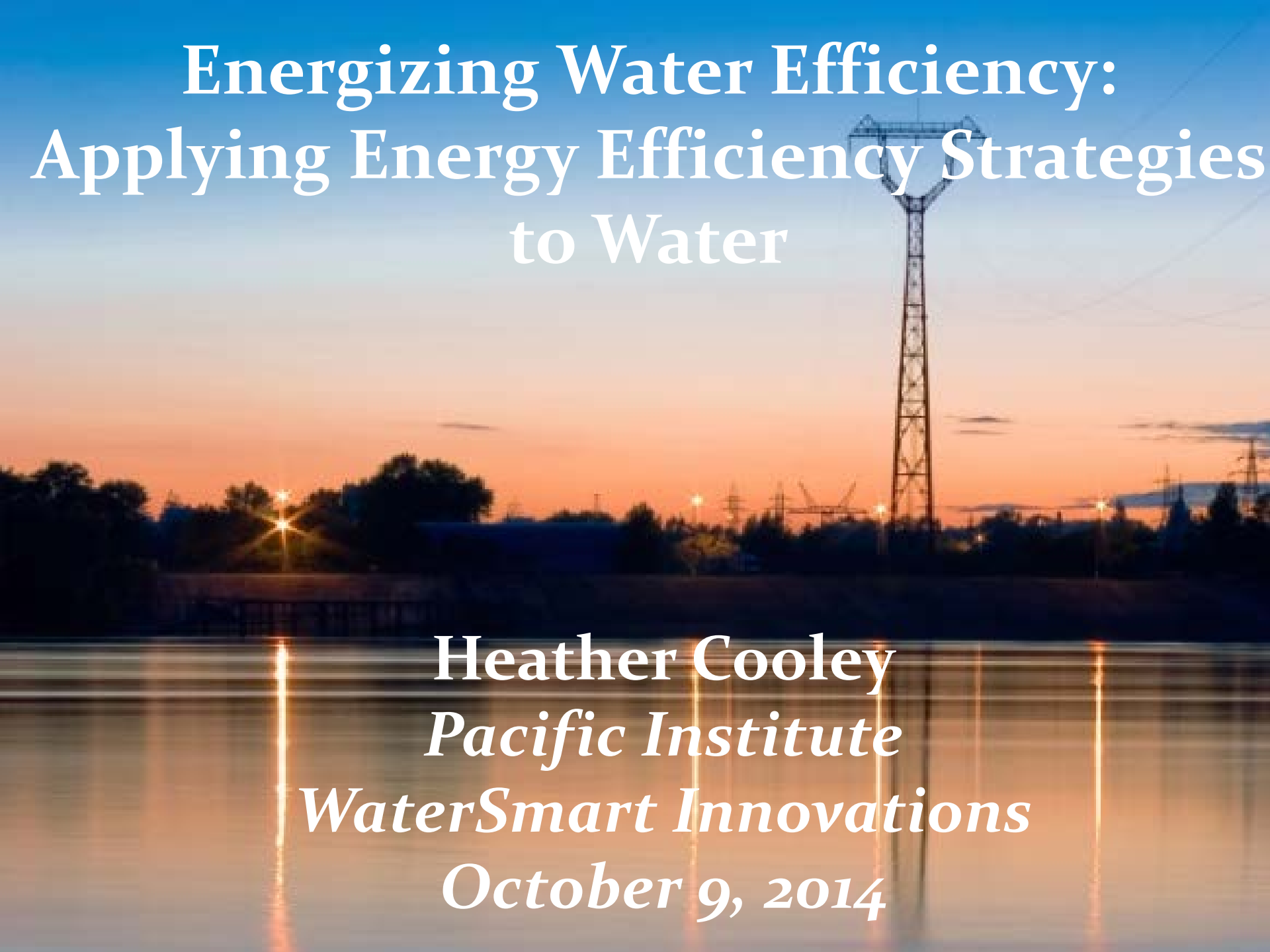


This presentation premiered at WaterSmart Innovations

