BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of a Working Case to Consider Proposals to Create a Revenue Decoupling Mechanism for Utilities	)))	**File No. AW-2015-0282**

Renew Missouri's Comments in Support of Water Revenue Stabilization Mechanism

Introduction

Renew Missouri's mission is to transform our state into a leader in efficiency and renewable energy by 2016. We advocate for proven state policies that will create jobs, reduce carbon emissions, and leverage market forces to accomplish our goals without adding to the cost of energy in Missouri. Our approach is to bring stakeholders together to educate and facilitate productive dialogue on energy issues. We evaluate potential state energy policies and guide regulators and legislators as they make decisions and implement these policies.

Missouri American Water's proposal to adopt a new rate design for water utilities based on a revenue stabilization mechanism (RSM), often referred to as "decoupling," is worth consideration. The workshop docket is an excellent opportunity to open dialogue on the water-energy nexus and explore how this mechanism could not only help conserve water, but also conserve energy and reduce the carbon footprint of both the water utility and its customers.

For the purposes of this comment, Renew Missouri would like to differentiate between an RSM and the straight-fixed variable (SFV) mechanism employed by Missouri Gas Energy. Though the SFV mechanism is sometimes referred to as "decoupling" in Missouri, it is significantly different from Missouri American Water's approach to rate design. To maintain clarity, we will refer to Missouri American Water's proposition as "RSM", not "decoupling." While we may offer additional comments on revenue decoupling for electric and gas utilities at a later date, Renew Missouri limits these comments to support for Missouri American Water's proposal giving rise to this docket.

Water-Energy Nexus: Saving Water to Save Energy

The treatment and delivery of water and wastewater requires 187 million megawatt hours (MWh) of electricity each year, costing an estimated $4 billion and accounting for up to 4% of total energy consumption in the U.S.[1] If water and wastewater utilities could reduce their energy use by just 10% through demand management strategies and cost-effective investments in energy efficiency, it would save about $400 million annually and enable the retirement of 12 average sized coal-fired power plants producing 1.48 million MWh per year.[2]

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[1] Environmental Protection Agency . "Water and Energy Efficiency." www.water.epa.gov/infrastructure/sustain/waterefficiency.cfm

[2] American Water. "It's Not Just a 'Nexus' – Energizing Water-Energy Integration. http://www.nawc.org/uploads/Warnock-NAWC%20Summit%20Aldie%20Warnock%20slides.pdf

Most energy consumed by water utilities is used to pump water. American Water has stated their facilities use about one million MWh of electricity per year, more than 95% of which is used to pump water.[3] Improving water pump efficiency, detecting and repairing leaks, and pumping less water due to a reduction in consumer demand are all ways to help reduce the utility's energy use and carbon footprint. For the purpose of this workshop docket we will focus on reducing consumer demand through efficiency and conservation.

To bring the water-energy nexus down to the individual consumer level, a faucet running for five minutes uses about as much energy as letting a 60-watt light bulb run for 22 hours.[4] In addition to the energy used to pump the water to each consumer, households also use considerable amounts of energy to heat water for bathing, cooking, washing dishes and clothes, etc. Using less water for these household tasks also requires less energy for heating said water, helping consumers save on both their water and energy bills.

Revenue Stabilization Mechanism

In its white paper submitted to the Missouri Public Service Commission, Missouri American Water states:

> *Although improving water efficiency, energy efficiency and conservation are increasingly viewed as essential elements of public policy, under current rate structures, water utilities are rewarded for selling more water – the antithesis of the efficiency and conservation ethic.*[5]

We wholeheartedly agree with this statement. Water and energy efficiency and conservation are indeed essential elements of good public policy. However, we also recognize that the current rate design goes against these policy goals because water utilities have an incentive to sell as much water as possible. This is commonly referred to as a "throughput incentive."[6]

If a water utility's revenue is based upon the amount of water it sells, it cannot encourage its consumers to be efficient and conserve water without jeopardizing its ability to cover its cost of service and provide a return to its investors. American Water receives more than 75% of its revenue from volumetric sales[7], so it has an inherent disincentive for reducing sales through the promotion of efficiency and conservation.

An RSM would remove the throughput disincentive by stabilizing the utility's revenue so that it collects an amount the PSC deems appropriate for covering the utility's cost of service. We understand that removing a disincentive is not the same as providing an incentive. Therefore, if the RSM is adopted for water utilities, we encourage regulators to mandate certain actions on the part of the utility to promote efficiency and conservation by their consumers.

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[3] American Water. "Energy Efficient Operations." http://www.amwater.com/files/Energy%20Efficient%20Operations%20v2.pdf

[4] Environmental Protection Agency. "Why Water Efficiency." http://www.epa.gov/watersense/our_water/why_water_efficiency.html

[5] Missouri American Water. "Revenue Stabilization Mechanism." February 25, 2015

[6] The Regulatory Assistance Project. "Revenue Regulation and Decoupling: A Guide to Theory and Application." June 2011.

[7] Missouri American Water. "Revenue Stabilization Mechanism." February 25, 2015

Missouri American Water's RSM will provide an opportunity for the water utility to lower its energy costs and reduce its carbon footprint. The U.S. Environmental Protection Agency states that energy can account for as much as 40% of operating costs for drinking water systems nationally, and this number is expected to increase by 20% in the next 15 years due to stricter drinking water regulations and population growth.[8] Reducing the amount of electricity required for pumping will help keep operational costs down, which is ultimately good for consumers, and will also benefit the environment by reducing the amount of CO_2 required to provide Missourians with water.

Under the RSM, rates would remain volumetrically based, with customers continuing to be billed primarily based on the amount of water used. This is important because consumers need to be able to continue to benefit from their efforts to be efficient and conserve. While we understand that over time rates will fluctuate based on overall system usage, it is important that each consumer maintain control over his or her bill based on individual usage.

RSMs can be designed to operate in a number of ways. To maximize incentives for efficiency, we support a model that would provide surcharges based on a consumer's volumetric use, and issue credits or refunds equally to consumers within a customer class. This method would further reward consumers who use less water by providing a credit or refund that is a larger percentage of their bill compared to their neighbors who use more water, and issuing smaller surcharges to correspond to their lower water usage.

Conclusion

Ratemaking models have evolved over time as public utility commissions take new information and changing circumstances into consideration. The workshop docket represents a unique opportunity for stakeholders to come together to discuss an innovative approach to solving a problem under the current regulatory model. We encourage the commission to consider adoption of revenue decoupling via Missouri American Water's RSM for water utilities as a way for the state to move toward efficiency and conservation.

[8] Environmental Protection Agency . "Energy Efficiency for Water and Wastewater Utilities" water.epa.gov/infrastructure/sustain/energyefficiency.cfm