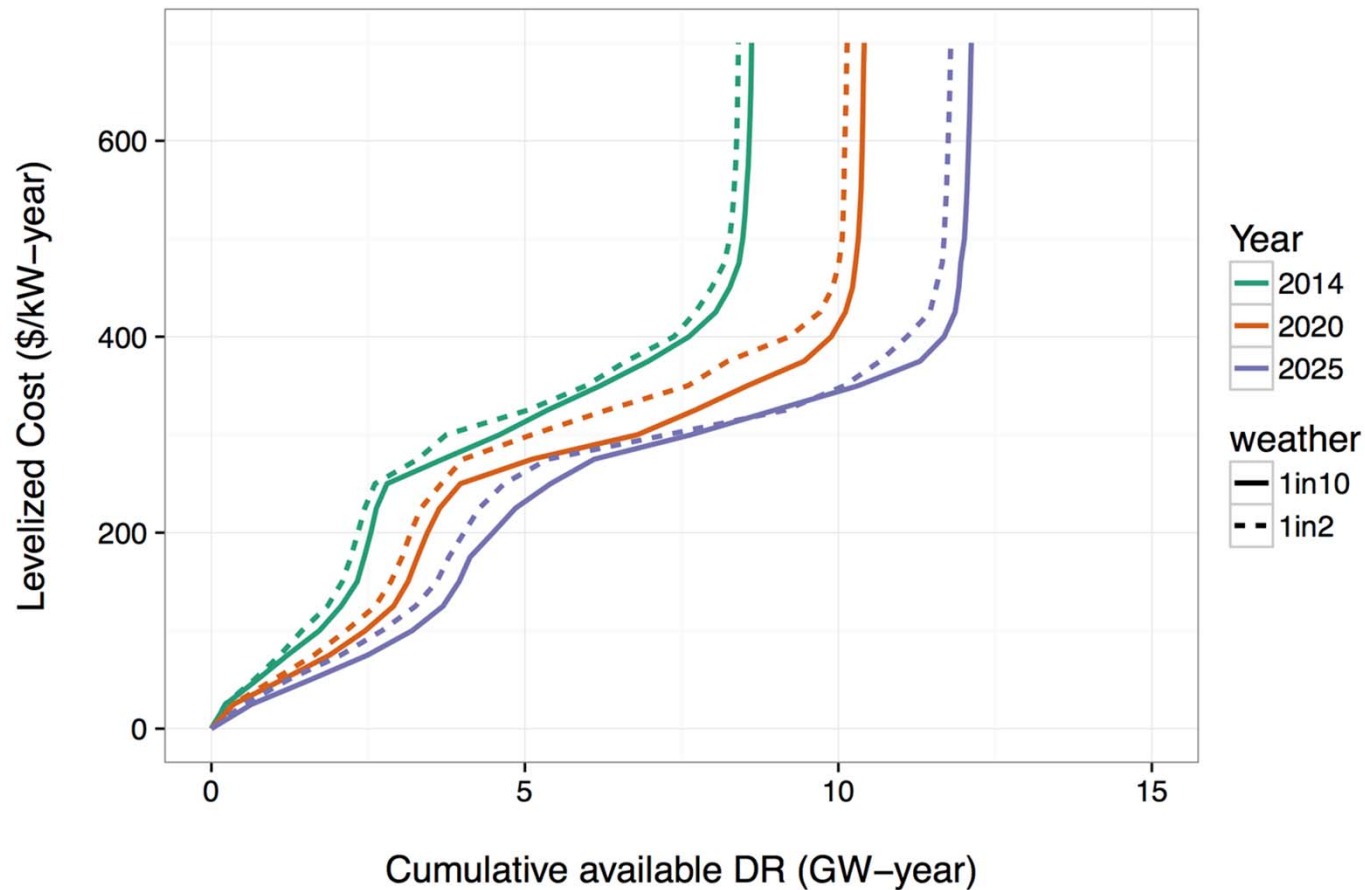
2025 DR Potential Supply Curve (Zoom to <\$300/kW-y)
Includes: All DR | CEC Medium Growth Building Stock



