Ontario Energy Board

EB-2015-0304

Report of the Ontario Energy Board

Wireline Pole Attachment Charges

March 22, 2018

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EXECUTIVE SUMMARY

Pole attachment charges are what electricity distributors charge third parties, such as telecommunications and cable companies, for access to their network of electricity poles. These charges generate revenues for distributors that result in lower electricity distribution rates for electricity distribution customers. Without these revenues, the full cost of the poles would be embedded in electricity distribution rates, and electricity distribution customers would in effect be providing a subsidy to third party attachers.

The current province-wide pole attachment charge of $22.35 has not changed since 2005 and was based largely on data from 1991 to 1999. In three recent applications for a distributor-specific custom charge, the Ontario Energy Board (OEB) approved charges of $42.00 for Toronto Hydro, $53.00 for Hydro Ottawa, and $41.28 for Hydro One. Collectively, these local distribution companies (LDCs) own roughly 90% of the electricity poles in Ontario.

The balance of the LDCs in the province have continued to charge $22.35.[1] While distribution charges have risen since 2005, the pole attachment charge has remained the same. It became clear from the recent applications for LDC-specific pole attachment charges that the costs underpinning the $22.35 charge have changed. It also became clear that there are now fewer attachers using LDC poles than were assumed when the $22.35 charge was approved. Fewer attachers mean there are fewer parties to share the costs of the pole, and therefore that the current charge is too low to allow the LDC to recover its costs of allowing access to the pole.

In the fall of 2015, the OEB embarked on a policy review of pole attachment charges.[2] The OEB retained an expert consultant, NGL Nordicity Group Limited (Nordicity), to assist with the review. The OEB convened a Pole Attachment Working Group (PAWG)

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[1] On March 8, 2018, after the draft report had been issued for comment, the OEB approved a settlement in the InnPower Corporation rate application, in which the parties agreed to a pole attachment charge of $38.82 (EB-2016-0085).

[2] The OEB's letter announcing the policy review can be found on its website. The letter explained that pole attachment charges would be dealt with as one phase of a broader review of "miscellaneous rates and charges applied by electricity distributors for specific activities or services they provide to their customers." The focus of this Report is on the pole attachment charge.

comprising representatives of distributors, cable and telecommunications providers (carriers), and ratepayers. A complete list of the PAWG members can be found in Appendix A.

A Draft Report of the Board was issued for comment on December 18, 2017. In response, 33 letters of comment were received from interested stakeholders including distributors, carriers, and ratepayer groups.

This final report is the culmination of the efforts of the OEB, the OEB's expert consultant, stakeholders, and the members of the PAWG over the last two years. As a result of this review, the OEB has confirmed that the current province-wide wireline pole attachment charge of $22.35 (per attacher per year per pole) is too low.

The OEB has determined that it is in the public interest to raise the pole attachment charge to $43.63. This new charge was calculated based on updated data (2010 to 2015), including pole costs, and using an updated methodology. The $43.63 pole attachment charge is lower than the $52 pole attachment charge recommended in the OEB's draft report, which was issued for comment in December 2017. After considering the comments of stakeholders, the OEB decided to remove vegetation management costs from the charge at this time, thus lowering the pole attachment charge.

The draft report proposed an implementation date of the first of the month following the issuance of the final report for the new generic charge to take effect. To mitigate the impact for carriers – many of which, particularly smaller, rural carriers, have said that pole attachment charges are a significant expense and a potential barrier to expansion – the OEB will phase in the new charge. As a transitional measure, from September 1, 2018 to December 31, 2018, the pole attachment charge will be $28.09, which represents the escalation of the 2005 charge by inflation. The $43.63 will take effect on January 1, 2019. There will be no inflationary increase for 2019.

Consistent with the implementation process for the 2005 pole attachment charge, the new charge is being updated by the OEB pursuant to each distributor's distribution licence. The charge will apply to all LDCs that do not have an OEB-approved LDC-specific charge in place.

