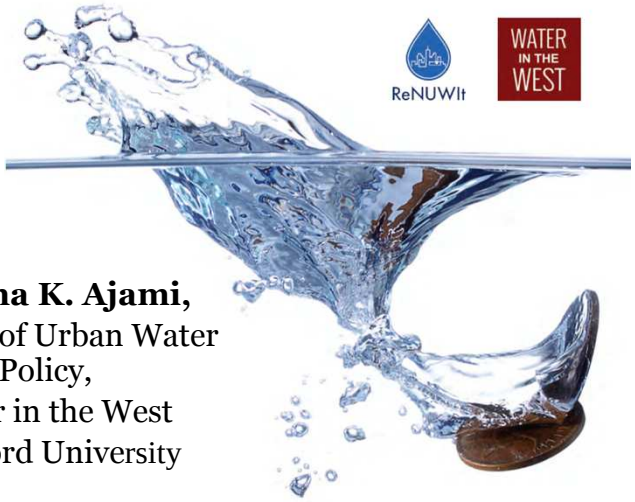
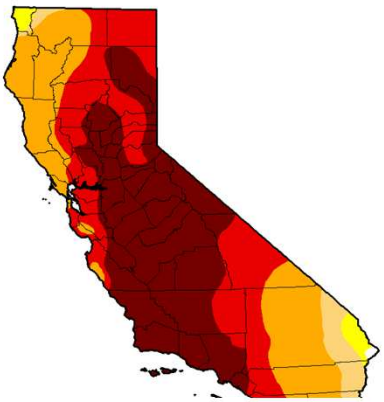
FUNDING WATER
in Times of Financial Uncertainty: The Case for a Public Goods Charge in California



Newsha K. Ajami,
Director of Urban Water Policy,
Water in the West
Stanford University

1

The State of Water in California



- Uncertain and extreme climate
- Decentralized utility system
- Many orphan and underfunded projects

Intensity:
D0 - Abnormally Dry
D1 - Moderate Drought
D2 - Severe Drought
D3 - Extreme Drought
D4 - Exceptional Drought

Source: U.S. Drought Monitor, February 28, 2015
http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?CA

A Challenge or An Opportunity

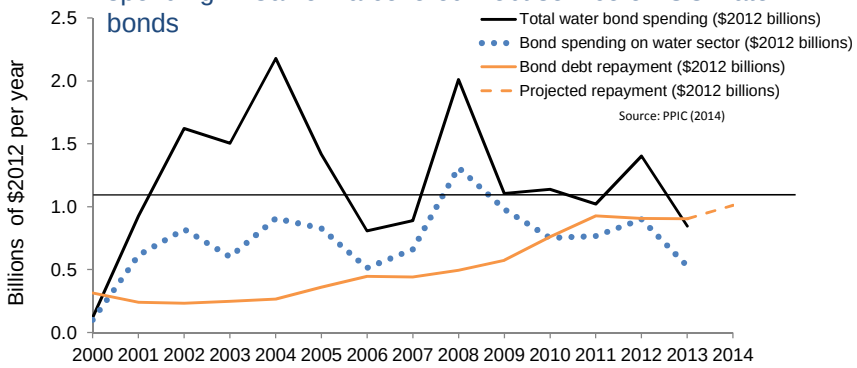
Urban re-invention is costly and requires rethinking of current financing mechanisms.

- Some of the financing options include:
  - Municipal bonds
  - State revolving funds
  - Public-Private Partnerships (PPP)
  - Tax initiatives
  - Public benefit funds
- Funding gaps include
  - Conservation and efficiency efforts,
  - Water research and development,
  - Monitoring and data management,
  - Capital investment for innovative water systems
- In California, State General Obligation (GO) bonds, while only 3% of annual water spending, cover about 10% of capital investment in various water projects.

California's Reliance on GO water Bonds

Bond financing is unreliable and expensive:

- Californians pay $80 annually / household to pay back water bonds
- Between 2008-2011, 18% of statewide annual water-related spending in California covered Debt service on GO water bonds



Public Financing Mechanism

- Public Benefit Charge can create a sustainable pool of monies to :
  - Invest in R&D,
  - Reduce the cost of new technologies, and
  - Attract private capital

	Water	Electricity
Number of Utilities in California	2,000+	50+
Utility Landscape	Highly decentralized, mostly Publicly Owned Utilities	Dominated by three major Investor Owned Utilities
Characteristic of the Good	Economic Commodity Public Good Human Right	Economic Commodity
Approach to Efficiency	Mostly Voluntary	Mostly Mandatory
Recent Public Benefits Funding Mechanism	Municipal Bond (e.g. GOB)	Public Goods Charge

