

Questions from Councilmember Lumm:

First, let me thank you again for the responses to my questions on this. It is appreciated, but sorry, I have a couple more.

During Monday's discussion, both of you indicated on a couple of occasions that commercial water use volume is constant and doesn't peak like it does for residential. That wasn't my recollection of what I'd seen before, but I didn't follow-up last night because I wasn't sure.

Anyway, I reviewed the material from our March 12th work session, and on slide 9, it appears to illustrate that commercial usage does in fact peak like residential – and actually, the amount of variation looks like it is more for commercial than for residential.

Although the actual numbers are not on the slide, if the colored increments in the bars on the slide are accurately depicted, it suggests that:

- the commercial peak volume in July is roughly double the volume in February while residential in July is less than double February – if accurate, that says the percentage volatility is greater for commercial than residential
- the commercial peak volume in July is roughly 15M gallons more than February while the residential peak in July is less than 10M gallons more than February – if accurate, that says the absolute level of volatility is also greater for commercial than for residential

Can you please confirm these numbers on slide 9 of March 12th ? And if the numbers say what I think they say, why would you indicate commercial was constant? I must be missing something.

I think it's important Council understands this clearly as this peaking concept is at the core of the study itself (and as a result, the new rates). The existing rate structure has usage-based tiers for both commercial and residential. This proposal adds a tier to residential, but eliminates the tiers for commercial (it's now one flat rate). Eliminating the commercial tiers just doesn't seem to me to be consistent with the key underlying basis of the study or with the philosophical objective of disincentivizing discretionary water use.

Also, I've asked twice now what impact the proposed re-structuring will have on UM – will they pay more or less and roughly how much? While the responses have indicated the UM will pay the same rates as others in the respective classes, they have not answered the question. In the most recent response on Monday, it was also indicated that “to pull and itemize all UM accounts and determine impacts to each account, and/or collectively to all accounts, would require significant staff efforts.”

I understand, and am not asking for a major staff effort. I'd think there ought to be a relatively simple analytical way to determine the directional impact on UM of the proposal, but perhaps not. Again, I'm not interested in refined numbers, just rough, directional impacts.

But if you'd prefer not to take any time to roughly estimate the impact, that's OK - just let me know, and please also let me know if there's a database I can access to work with myself?

Staff Response:

I think the intentions of what was said were perhaps not clear. The commercial class does in fact peak the system, and that peak is recovered in the costs that are paid per unit of water. To create a class of customers, there must be a rationale, data, and system to track how the usage of a class as a whole uses water differently from another class. As a class, it is well established and supported by data that residential customers use water differently than commercial, multi-family, and water only customers. The City's billing system and metering data indicated that residential customers (as a group) use water differently, and therefore impact the system differently, than other classes or groups of users.

To break a class such as the non-residential class of customers into different classes of customers, there needs to be a rationale, data, and system for developing and administering a structure that is based on the usage of and cost to serve each of those customer classes. Within the commercial (non-residential) class there is a wide variety of business types with different levels of water usage requirements and metering configurations, such that charging a tiered volumetric rate for this customer class as a whole would not be appropriate or based the usage patterns of customers. While the City does presently have a tiered system for non-residential users, approximately 98% of all consumption by non-residential customers is within the first tier, effectively rendering the current tiered system a uniform rate structure. A uniform rate structure for non-residential customers is also the most common industry practice.

For example, a small office downtown would use about 20 CCF throughout the year, and a restaurant with the same square footage would use 100 CCF throughout the year, with neither customer imposing notable peak demands on the system during the summer. If we were to determine a higher rate tier to be at 50 CCF, that would be inappropriate to charge the restaurant more for 50 of their 100 CCFs, because their consistent use throughout the year is not contributing to the cost that is driving the commercial peak to the system. Nevertheless, and for the same reasons, the rate developed for non-residential customers covers the cost of the peaking caused by non-residential customers as a class.

Because non-residential customers have no standard activity or usage that can be identified, due to the variations among non-residential customers and uses, the data does not exist to be able to allocate the cost of service in the pricing structure as is done for residential customers. In the absence of the data, system, and resources to establish and maintain individualized customer-specific tiers, a flat rate is not only based on the data that is available, but is the most equitable. The same rationale holds true for multi-family residential, because there are multi-family units that have 5 dwelling units on one meter, and multi-family units that have 50 dwelling units on one meter.

For residential customers, far more data on essential indoor and reasonable outdoor water use is available to use as a rationale for the sizing and pricing of the inclining block rate tiers for the class. There are national studies on indoor water usage that are available to size the first two tiers based on industry standards. The pricing for each tier reflects the allocated proportion of the average day, maximum day, and peak hour costs for the residential demands in each respective tier. Beyond the initial tiers, GIS data allowed us to identify average parcel size and irrigable area for typical residential properties to size the amount of water consumption in tier 3 and tier 4. The pricing of tiers 3 and tier 4 were again determined in proportion to their average day, maximum day, and maximum hour peaking costs. These tiers have a greater allocation of these costs due to their contribution to the system peak.

Relative to the comparison of current revenues as compared to the cost to serve, a larger variance was observed for the residential class as compared to the commercial class. In the current rate structure,

commercial customers pay closer to the amount that reflects the cost to serve, whereas, that is not the case for residential. When determining the pricing for residential customers, the City needs to recover an additional \$1.69 million for residential customers. In contrast, the City's current rates for commercial customers are capturing \$0.52 million more than the cost to serve the commercial class.

The proposed pricing and structure use an industry standard methodology to distribute and recover system costs with the utmost caution to ensure that all decisions are defensible based on available data.

The University of Michigan has approximately 400 different accounts that are not identified in a uniform way in our billing database. As such, we are unable to give you customer-level detailed impacts.

However, we have done some high-level analysis, and because of the wide variety of types of properties they own/maintain (water only, non-residential, etc.), the amount they would pay under the new rate structure would not be significantly different, either higher or lower, than they pay now.