



## DECISION

**IN THE MATTER OF** an application by New Brunswick Power Corporation pursuant to subsection 103(1) of the *Electricity Act*, S.N.B. 2013, c.7, for the approval of the schedules of the rates for the fiscal year commencing April 1, 2015.

**AND IN THE MATTER** of the approval of a third party pole attachment rate.

(Matter No. 272)

November 16, 2015

NEW BRUNSWICK ENERGY AND UTILITIES BOARD

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**NEW BRUNSWICK ENERGY AND UTILITIES BOARD:**

Chairman: Raymond Gorman, Q.C.

Vice-Chairperson: François Beaulieu

Members: Michael Costello

Patrick Ervin

John Patrick Herron

Counsel: Ellen Desmond, Q.C.

Chief Clerk: Kathleen Mitchell

**APPLICANT:**

New Brunswick Power Corporation: John Furey

**INTERVENERS:**

Eastlink: Natalie MacDonald

F6 Networks Inc.: Peter Zed, Q.C.

Public Intervener: Heather Black

Rogers Communications Partnership: Leslie Milton

Utilities Municipal: Scott Stoll

## **A. Introduction**

- [1] The New Brunswick Power Corporation (NB Power) applied to the New Brunswick Energy and Utilities Board (Board) on November 21, 2014, for an order approving the schedules of rates it proposed to charge for its services for the 2015/2016 fiscal year which commenced on April 1, 2015.
- [2] The application was heard in two parts. One part was the general rate application and the second part dealt with the setting of an attachment rate for poles owned by NB Power. The Reasons for Decision with respect to the general rate application were issued on October 28, 2015.
- [3] With respect to the second part of the application, NB Power applied for approval of a methodology and a typical pole model in order to determine an annual rate for third party attachments of equipment to poles owned by NB Power. The Board's hearing of the pole attachment portion of its general rate application was held from June 23 to 26, 2015. NB Power's proposed methodology and typical pole model results in an attachment rate of \$30.96 (as revised), which it proposed to phase in over a two-year period.
- [4] The current pole attachment rate is \$19.29 per pole per year, and is based (including later increases) on a decision dated June 19, 2006, of the New Brunswick Board of Commissioners of Public Utilities (PUB), predecessor of the Board. This decision was in relation to a 2005 rate application by NB Power (the 2005 Rate Case).
- [5] In the above decision, the PUB directed the New Brunswick Power Distribution and Customer Service Corporation (Disco), now NB Power, to undertake a study to be used to review attachment rates at a future hearing. Disco was also required to consult with the predecessors of Rogers Communications Partnership (Rogers) and Utilities Municipal, concerning the scope of the study. This resulted in Disco filing a report dated September 30, 2008 (the 2008 Report), in which it outlined various areas of agreement with stakeholders. The 2008 Report was filed in evidence in this proceeding.
- [6] The central issue to be determined by the Board is whether the proposed pole attachment rate is just and reasonable. If the Board is not satisfied, it must fix another rate that it finds to be just and reasonable. In order to make this determination, the Board must address the following sub-issues:

1. What are the reasonable cost components to be used in the determination of a pole attachment rate?
2. What typical pole model should be used in order to allocate costs?
3. What cost allocation methodology should be used to determine a fair allocation?

[7] The evidence and submission of the parties are considered below.

**B. Pole Cost Components**

[8] At the outset of the hearing on June 23, NB Power advised the Board and the parties that it had made an error in its pre-filed evidence relating to secondary and neutral costs. Without reviewing the details here, NB Power removed these costs from its rate calculations and revised its evidence accordingly.

[9] The Board ruled on June 23 that it would not consider, in the absence of a cost analysis, the issue of whether secondary and neutral costs should be included in the cost allocation methodology. Accordingly, this matter proceeded without reference to the pre-filed evidence on this issue. The Board indicated that NB Power may bring this issue forward in future rate applications. The remaining costs presented by NB Power below are based on its revised evidence.

[10] The pole cost components proposed by NB Power and those costs accepted by the Board are set out in the table below.

