

**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 PICTOU**, 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:** Steven M. Murphy, MBA, P.Eng., Member  
Stephen T. McGrath, LL.B., Member

**APPEARING:** **TOWN OF PICTOU WATER UTILITY**

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

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

Kyle Slaunwhite, P.Eng, MBA  
Project Manager

Dan Troke,  
Chief Administrative Officer

**HEARING DATE:** October 17, 2018

**DECISION DATE:** **December 13, 2018**

**DECISION:** **Schedule of Rates and Charges approved, as amended by the Utility.**

**Schedule of Rules and Regulations approved, as amended by the Utility.**

## I SUMMARY

[1] The Town of Pictou (Town), on behalf of its Water Utility (Utility), applied to the Nova Scotia Utility and Review Board (Board) for amendments to the Utility's Schedule of Rates and Charges for Water and Water Services (Rates and Charges) and its Schedule of Rules and Regulations (Regulations) (Application). The Utility's existing Rates and Charges have been in effect since April 1, 2016, and its Regulations have been in effect since October 1, 2005. The Application was made pursuant to the *Public Utilities Act*, R.S.N.S. 1989, c. 380, (*Act*).

[2] The Application was supported by a rate study dated April 9, 2018 (Rate Study). The Rate Study was prepared by G.A. Isenor Consulting Limited in association with Blaine S. Rooney Consulting Limited and was submitted to the Board on June 6, 2018.

[3] Information Requests (IRs) were issued to the Utility by Board staff on August 7, 2018, and responses were filed on August 16, 2018.

[4] The Rate Study proposed rate increases for the fiscal years 2018/19, 2019/20, and 2020/21 (Test Years or Test Period). For 5/8" metered customers, based upon estimated average quarterly consumption, the proposed increases in each of the Test Years are 31.1%, 10.5%, and 9.5%, respectively. It should be noted, however, that most of the Utility's residential customers currently take service on an unmetered rate and will be switching to the 5/8" metered rate. The current unmetered quarterly rate is \$121.04, slightly higher than the proposed quarterly rate for 2018/19 of \$120.81 for 5/8" meter service.

[5] For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases range from 32.9% to 43.8% in 2018/19, 10.1% to 17.2% in 2019/20, and 10.7% to 16.5% in 2020/21.

[6] The Application also proposed amendments to the annual charge paid to the Utility by the Town for the provision of water for fire protection service. The total annual public fire protection charge is proposed to increase by 1.0%, 18.8% and 17.5%, resulting in charges of \$187,917, \$223,272, and \$262,369 in 2018/19, 2019/20, and 2020/21, respectively.

[7] A public hearing was held at the Town's Council Chambers on October 17, 2018, after due public notice. The Utility was represented by Gerry A. Isenor, P.Eng., of G.A. Isenor Consulting Limited, and Blaine S. Rooney, CPA, CA, of Blaine S. Rooney Consulting Limited. The Utility was also represented by Town staff: Dan Troke, Chief Administrative Officer, and Kyle Slaunwhite, Project Manager.

[8] In response to Undertakings requested by the Board during the hearing, the Utility submitted updated Schedules A through D, which amended the wording and dates in various sections of the Schedules.

[9] The Board did not receive any letters of comment prior to the hearing, and there were no formal intervenors in the proceeding nor requests to speak.

[10] The Rates and Charges filed in response to Undertaking U-3 and the Regulations filed in response to Undertaking U-4 are approved.

## II INTRODUCTION

[11] Water for the Town is supplied by thirteen wells. Six of these wells involve groundwater under the direct influence of surface water (GUDI) and nine are non-GUDI. These wells are clustered into two wellfields with four in the Town Wellfield and nine in the Caribou Wellfield.

[12] At the time the Application was filed, the six GUDI wells were operated with an independent greensand treatment system, but the Utility was in the process of constructing a water treatment plant. After construction of the treatment plant is complete, the Utility's goal is to have all water produced pass through the new treatment plant. The treatment plant will be centrally located and consist of two trains of four tanks. The first train will be sand filtration, the second will be greensand. All wells are currently equipped with chlorine injection, but this will be consolidated at the water treatment plant when operational.

