

**NOVA SCOTIA UTILITY AND REVIEW BOARD**

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

- and -

**IN THE MATTER OF AN APPLICATION** of the **TOWN OF LUNENBURG** on behalf of its **WATER UTILITY** for Approval of Amendments to its Schedule of Rates and Charges for Water and Water Services and its Schedule of Rules and Regulations

**BEFORE:** Richard J. Melanson, LL.B., Panel Chair  
Bruce H. Fisher, MPA, CPA, CMA, Member

**APPEARING:** **TOWN OF LUNENBURG**  
  
Gerry Isenor, P.Eng.  
G.A. Isenor Consulting Limited  
  
Blaine Rooney, CPA, CA  
Blaine S. Rooney Consulting Limited  
  
Lisa Dagley  
Director of Finance  
  
Tyson Joyce  
Town Engineer

**HEARING DATE:** August 10, 2022

**UNDERTAKINGS:** August 12, 2022

**DECISION DATE:** **October 20, 2022**

**DECISION:** **Schedule of Rates and Charges approved as amended, subject to a compliance filing.**

**Schedule of Rules and Regulations approved as amended.**

## I SUMMARY

[1] The Town of Lunenburg applied to the Nova Scotia Utility and Review Board on behalf of its water utility to amend its Schedule of Rates and Charges for Water and Water Services and its Schedule of Rules and Regulations pursuant to the *Public Utilities Act*, R.S.N.S. 1989, c. 380. The existing schedules have been in effect since April 1, 2018, and July 1, 2016, respectively.

[2] A rate study to support the application dated April 1, 2022, was prepared by G.A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited, and was submitted to the Board on April 20, 2022. Information Requests (IRs) were issued by Board staff on May 27, 2022, and responses were filed on June 15, 2022.

[3] The rate study proposed amendments to rates for the fiscal years 2022/23, 2023/24, and 2024/25 for unmetered and metered customers.

[4] For First Dwelling Unit unmetered residential customers, based upon a quarterly consumption of 12,500 gallons, the proposed increases in each of the test years are 11.6%, 1.2% and 3.0%, respectively. For additional dwelling units unmetered customers, which the applicant explained are generally apartment suites and are based upon a quarterly consumption of 9,375 gallons, the proposed changes are a decrease of 19.9% in the first test year, followed by increases of 2.6% and 3.2%. Although the previous hearing estimated additional dwelling units unmetered customers would consume 10,000 gallons in the final test year, rates were approved based on consumption of 12,500 gallons, leading to a large rate decrease for those customers in the first test year.

[5] For 5/8" meter customers, based upon average quarterly consumption, the proposed increases in each of the test years are 12.0%, 1.1%, and 3.0%, respectively. For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases are between 8.2% to 20.9% in 2022/23, 1.3% to 3.9% in 2023/24, and 3.0% to 4.0% in 2024/25.

[6] The application also proposed amendments to the annual public fire protection charge paid by the town for the provision of water for fire protection service. The total annual public fire protection charge, currently \$331,000, is proposed to decrease to \$325,156 for all three test years, based on the calculation for the fire protection charge in the third test year.

[7] Following public notice, a public hearing was held at the Lunenburg Town Hall at 10:30 a.m. on Wednesday, August 10, 2022. Gerry Isenor of G.A. Isenor Consulting Limited and Blaine Rooney of Blaine S. Rooney Consulting Limited represented the utility. The utility was also represented by Lisa Dagley, Director of Finance, and Tyson Joyce, Town Engineer. No members of the public requested to speak during the hearing, and the Board received no letters of comment.

[8] An updated rate study was filed in response to IR-33, which corrected the useful life for the depreciation applied to the replacement of membranes at the water treatment plant, from 25 years to 10 years. This rate study was dated June 14, 2022.

[9] In response to undertaking U-1, a third-rate study, dated August 11, 2022, was filed by the utility which updated the projected CAO time allocated to the water utility over the test period. It is this rate study filed in response to undertaking U-1 that is referenced throughout the rest of this decision unless otherwise noted.

[10] The Schedule of Rates and Charges are approved subject to a Compliance Filing, and the Schedule of Rules and the Regulations are approved as revised by the utility in Undertaking U-1.