<b>Cost Component</b>	<b>Proposed Cost</b>	<b>Accepted Cost</b>
(a) Average Embedded Cost	\$751.18	\$751.18
(b) Net Embedded Cost	\$346.68	\$346.68
(c) Depreciation Cost	\$19.34	\$19.34
(d) Capital Carrying Cost	\$17.78	\$17.78
(e) Utility Tax Cost	\$6.43	\$6.43
(f) Maintenance Cost	\$31.42	\$30.93
(g) Loss of Productivity Cost	\$6.47	\$5.42
(h) Administration Cost	\$0.64	\$0.62

Each of these cost components are addressed in the following paragraphs.

## **1. Agreed Upon Cost Components**

- [11] The average embedded cost represents the total installed cost, averaged over the number of poles owned by NB Power. A 15% reduction had been agreed upon by the various stakeholders, as referred to in the 2008 Report, which was applied to NB Power's calculation of the average embedded cost. The net embedded cost is the undepreciated value of those poles, averaged over the number of poles owned by NB Power. No party took issue with these amounts. The Board accepts the amounts of \$751.18 and \$346.68 (which exclude secondary and neutral costs), as the average embedded cost and the net embedded cost, respectively.
- [12] The 2008 Report also described stakeholder agreement in relation to the calculation of NB Power's depreciation cost, capital carrying cost and utility tax cost, summarized below. All of these items were agreed upon by the stakeholders at that time and no one contested these costs during this proceeding.
- [13] NB Power's depreciation cost of \$19.34 is based on a straight line depreciation of the average embedded cost over 38 years and 10 months. Although Rogers, in the pre-filed expert evidence of Ms. Suzanne Blackwell, suggested that the depreciation period should be slightly longer, no adjustment to this cost was proposed because the methodology had been agreed upon in the 2008 Report. The Board approves the amount of \$19.34 as the depreciation cost.
- [14] The capital carrying cost is based on NB Power's interest during construction rate of 5.13% of the net embedded cost. The Board approves the amount of \$17.78 as the capital carrying cost.
- [15] The utility tax cost is based on the rate of \$1.856 per \$100 of the net book value of its pole assets. The Board approves the amount of \$6.43 as the utility tax cost.
- [16] There was disagreement over the remaining cost components, which are considered below.

## **2. Maintenance Cost**

- [17] The 2008 Report indicated prior stakeholder agreement that maintenance cost includes two components: (a) yearly vegetation costs based on historical expenditures and spread across all NB Power and Bell Aliant poles (590,581); and (b) yearly pole and anchor maintenance based on

historical expenditures and spread across all NB Power poles (351,656). The costs referred to in this summary are rounded for convenience only.

**a. Vegetation Cost**

[18] NB Power's vegetation cost includes both planned vegetation maintenance and major storm related costs. It carries out vegetation maintenance and major storm related vegetation work for its own poles and Bell Aliant poles. NB Power's proposed vegetation cost is \$14.19 per pole. For the reasons set out below, the Board reduces this amount to \$13.08 per pole.

**(i) Planned Vegetation Maintenance Costs**

[19] NB Power's planned vegetation maintenance budget of \$6.2 million is based on historical trends and recent increases in its preventive maintenance activities. NB Power submits that using the budgeted amount is a better prediction of future costs, given recent severe weather events and the need to mitigate their impacts in advance.

[20] Rogers submits that NB Power's budget should be based on a ten-year average of actual planned maintenance costs. Rogers submits that this would be consistent with the method NB Power uses for major storm related vegetation costs.

[21] The use of a ten-year average of actual costs would underestimate the need for NB Power to reduce the impact of major storms. This budgeted amount reflects NB Power's commitment to vegetation management. The Board concludes that NB Power's budgeted amount of \$6.2 million for planned vegetation maintenance is the appropriate cost input. Spread across all NB Power and Bell Aliant poles, this results in \$10.47 per pole.

**(ii) Storm Related Vegetation Costs**

[22] NB Power uses 70% of its ten-year average of actual storm costs of \$3.1 million as its cost input, to calculate its major storm related vegetation costs of \$2.2 million.

[23] Rogers agrees with the use of the ten-year average, but it submits that 70% of that average represents total storm costs, including storm related vegetation costs and storm related pole and anchor repair. In the 2005 Rate Case, 70% of the overall storm costs applied to both storm vegetation and storm pole repair costs. Of that amount, only 70% applied to storm related

vegetation costs. Rogers concludes that the appropriate factor to be applied to the overall storm costs should therefore be 49% (70% of 70%), yielding \$1.5 million as the appropriate cost input.