[13] After treatment and chlorination, the standpipe (water tower) stores treated water and provides pressure to the distribution system. Upon leaving the standpipe, more chlorine is added to ensure adequate chlorine levels in the extremities of the distribution system. The distribution system feeds all Utility customers within the Town of Pictou.

[14] The following major work was done to the water system, since the Utility's 2013 rate application:

- all wells were upgraded to include specific monitoring equipment as well as real-time SCADA controls and alarms;
- all GUDI wells had UV disinfection equipment installed;

- several large watermain replacements occurred including Veteran's Drive, Division Road, and Beeches Road;
- a new transmission main was installed to cluster Beeches Road Well to the treatment cluster;
- backup generators were installed and commissioned at large water production sites; and
- the Town constructed a water treatment plant and pressure zones to improve water quality and system pressure profiles.

[15] In response to IR-3, the Utility advised that the amount of non-revenue water in its system is approximately 16% of total production (approximately 70,000 m<sup>3</sup>). The Utility also described the measures it has taken to reduce non-revenue water, including installing water meters and pressure monitors to assist with the detection of leaks and breaks. In addition, SCADA programming has provided early notification when higher than normal flows are present in the distribution system.

[16] The Utility currently serves 1,323 customers, but projects that there will be a decline of five residential customers in each Test Year. The Utility's projections are based on its recent history of declining customers leading up to the Test Period.

### **III REVENUE REQUIREMENTS**

#### **(A) Operating Expenditures**

[17] The Rate Study estimates the Utility's expenses will exceed its revenues by \$15,708 in the 2017/18 fiscal year, and that its accumulated operating surplus will decline to \$220,492. Without a rate adjustment, the Utility's annual deficiency in revenue is

projected to increase to \$268,330 in the final Test Year, and its accumulated surplus is projected to become an accumulated deficit of \$200,970 at the end of 2020/21.

[18] The Board notes that the financial information provided by the Utility for 2017/18 projected the use of a large amount of revenue to fund capital work in that year (\$113,732). Had the Utility not been projected to fund capital work out of revenue, it would have been in an operating surplus of almost \$100,000 for the year. If the Utility refrained from spending operating revenue to fund capital items in 2017/18 and in the Test Years, it would be estimated to still have an accumulated surplus at the end of the Test Period. However, its capital projects would have required funding from another source.

[19] The projections of various operating expenses over the Test Years set out in the Rate Study were supplemented with further details provided in the Utility's IR responses.

[20] The Utility's budgets for the Test Years are based upon its 2017/18 budget year, with annual increases of 3% applied to all expenses, except for any expenses that were known or, it was felt, could be better estimated in some other way. The Utility is also proposing to add two new cost categories related to the operation of its new treatment plant (Central Treatment Insurance and Central Treatment R&M).

[21] In response to Board IR-12, the Utility described its budgeting process as follows:

Staff prepares a draft budget based on their knowledge and historical costs, current regulations and experience. This budget is reviewed by the CAO. The draft water utility budget is presented to Town Council who review it with staff. Final budget is then prepared by staff and approved by Town Council in a formal motion.

[Exhibit P-3, p. 10]

[22] In addition, the Utility noted that there have been changes to the budgeting process since the last rate application because most of the residential customers are now attached through a meter (although not yet migrated to a metered rate):

On the revenue side of budgeting, the Utility now have a better understanding of water use. This has allowed staff to better predict consumptions patterns and reallocate costs accordingly.

[Exhibit P-3, p. 10]

[23] The Utility, in response to Board IR-14, noted that there have been no changes in how costs are allocated between the Town and the Utility since the last rate study and explained the process as follows:

The Town and Utility have separate general ledger codes. Anything related to water is coded with a "03" code. This includes labour allocation which is inputted on a daily basis.

Supervision is allocated based on an estimated percentage basis based on manager recommendation.

[Exhibit P-3, p. 10]

[24] Generally, the Utility's projected depreciation expense in each Test Year is determined by adding the depreciation associated with proposed capital additions in the Test Year to the prior year's depreciation expense. The exception to this is in respect of the new water treatment plant, which the Utility proposes to phase in the depreciation expense by including half in 2019/20 and half in 2020/21 to smooth out the rate increase over the Test Years. The depreciation rates used for the various asset classes are generally in accordance with the *Water Utility Accounting and Reporting Handbook (Accounting Handbook)*.

