Water Infrastructure, Utility Debt Levels, and Rates

Jeremy Brown | October 28, 2013

The Columbia University Water Center recently released a fascinating report it produced with Veolia Environment and Growing Blue that examines the rising debt levels and rate increases across American municipal water utilities. The report correlates survey data collected from the American Water Works Association with demographic and meteorological data and identifies several patterns and trends that, in my view, Texas policymakers should consider when weighing whether to embark upon expensive new infrastructure projects.

The report finds that water rates increased by an average of 23 percent between 2000 and 2010 and that debt levels increased by an average of 33 percent. There was significant variation across utilities, with water source, utility size, population, and climate acting as key determinants.

The report begins by repeating a story commonly told among water wonks: the federal government has dramatically scaled back its support for water infrastructure in the last three decades; state and local governments have not filled the funding gap; as a result, infrastructure has not been adequately maintained, leaving billions in backlogged upgrades and repairs; at the same time, a growing and mobile population has pushed up the demand for water in parts of the country that do not have a lot of it.

The report cautions that, like under-investment, over-investment can create financial difficulties. In Texas, much of the public debate around Proposition 6 and the $2 billion infrastructure bank is informed by an *if-you-build-it-they-will-come* sort of sensibility, with supporters worrying that *if-we-don't-build-it-they-won't-come* and with certain opponents countering that *if-we-build-it-we'll-only-encourage-more-of-them-to-come*.

But predicting exactly whether and when *they* (new residents, new businesses, etc.) will come is as much art as science, especially over the time horizons in which large new infrastructure is financed and built. Rustbelt cities that have been hemorrhaging population to places like Texas were boomtowns only a couple of generations ago. In the coverage of Detroit's bankruptcy, for example, several prominent urban scholars have noted that the city was the Silicon Valley of the 1960s.

The lesson is that past growth does not guarantee future growth. But the uncertainty of future growth should not be taken as an argument for planning for a no-growth future, or for not planning at all. It should instead be read as an argument for proceeding prudently – and often, in water planning, the most economically prudent course is to conserve water rather than to build new infrastructure.

The Columbia report tells the cautionary tale of Tampa Bay Water, which incurred significant debt to build a costly desalination plant. The report explains that the plant "is rarely operated at capacity because of the high operational expense and decrease in customer demand. This decrease is attributed to conservation efforts stimulated by the increase in rates associated with debt service obligations from the plant and related infrastructure development."

This sort of cycle, of rising rates and declining demand, is not unique to Tampa, nor is it triggered solely by new infrastructure projects. Other factors like weather or the economy can tip demand one way or another. In 2010, the report notes, Austin had to increase its fixed "Water Sustainability Fee" because high rainfall (a seemingly distant memory amid the current drought) depressed outdoor demand and reduced revenues. (For more information, Sharlene Leurig at Ceres has written extensively and persuasively about the impact of declining demand and the frequently underestimated financial risk of major new infrastructure projects.)

Rate stabilization and decoupling can help to buffer utilities but cannot reduce debt obligations. Utilities must still pay their debts, and must still generate sufficient revenues to do so. Large infrastructure projects, of course, increase debt.

State and local governments can allocate the burdens of that debt according to various policy priorities. In Texas, for instance, voters will consider next month whether to appropriate $2 billion from the state's Rainy Day Fund – which is comprised of tax revenues – to a new water infrastructure fund. Under this scheme, taxpayers would subsidize water users by footing, in one capacity or another, a portion of the cost of new infrastructure. Utilities would not have to raise rates as high as if the infrastructure was exclusively rate-funded.

Likewise, water utilities could adopt conservation rate designs that favor certain classes of water users (residential, commercial, industrial) or that encourage efficient usage (through inclining block rates). These allocation decisions could reduce demand for water – and thus the need for new infrastructure projects – but could not reduce the debt payments for projects to which utilities have already committed themselves.

Texas | water

Leave a Reply

Your email address will not be published. Required fields are marked *

Name *

Email *

Website

Comment

POST COMMENT

The Energy Center blog is a forum for faculty at the University of Texas, leading practitioners, lawmakers and other experts to contribute to the discussion of vital law and policy debates in the areas of energy, environmental law, and international arbitration. Blog posts reflect the opinions of the authors and not of the University of Texas or the Center for Global Energy, International Arbitration and Environmental Law.

Popular Tags

Texas
water
drought
energy
fracking
endangered species
natural gas
groundwater
court cases
conservation
pollution
TCEQ
LNG
regulation
climate change