THE FORK IN THE ROAD:
FULL-COST PRICING OR FEDERAL SUBSIDIES?

REMARKS

BY

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BEYOND THE STIMULUS PACKAGE

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Good morning.

I want to thank Bill Bertera, Lorraine Loken and our colleagues at WEF for inviting me to participate in this timely panel on the future of water infrastructure financing beyond the stimulus package. This is a good time to assess our success, or lack thereof, in achieving overall sustainability and our prospects for the future.

Many of us view financial self-sufficiency to be part of a complete package which encompasses the triple bottom-line of environmental, economic and social sustainability. In light of the current push for more federal subsidies, even to the point of abandoning the minimal discipline of the SRF model, which contemplates payback of at least loan principal, it is apparent that not all of us share the same vision.

**The fork in the road**

The water sector is now at that place described, so eloquently, by my fellow St. Louisan, Yogi Berra: “When you come to a fork in the road, take it.”

Will water and wastewater utilities, including the municipal officials who oversee them, and their customers and ratepayers, follow the road of maintaining their own robust water rates and financial integrity? Or will they evade their responsibility to attain full-cost or full-value pricing and transfer their burden by means federal subsidies paid for by taxpayers in other communities?
Truth be told, America’s water sector has not been very keen on financial self-sufficiency or sustainability.

In a recent story in The Wall Street Journal, Andrew Batson describes the movement in China to raise water prices, in part, to conserve water.\(^2\) Citing the city of Luoyang in Henan Province, water prices were proposed to increase by 40 to 48 percent. Rates had not been increased since 2003. Batson noted that China’s water prices were still low by global standards.

What caught my eye was a graphic accompanying the story, derived from data collected by Deutsche Bank, indicating how many gallons of water one dollar buys in various countries. The United States was ranked eighth on the list of ten countries revealing that here one dollar buys 357 gallons of water compared to 88 for Germany, 111 for the United Kingdom and 132 for France. In China one dollar purchases 840 gallons. Our U.S. citizens are paying quite a bit less for their water services than most other countries of comparable wealth and development.

An August 2002 General Accountability Office (GAO) report\(^3\) on its survey of several thousand drinking water and wastewater utilities indicated that 29 percent and 41 percent, respectively, were not generating enough revenue from user rates and other local revenue sources to cover their full cost of service. Roughly one-third of the utilities deferred


maintenance because of insufficient funding, had 20 percent or more of their pipelines nearing the end of their useful life, and lacked the basic plans for managing their capital assets.

During my tenure as Assistant Administrator for Water at EPA, we calculated that American households spent an average of $707 annually on soft drinks (carbonated) and other non-carbonated beverages compared to an average of $474 per year on water and wastewater charges.  

Basically, American households are paying only 0.5-0.6 percent of income, on average, for water and sewer bills as calculated by the Congressional Budget Office (CBO).  

True, the U.S. experienced an average water pricing increase of 6.1 percent in 2007, one of the largest in recent memory. Nevertheless, *the U.S. average cost is the lowest price per unit (cubic meter) of all 14 countries recently surveyed* in Europe, Africa, America and Australasia by the International Water Report and the NUS Consulting Group in New Jersey. 

How many publicly owned treatment works (POTWs) are doing financial planning and rate modeling more than five or ten years out on the horizon? I am open to correction on

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this, but I suspect that there are very few which can identify their future projected wastewater rates over the next decade and have a master plan to make those projections a reality - absent a Long Term Control Plan or consent decree for a combined sewer overflow (CSO) issue.

“A subsidy mentality”

We would not be engaged in our current public dialogue over an investment “gap” for water infrastructure if water and wastewater utilities were recovering all their costs, including replacement costs and O&M, in their rates. Moreover, in too many communities local officials “raid” utility cash reserves to service other governmental services or fail to differentiate utility rates from general taxes which confuses citizens by obscuring the link between rates and services or value rendered.

Our water sector’s current situation would be considered intolerable in the energy utility business or even among investor-owned water utilities in this country. Today, it would also be considered intolerable in Australia, and soon Ontario, where the government mandates profit margins, commercial criteria really, to ensure adequate life-cycle water infrastructure for public corporations, basically commercial criteria, as well as asset management requirements.

