

**NOVA SCOTIA UTILITY AND REVIEW BOARD**

**IN THE MATTER OF THE PUBLIC UTILITIES ACT**

- and -

**IN THE MATTER OF** an application by the **PUBLIC SERVICE COMMISSION OF BRIDGEWATER**, on behalf of its **WATER UTILITY**, for approval to amend its Schedule of Rates and Charges for Water and Water Services and its Schedule of Rules and Regulations

**BEFORE:** Stephen T. McGrath, LL.B, Chair

**APPEARING:** **PUBLIC SERVICE COMMISSION OF BRIDGEWATER**

Gerry Isenor, P.Eng.  
G.A. Isenor Consulting Limited

Blaine Rooney, CPA, CA  
Blaine S. Rooney Consulting Limited

Tammy Crowder  
Chief Administrative Officer

Audrey Buchanan, P. Eng.  
Environmental Services Manager

Kim Hopkins, CPA, CA  
Director of Finance

Larry Feener, P. Eng.  
Director of Engineering

**HEARING DATE:** May 10, 2022

**DECISION DATE:** **June 21, 2022**

**DECISION:** **The application is approved as amended by the Commission.**

## I SUMMARY

[1] The Public Service Commission of Bridgewater (Commission) applied to the Nova Scotia Utility and Review Board, under the *Public Utilities Act*, R.S.N.S. 1989, c. 380 (*Act*), to amend its Schedule of Rates and Charges for Water and Water Services (Rates and Charges) and its Schedule of Rules and Regulations (Rules and Regulations). The utility's existing Rates and Charges and Rules and Regulations have been in effect since April 1, 2018, and July 1, 2016, respectively.

[2] The Commission presented the application to the Board based upon a need to adjust rates because of increased operating costs and to fund an ambitious capital program to replace or upgrade existing aging infrastructure. The Commission supported its application with a rate study prepared by G. A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited. The rate study was dated January 7, 2022, and filed with the Board on January 21, 2022.

[3] In preparing responses to Board staff Information Requests (IRs), the utility realized that it had not included upgrades to the Hebb Lake Lift Station and the installation of a watermain on Veterans Memorial Bridge (capital projects in 2019/20) in the rate study. The Commission's consultant revised the rate study to include these projects, and the Commission adjusted its proposed capital program during the study period to avoid significant changes in rates compared to the original rate study. The Board reviewed this revised rate study during the public hearing.

[4] The Board held a public hearing by GoToWebinar videoconferencing on May 10, 2022, after due public notice. Gerry Isenor, P.Eng., of G. A. Isenor Consulting Limited, and Blaine Rooney, CPA, CA, of Blaine S. Rooney Consulting Limited,

represented the Commission. The following municipal staff joined them: Tammy Crowder, Chief Administrative Officer; Audrey Buchanan, P. Eng., Environmental Services Manager; Kim Hopkins, CPA, CA, Director of Finance; and Larry Feener, P. Eng., Director of Engineering. There were no formal intervenors in the proceeding and there were no letters of comment or requests to speak at the hearing.

[5] During the public hearing, the Board requested other information and clarifications and the Commission identified corrections to the operating fund balance sheet and worksheet C-2 in the rate study. The utility filed the additional information and corrections as undertakings.

[6] In response to undertaking U-4, which asked for more information about a Service Boundary Review/Update noted in the depreciation worksheets in the rate study, the Commission determined information used in the budgets to prepare the study had changed. The Commission did not undertake the Boundary Review/Update Study in 2021/22 as planned, and Hebb Lake Lift Station project costs had increased. The utility decided to defer the Boundary Review/Update Study and use that funding for part of the increased cost of the Hebb Lake Lift Station project. The Commission will fund the balance of that project from borrowing and its depreciation fund. As a result, the undertaking response included another revised rate study, which the Commission filed with the Board on May 13, 2022. Unless indicated otherwise, references to the rate study in this decision are to the revised study the Commission filed with its undertaking responses.

[7] The application proposes rate increases for the fiscal years 2022/23, 2023/24 and 2024/25 (Test Years). The proposed average increases for 5/8" metered

customers are 3.9%, 2.2%, and 3.3%, respectively, in each of the three Test Years. For all other metered customers, except for the utility's largest customer, the proposed increases range from 5.3% to 7.3% in 2022/23, -3.0% to 0.9% in 2023/24, and 0.9% to 2.9% in 2024/25.

