When utility revenues stay flat or fall, managers might think that the answer is to raise fixed charges, since water service costs are largely fixed costs, which remain unchanged throughout the year regardless of the volume produced. While fixed charges to the customer can provide some immediate revenue stability, they also can provide other unwanted negatives, such as loading excessive costs on lower water-using customers and discouraging water efficiency. So what should your utility do? This fact sheet will help untangle the issue.

**IMPACTS ON AFFORDABILITY, EFFICIENCY, AND REVENUE**

**HOW DO FIXED CHARGES AFFECT EQUITY AND AFFORDABILITY?**

◊ Affordability of water services is a growing concern in many communities. A fixed price structure can place a disproportionate burden on low-income water users, who are also generally low-water-use customers.

◊ A high fixed charge takes away control from low-income households to change their water use and lower their bills.

◊ The examples below compare the impact of a real-world block rate structure that includes a fixed fee. All three examples are based on a family of four that use the same amounts of water, but each one falls within a different income bracket true to the service area. Without as much flexibility to lower its bill through consumptive reduction, the low-income family pays a larger proportion of its income for water. This proportion would get larger if the fixed fee were to increase.

**ARE YOUR FIXED COSTS REALLY FIXED?**

Many water service costs are fixed in the short run.

But in the long run, **ALL costs are variable** and influenced by customer use—even those related to infrastructure and capacity expansion. Building a new treatment plant or securing new water rights are just two examples.

Managers must have information about what customers actually need to make these planning decisions. This information isn’t available if there is a weak conservation price signal and customers aren’t motivated to use only what they need.
HOW DO FIXED CHARGES AFFECT EFFICIENCY?

◊ Having too large a fixed charge sends a weak conservation price signal to customers; having most of the bill calculated through a volumetric charge sends a stronger message to customers about the value of water and the costs to deliver it, and encourages them to base their usage decisions on those costs.

◊ Without a strong conservation price signal, efficiency problems will arise as more pressure is placed on the distribution system from unmanaged water use. More pressure will also be placed on the water supply.

◊ This unmanaged use and growth will cause the fixed price to rise over time to cover new supply and infrastructure improvements, which might not have been needed with greater conservation.

◊ Incorporating marginal pricing (pricing water at the cost of the next available unit) into your rate structure can send a more effective conservation signal.

CAN REVENUE STABILITY BE ACHIEVED THROUGH VOLUMETRIC CHARGES?

Water managers have many strategies available to them to manage this balancing act and ensure fiscal health without sacrificing the benefits of water efficiency:

◊ Yes! The first blocks of consumption, and the revenue they generate, are in many ways “fixed” charges. They reflect indoor water usage, which are typically quite stable and predictable.

◊ System capacity costs are driven by the uses that are more discretionary and price responsive, like outdoor water use.

◊ Some utilities have no fixed charges and bill customers 100% by volume used -- and yet they can still maintain revenue stability.

Comparing Cost Recovery from Fixed and Variable Charges

<table>
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<tr>
<th>Recovering more costs from fixed charges</th>
<th>Recovering more costs from variable charges</th>
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<td>A static world view</td>
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<td>Enhances revenue stability (less sales revenue risk)</td>
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<td>Weakens price signals and customer control (less resource efficiency)</td>
<td>Strengthens price signals and customer control (more resource efficiency)</td>
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<td>Less affordable for low-income households (more regressive)</td>
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<td>May promote self supply and system defection (more expensive)</td>
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<td>Slight advantage for combined households (single customer charge)</td>
<td>Revenue stability from first blocks of usage (inelastic usage)</td>
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IT CAN BE DONE!

The City of Los Angeles has a water rate structure that is entirely volumetric.

In Washington, D.C., the fixed fee is low and is used to help recover the costs of renewal and replacement of aging water service lines of time. There is an additional customer metering fee that is based on the meter size. In this way, the utility does not rely on fixed fees to meet core revenue needs.

WHAT ARE STRATEGIES FOR ALIGNING UTILITY AND CUSTOMER INTERESTS?

AWE has developed resources to help water managers navigate these challenges and devise solutions through rate setting and financial planning, available at www.FinancingSustainableWater.org.

⇒ As water costs and rates inevitably climb, utilities can expect significant reductions in discretionary water use (like outdoor use) -- good for the environment, utility budgets and customer wallets in the long-term.

⇒ Ultimately, rates should include a conservation signal and should not place disproportionate weight in high fixed charges to the customer.

⇒ This approach can help utilities achieve long-term balance between resources and revenue by stabilizing demand, avoiding unnecessary future investments, and keeping rates affordable.

*Based on materials provided by Dr. Janice Beecher, MSU