To ensure the pole attachment charge remains appropriate over time and does not shift costs to ratepayers, the charge will be adjusted annually on January 1st of each year, commencing January 1, 2020, based on the OEB's inflation factor.

A core part of the OEB's mandate is to protect electricity ratepayers. That said, the OEB acknowledges the effect that any increase in the pole attachment charge may have on smaller carriers and their plans to expand network coverage. In updating the pole

attachment charge, the OEB considered the views of electricity ratepayers and commercial entities that benefit from the infrastructure paid for by electricity ratepayers in Ontario. In the OEB's view, this is a reasonable increase given the rate freeze benefit that carriers have received over the last 13 years despite an escalation of distribution costs.

The OEB's determinations on each issue in this Report are based on a substantive review of the information available to it as part of this consultation and the advice of its expert consultant. The OEB also considered how best to pace its review and impact on the overall charge. Elements of the underlying methodology, as well as certain costs, were updated in favour of electricity ratepayers, while other elements were updated in favour of carriers.

The OEB intends to conduct a follow-up policy consultation at a time to be determined. This review will strive to better understand the value to third-party attachers of having access to Ontario's vast network of more than 200,000 km of low voltage distribution lines (for example, in terms of servicing their existing customers and providing new customer offerings such as broadband in rural areas). The review will also explore any additional components of costs and refinements to the methodology that ought to be considered based on new data that will be available as a result of data collection requirements established in this Report. As part of this next review, the OEB will consider moving from a cost-based approach for establishing the pole attachment charge to a value-based approach, which is more reflective of a competitive market and the OEB's approach to wireless attachments.

1. INTRODUCTION

A. Historical Context

Historically, members of the Canadian Cable Television Association (CCTA) rented space on electricity utilities' poles at negotiated rates under a private contract. After the expiry of the contract in 1996, the carriers and LDCs failed to renew or reach further agreement with respect to pole attachment rates. The CCTA applied in 1997 to the Canadian Radio-television and Telecommunications Commission (CRTC) to set a pole attachment rate. After a lengthy hearing, the CRTC established a rate of $15.89.[3] That decision was appealed by LDCs, who argued that the CRTC did not have statutory authority to regulate access by carriers to power poles. Ultimately, the Supreme Court of Canada agreed.[4] The CCTA then filed an application with the OEB to set a pole attachment rate. In a decision issued on March 7, 2005 (the 2005 Decision),[5] the OEB amended all LDC licences to require LDCs to, as a condition of their licence, provide access to their power poles to carriers. The OEB also approved a provincial pole attachment charge of $22.35 per attacher per pole per year, while allowing LDCs to apply for a variance of the provincial charge if appropriate: "any LDC that believes that the province-wide rate is not appropriate can bring an application to have the rates modified based on its own costing."[6]

The province-wide 2005 rate has remained in effect across Ontario and was applied by all rate-regulated distributors until the following three recent pole attachment decisions (collectively referred to as the Three Applications):

a) In EB-2014-0116, the OEB approved a settlement agreement whereby Toronto Hydro Electric System Limited's (Toronto Hydro) annual pole attachment charge was increased to $42 per attacher.

[3] Telecom Decision CRTC 99-13, September 28, 1999.

[4] Barrie Public Utilities v. Canadian Cable Television Association, 2003 SCC 28.

[5] RP-2003-0249, Decision and Order, March 7, 2005.

[6] RP-2003-0249, Decision and Order, March 7, 2005, p. 8.

b) In EB-2015-0004, the OEB approved an increase to Hydro Ottawa Limited's (Hydro Ottawa) pole attachment charge to $53.00 per attacher. The OEB's decision was appealed by carriers but upheld by the Divisional Court.[7]

c) In EB-2015-0141, the OEB approved an increase to Hydro One Networks Inc.'s (Hydro One) pole attachment charge to $41.28 per attacher. The OEB's decision was appealed by carriers but upheld by the Divisional Court.[8]

Currently, outside the service territories of the three distributors, the rate of $22.35 per attacher remains in effect.[9]