[8] The utility currently has a two-block rate structure, but the second lower-rate block only applies to its largest customer, the Michelin Tire Manufacturing Plant (Michelin). This is because the volume of water consumed by Michelin exceeds the consumption limit for the first block. In this application, the Commission proposes increases to the consumption limits for the first block, which results in larger increases in water rates for Michelin: 14.9% in 2022/23, 11.1% in 2023/24, and 10.4% in 2024/25.

[9] The Commission proposed to set the annual public fire protection charge at \$931,479 in 2022/23, \$1,048,238 in 2023/24, and \$1,141,672 in 2024/25. The proposed charge is blended with the existing charge in the first year to account for service for part of the year under the former charge.

[10] The Commission updated other charges to align them with actual costs for services. The utility revised its Rules and Regulations to align them with similar regulations for other water utilities in Nova Scotia.

[11] The Board approves the rate increases proposed in the revised rate study the Commission filed with its undertaking responses, subject to small errors in Schedule B, which the utility corrected and filed with the Board on June 3, 2022, and Schedule A, which the utility corrected and refiled with the Board on June 13, 2022. The Board approves the Rules and Regulations, as requested by the Commission.

## II INTRODUCTION

[12] The Commission has a surface water source of supply from three interconnected lakes: Hebb Lake, Minamkeak Lake and Leipsigate Lake. The Commission owns and operates dam structures on the three lakes. An intake pipe at Hebb Lake draws in raw water which the system pumps to a water treatment plant commissioned in 2002. The system then pumps treated water into two transmission mains. One main provides water to the south end of the Town of Bridgewater (Town), with the other serving the north end of the Town, including the Industrial Park. The utility also serves parts of the Municipality of the District of Lunenburg (Municipality).

[13] The Commission has two storage reservoirs, each with a capacity of one million gallons. There are 94 km of transmission and distribution mains that serve the Town and the Municipality, ranging in size from 6" to 16" diameter. In addition to the gravity fed zone at its water treatment plant, there are currently three boosted zones in the system to serve the higher areas of the Town and the nearby areas in the Municipality.

[14] Since the Commission's last rate application in 2016, it has replaced or added several watermains. There have also been upgrades to the Hebb Lake infrastructure as well as the water treatment plant and distribution system. The Commission completed several studies, including a dam evaluation study, water treatment plant study, a watermain update to the Commission's master plan for Exit 12, and a water quality monitoring assessment.

[15] About 35% of the water treated by the utility does not generate revenue. This non-revenue water includes water used for maintenance of water quality, fire protection, and hydrant flushing, and water lost through leakage. The utility has

implemented a more robust leak detection program since the last rate study. Advanced Metering Infrastructure (AMI) meters make up approximately 50% of the meters in the system and the Commission expects investments in replacing aging infrastructure and meters over the Test Years to reduce water leakage in the system.

[16] The Commission currently serves 3,057 metered service connections, with a projected annual increase of 13 customers over the Test Years. Michelin is the largest customer and consumes approximately 30% of the water sold. It is the only customer on the system able to take advantage of the utility's two-block rate structure. The Commission decided to phase out the two-block structure over time to limit the effect of the cost increases. The utility estimates it will take six years to phase out and eliminating it will require block size adjustments in future rate hearings.

[17] The average consumption for a 5/8" meter residential customer is currently 172 cubic meters based on 2021 data. The rate study assumes a decrease of 0.5% in consumption per year for the average residential customer. This is based on the phasing in of a sewer charge that is based on water consumption starting April 2022. Other areas that have implemented a similar sewer charge saw a conservation effect on water usage.

### **III REVENUE REQUIREMENTS**

#### **(A) Non-revenue Water**

[18] The Commission explained that they use a spreadsheet provided by the American Water Works Association to estimate non-revenue water and it ranks the results against other utilities. The utility enters data into the spreadsheet, which calculates the amount of non-revenue water and generates a score in comparison to similar sized

utilities. The Commission noted that for smaller sized utilities, like Bridgewater, the tool is not as accurate. The tool calculates the non-revenue water to be 35%, which is high.