## **II INTRODUCTION**

[11] The utility sources its water from Dares Lake which has a watershed area of 800 acres. The raw water is screened at the intake then pumped and treated in the utility's water treatment plant (WTP). The WTP is designed to produce a maximum of 5,451 cubic meters per day and the treatment process includes pre-treatment (flocculation), membrane filtration, disinfection, pH adjustment and corrosion control.

[12] There are two reservoirs on the distribution system both with a volume of approximately 3,425 cubic meters (750,000 IG). One reservoir is located next to the WTP and the other in Garden Lots near the end of the distribution system. Treated water from the WTP flows by gravity to the Town's distribution system, which includes cast iron, ductile iron, and PVC pipes, ranging in size from 6 to 12 inches in diameter. The service area includes residents in the Town of Lunenburg including customers in the Municipality in Northwest and Garden Lots.

[13] In 2010 the current WTP plant was built, new pumps were installed in the pump house, a new distribution line was installed for County customers in Northwest and a disinfection building was constructed in Garden Lots for the standpipe there. Old cast iron distribution pipes have been replaced with PVC pipe following Board approval in 2014.

[14] The utility currently serves approximately 1,358 customers. An annual increase of six residential customers (four first dwelling units and two additional dwelling units) is projected in each of the test years. At the time of the last rate study, the utility had 1,295 customers.

[15] The rate study indicated that the average consumption per customer in each meter size is projected to remain the same over the test period. Total volume is expected to increase, due to the addition of new residential customers in each of the test years.

[16] The utility stated that its amount of non-revenue water was approximately 19.9% in 2019/20 and 23.8% in 2020/21, based on flow data available and estimated consumption for unmetered customers. Although the utility estimates non-revenue water, as most of the utility's customers are unmetered, the exact amount is not known.

[17] During the formal hearing, the utility noted that it has recently committed to metering customers over several years. Metering the customers will give a better indication of actual water loss and should lead to better prevention of that loss.

[18] The utility presented the application to the Board based on the need to amend the rates due to higher operating costs. The utility also needs to fund its projected capital program. It also proposes to eliminate the two-block rate structure and increase the dividend to the town.

### **III REVENUE REQUIREMENTS**

#### **a) Operating Expenditures**

[19] Schedule B-1 of the rate study indicated that the utility's expenses are estimated to exceed revenues by \$5,390 in 2021/22 reducing an existing accumulated surplus to \$247,792 in 2021/22. Without a rate adjustment, however, the utility expects

revenue deficiencies of \$94,343, \$111,698, and \$166,590 in each of the test years. These deficits are expected to eliminate the accumulated surplus and result in an accumulated deficit of \$124,839 at the end of the test period.

[20] Included in these projections is a dividend to the town of \$50,000 in each of the test years. The Board recognizes a few municipal water utilities pay, and the Board has approved in the past, an amount called a dividend to owner in the revenue requirement. The Board notes, for information purposes, that if the dividend is excluded, the utility would be estimating an accumulated surplus of approximately \$25,000 at the end of the test period.

[21] In response to Board Staff IR-24, the utility described how costs are allocated between the town and the utility:

Staff Union and non-unionized staff allocations are based on actual time spent doing work for the Water Utility and are reviewed annually. Costs for backhoe and truck usage are allocated based on the number of hours used for distribution main breaks and other Water Utility needs and charged out at the Town's approved charge out rates.

[Exhibit L-4, IR-24, p. 13]

[22] The projected operating expenses for the test years are generally based upon the utility's budget for 2021/22 plus an annual increase sufficient to cover inflation. Depreciation is calculated by taking the current depreciation plus the estimated depreciation expense of the capital additions over the test years.

[23] Some other cost categories are estimated to increase by amounts other than 3%. These increases are mainly due to wages, which increased by more than 3%, and the costs of a 50% FTE allocated to the utility.

[24] In response to Board staff IRs, the utility provided explanations for costs that are budgeted to increase above the 3% used as a proxy for inflation.

[25] The Board had several questions about increasing costs between the actual 2019/20 expenses and the estimates for 2020/21, the year that acts as the base for the test period. The utility provided explanations for any large deviations between the two years, most of which had to do with wages or maintenance and other work. There was an uptick in those categories in 2021/22 as restrictions from the COVID-19 pandemic were lifted.

[26] In response to Undertaking U-1, the utility provided updated allocations of the CAO's time spent on utility matters. The utility estimated that 40% of the CAO's time was spent on the utility in 2021/22 but expects that to drop to 30% in the first test year and to 20% for the final two test years.