In a proceeding brought in 2011 by the Canadian Distributed Antenna Systems Coalition, the OEB confirmed that the 2005 Decision (and therefore the $22.35 rate) applied to both wireline and wireless telecommunications attachments by carriers.[10] However, in a 2014 decision, the OEB approved a request by Toronto Hydro to limit the $22.35 rate to wireline attachments, and to leave the rate for wireless attachments to the market.[11] Following the Toronto Hydro decision, the OEB held a consultation to consider whether to adopt that approach on a province-wide basis. The OEB concluded that it was in the public interest to do so, and thus amended the licences of all rate-regulated LDCs to allow them to charge market rates for wireless pole attachments.[12] The result is that today, only wireline attachments are subject to a regulated charge rather than a competitive market rate.

The current province-wide pole attachment charge of $22.35 has not changed since 2005. It was based largely on data from 1991 to 1999. Thus the charge reflects costing inputs and other assumptions that are nearly 20 years old. In the Three Applications for a custom charge based on LDC-specific data, it became clear that the $22.35 charge is

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[7] Rogers Communications Partnership v. Ontario Energy Board, 2016 ONSC 7810 (leave to appeal to Ontario Court of Appeal denied March 17, 2017).

[8] Rogers Communications Canada Inc. v. The Ontario Energy Board, 2017 ONSC 3959 (leave to appeal to Ontario Court of Appeal denied October 27, 2017).

[9] As noted above, on March 8, 2018, after the draft report had been issued for comment, the OEB approved a settlement in the InnPower Corporation rate application, in which the parties agreed to a pole attachment charge of $38.82 (EB-2016-0085).

[10] EB-2011-0120, Decision on Preliminary Issue and Order, September 13, 2012.

[11] EB-2013-0234, Decision and Order, June 5, 2014.

[12] EB-2016-0015, Decision and Order, January 28, 2016.

no longer reflective of the costs associated with installing and maintaining joint use poles: it is too low. Revenues from pole attachment charges offset some costs of maintaining and operating the distribution network. If the costs and benefits of using LDC assets are not appropriately allocated to carriers, ratepayers are at risk of subsidizing these costs.

In addition to refreshing the data, this review is an opportunity to revisit the methodology adopted in 2005 to ensure that it continues to be appropriate.

In the 2005 Decision, the OEB noted that "it is a well established principle of regulatory law that where a party controls essential facilities, it is important that non-discriminatory access be granted to other parties," and added that "duplication of poles is neither viable nor in the public interest."[13] The principle of non-discriminatory access to third party attachers continues to inform the OEB's approach. However, non-discriminatory access does not mean that electricity ratepayers should cross-subsidize the commercial entities that make use of LDC infrastructure. The OEB has sought an appropriate balance in considering the submissions of ratepayers and third-party attachers who obtain a commercial benefit from attaching to electricity poles. In the case of wireless attachments, this meant leaving the attachment charge to the market. In developing this new framework for wireline attachments, the OEB has sought to ensure the regulated charge reflects an equitable approach to cost allocation.

B. Scope of the Review

The key objectives of the pole attachment review are to:

a) Assess the appropriateness of the 2005 cost methodology for setting wireline rates for pole attachments in the province of Ontario

b) Determine the appropriate treatment and allocation of other costs

c) Determine how to treat and allocate any revenues that wireline telecommunication providers may receive from third parties with respect to wireline pole attachments

The review is limited to wireline attachments by carriers and does not apply to wireless attachments or non-carrier attachments.

[13] RP-2003-0249, Decision and Order, March 7, 2005, p. 3.

Wireless attachments will continue to be subject to market-based pricing in accordance with the OEB's decision in EB-2016-0015.

The review of the pole attachment charge is the first phase of the OEB's broader review of generic miscellaneous service charges that includes many other charges that have also not been updated for some time.

C. The Consultation Process

The PAWG was formed at the outset of the OEB's review, to provide advice on establishing a new policy for wireline attachments. Specifically, the PAWG was established to provide guidance on matters such as costing data and the methodology used for determining charges, including the appropriate treatment of any revenues that carriers may receive from third parties.

