

44. The Separation Space should be treated as common space as the Equal Sharing approach presumes all users are equal and, without this space, a pole cannot be jointly used.

45. Applying the Equal Sharing approach using two third party attachers, third party attachers would be responsible for:

100% of Dedicated Space	2.0 feet	2.0 feet
66.7% of common space	26.5 feet	17.67 feet
Total		19.67 feet or 49% of the pole costs.

46. The allocation to each third party attacher is determined by dividing the percent allocation by the number of such attachers on a pole. Using the example of two third party attachers above, each attacher will pay 24.6% of the indirect costs of the pole. (If there are 2.5 third party attachers, they are allocated 71.4% of the common space and 52% of all pole costs and each third party attacher bears 20.9% of these costs.)

47. When the Board adopted an equal sharing approach in RP-2003-0249, it included the Separation Space as part of the dedicated space for the communications attachers instead of part of the common space. This is somewhat inconsistent with the underlying principle of the Equal Sharing methodology that all users should share equally in the costs of those portions of the pole that they all benefit from.

48. Further, when the Board chose to adopt the Equal Sharing methodology, it provided the following reason:

The most persuasive argument for equal sharing of the common cost is the practice that appears to take place when parties are in position of equal bargaining power. The LDCs point to the reciprocal agreements between the telephone companies and the power companies that have existed for a number of years. Under those agreements, each of the regulated utilities has access to the other's poles. They essentially split the common cost equally.¹⁷

49. Although many of the joint use agreements between telecommunications companies and power companies are not public, it is generally understood that such agreements provide for a 60/40 sharing arrangement, with power companies responsible for 60% of the costs.¹⁸ The Equal Allocation method does not approximate these ratios. The tables in Appendix 1 illustrate that the allocation of pole space to communications ranges from ~~52.49~~% with two attachers to ~~55.8~~% with 3.~~05~~ attachers.

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¹⁷ Ontario Energy Board, Decision and Order, RP-2003-0249, March 7, 2005, page 6.

¹⁸ See, for example, Ontario Energy Board, Decision and Order, EB-2010-0149; OEB, Transcript, Volume 3, RP-2003-0249, October 28, 2004, lines 335-370.

50. Contrary to the assumption that negotiated joint use agreements support the concept of equal sharing of costs, the methodology allocates ~~129%~~ to 158% more of the indirect costs to attachers than telecommunications companies pay under joint use agreements. /C
51. Without more information about the terms and conditions in the joint use agreements, it is also difficult to conclude that the 60/40 sharing arrangement is applicable for third party pole attachments. There are a range of important negotiating points that must be considered before parties commit to such agreements. The sharing arrangements for revenues from joint use poles must be an important influencing factor for pole cost sharing. Without access to the agreements, it is not possible to know how the 60/40 pole cost arrangement fits within the spectrum of factors that must be considered.

Comparison of results from two methodologies

52. The table below provides a comparison of the space allocation for each attacher, including power, for the two methodologies, assuming 2.0, 2.5 and 3.0 attachers.

	Number of attachers		
	2.0	2.5	3.0
Proportional Use	15.7%	12.5%	10.4%
Equal Sharing	24.6%	20.9%	18.2%

53. The tables attached in Appendix 1 illustrate the allocation of pole costs under Proportional Use approach and the Equal Sharing approach. The difference in the two methods of allocating indirect costs can have a large impact on per pole attachment rates. Assuming two pole attachers (in addition to the pole owner and no other changes to the costs filed by Hydro Ottawa), the annual pole rate would be approximately \$39.04 under the Proportional Use methodology, compared to Hydro Ottawa's proposed rate of \$56.26 under the Equal Sharing methodology.

4.0 OTTAWA HYDRO POLE ATTACHMENT COSTS

54. This section applies the costing methodologies described above to Hydro Ottawa's pole attachment costs.

4.1 Direct Costs

55. As noted, direct costs are incurred by pole owners directly as a result of pole attachments. Unlike indirect costs, there is a clear causal relationship between providing the pole attachment service and incremental costs that are incurred. For the purpose of pole attachment cost studies, direct costs are separated into Administration costs and Loss in Productivity cost categories.

56. Hydro Ottawa identifies the following direct costs in Attachment H-7(A).

	2013 Costs	Cost per Pole
Admin	\$141,291	\$3.96
Loss in Productivity:		
Pole Replacement	\$270,518398	
Field Verification	\$40,020	
Total Loss in Productivity	\$310,539419	\$8.701
TOTAL	\$451,830710	\$12.67

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57. It is important to note the mathematical errors in the table above. Hydro Ottawa separately calculates the total costs associated with Administration, pole replacement, field verification for wires down, and field verification for tree on wires. Each of these total annual costs is divided by the number of poles with third party attachers, which provides an average cost per pole. To this stage, the calculations are correct and produce the following results.

Total Admin per Pole with attachments per year	\$3.96
Total LIP per Pole with attachments per year	\$8.70

58. These average costs are then added to indirect costs per pole to yield Hydro Ottawa's total cost per pole of \$56.26. The error occurs because Hydro Ottawa does not divide the direct costs by the number of attachers. The corrected direct costs assuming 2.0, 2.5 and 3.0 attachers is provided below.