[24] The Board finds that the \$3.1 million represents total storm costs, and agrees that only 49% of this should be used in the calculation of storm related vegetation costs. This is consistent with the calculation method used in the 2005 Rate Case. The Board concludes that the amount of \$1.5 million for storm related vegetation costs is the appropriate cost input. Spread across all NB Power and Bell Aliant poles, this results in \$2.60 per pole.

**b. Pole and Anchor Maintenance Costs**

[25] Pole and anchor maintenance costs are divided into two components: (a) regular maintenance costs; and (b) storm repair costs. For the reasons stated below, the Board has determined that regular maintenance costs are \$5.9 million, spread across the number of NB Power poles; and storm repair costs are \$659,000, spread across all NB Power and Bell Aliant poles. NB Power's proposed pole and anchor cost is \$17.23 per pole. For the reasons set out below, the Board increases this amount to \$17.85 per pole.

**(i) Regular Maintenance Costs**

[26] NB Power's pole and anchor assets form 18.5% of its total distribution system assets. Applying that percentage to the distribution system Operations, Maintenance and Administration (OM&A) expense for power line technicians (\$31.8 million) results in an annual cost of \$5.9 million, or \$16.73 per pole owned by NB Power. The Board concludes that this is an appropriate calculation for regular maintenance costs.

**(ii) Storm Repair Costs**

[27] NB Power's calculation of storm repair costs is \$174,000, based on 30% of its \$3.1 million of total storm costs, applied to the 18.5% pole and anchor portion of NB Power's distribution assets. When applied against the population of NB Power poles, the cost is approximately \$0.50 per pole.

[28] Rogers maintains that the cost for pole and anchor storm repair is properly calculated to be \$1.12 per pole. Although this is higher than NB Power's proposed rate, Rogers believes its calculation is more consistent on two levels.

- [29] First, it reflects the same approach used in relation to storm related vegetation costs, by using 70% of the \$3.1 million in total storm costs and applying the 30% of those costs that do not apply to vegetation (a total factor of 21%). This yields a product of \$659,000 for storm repair costs.
- [30] Second, Rogers argues that the product of \$659,000 should be applied to the population of NB Power and Bell Aliant poles, and not NB Power poles alone, as this is also consistent with the approach used in relation to storm related vegetation costs. Rogers maintains that, since the \$3.1 million represents gross storm costs, and not net of Bell Aliant reimbursement, the end calculation should be spread across all poles for both storm related vegetation and storm pole and anchor costs.
- [31] The Board agrees that the approach advocated by Rogers for storm repair costs is consistent with the Board’s conclusions in relation to storm related vegetation costs.
- [32] Based on the foregoing, the pole and anchor maintenance cost is revised to \$17.85 per pole.

**c. Maintenance Cost - Conclusion**

- [33] For the reasons set out above, and as summarized in the table below, the Board has determined that the total maintenance cost is \$30.93 per pole.

	<b>Cost</b>	<b>Number of Poles</b>	<b>Cost per pole</b>
<b>(a) Vegetation</b>			
(i) Planned	\$6,186,314	590,581	\$10.47
(ii) Storm Related	\$1,536,865	590,581	\$2.60
Sub-total:	\$7,723,179	-	<b>\$13.08*</b>
<b>(b) Pole and Anchor</b>			
(i) Regular Maintenance	\$5,884,072	351,656	\$16.73
(ii) Storm Repair	\$658,656	590,581	\$1.12
Sub-total	\$6,542,778	-	<b>\$17.85</b>
<b>Total Maintenance Cost</b>			<b>\$30.93</b>

\* based on rounding

**3. Loss in Productivity Cost**

- [34] NB Power claims a loss in productivity cost of \$6.47 per pole, comprised of two components:  
 (a) \$3.36 as the cost of responding to call-outs for communications facility issues on NB Power

and Bell Aliant poles; and (b) \$3.11 for lost time due to third party attachments when performing work on NB Power poles (work-around costs).