Nordicity was retained to provide expert input and analysis of the key issues for discussion and feedback from working group members. In addition, Nordicity was tasked with producing an expert report that would summarize the current pole attachment landscape within the province of Ontario by analyzing relevant regulatory decisions, pole attachment data, and findings from working group meetings. The report was to recommend an appropriate framework methodology for setting wireline pole attachment charges. Nordicity's report, entitled the "OEB Wireline Pole Attachment Rates and Policy Framework", was released in conjunction with the draft OEB Report on December 18, 2017.

The PAWG met four times between May 20, 2016 and January 31, 2017. Meetings consisted of Nordicity and OEB staff presentations; group comments/discussions; and breakout sessions related to technical, data, financial and policy matters impacting pole attachment charges. Minutes of each meeting were recorded and circulated amongst members for review. The minutes, along with the presentations, are posted on the OEB's website in the consultation page.

In response to the discussions and comments from the members of the PAWG at the first two meetings, participating LDCs were requested to provide accounting data and information related to pole attachment costs. Five LDCs provided data: Hydro One, Toronto Hydro, Hydro Ottawa, London Hydro, and Horizon Utilities (now part of Alectra). In addition, this data was supplemented with data collected under the OEB's *Electricity Reporting and Record Keeping Requirements* (RRR) and the data submitted as part of the Three Applications. This set of data and information represents more than 90% of

the pole population in the province and was considered by Nordicity to be one of the most comprehensive pole attachment data sets ever collected.[14]

During the consultation meetings, a number of key issues related to the pole attachment charge were identified. For each issue, a description and question was prepared and PAWG members were requested to provide collaborative responses on each issue. After the last PAWG meeting, participants were asked to provide brief written comments summarizing their positions on certain key methodological issues. A copy of those comments can be found in the policy consultation page on the OEB's website.

All of these comments, as well as the comments received on the draft report, were thoroughly considered by the OEB in shaping this final policy.

D. Organization of this Report

This report is organized as follows:

- **Chapter 2** provides a high-level summary of the Nordicity expert report.
- **Chapter 3** reviews the key issues that directly impact pole attachment charges that were identified and discussed during the PAWG meetings and provides the OEB's approach to each issue, taking into account the stakeholder comments on the draft report.
- **Chapter 4** sets out the next steps for implementing the conclusions reached by the OEB in this Report.
- **The Appendices** provide a list of the PAWG members and the calculation of the new pole attachment charge.

[14] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 3.

2. SUMMARY OF THE NORDICITY EXPERT REPORT

The following is a high-level summary of the Nordicity expert report. Interested parties should refer to the Nordicity report for a full in-depth discussion of all the issues, findings, conclusions and recommendations.

A. Pole Structure and Space Allocation

The Nordicity report addresses the technical and policy issues associated with determining the charges for pole attachments by carriers to the wireline poles owned and operated by LDCs in Ontario. A pole attachment means any third party attachment to an LDC distribution pole. The Figures below depict two utility distribution poles for visualization purposes only, one with and one without carrier attachers.

Figure 1 a): A Joint-Use Utility Pole

(Without Carrier Attachments)

Figure 1 b): A Joint-Use Utility Pole

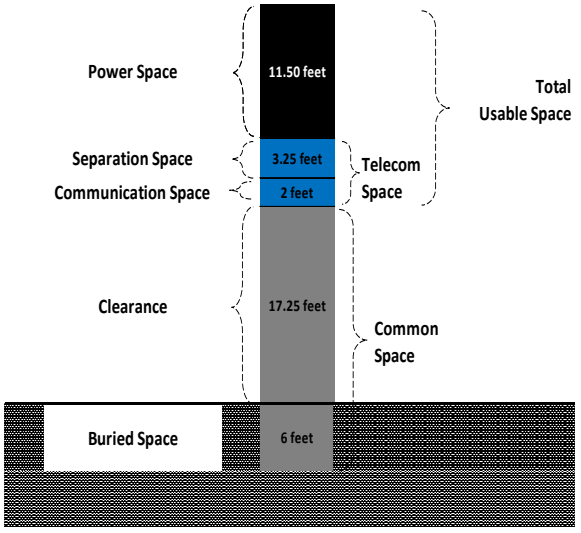
(With Carrier Attachments)

A utility pole that is used by two or more attachers is referred to as a joint-use pole. A typical joint-use pole supports three types of attachers: electric power, cable television, and telephone. Some joint-use poles also support other attachers, such as municipal street lights and traffic signals.