watersmartinnovations.com

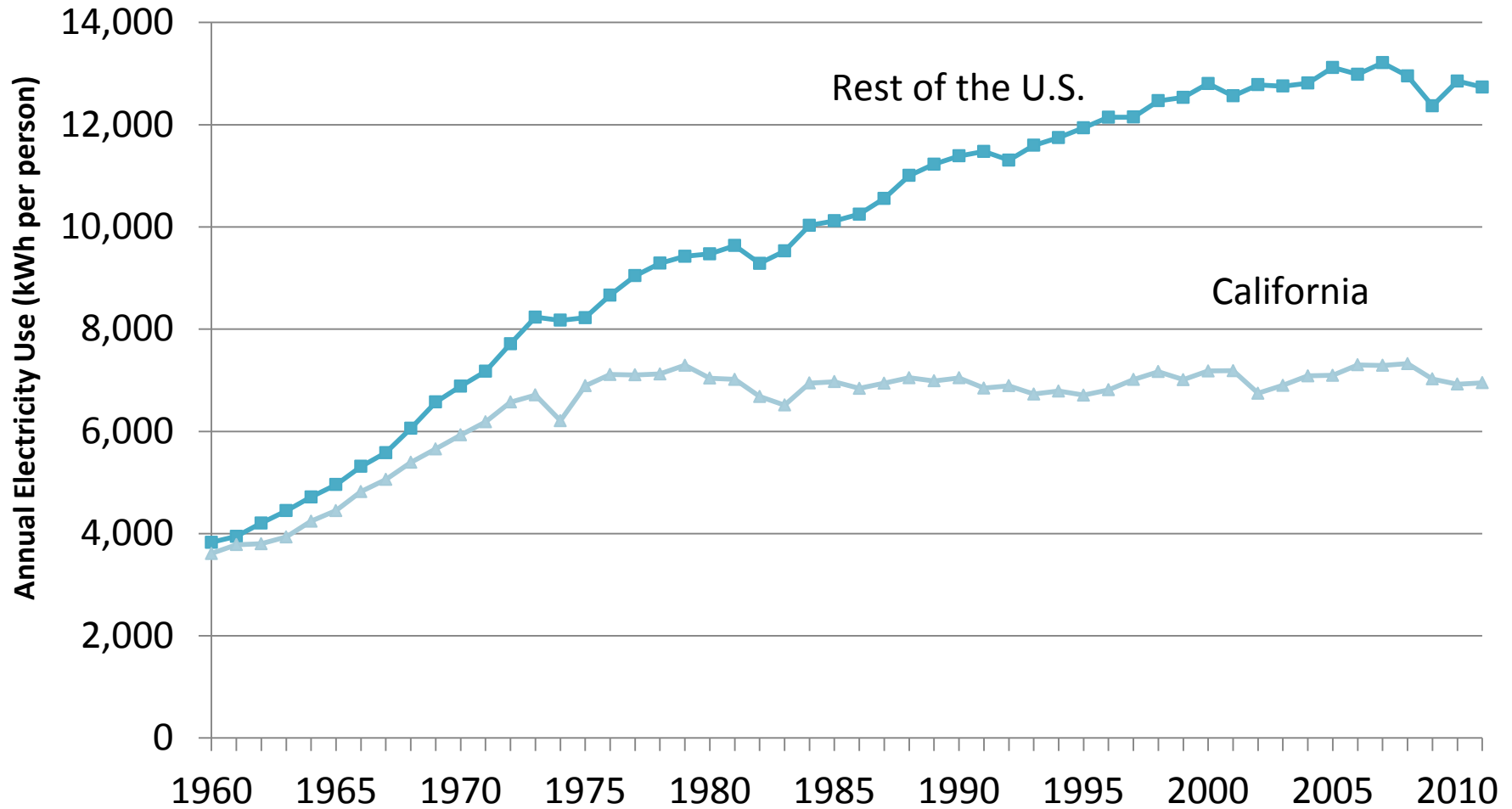




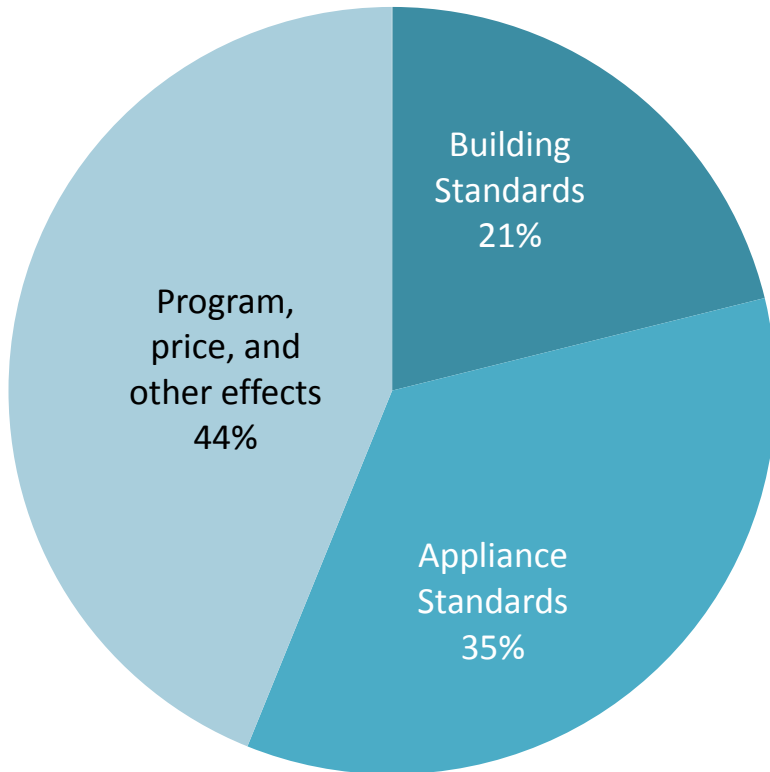
Energizing Water Efficiency: Applying Energy Efficiency Strategies to Water

