Examples of conservation-oriented rates

The following examples of conservation oriented rates include discussions of "base rates". This term refers to the base price charged for a standard volume of water a household uses, and the investment needed to treat and deliver that water (derived from aggregate estimates or individualized usage). The base rate is usually set during winter months when water usage is almost exclusively indoor use. These four examples of conservation oriented rates should be assessed to determine the most appropriate rate structure for your service area.

Uniform rate plus seasonal surcharge for high usage.

A uniform block rate is a commodity rate that does not vary with the amount of water use. A uniform rate plus seasonal surcharge focuses on conservation in peaking and average use system wide.
All residential customers pay a base charge, plus a uniform rate for each 1000 gallons of water used. Over a certain level of use, the surcharge is applied and the user pays a higher rate per 1000 gallons over the set level of use. Typically this surcharge takes effect in warm weather months (May, June, July and August). It is the easiest method to implement, and can encourage businesses and industry to reduce their use during seasonal peaks and thus extend the capacity of existing assets. Well designed uniform rates that reflect the full cost of providing water service can sometimes be very effective in sending price signals to customers. This type of rate structure is also simpler and therefore easier to work with in terms of revenue predictions etc., than more complicated rate structures.

Inclining Block Rate Structure.

Inclining block rate is a commodity rate whose unit price increases with increasing water use. This option targets conservation at peaking and average use within customer classes. All customers in the same class (residential, commercial, industrial etc.) pay a base rate per unit of water used, under a certain threshold of water use. For any use above the set threshold, a higher rate per unit of water used is charged. Additional volume blocks can be defined in which higher rates are charged. The inclining block for residential customers may be different from of the structure used for commercial and industrial customers. This option can target high volume users better than using individualized rates; it is effective throughout year; and it works best when customer classes are fairly homogenous. Three or more pricing tiers are recommended.

Individualized rates (also known as water budget base rates).

Individualized rates, also known as water budget based rates, are a version of inclining block rates in which the blocks or tiers are determined for each customer by the customer's usage history, and are usually set based upon the quantity of occupants and the square footage of landscape. It targets individual customers' peaking and average use. The first block/tier is generally set based on the customer's usage during the winter months and is typically reevaluated annually. Individualized rates can encourage conservation even at the lower volume range. Potential drawbacks are that

software modifications may be more extensive than for other methods, and individuals can artificially raise their winter average to gain a higher block/tier structure. Also, this option may not successfully capture high end water users.

Lifeline Rates.

This option applies to a provider using the inclining rate structure, but adds a volume block lower than the base volume block (for example, 0 – 3 CCF or 0 – 2000 gallons). It thus provides relief for low income customers. Low income households are charged lower rates on that portion of water consumption that provides basic needs for cooking and cleaning but then higher charges are levied on water consumption beyond that amount. The difference in revenues must be made up in the remaining blocks. Lifeline rates could apply to all customers regardless of income levels unless a process is developed to identify and maintain a database on low income users.

Hybrid Rates.

A conservation rate structure may use a combination of the above listed rate structures. An example would include having an inclining block rate structure with a summer surcharge. Additionally, an analysis of the customer class consumption may show a need for different conservation rate structures for different customer classes.

Customers need to be given the message that they should be prepared to pay more for water, even if their use decreases. Water has historically been a very small percentage of the average household's expenses. But, as rates increase, the proportion of a household's income spent on water will become more significant. Since water is such a basic need, the affordability for low income customers must be considered. In addition to considering the "lifeline rates" discussed above, utilities should be able to at least refer low income customers to assistance programs, whether these be local churches and charities or government human services programs.

Regardless of the rate structure, small but frequent rate increases are generally a good practice. Mustering the political will to approve these rate increases can be a challenge. There are a few examples of utilities in Illinois where the local code allows for automatic annual rate increases. Other utilities have surcharges that go into effect automatically when certain conditions are met. These provisions allow for the financial stability of the utility.

For more information on water budget based rates, visit http://www.allianceforwaterefficiency.org

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