The pole space allocated to carriers is referred to as communication space. In order for the utility (the power attacher) and carriers (the communications attachers) to share the space on the pole safely, a joint-use pole is required to meet the requirements of Ontario Regulation 22/04 (Electrical Distribution Safety). This includes provision for separation space between the communication attachers and power attacher.

The existence of joint-use poles infrastructure has been led by broad socio-economic policy objectives, such as the avoidance of duplicative poles infrastructure to preserve the physical appearance and aesthetic value of communities, and the reduction of the cost of serving consumers of both types of attachers. This results in LDCs being obligated through their distribution licences to provide access to carrier attachers. The public interest requires that pole attachment charges reflect a reasonable allocation of the costs and benefits associated with joint use.

The OEB 2005 Decision was based on pole specifications proposed by the CCTA, as depicted in Figure 2 below:



	Feet
Power Space	**11.50**
Separation Space	3.25
Communication Space	2.00
Telecom Space	**5.25**
Total Usable Space	**16.75**
Clearance Space	17.25
Buried Space	6.00
Total Common Space	**23.25**
Total	**40.00**

Figure 2: Pole Specification used in 2005 Decision

Nordicity found that other Canadian jurisdictions have also used an overall 40 foot pole height in their determinations, with some minor variation in the amount of space

attributed to the different areas. During the consultation process, it was confirmed that a 40-foot pole, as shown in Figure 2 above, is fairly representative of a standard pole in Ontario for rate making purposes.

B. Costing Approach

The first issue to be determined is the appropriate costing approach to be used in setting the charge.

The costs associated with installing and maintaining a utility distribution pole are made up of direct and indirect costs. Direct costs are costs directly attributed (causal) to the attacher. Conversely, indirect costs are costs that are shared between attachers in accordance with a specific allocation methodology. Indirect costs account for more than 90% of the total annual cost related to pole infrastructure. For this reason, estimating indirect costs and then allocating them to a telecommunication attacher has a major impact on the establishment of a pole attachment rate.

There are three main costing approaches that can be used for determining the cost base for a pole attachment rate calculation:

1) Historical Cost
2) Forward-looking/Replacement Cost
3) Standard Cost (Benchmarking)

Each approach has its merits for determining a particular cost input.

Nordicity's report uses all three approaches for different cost inputs, however, the bulk of Nordicity's analysis relies on the historical data collected from the participating PAWG LDCs.[15] Although this is consistent with the 2005 decision, Nordicity points out that the use of historical costs underestimates rates because it does not capture inflationary factors and major pole replacement programs for aging pole infrastructure. Nordicity's report provides a more detailed explanation of each costing approach.

[15] Horizon Utilities Corporation (now part of Alectra Utilities Corporation), Hydro One, Hydro Ottawa, Toronto Hydro and London Hydro Inc.

C. Rate Methodology

The next issue to be determined in setting the pole attachment charge is whether the rate should be based on the number of attachers rather than the number of attachments, and whether presumptive or actual data should be used. The current charge of $22.35 is based on a presumptive number of attachers.

Nordicity concluded, based on the PAWG LDC data collected, that LDCs do not have the "capability to track and provide the number of attachment count on their poles."[16] Absent an accurate count of the number of attachments, Nordicity determined that the number of attachers, which is commonly used in the determination of pole attachment charges, should be utilized.