[19] Since its last rate case, the Commission has taken several steps to minimize non-revenue water. It brought in experts to identify areas for improvement. It conducts water loss audits and undertakes leak detection activities more often. The utility has been changing out older water meters, and this is an area it will continue to focus on. Additionally, the utility said it has oversized meters on the system and it intends to replace those with smaller meters it believes will perform better. The utility also said it tries to be proactive in dealing with service lateral leaks and works with the residential customers to address these leaks promptly. The Commission also noted that it watches the Michelin flow meters almost daily and it sends notifications if consumption increases in case there is a leak.

[20] The utility's capital budget includes an ongoing meter replacement program, replacement of outdated equipment and software, the installation of a meter chamber at the Dufferin Reservoir to monitor flows into and out of the reservoir, and the installation of two district metered areas at two booster stations. The operating budget includes funding to provide staff resources to complete annual leak detection throughout the distribution system along with funds to repair any leaks found.

### **Findings**

[21] Although the non-revenue water percentage is the same as it was when the Commission last applied for rates in 2016, the Board is satisfied the utility understands the importance of tracking and minimizing non-revenue water and finds it has made several significant improvements since the last rate study. The utility has implemented

programs and has a robust capital spending budget to achieve water loss reductions. The Board finds this approach to be reasonable and encourages the utility to continue with its efforts in this area.

**(B) Operating Expenditures**

[22] The Commission's financial information for the year ended March 31, 2021, included in the application, indicated that its expenses exceeded its revenues by \$4,241 with an accumulated surplus of \$1,327,395. Without a rate adjustment, however, the utility expects a revenue deficiency of \$709,339 in the final Test Year, and an accumulated deficit of \$571,454 at the end of 2024/25.

[23] In response to IRs, the utility described its operating budget process, which involves a review of the previous seven years and considers the current year's operating budget. The utility applies an assumed inflation rate, increases or decreases to the previous year's budget, and identifies any out of the ordinary expenditures. The rate study projects a 3% increase in each of the Test Years for the operating expense items.

[24] The utility also described how it splits costs with the Town. They share the costs for salaried employees based on an estimated percentage of time working and use actual time for hourly employees. The Commission's representatives at the hearing were not able to explain how or when the percentage allocations for salaried employees were derived. These percentages are also applied to split other costs for things like phones, internet, computers and human resources costs. Costs that are only for the utility, such as treatment plant vehicles, are directly assigned 100% to the utility. It does not appear that the utility is allocated costs for its use of shared office space.

[25] In response to IR-19, the Commission provided operating costs for the year 2020/21 for comparison to the costs estimated in the rate study. Some operating and maintenance (O&M) categories had some jumps from the fiscal year 2020/21 data. Most differences were due to COVID-19 restrictions that reduced spending due to some deferral of normal maintenance. Lifting those restrictions results in an increase in spending by comparison. Supply chain issues and a collective agreement salary increase resulted in cost increases over most categories. The 25% increase in Source of Supply also included costs for watershed testing and algal bloom assessments.

[26] The water treatment expense is increasing as the water treatment facility has reached the age where it requires major capital upgrades. The utility fully assessed the equipment inside the plant and included needed upgrades in its long-term capital budget. The utility will undertake the proposed capital upgrades over the next several years and until then, the Commission predicts that some equipment failures will result in increasing O&M costs.

[27] The depreciation expense projected in each of the Test Years is based upon the depreciation associated with capital additions as set out in the *Water Utility Accounting and Reporting Handbook (Accounting Handbook)*. In response to IR-28, the utility noted that it has developed depreciation rates for proposed capital expenditures not addressed in the *Accounting Handbook*. In these cases, the Commission based the rates on the estimated useful life of the capital work.

[28] The utility is paying down a significant amount of debt in the first Test Year and has asked for a one year deferral of the depreciation expense for the \$2,940,000 distribution piping project in 2022/23. The annual depreciation expense is approximately

\$39,000. The deferral is for rate design purposes to balance the rate of increase for the residential customers.

[29] At the hearing, the Board asked the utility about the risk of algal blooms as other areas in the Atlantic region have experienced impacts to their treatment plants. The utility has not had algal bloom issues to date. The utility completed a study to proactively assess the risk posed by algal blooms and noted its water treatment plant was not designed to deal with that issue. The Commission did not increase its budget to address algal blooms but will review mitigation measures during the design phase of the water treatment plant upgrades.