### **Findings**

[27] The operating expenses over the test years are generally based on an annual increase of approximately 3%, which the Board finds reasonable. The utility provided explanations for items that differed from the 3% annual increase. The Board accepts the explanations for the increases provided by the utility. While the Board accepts the underlying assumptions on inflationary pressures, it notes that there is volatility in the current environment and hence some risk that the utility's assumptions on inflation may be optimistic.

[28] The Board accepts the depreciation expenses for the test period, which are based on current depreciation plus depreciation for capital additions over the test period.

[29] The Board accepts the allocation of costs between the town and the utility, including the updated allocation of the CAO's time on the water utility. The Board reminds the utility to review these allocations periodically to ensure they reflect current circumstances.

[30] The Board has some concerns with the assumptions that underlie the projected 2022/23 water revenues in Worksheets B-1 and D-2. Based on the discussions at the hearing the Board understands that these two worksheets made different assumptions about water consumption, with D-2 using more recent monthly figures. The Board accepts the more updated pattern in D-2 as reasonable assumptions for modelling future water rates. As such, the \$94,343 shortfall in B-1 is likely understated by close to \$30,000. The Board urges the utility to use the same assumptions for consumption and other factors in all scenarios it produces, with or without a rate increase. This will allow the Board and the public to properly understand the current and proposed financial state of the utility.

[31] The utility requested that rates become effective October 1, 2022. The Board notes that this timeline will not be met and that any shortfall in revenue, due to the new rates becoming effective later than requested, will likely come from the utility's accumulated surplus.

**b) Capital Budget and Funding**

[32] The rate study included the utility's capital budgets for 2021/22 and the three test years, totalling \$182,694, \$747,000, \$285,000, and \$835,000, respectively. The utility has budgeted \$290,000, \$70,000, and \$650,000 in each of the test years, respectively, for the replacement of aging and problem distribution mains. These main replacements should help address some of the non-revenue water in the system and improve service.

[33] In response to Board staff IR-31, the utility provided a summary of the planned projects over the test years. The proposed funding for the capital budget is as follows:

	<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>
External Funding	\$ 50,000		
Depreciation Fund	\$ 697,000	\$ 130,000	\$ 680,000
Membrane Reserve		\$ 155,000	\$ 155,000
<b>Total</b>	<b>\$ 747,000</b>	<b>\$ 285,000</b>	<b>\$ 835,000</b>

[34] The rate study projected that, with the proposed funding as set out above, the depreciation fund balance will be \$1,545,358 at the end of the test years.

[35] In addition to the capital program in the rate study, installing meters for the unmetered residential customers was discussed at the hearing. The utility noted that this metering is expected to cost up to \$1,200,000 and is expected to take place in the later part of the test period. This amount is not included in the rate study. The utility noted that funding could come from depreciation funds, long-term borrowing, or the general equipment reserve.

[36] The utility also noted that although the planned capital program in the rate study is to be funded by a large portion of depreciation funds, it will seek external funding and grants if available. This approach would further increase the utility's available depreciation fund balance for other capital works.

### **Findings**

[37] The utility is focusing on repairing and replacing current infrastructure over the test years. The intended capital program will complete, among other things, the replacement of known problem distribution mains. The Board recognizes the necessity of completing this work to address non-revenue water and improve service.

[38] The Board accepts the proposed level of funding from the utility's depreciation fund over the test years. The Board also accepts the utility's proposed capital program and funding as set out in the rate study.

[39] The utility is reminded that the inclusion of the proposed capital projects in the rate study does not constitute Board approval of these projects. Separate Board approval is required for projects more than \$250,000 as set out in s. 35 of the *Act*.

[40] The Board urges the utility to seek outside sources of funding, as it noted in the hearing it will do, for the planned capital program. If outside sources of funding are available and used, more depreciation funds for other capital works, including the metering of residential customers, would be available.

**c) Non-Operating/Other Revenues and Expenditures**

[41] The annual amount for non-operating revenues in each of the test years for jobbing and contracts, interest, and the HST Offset is \$12,100 in the first test year and \$12,200 over the final two test years. These amounts are relatively unchanged from 2020/21 and estimated amounts for 2021/22.

[42] The non-operating expenses include debt repayments, the corresponding interest expense, transfer to reserve for land purchases, transfer to reserve for membrane replacements, and a dividend to the owner. No new debt is proposed over the test years.