7

	GO Bonds	Public Goods Charge
Funders	Taxpayers	Ratepayers
Reliability of Funding	Unreliable (depends on voter approval)	Reliable (fees generated every billing cycle)
Order of Funding	Money is borrowed up front and taxpayers repay the bond later	Ratepayers are charged up front and see results later
Nature of Funding	One time lump sum to projects	Continual income
Provisions for Low Income Communities	No	Possibly

ReNUWIt WATER IN THE WEST

8

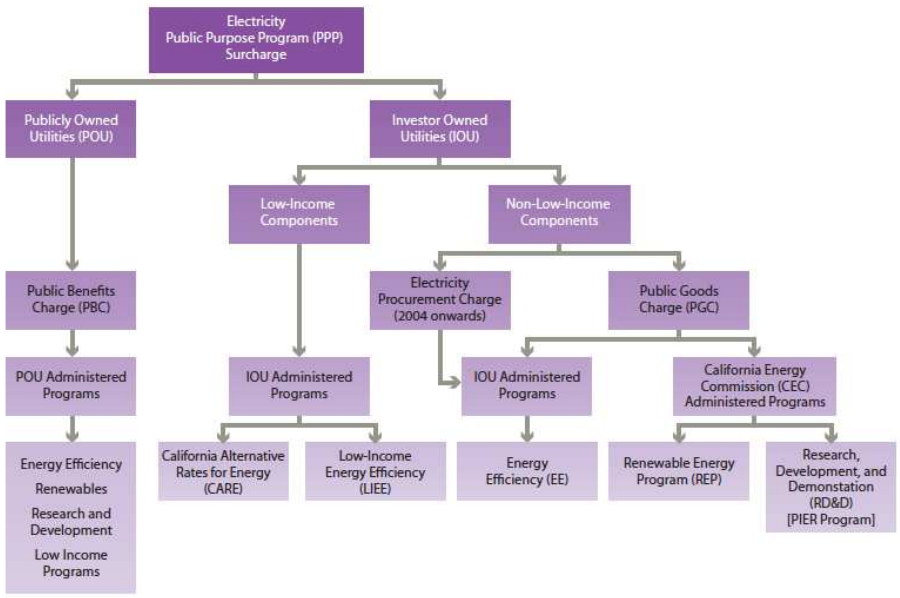
Public Goods Charge

- Created during deregulation of the state's electricity market in the 1990s to ensure that research and development did not stop
- A per-usage fee on customer utility bill, usually 1-2% of the bill ($1/$2 dollars)
- Raised money for three program areas to transform the state's electricity sector
- In place from 1998-2012

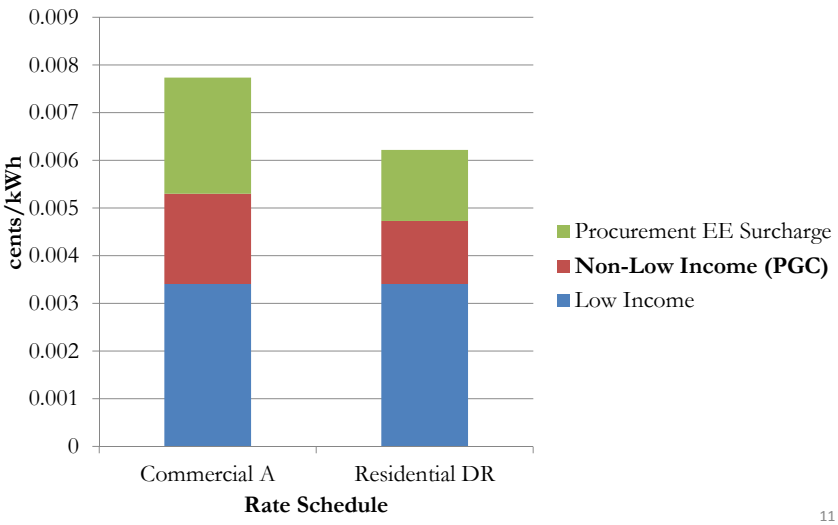
9

FIGURE 14.