[30] The utility explained that the Hebb Lake Dam is the major dam in its system. The Hebb Lake Dam is a rock-filled dam that has a concrete structure and spillway. In Undertaking U-2, the Board asked the utility to provide a 2019 dam study completed by Hatch Ltd. The utility commissioned this study to ensure that the dams in the system were following the Canadian Dam Association's *Dam Safety Guidelines*. The study did not identify any immediate concerns. There were several recommendations, mostly requiring monitoring of areas of potential concern. The utility advised that there is ongoing monitoring and management, and it has incorporated these practices in its operations manual. There have been no archaeological reconnaissance studies done in the vicinity of the dams or related structures. The 2019 study noted that the next Dam Safety Assessment should be in 2026 according to Canadian Dam Association recommendations.

## **Findings**

[31] The operating expenses over the Test Years are generally based upon an annual increase of approximately 3%, and the utility explained the reasons for the items that differed from the 3% annual increase. The Board accepts the operating and depreciation expenses projected by the utility for the Test Years.

[32] The Board approves the deferral of the annual depreciation payment of \$39,000 on the distribution piping project for one year for the purpose of rate design.

[33] Included in the operating expenses are leak detection costs to aid in reducing the utility's amount of non-revenue water. The Board sees this as an important initiative, given the cost of the amount of water that appears to be lost in the system. The Board notes the improvements that the utility has made since the last rate study and the plan to continue to improve the situation.

[34] The Board encourages the utility to continue to review the costs shared between the Town and the utility at regular intervals to ensure that the utility's expenses are properly allocated. The Board directs the Commission to review these allocations before its next general rate application, and to provide the Board with the results of this review with its rate application.

[35] The Board encourages the utility to consider an archaeological study in the vicinity of its dams and related structures as other utilities have incurred significant archaeological related spending overruns and issues during recent dam upgrade projects.

### **(C) Capital Budget and Funding**

[36] The Commission described its capital budget process in response to IR-17. The utility keeps a list of upcoming capital projects for at least the next three years. Items

are added and removed, prioritized and allocated in the appropriate year as required. Budgets are based on estimates prepared by consultants or the Town’s Engineering Department on behalf of the Commission. The budget is then sent to the Commission for approval.

[37] When it filed its application, the utility projected capital additions in 2021/22 totaling \$1,420,397. The utility’s capital budget in each of the Test Years is \$5,823,200, \$4,849,000, and \$2,456,000, respectively. The table below summarizes the capital projects and proposed funding.

		<b>Final Rate Application</b>			
		2021/22	2022/23	2023/24	2024/25
<b>Projects</b>	Source of Supply Land	80,000	80,000	30,000	30,000
	Hebb Lake	220,000	1,879,000		
	Distribution Reservoirs and Standpipes			2,905,000	
	Water Treatment Plant Upgrade		579,000	722,000	512,000
	Energy Management Program		37,900	58,000	170,000
	Filter Waste Reduction Study	50,000			
	Equipment	107,000	128,300	85,000	30,000
	Mains	874,397	2,940,000	980,000	1,645,000
	Meters	80,000	170,000	60,000	60,000
	Hydrants	9,000	9,000	9,000	9,000
	Services	0	0	0	0
	<b>1,420,397</b>	<b>5,823,200</b>	<b>4,849,000</b>	<b>2,456,000</b>	
<b>Funding</b>	Grants from outside sources	0	2,268,000	2,905,000	0
	Depreciation Fund	246,000	1,355,000	750,000	825,000
	Long Term Debt	874,397	2,200,200	1,194,000	1,631,000
	Capital from Revenue	300,000	0	0	0
	<b>1,420,397</b>	<b>5,823,200</b>	<b>4,849,000</b>	<b>2,456,000</b>	

[38] In response to IR-29, the utility supplied details of its major budgeted capital expenses and funding. Projects the utility had started that were previously approved by the Board are the Hebb Lake Lift Station project and a watermain installation on Veterans

Memorial Bridge. The Board approved replacement of the Hebb Lake Lift Station on May 26, 2020 (M09714) for \$1,800,000. That facility was originally built in the 1970's. It was retrofitted 20 years ago but required replacement. The Board also approved the Veterans Memorial Bridge watermain installation on April 29, 2019, (M09162) for \$850,000 to replace a failed watermain that served the east side of the Town.