Heather Cooley
Pacific Institute
WaterSmart Innovations
October 9, 2014

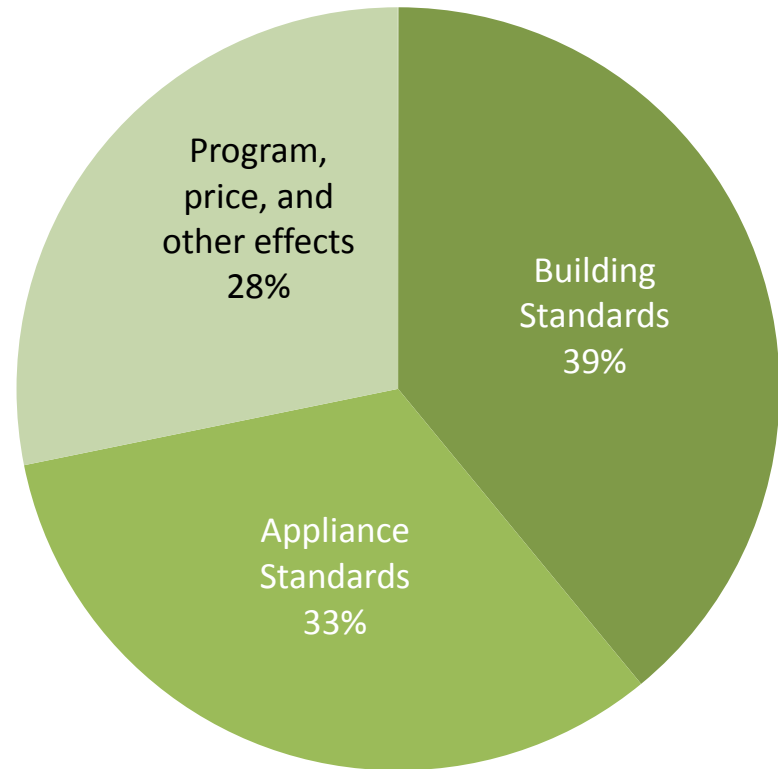
Energy Efficiency Improvements



Standards and Codes

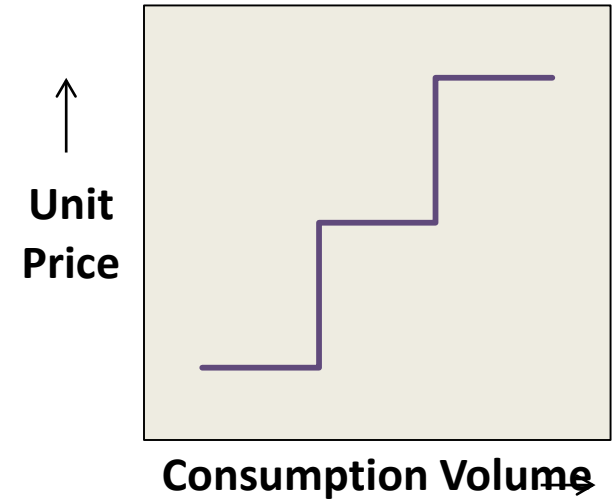
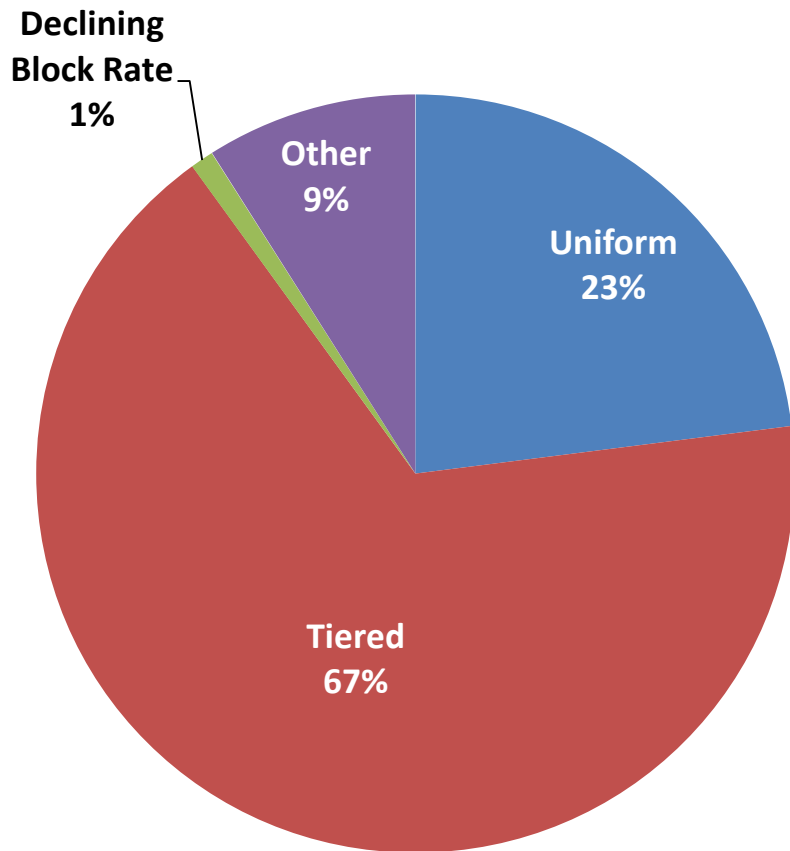


Electricity Savings, 1990-2012



Natural Gas Savings, 1990-2012

Pricing Policies



- 80% of wastewater utilities in California using flat rates

Rate Structures of Surveyed California Water Utilities

Efficiency Targets

- 2004: CPUC adopted explicit goals for four largest IOUs
- Initial goals set from 2004 – 2013 and included savings from utility efficiency programs
- Savings must persist and shortfalls must be made up in future years
- Goals have been updated several times
- As of 2006, POUs must set efficiency targets

