



The city of Caldwell has one of the oldest operating water storage tanks in the state. A project to replace this tank and install new water lines is expected to cost \$2,157,250. The deadline to submit bids for this project was in February 2022.

KRWA Upgrades Rates Review Service



In the second half of 2021, Kansas Rural Water Association (KRWA) resumed a service that had been offered to the public water supply systems of Kansas for many years. After a brief hiatus due to changes in staffing, Carl Brown of GettingGreatRates.com was invited to develop a tool that would be licensed to KRWA to evaluate existing water and wastewater rates. KRWA staff attended a training session with Carl to learn how to use the tool. Staff members were instructed what constitutes “great rates” – not just rates that are just adequate. The digital tool Carl created can quickly calculate these new rates if accurate data is available. Rate adjustments can then be recommended for consideration by the local RWD or city. Now, about six months later, enough water and wastewater utilities have been served with the new tool for us to see that the results appear to be successful. This article will attempt to convey Carl Brown’s (and KRWA’s) philosophy of public utilities and the rate structures to make these water and wastewater systems successful financially.

Small water and wastewater systems have such limited economies of scale compared to large systems in terms of revenues, time, expertise, etc. Without a state association or other non-profit organization available, rate setting would likely be done internally in a haphazard way. A quick Google search finds that rural water associations in Iowa, Wyoming, Oklahoma, North Carolina, Minnesota, and Louisiana assist water systems with rate analyses, and that’s just the results displayed on the page of search results. KRWA has the experience, resources and desire to assist utilities in their drive to achieve success.

Looking back

In the past, one of KRWA’s staff members mainly conducted all of the rate reviews from the office. The city or RWD submitted their water production and sales figures, a list of their expected expenses, the number of customers and the current rate structure. With this, the annual revenue would be calculated and compared to the estimated annual

expenditures. If the estimated expenses were greater than the revenue expected to be generated by the monthly minimum and water sales, an evaluation would be made to determine how much more revenue could be generated with various increases of either or both of the monthly minimum or the cost per thousand gallons. There were also attempts to confirm that the new rates were adequate to satisfy any required Debt Service Coverage Ratio (DSCR).

With the results of the various rate review evaluations, comparisons with the existing rates and expected revenues would then be made. A recommendation from KRWA was included in a letter listing the options for the utility to meet the expected future expenses and DSCR requirements. There were cases where it was recommended that rates might be reduced or that outstanding debt be reviewed for possible refinancing to reduce debt service. It appears that in 2008, a streamlined rate calculation tool was developed to calculate rates, which helped provide more of these evaluations. Sometimes, the tool used to calculate rates was given to the water and wastewater systems to do their own determinations of their expected expenses to generate their rates in future years.

Looking forward

KRWA now uses a more sophisticated template to determine fair and adequate rates. With training by Carl Brown, KRWA staff can provide better rate analyses for all utilities and hopefully get great results for most of them.

KRWA wasn't nearly operating at the standard of the old cliché, garbage in = garbage out, but using any digital tool without any human understanding of the water and wastewater systems, their customers and the numbers will not provide great results. Questions must be asked about affordability, water loss, debt, reserves, age and condition of the infrastructure, etc.

One of the philosophies that KRWA uses in its recommendations is that the



With state and federal grants totaling \$1,104,000 and a USDA loan of \$397,000, the city of Turon constructed a new elevated storage tank in 2020. It removed the previously existing tank that served the city for more than 100 years. In 2016, the city replaced all of the water lines, etc., under the KAN STEP program which relied on many hours of volunteer labor with KRWA assistance.

inclusion of a quantity of water in the monthly minimum charge is inherently unfair to customers who can least afford it. To explain why the inclusion of the water in the monthly minimum is undesirable, an understanding of its purpose is needed. While no one answer fits all systems, it's most likely that it was politically more palatable to set a monthly minimum that included some water than a monthly minimum without water. That way, the customer could feel like they were getting something for their minimum payment. What is the real purpose of the monthly minimum charge? It's to cover the system's fixed costs like debt, salaries, postage, basic infrastructure, etc. When a minimum quantity of water is included with the monthly minimum, those customers who don't use all of the water included in the monthly minimum are subsidizing the users

who use more than the minimum. Who are those customers? Most likely, they are those who live alone and are probably widowed and elderly. They probably make up a small percentage of the customers and their payments for water not used probably don't amount to much of the total revenue anyway. So, when new rates are under consideration, KRWA encourages the owners to consider those likely long-time customers of the water system and quit making them subsidize those who use more than the water included in the monthly minimum.