- [35] The 2008 Report noted several areas of agreement on the inputs and method of calculating loss of productivity cost which have been applied to NB Power's calculations. Rogers raised three issues, however, in relation to the calculation, suggesting that it should result in a cost of \$5.42 per pole.
- [36] First, Rogers submits that the total labour cost per hour used in the calculation assumes that work is performed exclusively by NB Power employees, whereas much of its maintenance work is performed by hired services. Rogers did not suggest a revised cost per hour, however. In the absence of evidence to validate a different labour cost, the Board accepts NB Power's evidence of \$91.83 total labour per hour.
- [37] Second, Rogers suggested that NB Power's evidence appears to indicate that there was "no pole involved", in relation to some of the work-around costs. Although Rogers submitted that work-around costs should not apply to such cases, it used NB Power's number of poles worked on in its own calculation of loss in productivity cost. In the absence of an alternative number and supporting evidence, the Board accepts the number of 19,322 poles used in both parties' calculations.
- [38] Third, Rogers submits that NB Power's application of an overhead factor of 55% is excessive. NB Power derived this factor based on a 2014 review by KPMG of its capitalized overhead rate, in which 56.1% was proposed for the Distribution Division. The rate indicates capitalized overhead as a percentage of the division's expected direct capital expenditures in 2014/15.
- [39] Rogers submits that in the 2005 Rate Case, NB Power did not apply an overhead factor to the total hourly labour cost. Further, there is no addition of an overhead factor in the formula set out in Appendix C of the 2008 Report, which summarizes the agreed approach to loss of productivity assessment.
- [40] Rogers argues that, if capital costs include an overhead factor, NB Power poles include overhead as a portion of embedded costs. Adding the same factor to operational expenses would, in its submission, be double counting. In addition, it argues that the capitalized overhead rate is inappropriate as a factor for the operational expenses that are reflected in the hourly labour costs.

[41] In the Board's view, the capitalized overhead rate proposed in the KPMG review was not intended to apply to operational expenses and is not an appropriate basis for a corporate overhead factor in the current context.

[42] Rogers submitted that a 30% overhead rate is a more appropriate overhead adjustment, as it is based on the allocation of corporate and shared services costs for operational activities in the Distribution division. The Board agrees. The loss in productivity cost component is therefore revised to \$5.42 per pole.

#### **4. Administration Cost**

[43] NB Power claims an administration cost of \$0.64 per pole to cover the cost of administering third party use of NB Power poles. The 2008 Report agreed on an administration cost of \$0.55 without a detailed calculation. The claimed rate is based on hourly rates, with benefits, for three positions: an ASR III/IV (\$28.37 at 100%), an Outside Agencies Coordinator (\$41.04 at 20%), and a GIS Specialist (\$49.32 at 10%).

[44] In its evidence and final submission, Rogers advocates a rate of \$0.62 per pole. Rogers points out that the hourly rates used in the calculation represent the top of the pay range for each classification, and are overstated. However, it did not suggest hourly rates considered to be more accurate and did not use revised hourly rates in arriving at its suggested administration cost.

[45] NB Power used 166,063 poles as the denominator in its administration cost calculation. Rogers contends that this figure should be 170,988, claiming it equates to the number of attachers on poles with three or more attachers (including NB Power and Bell Aliant). The Board accepts the latter figure as an appropriate denominator. This results in an approved cost component of \$0.62 per pole.

#### **C. Typical Pole Model**

[46] The population of NB Power's joint-use poles range from 30 to 65 feet in length, according to various requirements. A 40-foot "typical pole" is proposed by NB Power, however, for the purposes of determining a third party attachment rate. This is based on the fact that 40-foot poles are the most common pole used by NB Power, comprising 35% of its total population. (For the sake of consistency with the evidence, both imperial units and metric are used in this decision, and are converted wherever necessary.)

[47] A 40-foot typical pole model was used in the 2005 Rate Case. This allows for a single attachment rate, and is consistent with the desirable rate attributes of simplicity, understandability, and feasibility of application.

[48] There are five segments of the pole, the lengths of which partly determine how pole costs are allocated between NB Power and other attachers. Another determinant is whether a segment is dedicated to either power or communication uses or is a shared or common space. The Board's findings in relation to the segment lengths are set out below and are discussed in the following sections.