### **Findings**

[25] The Utility projects that its annual operating deficit balance will steadily increase without an amendment to its rates, leading to an accumulated deficit by the end of the Test Period. The Board has reviewed the Utility's various operating expenses and

considered the explanations for the budgeted amounts provided in its IR responses and at the hearing. The Board accepts the operating expenses as projected over the Test Period.

[26] The Board reminds the Utility to regularly review and update its budgets to ensure they are adequate to fund the Utility's operations given that all customers are now metered, and its new water treatment plant is operational.

[27] The Board accepts the depreciation expense in each of the Test Years, as projected in the Rate Study, including the phasing in of the depreciation expense related to the treatment plant.

**(B) Capital Budget and Funding**

[28] The Rate Study includes capital additions for the 2017/18 base year totaling \$3,407,306, and for each of the Test Years in the amounts \$2,268,737, \$425,000, and \$545,000, respectively.

[29] The proposed capital budget includes some projects that span more than one year, such as the new centralized water treatment plant, recently approved by the Board, along with installing pressure zones, which are budgeted over the 2017/18 and 2018/19 years for a total of \$5,035,700. The Utility also budgeted \$60,000 for drilling and installing an additional well to replace several smaller wells over 2017/18 and 2018/19.

[30] The Utility is also proposing expenditures of \$400,000 per year in each Test Year to replace aging watermains; \$5,000 per year for water meter replacements; \$10,000 per year for pump station structure improvements; and \$10,000 per year for



hydrant replacements. The Utility proposes to spend \$120,000 in 2020/21 for the replacement of the excavator used in watermain repairs.

[31] The Rate Study sets out the proposed funding of the capital budget as:

	<u>2017/18</u>	<u>2018/19</u>	<u>2019/20</u>	<u>2020/21</u>
Outside Funding	\$2,168,204	\$1,188,929	0	0
Depreciation	\$ 250,000	\$ 325,000	\$ 250,000	\$ 325,000
Long-term Debt	\$ 875,370	\$ 734,808	\$ 135,000	\$ 160,000
Capital out of revenue	<u>\$ 113,732</u>	<u>\$ 20,000</u>	<u>\$ 40,000</u>	<u>\$ 60,000</u>
<b>Total</b>	<b><u>\$3,407,306</u></b>	<b><u>\$2,268,737</u></b>	<b><u>\$ 425,000</u></b>	<b><u>\$ 545,000</u></b>

[32] In response to IRs, the Utility noted that the outside funding is to come from the New Building Canada Fund and the Provincial Capital Assistance Program. The Utility further noted that these funds have been secured and supplied approval documentation with their IR responses.

[33] The proposed funding from the depreciation fund, which has an estimated balance of \$150,433 for the year ending March 31, 2018, is expected to result in a fund balance of \$18,580 at the end of the Test Period (March 31, 2021).

### **Findings**

[34] The Utility's capital budget for the Test Period contains several projects, the largest of which is the water treatment plant and pressure zones, over 2017/18 and 2018/19 and was the subject of a separate capital expenditure request approved by the Board on October 31, 2017.

[35] The Board finds the proposed capital budget and associated funding to be reasonable and accepts it as presented.

[36] The Utility is reminded that the inclusion of proposed capital projects in the Rate Study does not constitute Board approval of these projects. Separate Board approval is required for projects exceeding \$250,000, as set out in s. 35 of the Act.

**(C) Non-Operating/Other Revenues and Expenditures**

[37] The Rate Study projects the Utility's revenue requirements for the Test Period, including estimates of non-operating revenues and non-operating expenditures.

[38] The only source of non-operating revenue projected in the Rate Study is for the amortization of the deferred contributions in the first two Test Years, in the amounts of \$39,473 and \$20,000, respectively. This relates to contributions that have been made by others for capital assets constructed or acquired by the Utility.

[39] The Utility is proposing to phase out including these contributions as revenue. Since the amortized portion of deferred contributions essentially offsets the depreciation expense associated with the assets that were funded or partially funded by third parties, the effect of this change is to allow the full cost of depreciating existing and future capital assets as a revenue requirement to be collected through rates. As such, at the end of the life of the capital asset, the Utility will be in a better position to replace the asset using its depreciation fund without having to find an additional source of funding to make up the portion that was originally contributed by the third party to the asset that has reached its end of life.