Michael Rouse, former Chief Drinking Water Inspector for England and Wales and former president of the International Water Association, a well-traveled man and a keen
observer of water and wastewater systems worldwide-has discussed the “subsidy mentality” which he characterizes as unique to the American wastewater sector:

For example, in the United States, standards are set by the Federal Government, environmental standards are regulated at state level, but responsibility for meeting the standards rests with cities. As a consequence many cities do not see it as their responsibility to be self-funding, and seek federal funds for implementing new regulations and for replacing ageing infrastructure. This attitude has been created partly by federal funding of the introduction of secondary wastewater treatment in [the] earlier years, creating a subsidy mentality. Changing funding policy would require a substantial increase in water service charges, which would be unpopular, even though generally charges are currently very low and the required increases would not result in high household costs in relation to average income.7

I am sure that quotation will generate a robust exercise of the audience’s First Amendment rights in the Q&A session, but I think Rouse is onto something regarding the influence of those years immediately following passage of the Clean Water Act in 1972 with its extensive wastewater grants program. For many folks in the wastewater community those were the good old days.

While checking out of my local bookstore one Saturday, I stumbled upon a revolving display rack with a series of booklets containing factoids from years gone by. I picked up one entitled, 1972: Remember When….A Nostalgic Look Back In Time.8

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8 SeekPublishing, undated
Yes, 1972 was a great year unless you were in Viet Nam. Besides the Clean Water Act, Congress passed the Equal Employment Opportunity Act. Federal Express became the world’s first overnight delivery service. *The Godfather* and *Deliverance* were at the movies; and Don McLean’s hit record, *American Pie*, was topping the charts as was *I am Woman* by Helen Reddy. The hits just kept on comin’ including Sammy Davis, Jr.’s *The Candy Man* and America’s *A Horse With No Name*.

Of greater relevance to our discussion here today were the economic factoids cited. Average income was $11,859.00 per year. A new car cost about $3,853.00. Tuition to Harvard was $2,800.00 per year. Gasoline was 55 cents per gallon. Today we are clearly a much wealthier nation than in 1972.

Even amidst this current Great Recession, most of our kids have cell phones, iPods, MacBooks, and high-end tennis shoes. They view hundreds of cable TV channels on wall-sized televisions and play a wide range of expensive computer games.

Still, we, their parents, cannot pay adequate rates to support self-sufficient, sustainable water and wastewater systems.

**Explosion in entitlement liabilities**

When thinking about the fork in the road and whether or not to pursue more federal subsidies, we need to remember one thing that was not with us in 1972: extensive federal
entitlements and massive debt piled high upon our children and grandchildren. The era of entitlements had not yet come to full fruition in 1972. It certainly has now.

David Walker, former head of the General Accountability Office (GAO) and Comptroller General of the United States, may be judged by history to be either a Paul Revere or a Cassandra, speaking hard truths to unbelievers. Walker, a 57-year old accountant, is now president and CEO of the Peter G. Peterson Foundation which seeks to educate the public on the need to face fiscal reality.

“We suffer from a fiscal cancer. Our off balance sheet obligations associated with Social Security and Medicare put us in a $56 trillion financial hole-and that’s before the recession was officially declared last year,” says Walker.9 “America owes more than Americans are worth-and the gap is growing!” [Emphasis added]

Walker notes that the federal debt burden for that $56 trillion of unfunded obligations amounts to $483,000 per household, ten times the median household income. Today, less than 40 percent of the federal government’s revenue goes to, well, government: defense, foreign policy, courts, EPA, the Weather Service. The lion’s share is consumed by entitlements and payment on the national debt interest.

If you are a constitutionalist, you believe in federalism and the allocation of power and responsibility between national, state and local government as well as the private sector.

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If you are an economist, you want to increase efficiency and send price and market signals to persons and entities so that they make smart, cost-effective decisions. If you are an environmentalist, you want to internalize externalities so that polluters (we are all polluters when it comes to wastewater) bear the costs as well as the benefits of their actions and adapt their behavior in ways which both mitigate pollution and minimize costs.

Federal subsidies do nothing to achieve these ends. In fact, with very few exceptions which I will discuss, they encourage the opposite of these good things. In relieving local customers and ratepayers of their responsibility, federal subsidies are inequitable and inefficient. They militate against innovation, least-cost approaches to wastewater and stormwater control and water conservation. They encourage an exclusive reliance on heavily engineered approaches which are expensive. They penalize those communities which are proactive and do the right thing, and reward communities that do not. They increase transaction costs at every stage of collection, allocation and distribution of financial assets.

**Investments for sustainability**

There are several useful areas for federal investment in the water sector. They are: 1) support for low-income or poor citizens and, as a rule, not to systems; 2) investments in capacity-building to assist water and wastewater systems to become self-sufficient; and 3) investments in research and development on technology, management practices and
innovative approaches which are best done at the federal level because of the economy of scale and cost-effectiveness.