<b>Pole Segment</b>	<b>Length (feet)</b>
Buried Space	6
Clearance Space	19
Communication Space	2
Separation Space	3.3
Power Space	9.7
<b>Total</b>	<b>40</b>

### **1. Buried Space**

[49] The buried space is necessary to provide adequate support for a 40-foot pole, based on engineering analysis. It is accepted that buried space is a shared space. There were no issues raised on these points. The Board finds that 6 feet is the appropriate segment length.

### **2. Clearance Space**

[50] Clearance space is the distance between the ground and the bottom of the communication space, measured at the pole. It provides, for example, adequate vertical clearance to safely accommodate the passage of vehicles. It is accepted that this segment is also a shared space.

[51] NB Power proposes that 19 feet of the pole be allocated as clearance space. The Canadian Standards Association standard C22.3 No. 1-10 (CSA Standard) establishes 4.42 metres (14.5 feet) as a minimum standard for vertical clearance for above-ground wires, applicable to most common areas.

- [52] The evidence of Mr. Ernest Wiebe, NB Power's expert witness, outlines several additional factors, in addition to the minimum CSA Standard, in determining proper clearance. These include span between poles, ice loading, installed conductor tension, expected snow accumulation and maximum loaded sag of the conductor. "Sag" is defined in the CSA Standard as the vertical distance from a particular point on a conductor to a straight line between its two points of support. Mr. Wiebe stressed that the CSA Standard is a minimum standard, and that clearances under day-to-day conditions must ensure that actual clearances under maximum loads and service conditions meet the minimum requirements.
- [53] Mr. Wiebe had completed pole verification audits of Rogers and NB Power lines as part of his written report. He measured, on one 150 meter (500 feet) span, a sag of almost 2 meters (6.5 feet). Although he stressed that the resulting ground clearance appeared to be more than adequate, it demonstrates that a small, light communications conductor lashed to a messenger sags substantially, even without ice.
- [54] Rogers maintains that the clearance space should only be 18 feet, supported by the evidence of its witness, Mr. Clinton Lawrence. In his view, 19 feet of clearance space is excessive. He submitted that the sag in Rogers facilities is insignificant, given their weight and method of lashing to tensioned strand. As Rogers cables usually occupy the top of the communications space, he concluded that any sag would not fall below 18 feet of clearance. The 2008 Report indicates that although there was no common understanding of the sag issue, Rogers had accepted that one foot of sag would be appropriate.
- [55] Regardless of whether or not Rogers facilities infringe the minimum clearance standard, the Board's concern must be with any current or future facilities that are connected at any point in the communications space, the physical properties of which may result in greater sag under fully loaded conditions. Considering the evidence of Mr. Wiebe, a potential sag of two feet or more could exist on a 200 feet span, which is the average span length of NB Power poles. It is also reasonable to assume that a greater than average span length would be accompanied by a potential for greater sag.
- [56] The expected snow accumulation used by NB Power in the allowance for clearance calculation is 0.8 metres (2.5 feet) and is based on the mean annual maximum snow depth for Fredericton, as set out in the CSA Standard.

[57] The sum of the minimum standard, with snow depth, is 17 feet. Based on an 18 foot clearance space at the pole, any sag exceeding one foot at mid-span would encroach the minimum standard, for a strand attached at the bottom of the communication space. A 19 foot clearance space at the pole would accommodate up to two feet of sag, mid-span. The Board finds this to be a reasonable allowance for sag under fully loaded conditions.

[58] The Board concludes that 19 feet of clearance space is appropriate.

### **3. Communication Space**

[59] The communication space in NB Power's typical pole model is two feet, dedicated to communication attachments. There are no issues in relation to this allocation and the Board accepts this as appropriate.

### **4. Separation Space**

[60] The required minimum separation space between the communications space and the power space, under the relevant CSA Standard, is one metre (3.3 feet). This is in order to protect the safety of communications workers from the power cables on the pole while working on their attachments.

[61] NB Power allocates four feet for separation in its typical pole model. It is required to use a minimum of four foot separation space under the terms of the Joint Use Manual, which governs the mutual sharing of its pole infrastructure with that of Bell Aliant. To justify its allocation of four feet, NB Power relies on Clause 4.1.1 of the CSA Standard, which states: "Where two or more requirements apply to a situation, the requirement specifying the greater clearance, separation, spacing, or strength shall take precedence."

