
REPORT TITLE: **Long-Term Utility Financial Plan Rate Structure**

FROM: Kealy Dedman, Commissioner of Public Works

RECOMMENDATION

That a water and wastewater rate structure that includes both a fixed service charge and a volumetric rate as described in the report of the Commissioner of Public Works, listed on the May 12, 2022 Regional Council agenda titled “Long-Term Utility Financial Plan Rate Structure”, be approved.

REPORT HIGHLIGHTS

- The Region of Peel’s Water and Wastewater 10-year Plan (2019-2028) has a strategic goal to assure the long-term financial sustainability of the utility system. This includes ensuring adequate revenue to fund the full lifecycle management of assets and the state of good repair program.
- Water and wastewater revenue are currently based 100 per cent on direct consumption which fluctuates depending on seasonal demand due to weather conditions. The annual variability in water consumption impacts the water and wastewater revenue and has led to financial deficits or surpluses each year.
- Currently, there is one rate for all customers, despite significant differences in the cost to serve for each customer type. Single-unit residential customers have a higher cost to serve and are subsidized by multi-residential and industrial, commercial, and institutional customers.
- The recommended water and wastewater rate structure includes a fixed service charge and a volumetric rate. This approach is based on industry best practices and balances the pricing objectives of bill and revenue predictability, customer understanding and administrative ease, and equity.

DISCUSSION

1. Background

The intent of the Region of Peel’s Water and Wastewater 10-year Plan (2019-2028) is to assure the long-term financial sustainability of the utility system. This includes ensuring adequate revenue to fund the full lifecycle management of assets and the state of good repair program.

Currently, the Region has among the lowest water rates in Ontario and across Canada. The water and wastewater revenue are currently based 100 per cent on direct consumption which fluctuates depending on seasonal demand due to weather conditions. However, the fixed costs of providing service represents 87 per cent of total costs for water, and 82 per cent for wastewater. The annual variability in water consumption directly impacts the water and wastewater revenue and has led to financial deficits or surpluses each year.

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The fixed costs associated with providing a safe and dependable drinking water supply, as well as efficiently collecting and properly treating wastewater, are increasing each year. This is due to population growth, intensification of the urban environment, the impacts of climate change, replacement of aging infrastructure, and changes in the regulatory environment.

In December 2020, Council endorsed the Long-Term Utility Financial Plan (Utility Plan). The purpose of the Utility Plan is to ensure a predictable and stable revenue stream to cover the long-term funding requirements for providing water and wastewater services to residents and business in Peel.

In May 2021, the Long-Term Utility Financial Plan Council Working Group (Utility Plan Council Working Group) comprised of representative Councillors from Brampton, Mississauga, and Caledon was formed to provide input and endorsement throughout the project.

The Utility Plan has two streams of work: the first is to recommend a rate structure to provide billing and revenue stability and customer equity; and the second is to develop a financial planning model to determine the long-term funding requirements for infrastructure and state of good repair for the system. This report will focus on the recommendation for the Region's water and wastewater rate structure, and Staff will return next year with recommendations from the financial planning model work.

Raftelis Financial Consultants Inc., (Raftelis) was retained by the Region in August 2020. Raftelis is the largest water industry financial management and consulting firm in North America and has led the current state assessment, environmental scan, public consultation, and the rate structure review.

2. Industry Best Practice

Raftelis completed a comprehensive environmental scan to identify industry best practices, with a total of 24 utilities from Canada, the U.S., and internationally (Appendix I).

Approximately 90 percent of comparable utilities have a fixed charge component which is most often scaled to meter size. This means that as the meter (service size) increases, the fixed charge increases proportionally. The fixed charge, which is not dependent on customer's usage, is intended to recover a portion of fixed costs, and improve the stability of the revenue stream and customer billings. Based on the industry scan, most comparable utilities aim to recover 30 to 40 per cent of utility rate revenue from fixed charges.

The industry best practice for volumetric water rates, which is a charge dependent on customer's usage, is based on the relative cost to serve by different customer types. The cost to serve analysis determines the true cost of providing service and reflects the demand placed on the system by different customer types. Ideally each customer type should generate sufficient revenue to cover the cost of providing service. In addition, a tiered volumetric rate can also be used to charge a different rate based on consumption levels. This can help to mitigate the bill impacts of having a fixed charge among low-water users and encourages water conservation among high-water users. Common industry practice for commercial customers is to have a uniform water rate which promotes equity as users all pay the same unit price.

Similarly, the industry best practice for wastewater is to have a fixed charge component, with a proxy based on water consumption used for the volumetric rate. Most Canadian utilities assess wastewater volumetric charges on 100 per cent of metered water consumption.