There are two approaches that have been used to determine the number of attachers. The first approach is based on an assumed number in the absence of information required to determine the actual number of attachers (the presumptive approach). The second approach is based on the actual number of attachers. In its 2005 Decision, the OEB used the presumptive approach and assumed the average number of telecommunication attachers to be 2.5 rather than the 2 which was assumed in the previous CRTC decision. In the Hydro Ottawa and Hydro One cases, the OEB relied on the actual number of attachers as submitted by the LDCs in their rate applications.

In its report, Nordicity concludes that it is more appropriate to use an average of the actual number of attachers if the calculation utilizes reliable and verifiable data that is representative of the pole population in the province.

Following the first PAWG meeting on May 20, 2016, participating PAWG LDCs were requested to provide attacher data. Based on the data submitted by London Hydro, Hydro Ottawa, Horizon and Hydro One, the overall average number of attachers per joint-use pole is determined to be 1.3 for the communication space. These LDCs represent nearly 90% of the proportion of the pole population in the province.[17]

D. Average Annual Cost per Pole

Another issue to be determined in setting the pole attachment charge is the average annual cost per pole.

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[16] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 44.

[17] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 34.

Average Annual Direct Cost per Pole

- **Administration Costs:** In the 2005 Decision, two costs incurred by the LDCs were identified as being directly attributable to communication space attachers. These are Administration (ADM) costs and Loss of Productivity (LOP) costs. ADM costs are defined as net incremental costs incurred by LDCs for the placement of the telecommunication companies' facilities on LDC poles.[18] In the first data request, LDCs were asked to provide annual ADM costs attributable to telecommunication attachers for the years 2005-2015. Only Toronto Hydro responded to this request and it provided costs for only four years (2012-2015). Nordicity observed that Toronto Hydro's ADM costs per pole increased by 47% over the four years, from $6.19 in 2012 to $9.10 in 2015. In Nordicity's view, this significant increase in the ADM costs of Toronto Hydro implies either a major year-to-year change in their cost structure or an inconsistent accounting practice. On this basis, Nordicity stated that it is not reasonable to rely solely on Toronto Hydro's ADM costs for the updated rate model.

- In the absence of detailed cost data, Nordicity proposes that ADM costs should be estimated using the median of the available minimum and maximum amounts, adjusted for inflation to 2015 prices. For this purpose, they considered the minimum as $0.69, from the 2005 Decision, and the maximum to be $6.19, which is the 2012 Toronto Hydro value, as stated above. Nordicity used a historical summary of Statistics Canada's Consumer Price Index for 1996-2015 to escalate the costs to 2015 dollars. On this basis, the ADM costs are estimated to be $3.63 per pole, which is comparable to the ADM costs found in previous Canadian regulatory decisions as illustrated in Table 29 of Nordicity's report.

- **LOP Costs:** LOP costs refer to the incremental costs resulting from the power utility crews having to work around the third party attachers' facilities.[19] The OEB and the CRTC included LOP costs as a direct cost in their respective decisions. However, the New Brunswick Energy and Utilities Board (NBEUB) included LOP costs as common (indirect) costs in its 2015 decision.[20]

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[18] CRTC Telecom Decision 99-13, September 28, 1999.

[19] CRTC Telecom Decision 99-13, September 28, 1999, para. 188.

[20] 2015 NBEUB (matter # 272).

At the fourth PAWG meeting, LDC representatives indicated that they do not separately track and maintain records of LOP costs. This means that LOP costs are subject to variation from LDC to LDC depending on the accounting and business processes, and lacks verifiability. Nordicity believes that LOP costs (e.g. extra hours worked by LDC technicians) are implicitly captured in the tracked maintenance (account #5120), and repair and right of way (account #5135)[21] costs in accordance with the OEB's 2012 Accounting Procedures Handbook.