[43] The utility currently has a \$20,000 dividend to owner embedded in approved water rates. The utility proposes increasing the amount in the revenue requirement for the dividend to owner to \$50,000 for all three test years.

[44] The transfers to reserves for land purchases and membrane replacements are requested to remain the same as were previously approved by the Board in the most

recent rate application. The amounts requested are \$5,000 and \$26,000 for the land purchases and membrane replacements, respectively.

[45] The rates of return calculated in the rate study, which includes the dividend to owner, are 0.96%, 0.95%, and 0.89%, respectively, in each of the test years.

### **Findings**

[46] Although a \$20,000 dividend to owner amount was included in the revenue requirement in the last Board Order, the utility ended up paying a greater amount in the 2021/22 fiscal year. The financial statements for this same year indicate the utility was in an annual deficit situation at the end of the year. While the utility has an accumulated surplus, in the Board's view, there is some risk in a utility using its accumulated surplus, which is intended as a cushion for utility operations, to pay dividends.

[47] The Board finds the utility's non-operating revenues and expenditures to be reasonable and accepts them, except for the requested dividend to owner. The utility is asking for an increase in the dividend to owner revenue requirement from \$20,000 to \$50,000 for all three test years, even though there are double-digit increases in the first test year, with much smaller increases in the subsequent years. The Board finds that it is more reasonable in the circumstances, for rate smoothing purposes, with the volatility occasioned by world events, and the inflationary pressures on ratepayers, to only increase the revenue requirement for the dividend to \$25,000 in the first test year. The Board allows the \$50,000 dividend to owner in the revenue requirement for the last two test years.

[48] The utility is directed to file a Compliance Filing with an updated rate study, including Schedules A, B, and C considering the approved dividend to owner amounts.

[49] Although the Board approves the dividends in the amounts above to be included in rates, the Board is concerned about the future payment of dividends where there is either an operating deficit or an accumulated deficit. The primary goal between rate cases is to ensure revenues balance to expenses. The Board reminds the utility to monitor its financial position to ensure that the utility is in both a surplus and an accumulated surplus position before any dividend is paid. A failure to do so could impact the treatment of any dividend to owner in the revenue requirement in future proceedings.

[50] The Board finds the rate study's calculated return on rate base to be reasonable and accepts it subject to being recalculated in the Compliance Filing.

#### **IV REVENUE REQUIREMENT ALLOCATION**

##### **a) Public Fire Protection**

[51] The methodology used in the rate study to determine the public fire protection charge paid by the town to the utility follows the *Accounting Handbook*.

[52] The percentage allocation of utility plant in service to public fire protection is calculated in the rate study to be within a range of 31% to 32% over the test years. This calculation results in a significant decrease in the fire protection charge paid to the utility from the town.

[53] Instead of lowering fire protection rates in the first test year, the utility is proposing to use the third test year's fire protection charge for all three test years, which is only a slight drop from the current charge. The utility calculates meeting this charge by allocating utility plant in service to fire protection of 34.9% in 2022/23, 33.7% in 2023/24,

and the calculated 31.9% in the final test year. This results in total costs being allocated to fire protection of 20.2%, 20.0%, and 19.3%, for the three test years, respectively.

[54] Using the above percentage allocations to fire protection, the fire protection charge requested as part of the application will decrease from the current \$331,000 to \$328,899 for the test period.

### **Findings**

[55] The Board accepts the utility's methodology for allocating costs to fire protection and approves the utility's proposed fire protection charges as presented in the rate study. This includes allocating plant in service to set the fire protection rate at the calculated amount for the third test year, for all three test years, as per U-1.

[56] The Board understands that using the third year's calculated charge reduces the revenue requirements allocated to the utility's customers for the first two test years, which benefits the utility's customers.

[57] The Board reminds the utility that the fire protection fee for 2022/23 is to be pro-rated taking into consideration when new rates will be implemented.

#### **b) Utility Customers**

[58] After the allocation of a portion of the revenue requirement to the fire protection charges, the remaining revenue requirement is to be recovered from the utility's customers.

[59] The utility had approximately 1,352 customers in fiscal 2021/22, which is projected to increase by six residential customers per year (four first-dwelling units and two additional-dwelling units) over the test period. The utility-based the estimated increase in customers on recent history.

[60] The utility is projecting no change in average consumption volume per customer for all meter sizes. Due to the addition of six residential customers per year, the utility projects a slight increase in total volume sold in each of the test years.