		Number of attachers		
		2	2.5	3.0
Total Admin per Pole with attachments per year	\$3.96	\$1.98	\$1.58	\$1.32
Total LIP per Pole with attachments per year	\$8.70	\$4.35	\$3.48	\$2.90

59. Without this step, each pole attacher pays the full per-pole cost of administration and Loss in Productivity. With 2.5 attachers per pole, Hydro Ottawa would receive 2.5 times the revenue needed to recover the relevant costs. For this reason the cost per pole must be divided by the number of attachers. The appropriate number of attachers is discussed in another section.
60. Hydro Ottawa also has confirmed that the costs of replacing poles, including all crew visits, are included in Account 1830 and therefore are already being recovered through the indirect costs included in the pole attachment rate.¹⁹ Accordingly, the recovery of these costs again as a direct Loss in Productivity cost results in double-recovery. On this basis, these costs should be excluded from the Loss in Productivity costs included in the pole attachment rate.

¹⁹ EB-2015-0004 Technical Conference Transcript, page <*>72, line 25 - page 73, line 2.

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		Hydro Ottawa	Revised
DIRECT COSTS			
Admin	Total	141,291	141,291
	Poles with attachments 35,663		
	Admin per pole	3.96	1.58
LIP-Pole replacement	Field Verification		
	Cost of Field verification	81,410.21	0.00
	Returning Crew		
	Cost of Returning Crew	188,987.99	0.00
	Total LIP-Pole replacement	270,398.21	0.00
LIP-Field Verification	Wires Down	14,720.00	14,720.00
	Tree on Wires	25,300.80	25,300.80
	Total Cost due to Loss In Productivity	310,419.01	420,020.80
	Poles with attachments 35,663		
	LIP per pole	8.70	0.45
INDIRECT COSTS			
Net Book Value per pole		1,678.00	1,263.43
Depreciation Expense per Pole		43.29	34.80
Pole Maintenance Expense per Pole		12.61	10.18
Capital Carrying Costs per Pole		112.43	76.25
	Total Indirect Costs per pole	168.33	121.23
Allocation Factor	Hydro Ottawa: 25.9% Proposal 12.5%		
		43.60	15.15
Total Cost per Pole with attachments per year		56.26	17.18

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6.0 CONCLUSION

116. The information on the record does not permit as detailed a review and assessment as would be liked. However, there is evidence that Hydro Ottawa erred in the pole attachment cost study in a number of respects.

1. Direct costs should be divided by the number of attachers.
2. Net book value should be used for pole assets.
3. Average, not year-end, costs should be used.
4. Pole net book value should exclude power-specific costs.
5. Pole depreciation expense should exclude power-specific costs.

6. Current, not historic, cost of capital should be used.
 7. Pole maintenance expense should exclude power-specific costs.
 8. The number of attachers should be adjusted to reflect recent experience and near-term expectations.
 9. Proportional usage should be used as the methodology to allocate indirect costs.
 10. Hydro Ottawa's proposed pole attachment rates will produce revenues far in excess of costs.
117. With the revisions discussed in this report, it is recommended that the Board set Hydro Ottawa pole attachment rates at \$17.1885.

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APPENDIX 1

Proportional Allocation

Communications Attachers: 2.0

	Total Space	Power	Communications
Buried depth	6.00	4.12	1.88
Clearance	17.25	11.84	5.41
Communications space	2.00	0.00	2.00
Separation space	3.25	0.00	3.25
Power space	11.50	11.50	0.00
Total Allocated Space	40.00	27.46	12.54
Relative space		69%	31%
Communications Allocation factor			15.7%

Equal Allocation

Communications Attachers: 2.0

	Total Space	Power	Communications
Buried depth	6.00	2.00	4.00
Clearance	17.25	5.75	11.50
Communications space	2.00	0.00	2.00
Separation space	3.25	1.08	<u>2.173.25</u>
Power space	11.50	11.50	0.00
Total Allocated Space	40.00	<u>20.337</u>	<u>20.7519.67</u>
Relative space		<u>50.81%</u>	<u>49.2%</u>
Communications Allocation factor			24.6%

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Proportional Allocation

Communications Attachers: 2.5

	Total Space	Power	Communications
Buried depth	6.00	4.12	1.88
Clearance	17.25	11.84	5.41
Communications space	2.00	0.00	2.00
Separation space	3.25	0.00	3.25
Power space	11.50	11.50	0.00
Total Allocated Space	40.00	27.46	12.54
Relative space		69%	31%
Communications Allocation factor			12.5%

Equal Allocation

Communications Attachers: 2.5

	Total Space	Power	Communications
Buried depth	6.00	1.71	4.29
Clearance	17.25	4.93	12.32
Communications space	2.00	0.00	2.00
Separation space	3.25	0.93	2.32
Power space	11.50	11.50	0.00
Total Allocated Space	40.00	19.07	20.93
Relative space		48.47%	52.3%
Communications Allocation factor			20.9%

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Proportional Allocation

Communications Attachers: 3.0

	Total Space	Power	Communications
Buried depth	6.00	4.12	1.88
Clearance	17.25	11.84	5.41
Communications space	2.00	0.00	2.00
Separation space	3.25	0.00	3.25
Power space	11.50	11.50	0.00
Total Allocated Space	40.00	27.46	12.54
Relative space		69%	31%
Communications Allocation factor			10.4%

Equal Allocation

Communications Attachers: 3.0

	Total Space	Power	Communications
Buried depth	6.00	1.50	4.50
Clearance	17.25	4.31	12.94
Communications space	2.00	0.00	2.00
Separation space	3.25	0.81	2.44
Power space	11.50	11.50	0.00
Total Allocated Space	40.00	18.13	21.88
Relative space		45.3%	54.75%
Communications Allocation factor			18.2%

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