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3. Public Consultation

An extensive public consultation process was conducted from June 2021 to February 2022. Feedback was sought from the public, property managers, small to medium-sized businesses, and high-use large industrial companies across all three local municipalities. Staff also engaged the Lived Experience Roundtable of the Peel Poverty Reduction Committee, comprised of residents representing low-income, racialized communities, seniors, people with disabilities, single parents, newcomers, and refugees (Appendix II).

Results showed that residents and businesses prioritized the principle of equity and *'pay for what you use'* as well as incentives for water conservation. Among residents, drinking water quality, value for service, bill predictability and an easy-to-understand invoice were of importance. For businesses, reliability of service, competitive rates, and significant advance notice of any changes were identified as priorities.

4. Utility Rate Structure

The Utility Plan Council Working Group was engaged throughout the project and provided their input and endorsement of the recommended rate structure. The rate structure is based on industry best practices, aligns with community feedback, and balances the Utility Plan's pricing objectives of bill and revenue predictability, customer understanding and administrative ease, and equity. These pricing objectives were endorsed by the Utility Plan Council Working Group and approved by Regional Council in October 2021. The rate structure evaluation process, explanation of the rate structure components, and average customer impacts are outlined in the sections below.

a. Rate Structure Evaluation

Raftelis conducted a comprehensive cost to serve analysis and identified three distinct customer types within the Region: single-unit residential, multi-unit residential, and ICI customers. Cost to serve differences are primarily due to the varying infrastructure costs and fluctuations in peak water demand from each customer type. For example, multi-unit residential complexes have one large meter that serves the property. The building property manager will then bill each unit based on the total water consumption for the complex. As such, both the infrastructure requirements and the water demand placed by a multi-unit residential complex are very different than that of a single-unit residential dwelling.

Within the Region, there are significant differences in the cost to serve different customer types. Generally, single-unit residential customers cost more to serve compared to the revenue that is generated. This is due to the extensive infrastructure required to service individual properties compared to their typical demand and to ensure capacity for fire fighting and other high-water uses such as during hot and dry summers. As a result, with the current rate structure, multi-unit residential and ICI customers have been cross-subsidizing single-unit residential customers.

b. Recommended Water Rate Structure

The recommended water rate structure balances the pricing objectives of bill and revenue predictability, customer understanding and administrative ease, and equity. Additional factors to encourage water conservation and mitigate customer bill impacts were also important aspects of the final rate structure.

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Based on industry best practices and input from the Utility Plan Council Working Group, the recommended rate structure ensures that each customer type pays their fair share of costs relative to the revenue generated.

While the Region currently has one rate for all customers, the recommended rate structure will introduce two components: a fixed service charge and a volumetric rate.

i. Fixed Service Charge

The existing rate structure does not include a fixed service charge. The recommended rate structure will include a fixed service charge that scales to meter size and will recover approximately 20 per cent of the Region's annual water rate revenue. This will minimize initial bill impacts for customers, while providing additional time for the Region to reach the long-term goal of 30 to 40 per cent as per common industry practice. The fixed service charge balances customer equity as each customer will be paying their fair share to connect to the service, regardless of how much water is used. This will potentially increase the water bills for very low-water users since they will need to pay for their connection to the system through the fixed service charge.

As per industry best practices, the fixed service charge will scale to meter size. For example, single-unit residential customers have the same meter size and will pay the same fixed service charge, while multi-unit residential and ICI customers with larger meter sizes will pay a higher fixed service charge (Appendix III).

Introducing a fixed service charge has the beneficial impact of reducing the volumetric rate for most customers. This will help recover the Region's fixed costs associated with providing water and wastewater service. This will also improve bill predictability by smoothing out billings for customers.

ii. Volumetric Rate

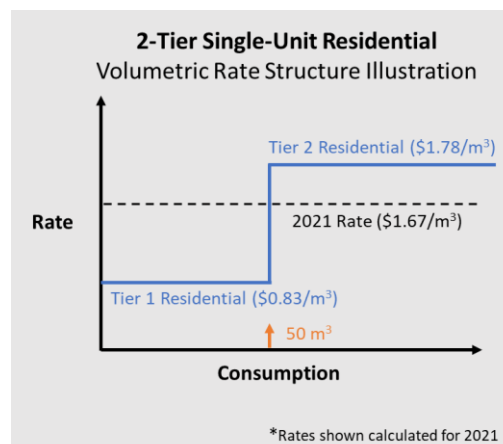
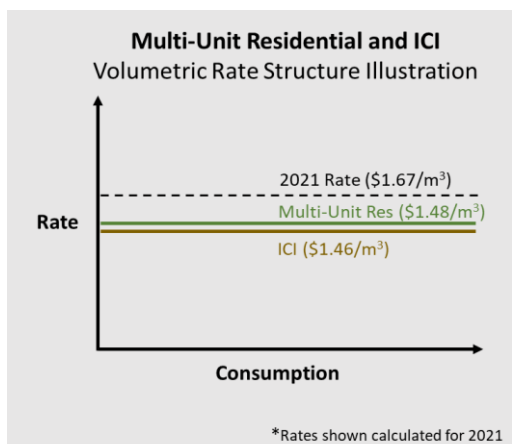
Currently, there is one uniform volumetric rate for all customer types. Based on an industry scan, best practice is to have a rate structure that reflects a customer type's cost to serve. The recommended rate structure will have a different volumetric rate for each customer type based on the cost to serve (i.e., single-unit residential customers, multi-unit residential customers, and ICI customers). It is important to note that the volumetric rate charged to all customers will be lower than current, due to the introduction of a fixed service charge.