[61] The unmetered quarterly rate for first-unit dwellings is based upon an average quarterly estimated consumption of 12,500 imperial gallons per customer. This is the same estimate used in the final test year of the previous rate application approved by the Board.

[62] The unmetered quarterly rate for additional-unit dwellings is based upon an average quarterly estimated consumption of 9,375 gallons. This is slightly lower than the 10,000 gallon estimate used in the final test year of the previous rate application approved by the Board. Although the Board approved the 10,000 gallon volume used for additional-unit dwellings in the last rate application, a calculation error by the applicant caused the approved rates to be based on an estimated consumption of 12,500 imperial gallons per quarter. Correcting this error results in a large decrease in the quarterly bills for additional-unit dwelling customers in the first test year in this application.

[63] The cost allocations used in the rate study follow the method in the *Accounting Handbook*. The allocations used in the rate study are the same as those used in the final two test years of the previous rate application approved by the Board.

[64] The utility currently has a two-block consumption rate structure based upon 27,000,000 gallons per year per customer for the first block and anything above 27,000,000 for the second block. The utility is proposing to change the first block to 41,200,000 gallons per year per customer in 2022/23; 43,200,000 gallons per year per

customer in 2023/24; and eliminate the second block in the third test year. The utility noted that there is no cost-of-service reason for having a two-block rate structure.

### **Findings**

[65] The Board accepts the methodology used by the utility to distribute expenses to base, customer, delivery, and production charges, which follows the *Accounting Handbook*.

[66] Based upon the information presented, the Board finds the projection of no change in average consumption volume per year for all customers, as well as the projected increase in the number of utility customers, to be reasonable.

[67] The Board accepts the utility's evidence that there is no cost-of-service rationale for the two-block rate structure. The Board notes there is a significant increase in this rate proposed for 2022-23. The Board approves the utility's request to phase out the two-block rate structure by the third test year.

## **V SCHEDULE OF RATES AND CHARGES**

[68] Besides the amendments to the rates for water supply to the utility's customers and the fire protection charges, the application included amendments to three fee structures. All three increased the fee for regular hours from \$50 to \$75 per hour, and the after-hours rates from \$100 to \$150, to better reflect the actual cost of providing the services.

[69] In addition to fees being changed, in response to Undertaking U-2, the utility provided updated wording to indicate that the first and additional-unit dwelling charges are unmetered quarterly charges.

### **Findings**

[70] The Board accepts the updated wording in Schedules A, B, and C, which indicate that the first and additional-unit dwellings are unmetered quarterly charges.

[71] The Board accepts and approves Schedules A, B, and C, subject to the compliance filing noted above. The Board notes that the effective date requested of October 1, 2022, will not be met. The compliance filing is to include a new proposed effective date for Schedule A, with Schedules B and C effective, April 1, 2023, and April 1, 2024, respectively.

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

[72] In response to IR-44, the utility noted that it is only proposing one change, which is an addition, to the Rules and Regulations. In this response the utility noted:

Regulation 41, Curb Stop/Control Valve Service Box is new. It has been added to give the Utility the ability to recover any additional charges from customers who cover up the Utility's curb stop/control valve service box. The addition of this rule is consistent with most Utilities in the Province.

[Exhibit L-4, IR-44, p. 31]

### **Findings**

[73] The proposed Schedule of Rules and Regulations is consistent with most other water utilities in the province which have had recent rate applications.

[74] The Board approves the Schedule of Rules and Regulations as presented in the study, including Regulation 41. The utility is to file an updated Schedule D, with the change in effective date, as part of its compliance filing as the requested date of October 1, 2022, has not been met.

## VII CONCLUSION

[75] The Board approves the Schedule of Rates and Charges for Water and Water Services subject to a Compliance Filing, and the Schedule of Rules and Regulations as proposed, subject to a Compliance Filing. The Compliance Filing is due on November 10, 2022, and is to include:

- An updated rate study using the approved dividend amounts of \$25,000, \$50,000, and \$50,000 in each of the test years.
- Updated schedules A, B, and C, with the new proposed effective date and rates based on the amended rate study.
- Updated Schedule D, with the new proposed effective date.

[76] An Order will issue accordingly.

**DATED** at Halifax, Nova Scotia, this 20<sup>th</sup> day of October 2022.



Richard J. Melanson



Bruce H. Fisher