[39] On May 17, 2021, the Board approved \$709,000 for water treatment plant upgrades, scheduled to have begun in 2021/22 (M10081). The water treatment plant has reached the age where it requires major capital upgrades. The Commission fully assessed the equipment inside the plant and included the needed upgrades in its long-term capital budget. These projects will take place over the next several years and bring the plant up to current standards. The utility deferred this work to 2023/24 for other higher priority projects and explained that the utility is not at immediate risk despite delaying the needed upgrades.

[40] The utility explained that the distribution reservoirs and standpipes project costs of \$2,905,000 include the contribution of a new asset, a water tower at Exit 12, from the Municipality. The Municipality will construct and fund the tower, and the utility will take it over when it is completed in 2023/24. The tower will service utility customers in the Municipality.

[41] The multi-year meter replacement project is for the purchase and replacement of water meters to improve measurement accuracy, which should aid in reducing the amount of water recorded as lost in the system. The utility estimates that approximately 50% of the meters in the system are AMI meters.

[42] The Energy Management Program includes LED light replacement, heat pump installation and solar photovoltaic (PV) installations for electric generation at several locations. The Board requested an undertaking from the utility to show the economic benefits of the projects for ratepayers. The Commission filed the Town of Bridgewater Energy Management Plan 2021–2025, which outlines a plan for a 34% reduction in greenhouse gas emissions (GHG) by 2025 and requires approximately \$2 million in capital investment. Future energy consumption reductions are expected through ongoing efficiency improvements and the generation of renewable energy.

[43] The Commission's water treatment plant and lift stations produce approximately 15% of the total emissions from the facilities and infrastructure included in the plan. The Energy Management Program lists the capital projects included in the utility's current rate study in Appendix B: Energy Management Opportunities. The LED and heat pump capital projects have a payback period of approximately 5 years and the solar PV installations have a payback between 15 and 24 years. The utility explained that the benefits of these projects are a reduction in overall energy costs and GHG emissions.

[44] The utility confirmed that the deferral or reduction of the capital projects made to incorporate the Hebb Lake Lift Station and the Watermain on Veterans Memorial Bridge projects was of no immediate risk to the utility.

[45] The proposed funding for the utility's capital budget in the Test Years is through external funds, depreciation and new long-term borrowing. The external funding is from a combination of the Nova Scotia Provincial Government, the Town, and the Municipality.

[46] With the corrections made in the IRs and undertaking responses, based on the projected expenses and funding, the utility expects the balance of its depreciation fund to be \$232,317 at the end of the Test Period. The utility described the projected depreciation fund balance as adequate. The Commission said it was using the fund to address its aging infrastructure and noted that the annual depreciation expense in the final Test Year will contribute \$870,711 to its depreciation fund. The utility has a robust capital program and is using almost all its annual contribution to fund, in part, its capital plan.

### **Findings**

[47] The Board has considered the proposed capital projects included in the rate study and associated funding. The Board finds the proposed capital budget to be reasonable and necessary for the replacement of aging infrastructure and energy management.

[48] The Board notes the long payback period of the solar PV installations. While the Board commends the Town and the Commission for considering GHG emission reduction initiatives, for the utility to use ratepayer funds for such purposes, the utility must show that the initiatives are related to the provision of a water service under the *Public Utilities Act* and that they have a beneficial impact on rates. Appendix B in the Town's Energy Management Plan included energy cost savings for each project but did not include details for the cost savings calculations. The Board is satisfied that the installation of LED lighting and heat pumps in water utility infrastructure to reduce energy costs in those facilities could be reasonable investments. Given the relatively modest cost and

quick payback period reflected in the Energy Management Plan, the Board has no concerns with these investments.

[49] However, the addition of solar PV generating assets does raise some concerns. The Commission's capital plan includes two such projects over the Test Years: a \$58,000 solar PV installation at the utility's Hebb Lake Lift Station in 2023/24, and a \$170,000 solar PV installation at the utility's Dufferin Street Booster Station in 2024/25. The Energy Management Plan estimates annual energy cost savings of approximately \$14,000 from these projects. It is not clear that the Commission reduced its electricity costs in the rate study to account for these savings, although the Board notes that most of the annual energy savings is attributable to the Dufferin Street project which the utility plans to construct in the final Test Year. The first full year of energy savings would, therefore, be after the period covered by the rate study.