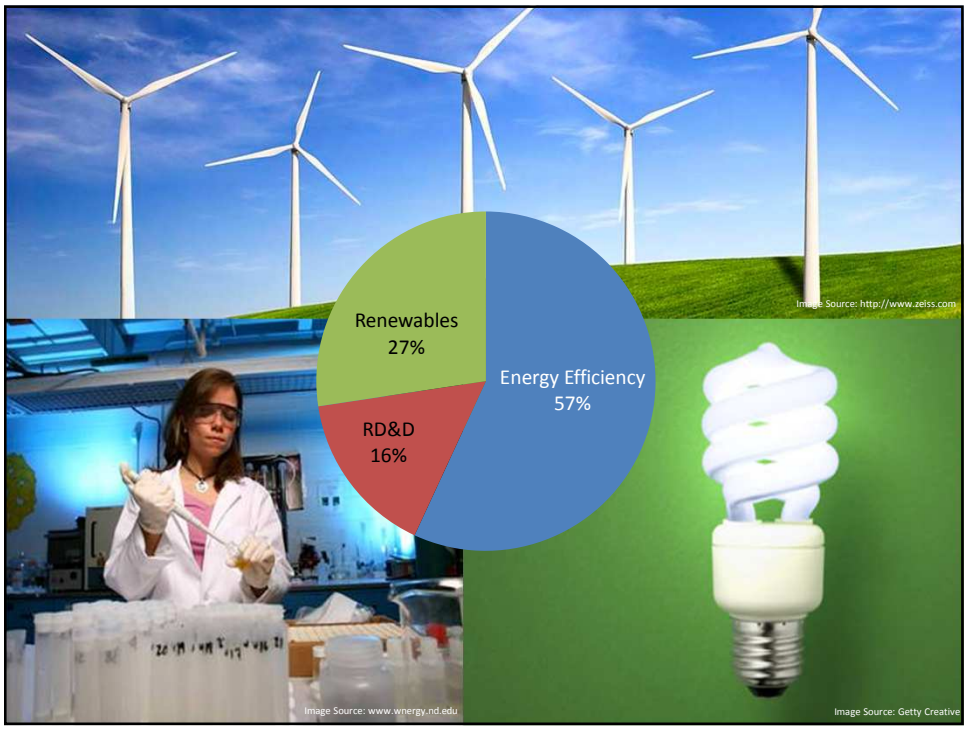
Governance Structure of Public Good Charge for Electricity in California



IOU Public Purpose Program Surcharge Components



11



Energy Efficiency Program

- Received the majority of PGC funds
- Programs administered by the IOUs
- Funds distributed to
  - IOUs themselves
  - Statewide programs
  - Local government partnerships
  - Third/local party implementers
- Money allocated to various programs
  - Residential
  - Agriculture
  - Commercial
  - Industrial

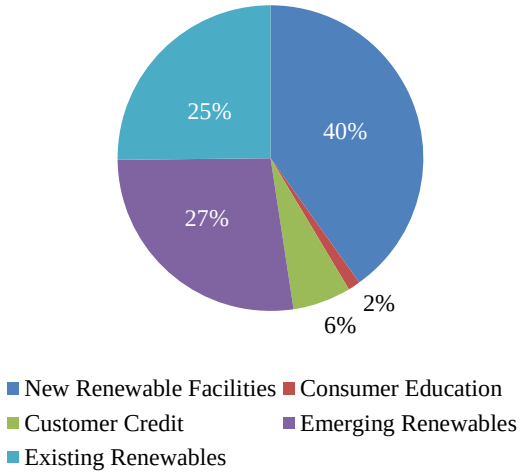
13

Renewable Energy Program

- Goal: to augment the state's energy supply with renewable energy sources
- Provided fiscal incentives to
  - Renewable energy generators
  - End-use customers

15

Renewable Energy Program



17

Research and Development: Public Interest Energy Research (PIER)

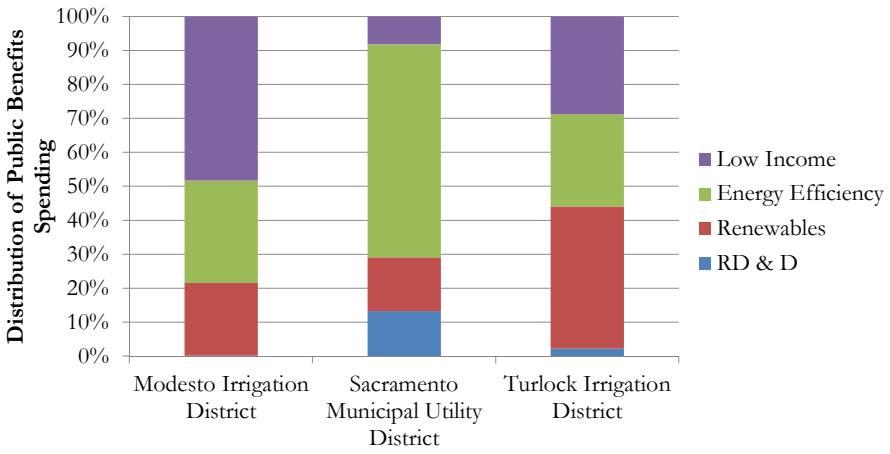
"To fund research…that is not adequately provided by competitive and regulated markets"

"Develop and bring to market energy technologies that provide increased environmental benefits, greater system reliability, and lower system costs"

