WHITE PAPER

AMERICAN WATER

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Innovative Solutions within the Water Industry: Infrastructure Surcharges

Introduction

Our nation's deteriorating water and wastewater infrastructure is in need of repair. Many of our water delivery systems were built 80 to 100 years ago and have reached the end of their functional lifespan. Furthermore, there is a critical backlog in replacing old and failing infrastructure across the U.S. and despite the fact that billions of dollars are spent annually on rehabilitating infrastructure, hundreds of billions[1] more are required to prevent infrastructure failures and provide high-quality reliable water service in the future.[2]

Since the water industry is highly capital intensive (more so than any other utility), repairing and replacing water and wastewater infrastructure is economically and politically challenging. As a result, some public utility commissions have allowed infrastructure replacement surcharge programs as an innovative solution for encouraging needed water and wastewater infrastructure investment in a cost efficient manner.

Background

Given the projected costs of water and wastewater infrastructure improvements, certain commissions over the last decade have put in place infrastructure surcharge programs, mechanisms for providing timelier returns on investments in critical infrastructure. Typically when a regulated water utility makes an investment, it seeks a return on that investment by filing for base rate increases. This process can be lengthy and can result in what is called regulatory lag, meaning from the time an investment is made until the utility gets a return on that investment in rates could take more than two years. This lag can have a negative impact on attracting capital to make investments as well as affect the amount of infrastructure investment a utility can make in a given period. Surcharges help investor-owned utilities earn a return on and recoup investments in repairing or replacing infrastructure in a timelier manner.

Surcharges can be used to provide timelier returns and to recoup, through depreciation, capital investments in the replacement or rehabilitation of mains, pumps, valves, service lines, hydrants, and meters as well as watermain cleaning and main relocations.

Surcharge rates are typically limited to a percentage capped between five and seven and-a-half percent of a utility's annual revenue, and have been found to have a relatively small impact on customer water bills. Most of the time, actual surcharges fall below the maximum surcharge level, and despite surcharges, water – at less than a penny per gallon – remains one of the lowest-cost utility bills for homeowners.

[1] The US Environmental Protection Agency estimates that found that almost $335 billion is needed in drinking water infrastructure investments over the next 20 years. Another $300 to $400 billion will be required for wastewater infrastructure.
[2] For more information, see American Water white paper "Challenges in the Water Industry: Infrastructure and its Role in Water Supply."

The surcharge rate is adjusted periodically based on infrastructure projects currently in progress or expected to be completed in the future. Typically, the surcharge is set to zero when a new base rate case begins, because the investment funded through the surcharge is then rolled into the new rate base.

Investor-owned utilities must propose surcharge programs before the state Public Utility Commission. However, once the program has received initial approval, the utility can use the surcharge mechanism without prior approval. As a ratepayer protection measure, utilities must undergo reconciliation proceedings with state public utility commissions and grant customers refunds for any over-recovery of revenue through surcharges.

The Benefits of Infrastructure Surcharges

Access to capital

Infrastructure surcharges provide utilities with a return on an investment closer to when the investment is actually made, and as such, surcharge programs tend to stimulate a utility's infrastructure replacement program so that the replacement rate better tracks the useful life of the investment. Proactively responding to infrastructure in need of repair, such as a water main, is easier and less expensive than dealing with disruptions once the main has burst.

Surcharge programs are also favorable for utilities that have difficulty financing at reasonable rates through traditional markets, especially during the current credit environment. By providing timelier returns on invested capital, infrastructure surcharge programs allow utilities to have more control over cash flow, which is valuable in times of financial volatility.

Fair and timely returns

Because surcharges recoup invested capital on a timelier basis, they are crucial in addressing regulatory lag, which is the delay in recovering investments typical in the traditional rate case process. Regulatory lag can significantly prevent utilities from recovering capital and earning a fair return on investment, which are necessary if investor-owned utilities are to be financially sound and able to attract capital at reasonable rates.

Compared to other utilities, regulatory lag tends to have an especially adverse impact on the water industry because the industry is highly capital intensive, more so than electric, natural gas, or telecommunications utilities. Consequently, utilities often experience sub par returns during periods of heavy capital investment, when they are replacing infrastructure or adding necessary treatment or distribution facilities.[3] This can impact a utility's ability to raise future capital. Below, Figure 3 shows an example of how the regulatory process can delay returns on investment for several years. For illustrative purposes, the example uses a strictly historic test year, which means that the investment noted in year one, during the year the rate case was filed, would not be included in that rate case because it falls outside of the test year. Assuming one year between a rate case and one year to conduct the rate proceeding, the utility would earn no return of or on the year one investment for almost three years.

[3] Lehman Brothers; Power and Utilities: Regulated Utilities; Global Equity Research, North America, May 22, 2007.