[50] If the Commission is fully using the energy savings to offset the operating costs of its water system and there is an overall economic benefit to ratepayers, the water utility's investment in solar PV generation may be prudent. The analysis in Appendix B of the Energy Management Plan suggests that the payback period for these projects is 15 or 16 years, based upon a simple calculation of the annual energy savings against the cost of the solar PV system. However, an assessment of the economic benefit to ratepayers should also consider how constructing the project and adding it to the utility's rate base affects customer rates. While the annual energy savings would reduce the utility's revenue requirement, this is offset by depreciation, debt, and operating costs.

[51] The rate study proposes to depreciate the solar PV assets over 25 years, resulting in an annual depreciation expense of approximately \$9,000 (approximately 65%

of the annual energy savings). It is possible, but not clear from the evidence in this proceeding, that these projects may result in an overall benefit for ratepayers. At this stage, the Board is satisfied that no adjustments to the proposed rates relating to these proposed investments is necessary.

[52] The cost of these solar PV systems is below the \$250,000 threshold requiring Board approval under the *Public Utilities Act*. If the Commission decides to proceed with these projects, the Board will, at the utility's next general rate application, require the Commission to demonstrate their overall economic benefit to ratepayers. If the utility is not able to do so, the Board may disallow those costs in future rate studies.

[53] The utility projects a need for new borrowing for capital project funding in the Test Years. The utility confirmed that the external funding sources have been committed. With the proposed use of depreciation funding, the utility's projected depreciation fund balance at the end of the Test Period appears reasonable. The Board accepts the proposed funding of the utility's capital budget.

[54] The Board reminds the utility that the inclusion of proposed capital projects in the rate study is not Board approval of these projects. The Commission needs separate Board approval for projects exceeding \$250,000, as set out in s. 35 of the *Public Utilities Act*.

**(D) Non-Operating/Other Revenue and Expenditures**

[55] The utility's projected revenue requirements for the Test Years include estimated non-operating and other revenues and expenditures.

[56] The Commission projects revenue from the bulk sale of water to be \$38,800 in 2022/23, \$41,800 in 2023/24 and \$44,300 in 2024/25. Based upon the projections in

the application, and the corrections made in response to the IRs and the undertakings, the proposed bulk water rate per cubic meter of water sold are \$3.41, \$3.58, and \$3.79, respectively, in each of the Test Years.

[57] The Commission identifies other annual operating revenue in each of the Test Years in the rate study for sprinkler service (\$17,950), private hydrants (\$7,800), and other (\$18,500) charged annually. The Commission explained that the amount identified as “other” relates to revenue from the utility’s special service charges as well as other connection fees. The Commission projects non-operating revenue in each of the Test Years in annual amounts of \$15,000 for interest and other income, \$500 for jobs and contract work, and a \$10,000 HST offset.

[58] The non-operating expenses include current debt payments in each of the Test Years, and new debt payments associated with funding the capital budgets in the Test Years. The utility projects that its debt charge, including principal and interest, to be \$562,955 in 2022/23, \$534,778 in 2023/24 and \$689,070 in 2024/25.

[59] The utility calculates its return on rate base using its non-operating expenditures less non-operating and other revenue. Using the assumptions and projections in the rate study, and the corrections in response to the IRs and undertakings, the rate of return on rate base is calculated as 1.76% in 2022/23, 1.70% in 2023/24, and 2.16% in 2024/25. The utility explained that the magnitude of the calculated rate of return on rate base over the Test Period is relatively low and is related to the utility’s relatively low level of debt in relation to its rate base.

## **Findings**

[60] The Board finds the utility's other operating revenues over the Test Period to be reasonable and accepts them as presented in the rate study. The Board further accepts the proposed new bulk water rates.

[61] The Board also accepts the non-operating expenditures in the Test Period, related to the existing debt, as set out in response to the undertakings. The Board notes that the annual debt expenses are increasing during the Test Years but that is due to the robust capital expenditure profile.

[62] The Board further finds the utility's proposed return on rate base over the Test Years to be reasonable.

## **IV REVENUE REQUIREMENT ALLOCATION**

### **(E) Public Fire Protection**

[63] The utility divides the total public fire protection charge between the Town and the Municipality based on the number of hydrants serving each jurisdiction. The rate study calculates the public fire protection charge using a method that is consistent with the Commission's last rate application, including the allocation of the water treatment plant as 85% to general service and 15% to fire protection, due to the ability to use the storage reservoir for fire protection. This allocation differs from the 90% to general service and 10% to fire protection set out in the *Accounting Handbook*. The remaining allocations are consistent with the *Accounting Handbook*.