If the monthly minimum covers the fixed costs of operating the water system, then the unit charge (commonly called the cost per 1,000 gallons) should pay for the costs to produce and distribute water. The cost of electricity to pump water, to inject disinfectant and light well houses

should be paid by the unit charge. Costs of propane or natural gas to heat well houses are included here. The cost of chlorine and other treatment chemicals should be included. Don't forget the Clean Drinking Water and Water Protection Fees. Those should also be included. If some or all of the water is purchased from another system, those costs are included in the unit charge. Carl Brown has learned through his rate analysis career that most small to medium-sized water systems have roughly a 50 - 50 split of fixed costs and water production costs. His rate analysis tool attempts to provide water rates that reflect that ratio.

The new tool

The water rate tool we're now using appears to work very well with reviewing the adequacy of existing or suggestions for adjustment. With a little more than a basic understanding of spreadsheet formulas, we can "tweak" the tool to show a 50 - 50 balance when one or two expenses are on either the low or high side. Suppose the city

council or RWD board of directors believes the monthly minimum can't go higher than the current value. In that case, we can show a higher unit cost to continue meeting the overall expenses, assuming water demand does not decrease. All of these various scenarios can be provided to the system for their consideration, with a concise and robust explanation.

Some water systems have asked KRWA to calculate the necessary water rates that will be necessary to pay for the debt of proposed capital improvement projects, in addition to the existing expenses. Even though construction and material costs are

increasing at a faster rate than in the recent past, these systems report that they are still moving forward with their identified needs.

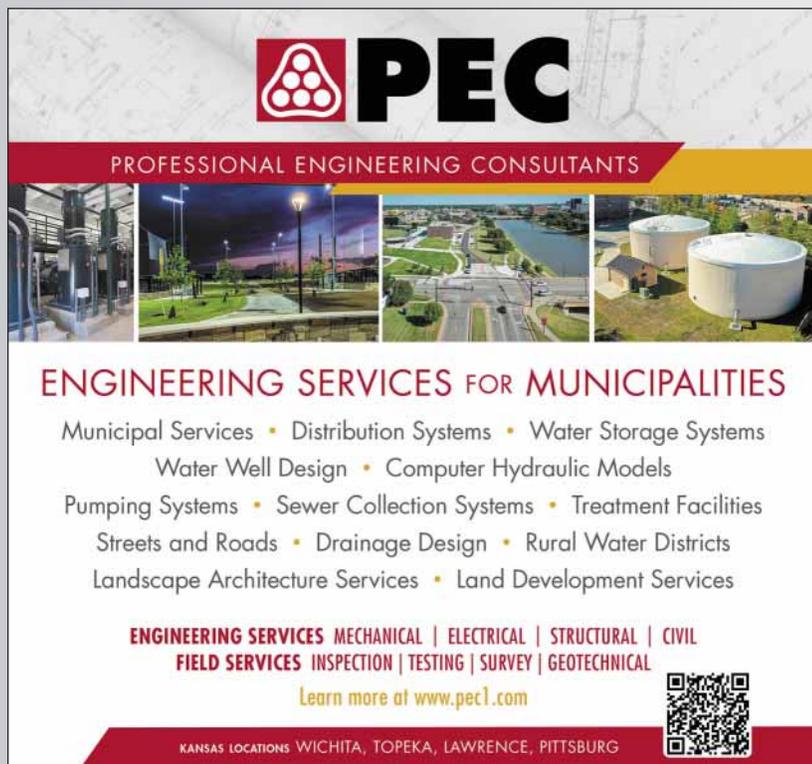
Because of the procedures we're following, KRWA has taught water systems Carl Brown's philosophy of fairness and the need to save funds for future expected and unexpected expenses. We've seen first-hand the importance of regular confirmation of customer-reported meter readings and the importance of saving some revenue for future projects such as replacement wells and lagoon dredging. For most water and wastewater systems, the rate analyses have suggested rates that aren't much higher than the current rates already in place.

Request a review

Is your water or wastewater system generating enough revenue to pay all current and future expenses? Have you forgotten the last time water rates were adjusted? Do your system administrators or board/council members make it an annual agenda item to review the operating margins from prior years? Maybe it's time to ask KRWA to analyze the rates and suggest new rates that may be fairer for your customers to help everyone succeed.

Attendees at the 2022 KRWA Conference and Exhibition can hear Carl Brown and Arnie Bhowmick speak about the importance of fair and adequate water rates and asset management at the pre-conference session on Tuesday, March 29, 2022. KRWA welcomes your telephone call or your e-mail request for a rate analysis. Call us at 785/336-3760 or write to krwa@krwa.net.

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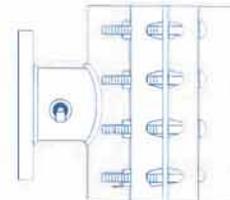
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