[62] The Board does not agree with this interpretation of Clause 4.1.1. Although the term "requirement" is not defined, its use consistently refers to requirements of the CSA Standard, and not extraneous requirements. For example, Clause 1.3 states in part: "This Standard, which forms part of the *Canadian Electrical Code, Part III*, provides requirements for the construction of overhead systems."

[63] NB Power also referred to a CSA Standard minimum requirement of 75 mm (3 inch) clearance between conductors and communication wire at mid-span. In its rebuttal evidence, it states that

this is required because power system wire sags to a greater degree than Rogers messenger wire, located below, thereby justifying a separation space of four feet at the pole. In response, the evidence of Mr. Lawrence suggests that any sag in NB Power's lines is a power issue, and should therefore be accommodated within the power space at the pole.

[64] The Board concludes that 3.3 feet is the appropriate measure of the separation space. Any required clearance between power and communications at mid-span should be accommodated within the power space. There were no other circumstances presented to the Board that would require separation beyond the CSA Standard minimum requirement.

## **5. Power Space**

[65] As a result of the above determinations, the Board designates that the remaining 9.7 feet on a typical 40-foot pole is dedicated power space.

## **D. Cost Allocation Methodology**

[66] A central issue for the Board's determination is the choice of an appropriate cost allocation methodology. The allocation of the cost components (except administration cost) is based on the typical pole model and the extent to which pole segments are dedicated (as power or communication space) or are shared between users.

[67] The average number of attachers per pole is relevant to all of the methodologies and calculations proposed by the parties. This is addressed below, before considering an appropriate allocation methodology and rate calculation.

### **1. Average Number of Attachers**

[68] NB Power uses 2.4 attachers per pole (or 1.4 communication attachers) in its rate calculation. This represents the quotient of the total number of attachers on its poles, divided by the number of NB Power joint-use poles. The NB Power poles include poles with third party attachers, and also include joint-use poles with NB Power as the sole attacher, and with NB Power and Bell Aliant as the only attachers.

[69] Rogers proposes that three attachers per pole (two communication attachers) is the appropriate average. Its calculation is based on the exclusion of poles with NB Power as the sole attacher,

and with NB Power and Bell Aliant as the only attachers. This is based on the argument that only those poles used by attachers paying the pole attachment rate should be subject to cost recovery.

[70] F6 Networks Inc. (F6N) states that it is attached to only one percent of NB Power's total pole population, and should not pay a rate based on the usage profile of 99% of the assets it does not use. It proposes that each third party would be charged based on the specific poles they utilize and the number of attachers on each such pole. In order to accomplish this, F6N submits that NB Power should accurately track and maintain individual pole data.

[71] The basis of the positions of Rogers and F6N is that a portion of NB Power's joint-use poles is not relevant to third party attachers who are not attached to them. To include such poles, according to that argument, means that third party attachers that pay the pole rate are required to contribute to the costs of poles they collectively, or individually, do not use.

[72] In its preliminary ruling in the 2005 Rate Case, the PUB decided that it had the jurisdiction to establish a pole attachment rate. In its ruling, the PUB stated:

[...] it would be uneconomic and wasteful if all utilities and persons seeking to provide services in New Brunswick were required to acquire their own easements and poles in areas already served by electric power poles. .... It is not in the public interest that there be a proliferation of poles. The arrangement between Disco and Aliant to share poles for attachment of their respective services is to be encouraged as being prudent and economical. The exclusion of Rogers from equivalent access to Disco's electric power poles is not in keeping with the provisions of the Act or in the public interest. (PUB Ruling – Rogers Jurisdiction Motion, October 27, 2005, pp.10-11)

[73] The above principles continue to apply in New Brunswick. NB Power's network of joint-use poles, together with those of Bell Aliant, are available as a service to current and potential third party attachers. Limiting the NB Power network, for rate calculation purposes, to poles to which there are actual third party attachments, would be inconsistent with these principles.

[74] NB Power invests in taller poles and incurs additional costs in maintaining a network of joint-use poles. This reduces the potential for the proliferation of single use poles and economic inefficiency. Joint-use poles are available for attachment by third parties, subject to the payment of approved rates. It is reasonable that the rate methodology incorporates the incremental costs of maintaining an available network of joint-use poles.

