

Computer Corner

Neither snow nor rain nor driving hail will keep the water bills from hitting the mail!

Estimating Bills and Other Factors Impacted By Rate Structures

The fact that the ground is covered in snow as I write this has me thinking about something that often plagues water system's billing departments during bad weather. It is the business of water systems' practices in estimating customer bills.

Even though the warm weather season is on its way, this article focuses on problems related to estimating bills, usually due to bad weather. We will discuss how a rate structure can impact estimating bills and other issues. Discussing this on the heels of the bad weather season can give any water district or city that recognizes a need for change an entire year to consider and apply that change in their rate structure.

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If it is deemed necessary to forego the usual monthly business of reading the meters for some or all of the system's customers, then the folks back in the office have to decide what method of estimating will best serve their customers.

Any procedure in billing should be approached in a methodical, purposeful, logical manner. Just because the utility is performing "estimates" is not a reason to simply pull a number out of thin air with no specific and consistent rule to follow. And please, meter readers, do not decide to forego actually reading a meter and instead write down a guess without letting the folks in the office know. Anyone producing bills and in turn dealing directly with customers and answering their questions needs to know the source of the information the bills are being calculated on, and needs to know whether or not the readings they are using are valid and verified numbers. In addition, there



may be features built into their software that facilitate certain automatic methods of estimating the bills.

Sometimes utility billing software allows hitting a single button that will calculate bills based on a yearly average or a three-month average or last month's usage. Even if there is a

button that automatically creates a bill for the new month that advances the reading by the same quantity of water used last month, I always instruct system staff to first determine if there are any customers whose last usage was particularly high compared to their usual reported usage, since the estimated bill would also figure high. Ideally, one is using software that has tools built-in to check for those accounts that reported unusually high readings in the earlier month.

The first and most obvious reason to avoid entering an unreasonably high estimate is to avoid overcharging. The client may have had a leak the month prior and therefore had a higher than usual bill at that time. If bills are estimated on an abnormally high usage in the prior month, the customer will receive the unwelcome surprise of a bill just as high as their earlier month's bill after the leak was fixed.

It is important to know if any amount an automatic estimating system might draw from is particularly high for that customer or if applying the estimate manually, any number entered that might produce an inflated usage for that particular account. Failing to do so can result in "over reading" the meter, i.e., using a reading that is well beyond the customer's actual meter reading. Sometimes readings so exceed the usage of the month the estimate was entered for that even by the time another month has passed, the meter has still not recorded to the made-up reading entered in the estimate month.

If on discovering this one were to hand edit the reading that had been entered the month prior as an estimate, making it as small or smaller

Impact of the Rate Structure in Self-Billing Systems

Often on self-billing systems, it is the system's rate structure that lays the blueprint for the "made-up" numbers some customers provide. While their friends and neighbors faithfully read their meters and report correct information some knowing that the system's rate structure allows one, two, three or more thousand gallons with the minimum payment, the customer uses that number to advance their reading each and every month. This may leave them woefully behind, needing to catch up at the time of a meter audit, while others may have read far beyond their actual reading, causing the reading of record to in no way resemble what the audit finds to be true.

than the new verified reading, one would also have to manually add a credit to the account to make up for the over-estimated bill the customer was already charged for. Failure to do this would have the customer paying for the same water twice.

The only time it is acceptable to change a reading back without providing a credit to the customer is if the system is self-read where meter readings are mailed in by the customer and it is the customer who has intentionally reported a fabricated reading. The purpose of a meter audit is to make sure the system is dealing with correct information, therefore the findings of the meter audit need to be applied even if the customers end up paying for water they didn't use because of water allowed free with a minimum payment.

Meanwhile, back to systems that read their customers' meters. The other solution for dealing with an over-read would be to enter a "Same Reading", i.e., the reading used in the estimated month, each succeeding month creating a zero usage, and therefore a minimum bill until the actual reading catches up to the

estimated number. If the system's minimum charge is not tied to usage, this solution doesn't create any higher charge for the time period involved than if the meter had been read and correctly entered in the first place. But if the water system's minimum charge and the usage are linked, a month or more of same readings in order to make up for an over-read can end up costing a customer more than would have been charged in each month, including the estimate month.

The effect of certain rate structures on estimating will be further discussed in the next few paragraphs. But first, let me bring up another estimate method sometimes used in an effort to avoid overcharging. To assure that no reading that has not been verified is ever entered, when unable to read a meter some systems opt to simply apply the same reading as the month before, creating a zero usage. While this assures that no money is charged for any unknown usage, no usages are claimed that have not been absolutely verified and no over-reads take place.