[40] The projected non-operating expenditures in the Rate Study amount to \$292,785 for the 2017/18 Test Year. It consists of debt charges associated with the Utility's existing debt and new debt required to fund 2017/18 capital additions, and capital out of revenue (\$113,732). For the 2018/19, 2019/20, and 2020/21 Test Years, the projected non-operating expenditures total to \$261,465, 291,412, and \$323,384, respectively. These amounts also include debt charges on existing debt and new debt associated with capital additions over the Test Period, and capital out of revenue. The

amounts for capital out of revenue are lower in the Test Years than was estimated for 2017/18 (\$20,000, \$40,000, and \$60,000 in each of the Test Years).

[41] In Response to IR-10, the Utility noted that the existing debt relates to three debentures funding several upgrades including, wellhead upgrades, standpipe refurbishments, water meter installations, and watermain replacements. The three existing debentures will be retired between 2025 and 2028.

[42] The Utility calculates its required return on rate base using its non-operating expenditures less non-operating and other revenue. Using the assumptions and projections in the Rate Study, this amounts to 4.62% in 2017/18, and 3.45%, 4.07%, and 4.63% in each of the Test Years, respectively.

### **Findings**

[43] The Board finds the Utility's non-operating revenue to be reasonable and accepts it as presented for the Test Period. The Board also accepts the phasing out of the amortization of deferred contributions to allow the Utility to cover the full cost of depreciating its assets from rates, thereby enabling the Utility to fund the equivalent of the full annual depreciation expense and transfer it into the depreciation reserve for future asset replacement.

[44] The Board accepts the non-operating expenditures related to new and existing debt in each of the Test Years, as presented in the Rate Study.

[45] The Board notes that the amount of capital out of revenue in 2017/18 and projected throughout the Test Period combine to put the Utility into an accumulated deficit position by the end of the Test Period, and that for both 2017/18 and 2018/19 the Utility would be in a surplus if capital out of revenue was not used as a funding source.

[46] The Board reminds the Utility that it should not be relying on capital out of revenue to fund a capital program if such an expenditure puts the Utility into a deficit position, as there are other sources of funding that could be utilized without putting the Utility into such a position. However, the Board agrees that including capital out of revenue as a non-operating expenditure is an appropriate source of funding for the Utility over the Test Period in the Rate Study. The Board recognizes that for this Utility, the depreciation fund balance is currently small and it is already taking on a significant amount of new debt. Utilizing capital out of revenue over the Test Period appears to be a reasonable option, and so the Board accepts the amounts of capital out of revenue presented in the Rate Study for each of the Test Years.

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

**(D) Allocations of Revenue Requirement**

**1. Public Fire Protection**

[48] The methodology used in the Rate Study to determine the public fire protection charge is in accordance with the *Accounting Handbook*, except for transmission mains. Transmission mains are allocated 90% to general service and 10% to fire protection in the Rate Study, as opposed to 40% to general service and 60% to fire protection in the *Accounting Handbook*. In response to Board IR-27, the Utility noted that the transmission main connects the wells to the distribution system and that the well pumps do not provide fire protection flows.

[49] In response to Undertaking U-2, the Utility confirmed that the fire protection allocations in the Rate Study are the same as they were in the compliance filing from its previous application.

[50] The allocation of utility plant in service to public fire protection in the Rate Study is 24.3%, 25.4%, and 26.4% in each of the Test Years, respectively. Furthermore, the fire protection charge is proposed to be increased from the current figure of \$185,997 to \$187,917 in 2018/19, \$223,272 in 2019/20, and \$262,369 in 2020/21.

### **Findings**

[51] The Board accepts the allocation of transmission mains of 90% to general service and 10% to fire protection, based on the Utility's explanation, and the fact that the allocation is the same as allowed in its previous rate application.

[52] The Board also accepts the Utility's methodology used to determine the fire protection charges for the Test Years, with the actual amount for 2018/19 to be prorated for the portion of the year the old and new rates are effective.

## **2. Utility Customers**

[53] After the allocation to fire protection, the remaining revenue requirements are to be recovered from the customers of the Utility.