DR Progression from 2014 through 2025

DR Potential Supply Curve by Year

Includes: Supply DR | CEC Medium Growth Building Stock | Medium DR Scenario



DR Potential Model Synthesis

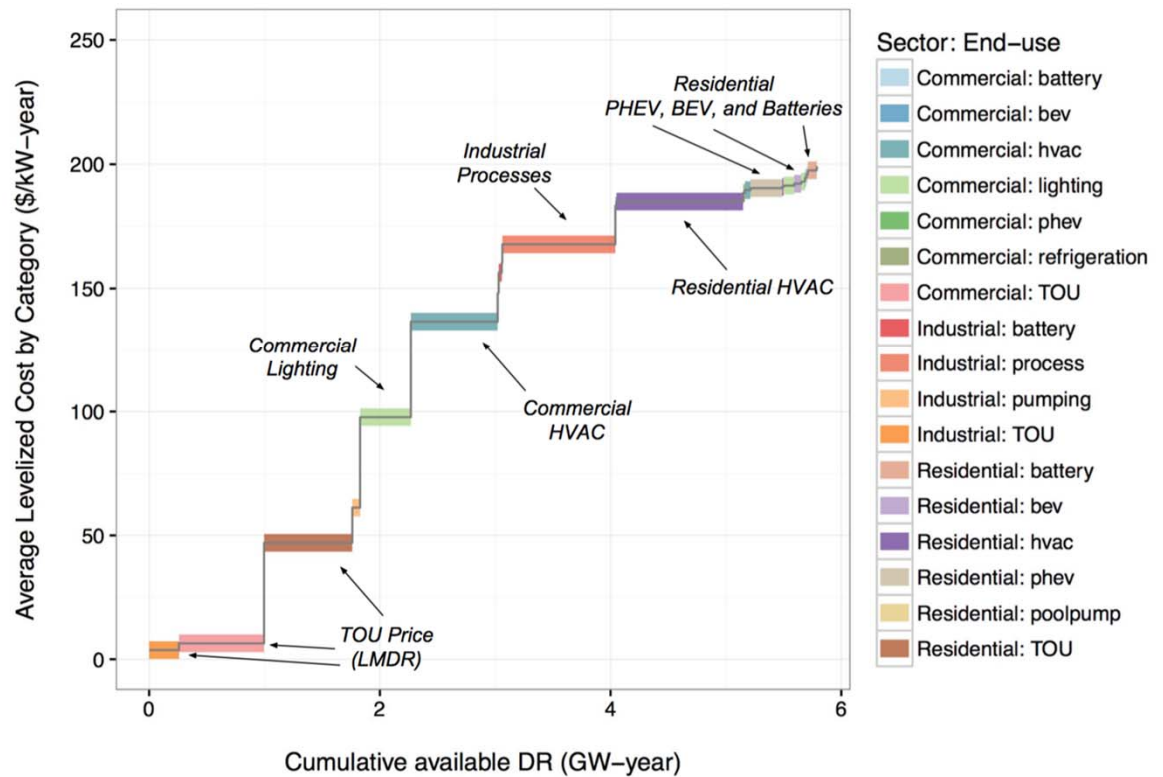
Approach for analyzing DR Potential:

For many cost ceilings, identify a mix of technology based on site-by-site resource potential that maximizes the contribution of DR.

Results in the quantity of DR potential and a mix of technology at that cost cap.

2025 Technology Category Contributions @ \$200 Price Referent

Includes: All DR Tech | Med. DR Scen., 1-in-2 Weather | CEC Medium Growth Building Stock



Questions?

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Full report can be found at:
[**www.cpuc.ca.gov/General.aspx?id=10622**](http://www.cpuc.ca.gov/General.aspx?id=10622)

