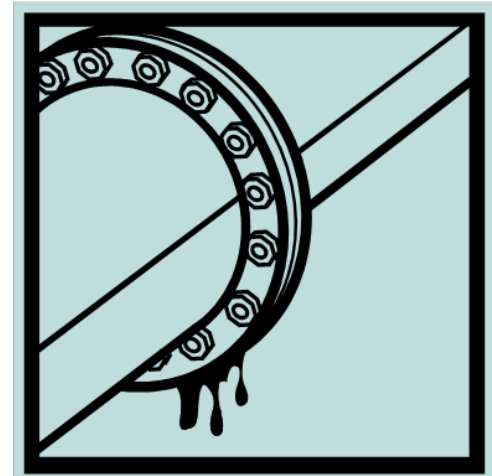




# Demand Side Programs and the Water-Energy Nexus



Meredith Leigh Younghein, JD  
Water/Energy Analyst  
CPUC-Energy Division  
State Water Resources Control Board





## How the current Demand Side Portfolio addresses water-energy

- Energy Efficiency programs:
  - “Industrial” Custom projects for water agencies/utilities/districts
    - Target savings in water/wastewater treatment, pump efficiency
  - Local Government and Institutional Partnerships
    - LGPs work with municipal water utilities
    - Institutional Partnerships with large water supply agencies: joint project implementation
  - Agricultural projects for Irrigation Districts
- Integrated Demand Side Management
  - Encouraging DR and DG simultaneously with EE improvements
- Continuous Energy Improvement
  - Helping water agencies to create and implement strategic energy management plans





## Past Efforts on Water-Energy

- Three comprehensive studies regarding the water-energy nexus
- Water-Energy Pilot Projects (2007-2011)
  - Leak/loss detection and pressure management
  - Landscape irrigation efficiency
  - High efficiency toilets
  - Ozone laundry
  - More
- All materials can be downloaded via:  
<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Water-Energy+Nexus+Programs.htm>





## New Energy Efficiency Activities

- Commission Guidance Decision on Energy Efficiency (May 2012)
  - directed IOUs to implement expanded water-energy efficiency programs, including:
    - » leak/loss detection and pressurization studies at water utilities
    - » Joint water/energy programs for industrial and agricultural customers





## New Energy Efficiency Activities, Cont.

- Commission Guidance Decision on Energy Efficiency (May 2012)
  - directed staff to develop a method for analyzing cost effectiveness of programs/measures that save energy by saving water
    - Need to quantify embedded energy in water to calculate potential energy savings
    - Programs for embedded energy cannot be fully analyzed using current tools





## Next Steps for Water-Energy Cost Effectiveness

- 1) Project Coordination Group formed
- 2) Develop Cost Effectiveness Calculations
- 3) Propose cost effectiveness framework to Commission for consideration and potential adoption