Energy Efficiency	Renewable Energy	Energy Infrastructure

ReNUWIt WATER IN THE WEST

POUs- Public Goods Charge



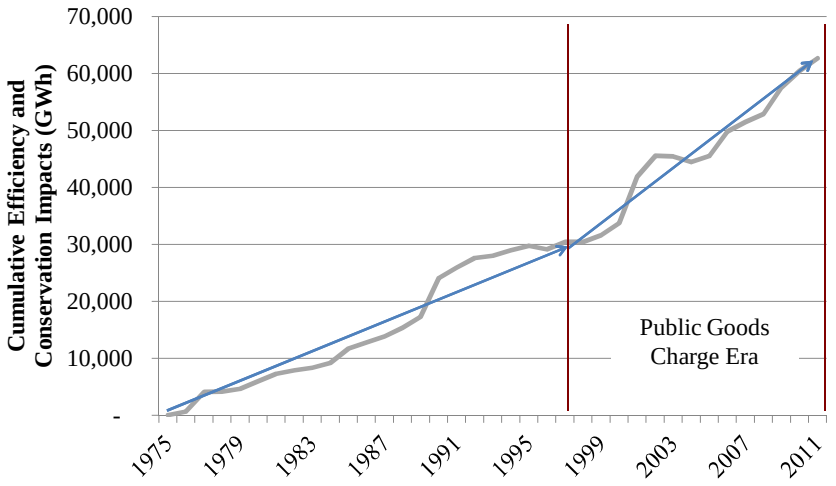
19

PGC Successes

- Decreased per-capita energy use
- Customer and state economic benefits
- Environmental benefits from decreased energy use and increased renewables
- Increased rate of innovation
- Fee serves as a signal for conservation

20

PGC Successes



21

Despite many successes, the PGC for electricity was not renewed…

- The California Energy Commission could not demonstrate substantial benefits
- Energy landscape different when PGC was enacted than when it expired
- Process by which funding was allocated for PIER program was not economical

ReNUWIt WATER IN THE WEST

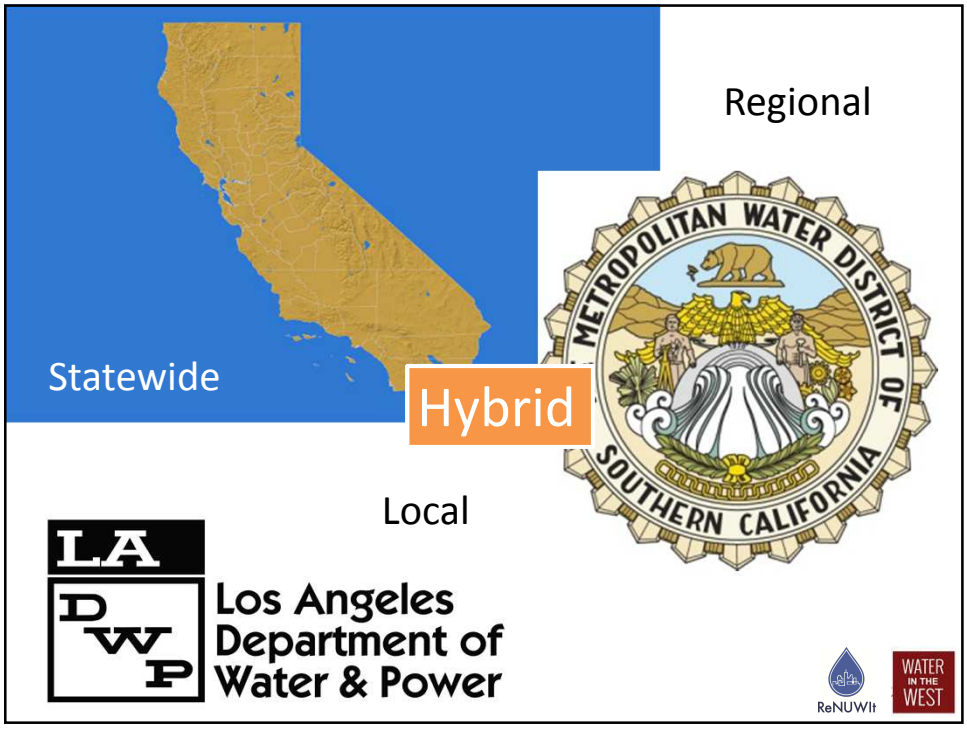
A PGC for Water?

23

A PGC for Water?

- Like the PGC for electricity- a small, usage related fee on customer water bills
- 1% -2% of customer bills
- Money could be used to support Public Purpose Projects such as
  - Innovation: research, demonstration and dissemination of new technologies and management practices
  - Conservation and efficiency
  - Ecosystem restoration

ReNUWIt WATER IN THE WEST



Lessons Learned from PGC for Electricity

- Transparency and record keeping
- Reevaluate program priorities
- Research and development clearly defined

ReNUWIt WATER IN THE WEST