[75] For these reasons, the Board accepts the average of 2.4 attachers per pole (1.4 communication attachers) for the purposes of the pole attachment rate calculation.

## **2. Cost Allocation Methodology**

[76] The PUB's decision in the 2005 Rate Case did not define a methodology for determining a third party pole attachment rate, other than stating the principle that all users should bear a portion of the joint and common costs. In this section, the Board reviews the methodologies proposed or supported by the parties.

### **a. NB Power Proposed Methodology**

[77] NB Power's proposed cost allocation is supported by the evidence of Dr. Bridger Mitchell, its expert witness. Dr. Mitchell's report outlines three alternative methods or rules, any one of which he describes as resulting in a fair allocation of attachment costs. NB Power's proposed methodology is based on Dr. Mitchell's Rule 3. Rules 1 and 2 are also considered here, as they present potential alternatives for the Board's consideration. These are briefly described below.

[78] Rule 1 divides the common costs of a basic joint-use pole equally among all users. Any additional costs that arise from incremental (or dedicated) requirements of a particular user are allocated to that user.

[79] Rule 2 divides the savings realized from a joint-use pole equally among the pole users relative to the costs that would be collectively incurred if each pole user had to construct its own pole on a stand-alone basis.

[80] Rule 3 allocates shares of the costs of a joint-use pole in proportion to the stand-alone costs that each user would incur by constructing its own pole.

[81] The application of Rules 1 and 2 would result in the same pole attachment rate for third party users. Dr. Mitchell noted that Rule 3 yields higher contributions for users with lesser requirements than the Rule 1 and Rule 2 outcomes.

[82] In Dr. Mitchell's opinion, all of the above rules are consistent with freely negotiated outcomes between telephone pole and power pole owners. He acknowledges that power pole owners have

market power due to ownership of existing assets, but they also bear a “vacancy risk” that may prevent the recovery of the full investment in a joint-use pole network.

[83] Dr. Mitchell’s report contains a critique of the “useable pole space” or proportionate sharing model that has been accepted by some regulators. He postulates that all users of a joint-use pole benefit equally from the common spaces of the pole. Because of the low proportion of dedicated communication space compared to dedicated power space, proportionate sharing produces a low share of total costs. Further, Dr. Mitchell states that all users of joint-use poles are established utilities with substantial revenues, and are therefore able to pay their fair share.

**b. Rogers Proposed Methodology**

[84] Rogers’ proposed cost allocation is supported by the evidence of its expert witness, Dr. Roger Ware, who recommends a proportionate sharing methodology. This allocates the common costs in proportion to the relative shares of dedicated space on the pole. In his opinion, this reflects the differential burden placed on common costs by the different users, and is a standard approach in regulatory pricing. It also reflects, in his view, the advantages provided by pole ownership compared to tenancy.

[85] Dr. Ware argues that an equal sharing rule overemphasizes the principle of equality, rather than economic efficiency. Proportionate sharing would allocate a greater share of common costs based on users placing a heavier demand on the pole. As an example, Dr. Ware refers to the sharing of common expenses among condominium owners, which is usually calculated in proportion to the size of each owner’s unit. The principle of economic fairness, in his opinion, is served by the owner of a larger unit contributing a greater share of common expenses than the owner of a small unit.

**c. Other Parties**

[86] F6N proposes the proportionate sharing methodology, or in the alternative, Dr. Mitchell’s Rule 1, modified to account for a limited number of poles utilized and the number of attachers on each such pole.

[87] Utilities Municipal supported the use of Rule 3 as reasonable. It stressed that the NB Power joint-use pole network is available to all potential attachers.

[88] The Public Intervener did not take a particular position on NB Power's proposed methodology. In Ms. Black's view, neither of the principal methodologies was fully discredited. In that sense, the equal sharing methodology was seen as an upper bound, and the proportionate sharing model as the lower bound, of what could be considered as a fair allocation of common costs. One of Ms. Black's concerns was that NB Power's general ratepayers should not be subsidizing costs that should be borne by third party attachers. Pole attachment rates on the upper end of the reasonable scale would take general ratepayer interests into consideration.

