### Workshop on the Water-Energy Nexus: Next Steps in Southern California



#### Cliff Rechtschaffen

Senior Advisor Governor's Office

## **Governor's Climate Initiatives**

- AB 32
- □ 33% Renewables by 2020
- □ 12,000 MW Distributed Generation
- Clean Cars & ElectricVehicles
- Energy Efficiency



#### CLIMATE CHANGE SCOPING PLAN

a framework for change

DECEMBER 2008

Persunt to AE 32 The California Global Warming Solumon: Act of 2006

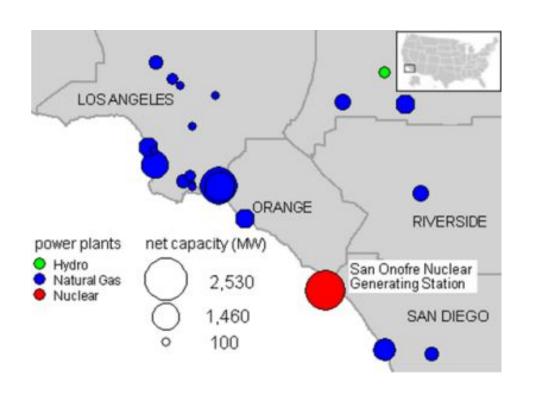
the California Air Resources Board for the State of California

Arnold Schwarzenegger

Lools S. Adams
Introdes California Environmental Processon Agency
Mary D. Nicholo
Charman, no Resource Sound

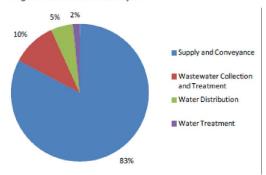
Jane N. Griddene Europer Office, de Reverso Brand

## SONGS Outage: Challenge & Opportunity



# **Efficiency Potential on Both Sides of the Meter**

Figure 3. Annual Water-Related Electric Consumption by Segment of the Water Use Cycle<sup>27</sup>



The Supply and Conveyance segment of the water use cycle accounts for 83% of the water sector's total

27 CPUC Study 1, Appendix N.

Figure 1. The Water Use Cycle **Embedded Energy** Source Supply & Water Treatment Water Distribution Conveyance End Use: Agriculture, Recycled Water Recycled Water Residential. Distribution Treatment commercial, industrial Wastewater Wastewater Discharge Treatment Collection Source Source: CEC 2005

Energy embedded in water is the sum of energy input into water along the various segments of the water use cycle, from point of collection or production, to point of use, and from point of use to ultimate disposal back into the system (post-treatment).





# Near Term Opportunities and Aspirational Goals

A White Paner h



September 12, 2012