IMPACT OF REGULATORY LAG ON CAPITAL RECOVERY(Historical Test Year Basis)

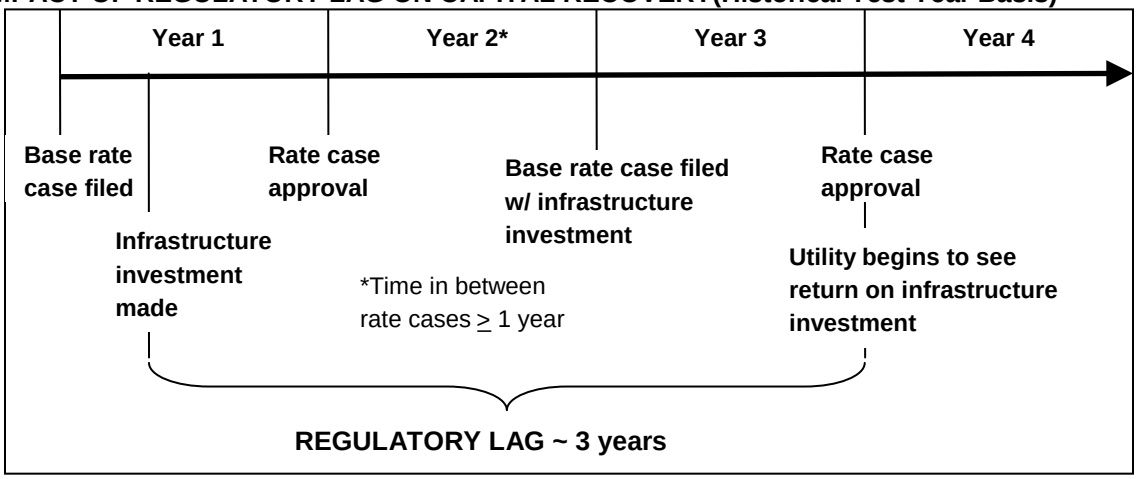

Figure 3

In reducing regulatory lag and allowing for return of and on investments closer to the time the investment is made, and thereby improving the utility's ability to actually earn the rate of return the PUC allows, surcharge programs can consequently improve a utility's bond ratings. Better ratings affect the ability to attract capital and the cost of equity and debt. This means that less money is needed for infrastructure improvements and that resulting savings can be passed on to customers.

Surcharge programs may also reduce the need to undergo costly general rate case proceedings. By recovering costs on a timelier basis through surcharge programs, utilities may be able to extend the time between filing general rate cases, as well as file for more moderate base rate increases.[4] As a result, surcharges can mitigate or reduce "rate shock" associated with larger increases.

Surcharges in Practice

Infrastructure surcharge programs have thus far been approved by state Public Utility Commissions and/or legislatures in Pennsylvania, Delaware, New York, Indiana, Missouri, Illinois, Ohio and Connecticut.[5] While each state's program may slightly differ, common features include caps on the amount of capital recoverable, limitations on the type of eligible investments, limitations on the timing and frequency of charges, provisions for annual reconciliations and other rate payer protections. The programs have been implemented with very few customer complaints.

Case Study: Pennsylvania American Water

- In 1997, the Pennsylvania Utility Commission allowed a Distribution System Improvement Charge (DSIC) to replace mains, valves, service lines, hydrants and meters.
- We replaced more than 1,200 miles of main in that time. (1997-2014)
- Since program inception in 1997 thru 2014, Pennsylvania American Water's total DSIC capital investment is approximately $1.2 billion.
- During 2015, it is expected that DSIC surcharge will add an average of 50 cents per month to the average monthly residential water bill.
- Since the inception of DSIC, the frequency of Pennsylvania American Water rate cases has decreased from annual to bi-annual, on average, and dramatically increased the system-wide replacement rate, all with very few customer complaints.

[4] While infrastructure surcharge programs can reduce the frequency of rate case filings, they cannot eliminate the need to file rate cases entirely because not all capital expenditures are eligible for surcharges and surcharges are capped at a certain amount.
[5] The California Public Utilities Commission also recently approved a pilot DSIC program for one of California American Water Company's districts.

Conclusion

In times of rising costs and regulatory delays, utilities have found water infrastructure surcharges a viable option to reduce regulatory lag and provide for timelier repairs and replacement of necessary infrastructure. While surcharge programs improve fair and timely returns on investment and thereby improve access to capital, any needed replacement of infrastructure ultimately benefits customers who experience improved and more sustainable reliability of service and water quality. To best serve customers, it is essential for both utilities and regulators to promote infrastructure surcharge programs as an innovative, effective mechanism for funding critical projects to restore our nation's water infrastructure.