- Nordicity believes inclusion of maintenance and repair costs for poles in the pole attachment calculation would also capture the costs associated with the LOP. Therefore, Nordicity believes that if LOP is included in the rate as a separate line item, there are reasonable chances of duplication. Nordicity has not included a LOP value in its final rate projection. To avoid double counting, Nordicity concludes LDCs should be required to create sub-accounts and separately track the costs associated with LOP.[22]

Average Annual Common (Indirect) Cost per Pole

As illustrated in Figure 2, a pole is comprised of three main sections – common space, communication space and power space. Power and communication space are referred to as the useable space on the pole. The two primary costs associated with these sections include the capital cost[23] and expenses for the ongoing maintenance and repair of the poles.

LDCs track these costs in the following three Uniform System of Accounts (USoA), in accordance with the OEB's 2012 Accounting Procedures Handbook as well:

1) Account #1830 – Poles, Towers, and Fixtures (Capital Cost)
2) Account #5120: Maintenance of Poles, Towers and Fixtures
3) Account #5135: Overhead Distribution Lines and Feeders – Right of Way

[21] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 59, 61.

[22] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 62.

[23] Capital costs include the capitalized cost of a pole, including the installation cost of the pole, replacements, capitalized upgrades and repairs.

As indicated above, LDCs do not maintain sub-accounts that allow for separate tracking of attachment-related pole costs. In order to attribute relevant costs to carriers, power fixture related costs need to be removed from all three accounts. Participating PAWG LDCs were requested to provide an estimated distribution of costs between power fixture-related costs and attachment-related costs within these accounts. Based on the data provided by the participating LDCs, Nordicity updated the annual common cost per pole, as described below.

Account #1830 Costs

Participating LDCs provided a breakdown of account #1830 into poles, power fixtures, and other capital costs from 2005 to 2015.

Since not all LDCs currently maintain sub-accounts to track costs that are directly related to third party attachments, a percentage adjustment factor was used to remove power-related costs. An estimated adjustment factor of 14.7% was utilized by Nordicity to remove power-related costs from the capital cost base. The 14.7% adjustment factor was based on the data submitted by participating PAWG LDCs. Nordicity asserted that this approach is supported by various regulatory precedents in the USA (e.g. Federal Communications Commission) and Canada (e.g. NBEUB).

Based on this data and the adjustment factor, Nordicity calculated the average embedded cost per pole between 2005 to 2015 to be $1,280.28, which represents 85.3% of account #1830.

The net embedded cost of the pole is needed to determine the carrying cost of the net investment in poles. Once again, based on the data provided by the participating PAWG LDCs, Nordicity calculated the net embedded cost over the ten year period to be $793.20.[24]

The model used in the 2005 Decision by the OEB is based on straight line depreciation for a useful life of 25 years. Based on the data submitted by the participating PAWG LDCs, it was determined that three LDCs had changed their respective useful lives during the 10 year period and thus their depreciation rate. At the second PAWG meeting, it was agreed that a useful life of 40 years should be used. This results in a straight line depreciation rate of 2.5% and an annual average depreciation expense of $32.00.

[24] Net embedded cost of the pole refers to the gross book value of distribution poles in account #1830 less accumulated depreciation of poles.

The carrying cost is a major component of the average annual common cost per pole and it represents the financing cost of the investment. Four of the five participating PAWG LDCs (Toronto Hydro, Hydro Ottawa, Hydro One, and Horizon) provided their year-to-year cost of capital rates. Based on this data, Nordicity calculated the cost of capital over the study period to be 7.24%, based on a simple average, and 8.17%, based on a weighted average. Nordicity recommended and used the weighted average to calculate the pre-tax, annual capital carrying cost per pole to be $64.80.

Account #5120 Costs

Two PAWG LDCs (Hydro One and Hydro Ottawa) submitted maintenance costs for the three sub-components (poles, power fixtures and other). The distribution of maintenance costs for Hydro One and Hydro Ottawa for poles was applied against the data for the other three participating PAWG LDCs to calculate an average maintenance cost per pole of $6.41. It should be noted that the range in the allocation of maintenance costs between power and third party attachers between Hydro One's data (5% allocation to carriers) and Hydro Ottawa's data (92% allocation to carriers) is significant and thus Nordicity assumed an average of the two at 48.5% for the calculation.

