

The Real Cost of Water: Some Observations

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San Francisco, CA July 14 2010

Water is Different

- Compared to other utility services water has a different cost structure
 - Water is more capital intensive
 - The capital often takes longer to construct and invariably is more long-lived.
 - Multipurpose nature of water supply makes cost-allocation more difficult.
- The result is that financing of water supply is more problematic, and more prone to economically suboptimal outcomes.
- The private sector has a high degree of reluctance to commit to financing of such long-lived, capitally intensive infrastructure.
- Therefore, water supply is overwhelming public. The role of investor-owned companies is minute compared to electricity or telecommunications.

Consequences of public sector dominance

- For most of the water sector, there is no economic regulation. There is only water rights and public health sector regulation.
- In energy, since the 1970's, PUC regulation has come to play a major role in the promotion of efficiency. PUCs have become champions for economic efficiency and energy conservation.
- There is no such champion in the case of water.

Lack of effective regulation for water

- The urban BMPs for water represent minimal external scrutiny, and maximal deference to the judgment of the water agencies themselves.
- Water managers complain that, compared to other utilities, they face extraordinary scrutiny from the political process. But political scrutiny is not a substitute for scrutiny for an informed and technically sophisticated agency such as CPUC (and CEC).

Distinctive features of CPUC Water Action Plan

- Loading order, emphasizing conservation.
- Conservation to a level comparable with energy utilities
- Commitment to reducing energy use and greenhouse gas emissions associated with water supply.
- Recognition of serious need for new water infrastructure investment.

These have no parallel in Urban Water MOU and BMPs.

Why the price of water fails to reflect its cost

- (1) There is no charge for the abstraction of water per se. You only pay for the cost of the “plumbing.”
- (2) What you do pay covers the physical costs from a *backward-looking*, not a forward-looking, perspective. Aims to cover historical past cost of water supply, not future cost associated with
 - Aging infrastructure, deferred maintenance
 - Population growth, land use change
 - Stricter drinking water quality standards
 - Climate change

- (3) What you do pay for water typically ignores the *externality* costs associated with water supply:
 - Underpricing of the environmental costs (impacts) associated with water supply
 - Underpricing of the economic externality cost associated with groundwater pumping
 - Underpricing of the environmental and greenhouse gas impacts associated with the energy used in connection with energy supply.

- No smart metering for water. Crude provision of information to water user – therefore limited stimulus for conservation.
- Because of long lead times for water infrastructure, CPUC's review of water utilities every 3 years may be too short a time frame. May also need a long-term review.
- There should be an integrated joint assessment of long-term water supply issues, involving a collaboration of SWRCB, DWR, CPUC and CEC comparable to the Integrated Energy Plan.