[64] The rate study calculated the allocation of the utility plant in service to public fire protection as 36.4%, 37.9% and 38.2%, respectively, in each of the Test Years. Using the methodology set out in the *Accounting Handbook*, the projected annual fire protection

charge in the application increases from the current level of \$843,780 to \$960,712, \$1,048,238, and \$1,141,672, respectively, in each of the Test Years.

### **Findings**

[65] The allocations of utility plant in service to fire protection are consistent with those set out in the *Accounting Handbook* except for the water treatment plant. The utility explained that the higher allocation used in the rate study is due to the availability of storage for fire protection, which the Board finds to be reasonable. The Board accepts the public fire protection charge as presented in the application.

#### **(F) Customer Revenue Requirement**

[66] After distributing part of the utility's revenue requirement to charges for fire protection, collected from the Town and the Municipality, the utility assigns its remaining revenue requirement for recovery from the utility's customers.

[67] The method used in the rate study to distribute the rest of the revenue requirement to the various components of customer rates is generally the same as in the *Accounting Handbook*, except for administration and general expenses, and depreciation. The *Accounting Handbook* distributes 10% of administration and general expenses to customer charges and 90% to base charges, while the application allocates 10% to customer, 40% to base and 50% to delivery charges, consistent with the utility's rate study in its previous general rate application. The *Accounting Handbook* allocates 40% of the depreciation expenses to base charges, 30% to delivery and 30% to production, while the utility allocates these expenses entirely to the base charge, consistent with the previous study.

[68] The utility explained that it proposed the deviations from the *Accounting Handbook* for rate design purposes to help stabilize rates while phasing out the two-block rate structure. Mr. Isenor explained that with these allocations, approximately 35% of the utility's revenue will come from base charges, and the higher allocation to commodity charges will aid in water conservation. At the hearing, Mr. Isenor said these allocations should be reviewed for the next rate study because they are different than would normally be carried. The Commission did not review these allocations in this application as its priority was on addressing the two-block rate structure.

[69] The utility currently has 3,057 metered service connections, and projects annual increases of 13 connections each Test Year. Mr. Isenor said at the hearing that average customer growth over the past few years was 10 per year. The Town is experiencing significant development, but the Commission is projecting growth conservatively to avoid overstating future revenue. The application is based upon an annual decrease in residential consumption of 0.5% based on the new consumption-based sewer charge, which the Commission estimates will lead to overall water conservation.

[70] The application proposes to continue using the two-block consumption structure, but the Commission intends to phase it out over time. The utility proposes to amend the first block of consumption from the first 100,000 cubic meters per year to the first 110,000 in 2022/23, 155,000 in 2023/24 and 195,000 in 2024/25. This will result in Michelin water cost increases of 14.9% in 2022/23, 11.1% in 2023/24 and 10.4% in 2024/25. The utility notes that Michelin is aware of the increase and has decreased consumption in recent years.

## Findings

[71] The Board accepts the method used by the utility to distribute expenses to base, customer, delivery, and production charges, which is consistent with the last rate application. An anticipated decrease in residential consumption is included in the determination of rates, consistent with the experience of many other water utilities that have implemented a consumption-based sewer charge.

[72] Most regulated water utilities in the province have a single-block rate structure. However, given the utility's situation of having one customer that accounts for a sizable part of its water sales, the Board accepts the retention of the two-block rate structure for the time being. The Board directs the utility to review the retention of the two-block consumption rate structure in its next rate application.

[73] The Board accepts the utility's explanation for deviating from the suggested allocations in the *Accounting Handbook* to mitigate risk by providing revenue stability. The Board directs the utility to review the administration and general expenses and depreciation allocations as part of its next rate application.

## V SCHEDULE OF RATES AND CHARGES

[74] The utility proposed amendments to its Rates and Charges, other than the rates charged to its customers and the fire protection charge, discussed above. The utility's response to IR-40 outlined these proposed revisions.

[75] The application proposes to increase the rates charged for re-establishing water service, disconnection fees, special service charges and charges for missed appointments. The utility proposes an added charge for the collection of overdue bills as the utility incurs additional staff time to collect past due payments.

[76] The utility explained that the amendments and additions are to reflect the utility's cost of providing the service and that the charges are in line with those of other water utilities in the province.