The multi-unit residential and ICI customers will each have a different uniform volumetric rate based on the relative cost to serve each customer type. Based on the analysis, multi-unit residential and ICI have a similar cost to serve and therefore the same volumetric rate, however this could change over time. Industry best practices supports a uniform volumetric rate for multi-unit residential and ICI customers due to the relative demands placed on the system by each of these customer types.

To further improve equity for single-unit residential customers, a two-tier volumetric rate is recommended, one for low-water use and one for high-water use. The lower volumetric rate would apply to the first 50 cubic meters of consumption per quarter, based on the industry average water use for essential daily needs. The higher volumetric rate would apply for any consumption above 50 cubic meters per quarter and is typically based on discretionary uses (e.g., filling pools, watering lawns).

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The two-tier volumetric rate structure for single-unit residential customers encourages water conservation among high-water users and helps to mitigate bill impacts among very low-water users, who will potentially see an increase due to the fixed service charge. This is especially helpful in ensuring that the impacts of the rate structure remain affordable among customers who use very little water.



iii. Bill Impacts

With the recommended rate structure and based on current 2021 rates, some residential customers will have a higher bill and others will have a lower bill depending on their consumption. On average, single-unit residential customers will see a four per cent *increase*, while multi-unit residential customers will see a four per cent *decrease*. As a whole, ICI customers will have a *decrease* in bills, however impacts will vary based on consumption. On average, small commercial will have an increase of 6 per cent, while medium commercial will decrease by 11 per cent, and large industrial will decrease by 13 per cent (Appendix IV). For all customer types, the very low-water users are the ones who will see an increase in their bill due to the fixed service charge, however this is offset by a decrease in the volumetric rate.

c. Recommended Wastewater Rate Structure

Currently, there is one wastewater rate for all customers. The recommended wastewater rate structure mirrors the water rate structure and will also include two parts: a fixed service charge and a volumetric rate (Appendix IV).

i. Fixed Charge

The existing wastewater rate structure does not have a fixed service charge. The recommended wastewater rate structure will have a fixed service charge scaled to water meter size. This will recover approximately 20 per cent of the Region's wastewater rate revenue. For simplicity, the water and wastewater fixed service charges can be combined into a single fixed service charge on customer bills.

ii. Volumetric Rate

Currently, there is one wastewater rate for all customers, which is charged by proxy of 85 per cent of water consumption for residential customers and 100 per

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cent water consumption for ICI. Raftelis conducted an in-depth analysis that confirms the validity of using an 85 per cent return factor for residential wastewater. There is no change to the volumetric rate structure for wastewater, however the volumetric rate itself will be lower due to the fixed service charge.

d. Next Steps

The Utility Plan will complete the financial planning model work in 2023. The financial planning model will identify the revenue required to cover the increasing costs of infrastructure and long-term state of good repair. Any potential rate increases will be determined by combining the recommended rate structure with the financial planning model.

In parallel, a communications plan will also be developed in 2023. Community feedback highlighted the importance of developing an effective communications strategy to explain 'what' the new rate structure is and 'why' the changes are important.

The implementation of the recommended rate structure is currently scheduled to be rolled out in 2024. However, a mandatory software upgrade to the water billing system is required and may delay any rate changes to 2025. Currently, this project is undergoing a competitive procurement process. Once a vendor has been selected, the timeline for completion will be established and any potential delays identified.

Staff will prepare a communications and implementation plan in 2023 for Council consideration.

RISK CONSIDERATIONS

When the long-term revenue requirements from the financial planning model are combined with the recommended rate structure, the financial impact for some customers could be significant. To help mitigate bill impacts, Staff will assess the feasibility of a phased-in implementation plan to introduce rate changes over time.

CONCLUSION

The recommended rate structure is based on industry best practices and is aligned with the pricing objectives of revenue and bill predictability, customer understanding and administrative ease, and customer equity. Staff will return to Council with proposed rate changes and an implementation and communications plan in 2023.

APPENDICES

- Appendix I – Environmental Scan Comparable Utilities
- Appendix II – Stakeholder Engagement Participation
- Appendix III – Fixed Service Charge Scaled to Meter Size
- Appendix IV – Average Bill Impacts (2021 Data)
- Appendix V – Recommended Water and Wastewater Rate Structure

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