Efficiency Targets

Energy Sector	Water Sector
Targets established through regulatory process with periodic updates	Targets established through legislative process; updates uncertain
Targets based on analysis of efficiency potential for each utility	
One compliance option	Several compliance options
Target based on absolute number	Target as a percent savings; depends on weather, economic activity, etc.
Savings integrated into future statewide demand forecasts	Savings are NOT integrated into state or even local demand forecasts

Efficiency as a Resource



**Clean,
Efficient Fossil
Fuels**

**Renewables and
Distributed
Generation**

**Energy Efficiency and
Demand Response**

Efficiency as a Resource

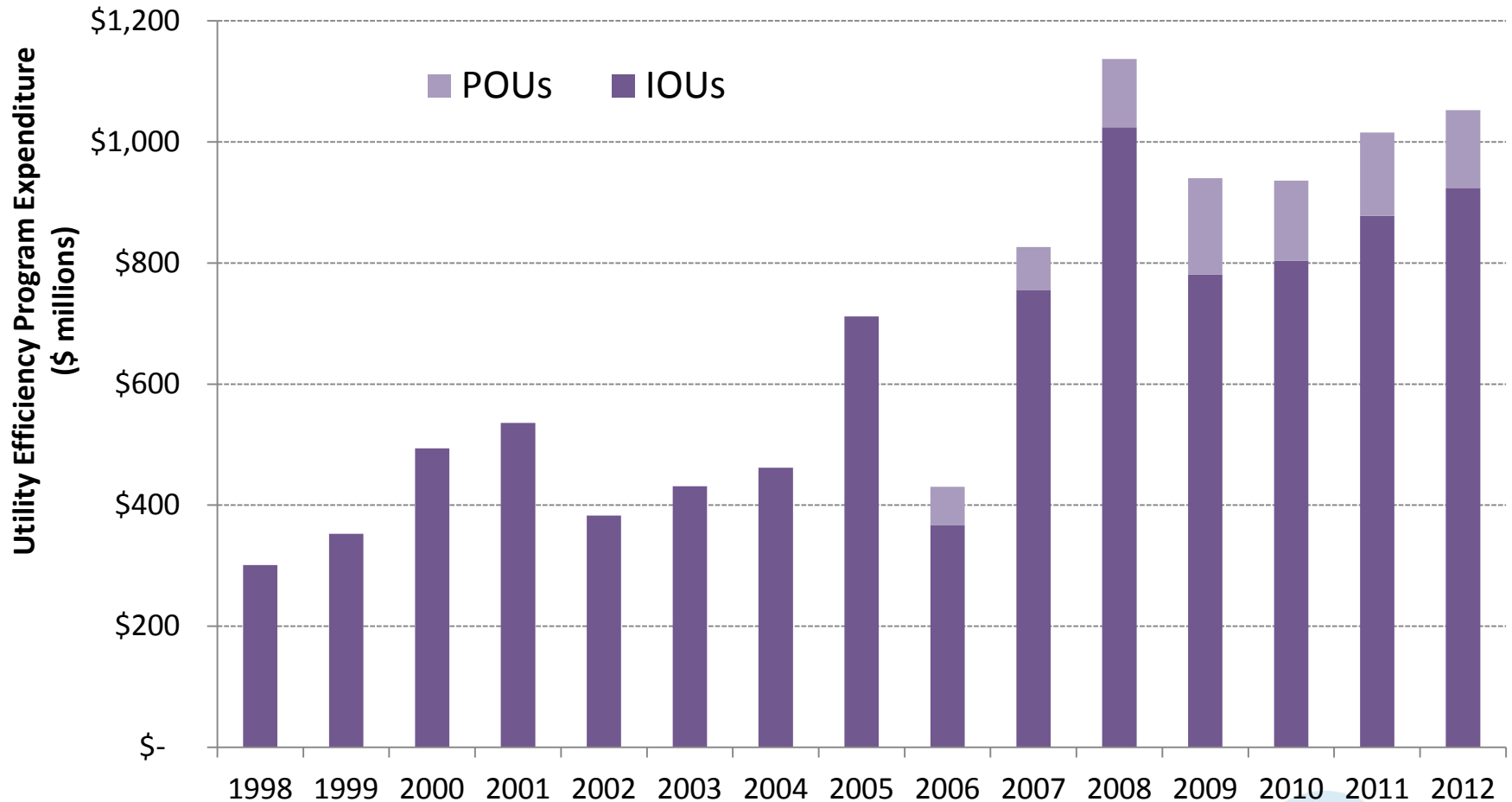


**Traditional
Supplies**

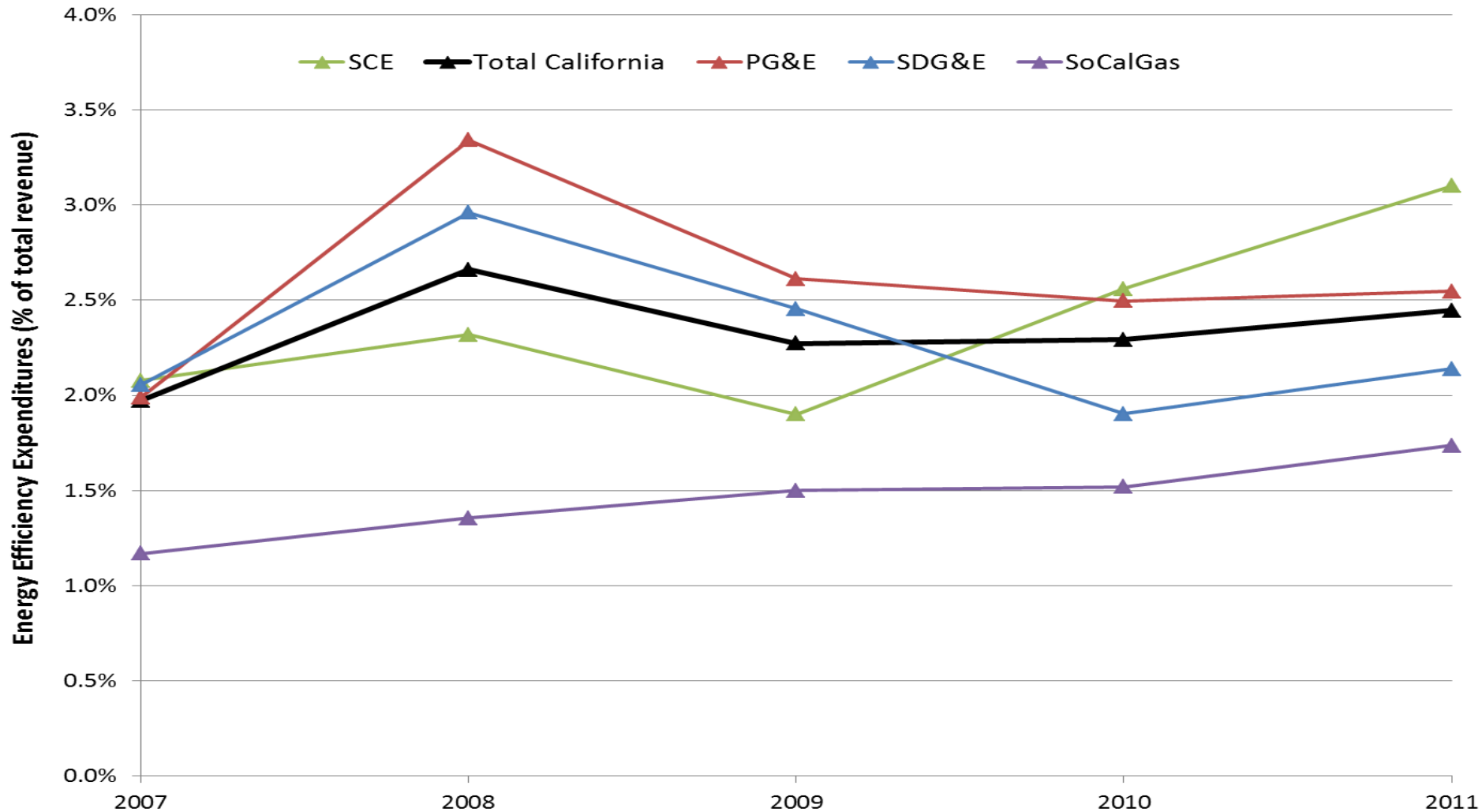
**Alternative Supplies
(Reuse, Stormwater,
Rainwater, GW
Cleanup)**