[77] In response to undertaking U-9 the utility filed a revised version of Schedule A, providing for the prorating of the fire protection charge assuming new rates would be in effect as of July 1, 2022.

[78] The utility filed updated Schedules A, B, and C as part of its response to the undertakings. It later corrected typographical errors in Schedule B, which was refiled on June 3, 2022, and Schedule A, which was refiled on June 13, 2022.

### **Findings**

[79] The Board finds the proposed changes to the utility's miscellaneous charges, based upon the cost to supply the service, to be reasonable and accepts them as proposed.

[80] The Board accepts and approves Schedules A, B, and C, as filed in response to the undertakings, with the later corrections.

## **VI SCHEDULE OF RULES AND REGULATIONS**

[81] In response to IR-47, the utility listed the proposed amendments to its Rules and Regulations. The main reason for the proposed revisions is to update the Regulations to make them comparable to other water utilities in the province, update charges to cover the cost of service, and give the utility better control over the system.

[82] The Commission proposed several changes and additions to the Rules and Regulations to address issues arising from the recent increase in large developments and land lease community developments. The Commission added Regulation 14, Master

Meter, to give the property owner of these larger developments more information on the water losses within their systems with the goal for them to address and repair losses more efficiently. If there is a shortfall in water consumption between the master meter and the individual meters the utility would distribute the charges for the water passing through the master meter amongst all the users on the private system.

[83] The utility has been receiving frequent requests for temporary, seasonal and construction water to properties. The setups are extending longer than expected and resulting in system leaks and breaks when used through the winter months. The Commission added Regulation 27, Pipe Installations, in the hopes of limiting these requests and resulting repairs.

[84] New developments require fire hydrant flow testing, and the utility must monitor these tests, which results in hours of technician and administration time to complete. The Commission is adding Regulation 37, Fire Hydrant Testing, to cover the costs associated with administering these tests.

[85] The Commission added Regulation 29, Theft of Service, to ensure customers cover the expenses for investigations, administration, and engineering time to resolve theft issues. There have been two cases of water theft since the last rate study.

[86] The Commission added Regulation 42, Water Conservation Directive, to allow the utility the ability to enforce water conservation directives during periods of drought or while working on a source of supply. There have not been any utility wide conservation directives, but over the last three years the Commission asked certain service areas or industrial customers that have larger water requirements at peak water demand times of the year to reduce their consumption.

[87] The Commission added Regulation 43, Curb Stop/Control Valve Service Box, to charge the customer for the recovery of buried curb stop control valve service boxes. Some are difficult to access and often require repair due to landscaping and damage over the years.

[88] The utility filed undertakings U-6, U-7, U-8 identifying the similar regulations used in the Halifax Water Regulations.

### **Findings**

[89] The Board finds that the proposed amendments to the Rules and Regulations are reasonable and consistent with other water utilities in the province. The Board approves the Rules and Regulations, as filed in response to the IRs, with an effective date of July 1, 2022.

## **VII CONTINGENCY PLANNING**

[90] In response to IR-66, the Commission provided general information on its efforts related to contingency planning and emergency preparedness for the utility. It stated that as a part of the utility's license and permit from Nova Scotia Environment, it must have an operational plan that includes a review of risks and strategies to mitigate risk to the utility and its water supply. The Commission noted that it reviews its operations manual, including contingency plans and emergency response plans, on an annual basis.

[91] The Board reminds the utility of the importance of maintaining and updating its contingency and emergency preparedness strategies and associated communication plans.

## VIII CONCLUSION

[92] The Board approves the Rates and Charges, including the public fire protection charge, effective July 1, 2022, April 1, 2023, and April 1, 2024, as shown in Schedules A, B, and C, as received by the Board in response to the undertakings and later corrected.

[93] The Board approves the Rules and Regulations, effective July 1, 2022, as shown in Schedule D, as filed in response to the undertakings.

[94] When it files its next general rate application, the Board directs the Commission to include the following:

- a review of how costs relating to the use of shared assets and services is allocated between the Town and the utility;
- justification for the inclusion of any costs relating to solar PV installation in the utility's revenue requirement in the new rate study;
- a review of the extent to which the utility is keeping its two-block rate structure; and
- a review of the allocation of administration and general and depreciation expenses to rates.

[95] An Order will issue accordingly.

**DATED** at Halifax, Nova Scotia, this 21<sup>st</sup> day of June, 2022.

  
Stephen T. McGrath