There is, indeed, a moral imperative to take care of our fellow citizens who cannot afford the basic household allotment of water and wastewater services through equitable rate design, rebates or subsidies based on need. Most energy utilities already do so today. States and local government can also help. I can envision some role for the federal government such as increasing support for programs such as the Low Income Home Energy Assistance Program or LIHEAP. Equity demands as much. But such support should not relieve middle-class ratepayers or local government officials of their civic responsibility to support their water or wastewater systems. In general, such low-income aid or subsidies should be directed to people, not utilities which should be encouraged to maintain adequate water and wastewater rates and prices. Certainly, loans from the SRF are a legitimate the way to help impoverished systems with very large populations of low-income citizens.

Given the absence of a profit orientation in our water sector, due to its largely municipal or governmental character, the federal government can do more to promote better management practices such as asset management, Australian-style, or Environmental Management Systems (EMSs) which enable municipal systems to become more self-sustaining.
If you give federal loans or subsidies to a water or wastewater system, shouldn’t they be expected to complete an inventory of their hard assets with a view towards doing a condition assessment, criticality analysis and risk and consequence modeling? What do they need to fix now? What can they run to failure? My friend John Cromwell at Stratus likes to ask and answer the question, “Do you replace every hundred-year old pipe? No!”

In other words, many of the infrastructure backlog numbers mentioned today can be managed successfully with a combination of asset management and full-cost pricing, the former making a better, more informed case for the latter.

Asset management should be an essential prerequisite for taxpayer support on grounds of efficiency and equity. The infrastructure investment Gap is not all present to us at one time. It is a reality to be managed over time, even decades. Again, we have much to learn from the Australians in this matter.

The Camden County Municipal Utilities Authority (CCMUA), New Jersey, serves a community not without its economic challenges. Due to performance issues with its plant which was just barely making its permit, CCMUA implemented an EMS which sought to optimize water quality and odor control performance, including zero tolerance for same, while minimizing costs.\footnote{This part of my talk is drawn from a WEFTEC ‘09 paper to be delivered by my friend and colleague, Andrew Kricun, P.E., of CCMUA, an early draft of which he was kind enough to share with me and is in my file. As of July 13, 2009, its title was Promoting Environmental Justice as an Essential Best Management Practice for Utilities in Economically Distressed Communities.} With the aid of an SRF loan, not a grant, it went from 16 odor violations in 1997-1998 to only four violations in the past ten years, while
avoiding rate increases over time. It was also able to drop its suspended solids levels from 22 parts to 7 parts per million between 1999 and 2008 and capture an additional 16,000 wet tons of sludge rather than letting it go into the Delaware River. Loans were important for this economically distressed community, but so was sound management practice.

In 2007 EPA and six national water associations signed an agreement to promote effective utility management outcomes based on *Attributes of Effectively Managed Utilities*. It focused on asset management, pricing, community sustainability, energy and stakeholder relations. It adopted a quality management focus, endorsing the Plan-Do-Check-Act approach typical of many EMSs. This is the kind of activity we need to build on in the water sector.

Again, federal investments in asset management, EMS, and things such as information systems, can enhance the self-sufficiency of water or wastewater systems, their sustainability if you will.

You do not need this recovering lawyer to tell you about the value of investments in research and development in technology. I would only note that the word technology is derived from the Greek word, *technē*, which is translated as craftsmanship, craft or art. So I would include in the R&D agenda such items as, again, asset management, EMSs, pricing, rate design or more research on “green” infrastructure, low-impact development, and modeling for point-to-nonpoint source water quality trading programs.
Sustainability versus subsidies.

A subsidized water or wastewater system is not a sustainable one. It is certainly not sustainable for the federal taxpayers that are doing the subsidizing. The 1972 Clean Water Act wastewater grants program is an obsolete model given both the private wealth of today’s American citizens and the financial destitution of the federal government, now consumed by entitlements, massive debt and interest payments on that debt.

It is time to move on from nostalgia for the 1970s and look at newer, more sustainable models of infrastructure management as evidenced, say, in the English-speaking world\(^{11}\) where even “public corporations” are expected to maintain adequate rates of return on investment and margins, and practice systematic asset management over the lifecycle of their hard assets. Australia, New Zealand, the Province of Ontario (at least lately) and the United Kingdom provide useful models of sustainable policies and practices than do current proposals for grants, subsidies, and the like.

Now, more than ever, it is necessary to make the case for full-value, full-cost pricing of water and wastewater services to ratepayers, local officials and the community at large. With the exception of Brazil, America may have the lowest water and wastewater rates of any developed, democratic nation in the world. It is time for Americans to take charge of their own destinies and undertake the necessary investment in their communities’ water infrastructure without looking to someone else to do it for them.

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\(^{11}\) I have nothing against the non-English speaking world. I am just not as familiar with those countries.
The fork in the road is dead ahead. The choice is between the road to sustainability or the road to subsidies and dependency. The better choice speaks for itself.

Thank you for your attention.