Decoupling to encourage RWH

One of the obstacles to widespread adoption of rainwater harvesting as a method of conserving precious water resources is the actual or perceived resistance of water utilities, because in a traditional rate system, significant success of demand-reduction strategies means less revenue to the utility. Greater consumption of the resource means more income.

The concept of "decoupling" can be part of the solution. Below is the abstract to a thoughtful and well-documented article by John Erickson and Greg Leventis. Click on this link for the complete article.

Under traditional regulation, water utilities profit by increasing their sales and thus have a disincentive to promote conservation. Severing the connection between water utilities' revenues and the quantity of water they sell, a system known as "revenue decoupling," offers opportunities to solve this problem. However, revenue decoupling has limitations and raises some concerns. First, decoupling by itself is not a conservation program, and must be supplemented with additional conservation efforts such as appropriate increasing block rate (IBR) pricing structures. Second, decoupling alters the risks that both utilities and ratepayers face. Third, water users may perceive a "conservation penalty" if their rates increase when their consumption decreases. Despite these and other challenges, revenue decoupling is a powerful tool to promote conservation and should be expanded. Regulators should also study the long-term conservation incentives that the policy creates.

A recent MIT analysis finds that the under-pricing of water leads to overconsumption. Their comprehensive "Mission 2012: Clean Water" is compelling. Below is their abstract. Click on this link for the entire study.

Market-based approaches to sustainable management of water resources have the potential to reduce water use in water-stressed regions. In western North America, undervaluation of water has promoted excessive water consumption, so we propose the creation of a water market in which prices reflect the actual scarcity of water. Such a market structure will ensure that water reaches those who value it the most and that excess water use nonessential to human welfare is minimized. Economic incentives for water efficiency and conservation will enhance the effectiveness of sector-specific policies within our comprehensive plan for sustainable water management.

While markets that price water based on scarcity may help with conservation efforts on a wide scale, a water market alone cannot fully address the environmental and social ramifications of excess water usage. In drafting our recommendations for sustainable water management policy, we strive for sensitivity towards the needs of low-income individuals who may be unable to afford water at higher prices. To mitigate the regressive nature of raising the price of water, our proposal will be revenue neutral; most of the revenue gained from raising water prices will be distributed to low-income individuals and other entities encountering financial difficulty due to higher water prices. The remaining funds will support means to enhance, broaden, and sustain the
gains made in sustainable water management, including but not limited to efforts in scientific research and public awareness. Our economic plan for water management covers the US, Canada, and Mexico in their entirety, but since the environmental impacts of water stress tends to be local, we will tailor specific policy instruments within our wider policy framework towards managing water sustainably at local and regional levels.

John Hammerstrom
Past President ARCSA, 2010-2011

microbe-farmer
Sophomore Member

I think this is a terrific point of view often overlooked when connecting multiple community/regional/state/federal partnerships. Sometimes the political can outweigh the pragmatic.

My question: This is a tricky subject and how best to introduce to community and council? Is there anyone with real-world success or case studies that might be able to respond please?

To consider in addition to the profits of utilities and conservation disincentives: http://m.smh.com.au/nsw/rich-could-buy-way-out-of-drought-restrictions-20130323-2gmk0.html

You've raised a critical question. Thank you for your informed post.

The Regulatory Assistance Project - www.raponline.org - is a 501(c)(3) dedicated to the problem. While they specialize in decoupling electric utilities, the applications of their information are broader. They recognize the relationships between water and energy (the water/energy nexus) and much of their extensive library of documents and presentations deals with generic "decoupling" issues would apply to electric, gas and water utilities, alike.

Several years ago, I approached the Regulatory Assistance Project to see if they would be willing to make a presentation to my traditionally structured electric utility. RAP said that they've tried to "educate" utilities with very little success. Their recommendation was that I make the information available to the utility, explaining that decoupling may help solve their conflict of interest (advocating conservation and efficiency, while hoping that it is not TOO successful because it would cut into their revenue). RAP went on to explain that if the utility wants to learn more, they would seek RAP for their help. Ya can't push a rope. Fast forward - my electric utility has moved toward decoupling modestly, but it has already allowed them to be more sincere in their efficiency and conservation efforts. My water utility rate structure remains as it always has been.


In Florida, the Water Management Districts are responsible for maintaining a sustainable water resource and they control the amount of water that utilities can pump. It is another matter altogether for a traditional investor-owned utility to advocate or even consider decoupling, but enlightened (or desperate) jurisdictions are considering all of their options in the face of dwindling water resources.

California has has some success decoupling their water utilities. This link discusses some of the risks of decoupling - http://www.americanwaterintel.com/archive/3/4/general/4q-costs-cai-water-expose-risks-decoupling.html

This RAP publication wraps the whole subject into one compelling package. "Integrating Energy and Environmental Policy" - Speaks to the water/energy nexus in detail. http://www.raponline.org/document/download/id/6352

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Sophomore Member

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There are several water districts in Oregon and Washington that are at the limit of their "water right" and have to use conservation. There are others than are approaching their limit and they have extensive program to encourage conservation. Just a minute - brainstorming - how about the water district paynig large roofed industries to catch their water and use it as a water source. I'm I too far out? thanks for listening.  Clair.