**Water Conservation and
Efficiency**

Efficiency Investments

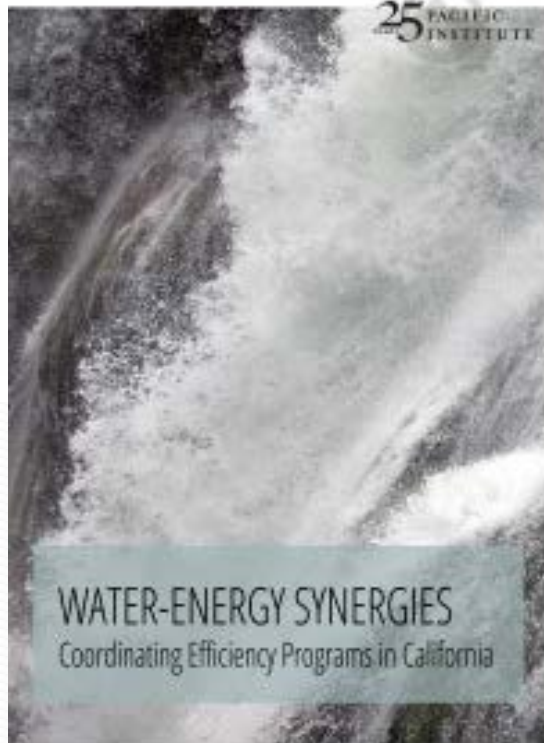
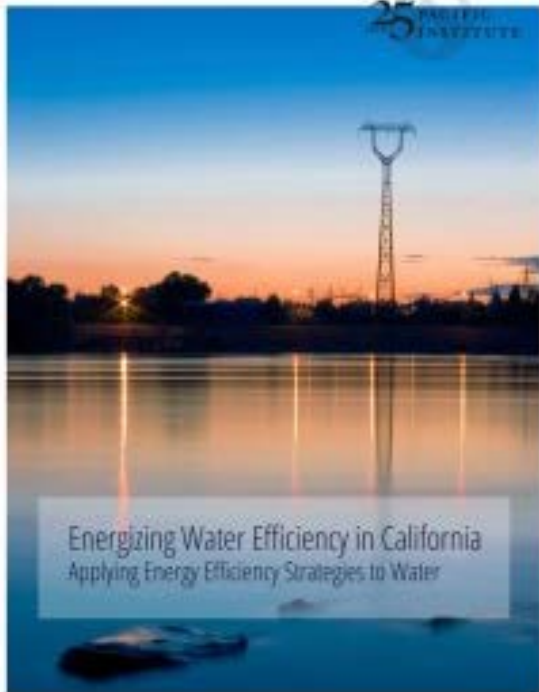


Efficiency Investments



Conclusions

- California faces a number of major water management challenges but they can be solved
 - Many lessons from the energy sector can be applied to the water sector
 - Continuously update standards and codes
 - Adopt pricing policies that promote efficiency
 - Improve efficiency targets
 - Adopt a loading order for water
 - Increase efficiency investments
-



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