

Water-Energy Nexus in California

Differing Water and Energy Policy Goals Can Result in Unintended Consequences

Policies to support environmental initiatives and water mandates are shaped by many different factors and they have far-reaching implications for the energy sector. Nearly 20% of California's electricity is used for water-related purposes. As energy costs rise there will be a profound impact on the cost to deliver water. The decision-making landscape for the water-energy nexus in California is complex and requires increased coordination to avoid unintended consequences.



“Water and electricity issues overlapped (e.g., the role of hydroelectricity in renewable portfolio standards, or the water/energy nexus in efficiency/conservation programs) but only on an ad hoc basis. Agency cultures and methods have evolved separately within each regulatory and technology ecosystem.”¹

 Energy is used to:

- Pump and transport water
- Desalinate and treat wastewater
- Heat and consume water

 Water is used for:

- Electricity generation
- Oil and gas production
- Renewable energy production



“The competition between water and energy needs represents a critical business, security, and environmental issue, but has not yet received the attention that it merits. Energy production consumes significant amounts of water; providing water, in turn, consumes energy. In a world where water scarcity is a major and growing challenge, meeting future energy needs depends on water availability –and meeting water needs depends on wise energy policy decisions.”²

Electricity Rates are projected to increase **26%-42%** between 2012-2020.³

It costs the State Water Project **\$1 billion** to supply **25 million** people with water. **30%** of that cost is spent on energy.

Californians for Affordable and Reliable Energy (CARE) is a broad-based coalition supported by the California Business Roundtable, small businesses, community groups, local officials, local business organizations, statewide associations, and energy consumers that are calling on policy-makers to ensure that we have a responsible energy plan that protects our state's economy.

1. California's Electricity Policy Future, Hoover Institution, Stanford University, April 2014. 2. The Water-Energy Nexus, The World Policy Institute, March 2011.
3. CEC: CA Energy Demand 2014-2024 Preliminary Forecast Vol. 1, May 2013.