[54] The methodology used in the Rate Study to allocate the remainder of the revenue requirement to determine the base, customer, delivery, and production charges are consistent with the methodology used in the last rate application and with the *Accounting Handbook*, with the exception of required revenues for transmission and distribution, which are proposed to be allocated 100% to the base charge as opposed to

100% to the delivery charge. In its responses to IR-32 and IR-33, the Utility explained its rationale for doing so:

The Transmission and Distribution cost centre is allocated 100% to Base and 0% to Delivery (Handbook allocation is 0% to Base and 100% to Delivery) for rate design purposes. This allocation results in more revenue security for the Utility if commodity sales are not as high as projected. This allocation has been used in other Utilities in the Province in the past. ...

...

... If the allocation is 100% to Delivery and 0% to Base it will result in 68% of the Utility's revenue from commodity sales (32% from Base Charges). If the allocation is 100% to Base as proposed it will result in 50% of the Utility's revenue from commodity sales (50% from Base Charges)

[Exhibit P-3, p. 20]

[55] The Utility has fewer customers than it did at the time of the previous application (1,332 customers now compared to 1,363 customers at the time of the last application). Of its 1332 current customers, 1213 are 5/8" metered customers (or customers who are currently unmetered and will be migrating to 5/8" service). The Utility projects a decline of the number of its 5/8" customers to continue, decreasing by five customers per year in each of the Test Years.

[56] The Utility also noted that it is projecting lower annual consumption over the Test Period. In addition to noting general reductions associated with efficiency and conservation measures, the Utility noted that most of its residential customers will be charged a metered rate for the first time in 2018/19. In the past, there was no financial incentive for these customers to conserve water, but now that they are metered, they have that ability. The Utility is projecting that its 5/8" customers will reduce their average consumption by 10% in each of the second and third Test Years as a result.

[57] In response to IR-6, the Utility addressed the 10% per year projected decrease in residential consumption as follows:

... At this time, the Utility estimates the average consumption for these residential customers to be 247 cubic meters per year. The evidence from other utilities who have installed meters on residential properties is that the consumption will fall to 200 cubic meters per year or less relatively quickly once water is sold based on water used as measured by water meters. Based on this information the Utility is proposing the rate reduce 10% in the second test year to 222 cubic meters per connection followed by a second reduction of 10% resulting in an estimated consumption of 200 cubic meters per year in the final test year.

[Exhibit P-3 p. 5]

### **Findings**

[58] The Board accepts the methodology used in the Rate Study to allocate expenses to the base, customer, delivery and production charges, including the allocation of the portion of the Utility's revenue requirement associated with transmission and distribution 100% to Base to ensure some form of revenue protection for the Utility. The Board notes that this change has the effect of transferring some costs from higher volume users to lower volume users, but accepts that it is important for the Utility, given its size, to have additional revenue stability and security.

[59] The Board also accepts the projected decrease of 5 /8" metered customers per year and that water consumption by residential customers will decrease after being billed for actual usage.

### **(E) Schedule of Rates and Charges**

[60] In addition to the changes to rates for water supply to its customers, the Utility proposes amendments to several existing miscellaneous Rates and Charges. These amendments were listed in the Utility's response to Board IR-39:

- Public Fire Protection Charge in Schedule C contains a clause for subsequent years in the proposed Schedule of Rates and Charges.
- Sprinkler Rates have been revised to reflect the charges used by other Utilities in the Province.
- Charge for Re-Establishing Water Service rate for regular hours has been changed to \$50.00 to reflect cost of providing the service.

- Account Creation Fee is new and is proposed to reflect the cost of providing the service. This rule replaces the old Connection Fee Rule.
- Disconnection Fee has been changed to include regular hour charge as well as after hour charge.
- Special Service Charge has been revised to include regular hour charge as well as after hour charge.
- Charge for Non-Negotiable Cheques has been changed to \$20.00 plus any additional bank charges.
- Charge for Missed Appointment by Customers has been changed to \$50.00 to reflect the cost of providing the service.
- Charge for Collection Visit is new and is proposed to reflect the cost of the service provided.

[Exhibit P-3, pp. 23-24]

[61] As part of the Utility's response to Undertaking U-3, the Utility updated Schedules A to C in the Rate Study, which included wording changes in Section 2 for the public fire protection rate, and a change to the effective date for Schedule A, which was originally proposed to be September 1, 2018, and is now proposed to be January 1, 2019.