**d. Analysis and Conclusion**

[89] Pole owners are in a position to take advantage of their market power in access to poles. For this reason, attachment rates are regulated in many jurisdictions. The Board considers it reasonable that those customers that benefit from the use of NB Power's distribution poles should pay an appropriate rate so that NB Power's other customers do not incur or cross-subsidize any additional cost of providing such a benefit. It is clear that power users and communications users are each responsible for their direct costs, based on the respective dedicated pole spaces. The issue under consideration here is what portion of the common costs each user should bear.

[90] Dr. Mitchell's evidence states that a rate structure is considered to be free of cross-subsidies if it requires a price no less than the incremental cost of providing a joint-use pole, and no greater than a stand-alone cost of building a dedicated-use pole. There is therefore a range of pole attachment charges that result in efficient sharing and are free of cross-subsidies. The Board accepts this view. All of the methodologies reviewed below are free of cross-subsidies from other customers of NB Power.

[91] Dr. Mitchell's Rule 1, resulting in an equal sharing of common costs, appears to be fair, but is based on the notion that all attachers on a joint-use pole are equal partners. NB Power has a much greater proportion of the dedicated space. Further, as the administrator of the communications space on behalf of NB Power, Bell Aliant exercises a degree of control over that space. For example, Bell Aliant has the advantage of choosing the road side of the pole for its attachments, which is preferred over the field side, because of easier access.

[92] Rule 2 and Rule 3 employ the hypothetical alternative, presumably available to third party attachers, of constructing a stand-alone pole system. Rates are accordingly derived based on sharing the savings by using a joint-use pole, or allocating the common costs of a joint-use pole in proportion to the costs each attacher would otherwise incur in building a stand-alone network.

The Board does not consider either model as the most appropriate for determining a rate in the case of NB Power’s well-established network of joint-use poles.

[93] The proportionate sharing model, proposed by Rogers, recognizes the practical and economic disparities between NB Power, as pole owner, and third party attachers. Third party communications attachers do not have the rights of ownership of the pole. They are required to apply through an intermediary to gain attachment access. The evidence indicates that they are generally allocated the less desirable field side of the pole. Economic efficiency dictates that paying a reasonable rate on another party’s joint-use pole network is preferred over building a stand-alone system. Further, the Board is not convinced, as Dr. Mitchell suggested, that all users or potential users of joint-use poles are established utilities with substantial revenues.

[94] The Board recognizes that all of the cost allocation methodologies reviewed above can be viewed as yielding fair rates. For the reasons outlined above, the Board prefers the proportionate sharing of common costs as the most appropriate methodology for the allocation of common costs between NB Power and third party attachers.

## E. Rate Calculation

[95] The table below summarizes the Board’s conclusions, resulting in an annual rate per attacher, per pole of \$20.77:

	<b>Components</b>	<b>Conclusions</b>	<b>Notes</b>
A	Average Embedded Cost	\$751.18	See subsection B.1
B	Net Embedded Cost	\$346.68	See subsection B.1
C	Depreciation Cost	\$19.34	A x 2.575%
D	Capital Carrying Cost	\$17.79	B x 5.13%
E	Utility Tax Cost	\$6.43	\$1.856 per \$100 of B
F	Maintenance Cost	\$30.93	See subsection B.2
G	Loss in Productivity Cost	\$5.42	See subsection B.3
H	Total Annual Cost	\$79.91	C + D + E + F + G
I	Allocation	35.3%	Based on proportionate use (See section D)
J	Rate (without admin. cost)	\$20.15	H x I / 1.4 average attachers per pole
K	Administration Cost	\$0.62	See subsection B.4
L	<b>Approved Annual Rate</b>	<b>\$20.77</b>	J + K

## **F. Pole Attachment Rate and Effective Date**

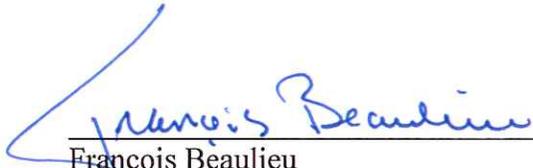
[96] The Board fixes the annual rate of \$20.77 per attacher, per pole, which shall be effective as of the date of this decision.

Dated in Saint John, New Brunswick, this 16<sup>th</sup> day of November, 2015.



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Raymond Gorman, Q.C.  
Chairman



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François Beaulieu  
Vice-Chairperson



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Michael Costello  
Member



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Patrick Ervin  
Member



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John Patrick Herron  
Member