Because of the way some systems' rates are structured, customers may complain that they have been shorted. I refer to water systems that allow free water with the minimum charge. The perfect example is a city that, a few years ago, estimated bills for bad weather for two consecutive months. Their water rate structure began with a \$15 charge that each water customer had to pay whether or not any water was used. However, it also allowed the customer to use up to 2,000 gallons for that same \$15. When this kind of arrangement is explained to a customer as "The first 2,000 gallons are \$15" that is not

really factual. In truth, the minimum charge whether the customer uses water or not is \$15, but then the customer is allowed to use up to 2,000 gallons without additional charges, making that first 2,000 gallons "free water".

In the case of this city, the clerk decided to use the "same Reading/Minimum Charge/Zero Usage" method of estimating and allow the proper usage to be caught up and accounted for once the meters were actually being read again so that there would be no worry about incorrectly estimating readings. Given the city's rate structure this estimate method was probably not the best choice. Anytime any water usage is allowed along with the minimum, as their's was, customers who normally use or exceed that usage that is allowed with the minimum may expect to have any reading entered on their account advanced by at least that much so that they get to take advantage of their "free water".

Not advancing any reading for two months of bad weather caused all the water used over a three-month time period to hit in a single month. Not only did that give some customers a larger bill than usual in that third month, because all the usage was charged at once but if the customer had used 6,000 gallons total over three months (2,000 monthly), then only two of the total 6,000 gallons billed would be allowed free with the minimum. The other 4,000 gallons would be charged at a rate of \$5.00 per thousand. If the meters had been 2,000 gallons per month, then each month would have been charged at the \$15 minimum for a total cost for three months of \$45 for water. But

because two months went by, with minimum bills and no usage, then in the third month, the good weather month when meters were actually read, the 6,000 gallons being reported all at once allowed 2,000 gallons to be free, then 4,000 charged at a rate of \$5 per thousand. So a customer in that scenario would have been charged \$15 in the first month, \$15 in the second month and \$45 in the third month, for a total for all three months of \$75, or \$20.00 more for the

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same usage than their bill might have worked out to be., providing they used water at an even rate of two 2,000 gallons per month.

And that is just water. The problem is compounded if the utility is a city that also has sewer charges based on water usage but allows a set amount of free usage with the minimum.

This same overcharge would result by the earlier mentioned "Same Reading Until Caught Up" method of correcting for an over-read. But again, the problem only exists when the minimum is tied to usage. When they are kept separate, these problems do not exist.

A reason for keeping rate structures simple and straight forward is to make balancing usage with charges simple and clear. If a water district or city charges a stand alone minimum

for water and if they apply the same concept for sewer, and if they charge usage by a single amount per unit, that doesn't change with increased usage regardless of the amount of use, then a few seconds on a calculator each month comparing charge totals to usage totals will provide verified proof of employees doing this part of the job in a correct and above board manner.

The next estimating season may be some time away. Yet there are multiple reasons to consider using a rate structure that is clear, simple and to the point with minimums separate from usage and one set charge for each unit of water used, rather than a declining block rate. Often a water district wishes to allow for the descending block to provide a break to agriculture

Those who are responsible for deciding on the most fair and equitable manner in which to charge the people in their community for utility services may want to give some thought to how their system's rates are structured, especially regarding how minimums are handled and the business of sliding scale usage charges.

There are a myriad of different ways to go about charging customers for services. The key is finding the method that is both fair to the customer and sustaining to the utility agency the customer depends on.

Linda Windler and her husband Merle are owners of Thoroughbred Systems, Inc., Topeka. The company specializes in utility billing for cities and rural districts, computer networking and associated training.

Contact: lindawindler@yahoo.com



Thoroughbred Systems

Thoroughbred Systems.com

Software Products for Cities and Water Districts

116 S. E. 8th Avenue Topeka, Ks 66603-3905

(785) 232-8160



We've used Thoroughbred for years, even back when the customers read their own meters.

We're really hi-tech these days with the latest version of Thoroughbred and Windows 10.

I send traditional printed bills through the U.S. Mail to less than half of my customers now, 'cuz now we also have things like email notices & billing, automatic banking & Internet Pay.

The program's like Burger King, it "Lets us have it our way", with queries and custom reports.

There are tons of features that help with everything from water loss to keeping on top of delinquent accounts, rate code studies, work orders, mail merge letters, you name it,

all for a low purchase price. Best of all human beings answer the phone & help me for FREE!

You'll love it, startup training can be in person in the water office or via the phone & Internet.

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Now, if they could just teach my computer to serve up a hot cup of coffee in the morning,

IT WOULD BE PERFECT!!!!