### **Findings**

[62] The Board notes that, other than the rates charged to its customers and for fire protection, the Utility did not request any other amendments to its Rates and Charges at the time of its last rate review. As such, the Utility proposed a number of amendments to bring its Rates and Charges in line with its cost of providing service and with other Utilities in the province that have had more recent rate reviews.

[63] The Board has reviewed the proposed amendments and finds them to be reasonable.

[64] The Rates and Charges for the Test Years are approved as presented in Undertaking U-3.



**(F) Schedule of Rules and Regulations**

[65] In response to Board IR-42, the Utility listed the proposed amendments to its Regulations:

No.	Name	Comment
1	Liability for Payment of Water Bill	Revised to make a property owner who rents or leases a property responsible for the water account. Clause added to make condominium corporation the customer of record and liable for payment of service bill for each unit.
2	Deposits	Revised [sic] interest rate to 2%
4	Billing	New – Includes clarity for the Utility and Customer on billing for part of a quarter and allows the Utility to charge the Base for the entire year for seasonal customers
7	Adjustment of Bills	Revised to limit the time frame for Customer Over Billed to five years
8	Suspension of Service for [sic] Non-Payment	Revised to make it the same as other Utilities in the Province
	Public Fire Protection Charge	Moved to Schedule of Rates and Charges
10	Water to be Supplied by Meter	Revised to make it the same as other Utilities in the Province
15	Meter Testing	Charge for meter testing changed to reflect cost of providing the service
19	Improper Use or Waste of Water	Revised to make it the same as other Utilities in the Province
22	Sprinkler Service Mains and Hydrant System	Revised to make it the same as other Utilities in the Province
23	Unauthorized Extensions, Additions or Connections	Revised to make it the same as other Utilities in the Province
25	Location of Meters	Revised to make it the same as other Utilities in the Province
27	Alternative Water Supply Prohibited	New- Added to make it the same as other Utilities in the Province
28	Deposits in Advance	New- Added to make it the same as other Utilities in the Province
30	Private Fire Protection	Revised to make it the same as other Utilities in the Province
31	Reselling of Water	New- Added to make it the same as other Utilities in the Province
35	Resumption of Service	New- Added to make it the same as other Utilities in the Province

36	Pressure Reducing Valves	Revised to make it the same as other Utilities in the Province
37	Pressure Relief Valves	New- Added to make it the same as other Utilities in the Province
38	Water Conservation Directives	New- Added to make it the same as other Utilities in the Province
39	Requests for Extension of Service	New- Added to make it the same as other Utilities in the Province
40	Work on Water Utility Infrastructure	New- Added to make it the same as other Utilities in the Province
41	Curb Stop/Control Valve Service Box	New- Added to make it the same as other Utilities in the Province

[Exhibit P-3, pp. 25-26]

[66] As part of the Utility's response to Undertaking U-4, the Utility updated Schedule D in the Rate Study, which included wording changes to Rule 9 and a correction to Rule 20.

### **Findings**

[67] The Board finds that the proposed amendments to the Regulations to be reasonable and approves the Regulations as filed in response to Undertaking U-4.

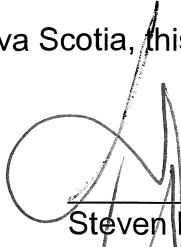
## **IV CONCLUSION**

[68] The Board approves the Rates and Charges, as filed in response to Undertaking U-3, and effective on January 1, 2019, April 1, 2019, and April 1, 2020, as shown in Schedules A, B and C attached to the response to Undertaking U-3. The public fire protection charge in 2018/19 is to be prorated as presented in Schedule A in the response to Undertaking U-3.

[69] The Board approves the Regulations as filed in response to Undertaking U-4, effective January 1, 2019.

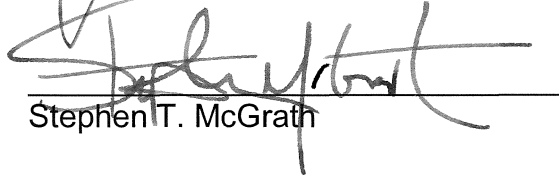
[70] An Order will issue accordingly.

**DATED** at Halifax, Nova Scotia, this 13<sup>th</sup> day of December, 2018.



---

Steven M. Murphy



---

Stephen T. McGrath