Account #5135 Costs

Two participating PAWG LDCs (Hydro One and Hydro Ottawa) provided cost data related to account #5135. PAWG LDCs were requested to provide the number of orders or jobs completed each year. This order volume information would have enabled further understanding of the year-to-year trends of key cost elements: labour, material, truck, and other, and to develop reasonable cost estimates for poles and telecommunication wires. However, order volume data was not submitted by the LDCs. Hydro One and Hydro Ottawa instead provided the following data:

- Hydro One: Average cost per pole of $54.11 including Labour (81.4%), Material (1.2%), Truck (15.2%), and Other (2.1%)
- Hydro Ottawa: Average Cost per pole of $62.64 including Labour (85%), and Truck (15%)

Without a detailed field study and examination of related operational data (truck roll/field dispatch orders), Nordicity concluded that it is not possible to clearly ascertain the cost attributable to poles and telecommunication wires in LDCs' account #5135. However, Nordicity assumed the same cost ratio used in account #5120 of 6.8% and applied this ratio against the data to derive a cost for account #5135 of $4.83.

Based on the above calculations, Nordicity determined that the total maintenance cost, including repair and right of way, attributable to poles is $11.24 (Account #5120 costs + Account #5135 costs).

Annual Common Cost (Indirect) Cost per Pole

Nordicity uses the cost inputs discussed above to calculate an updated annual common cost per pole of $108.06, as compared to $93.31 in the 2005 Decision. Table 1 below, duplicated from Nordicity's report, provides a comparative summary of the updated total annual average common cost for each input along with the costs in the 2005 Decision for comparative purposes. The details behind the calculations, including the assumptions, are provided in Nordicity's report.

Cost Components per Pole			2005 OEB	2017 NGL
Direct Cost	Administration Cost		$ 0.69	$ 2.85
	Loss in Productivity		$ 1.23	n/a
	Total Direct Cost		$ 1.92	$ 2.85
Indirect Direct (Common) Cost	Net Embedded Cost per pole	A	$ 478.00	$ 793.20
	Capital Carrying Cost Rate %	B	11.42%	8.17%
	Depreciation Expense	C	$ 31.11	$ 32.01
	Pole Maintenance Expense	D	$ 7.61	$ 11.24
	Capital Carrying Cost	E = A x B	$ 54.59	$ 64.81
	Utility Tax Cost	F	-	-
	Loss in Productivity	G	incl. above	incl. above
	Total Indirect (Common) Cost	K=C+D+E+F+G	$ 93.31	$ 108.06
Capital Cost Base	Embedded Cost per pole		$ 777.75	$ 1,280.28
	Accumulated Depreciation		$ 299.75	$ 487.08
	Percent Accumulated Depreciation		38.54%	38.05%

Table 1: Updated Annual Average Common Cost per Pole

E. Pole Attachment Rate Model and Projected Rate per Telecom Attacher

Nordicity's pole attachment rate model comprises three key elements as follows:

a) annual cost per pole

b) ratio to allocate common (indirect) costs to the two types of attachers (power, and telecom)

c) average number of attachers

As discussed in the Nordicity report, there are several methodologies for allocating the common costs between the different attachers, and two in particular that have been identified by Nordicity as being currently used by utilities: Proportional Use and Equal Sharing. A third methodology was identified and recommended by Nordicity, which is a hybrid between proportional use and equal sharing – called the Hybrid Equal Sharing Approach.

The 2005 Decision used the equal sharing approach to allocate common costs, based on a presumptive number of attachers of 3.5, which included 1 power and 2.5 third party attachers.

Based on the attacher data provided by participating PAWG LDCs in this consultation process (excluding Toronto Hydro and CHEC member LDCs who did not provide the applicable data[25]), the actual number of third party attachers was calculated to be 1.3 – which is much less than the presumptive number of 2.5. Using the same allocation of costs as the 2005 Decision with the number of 1.3 actual attachers, the revised allocation ratio to attribute common (indirect) costs to telecommunication attachers would be 35.37%. Similarly, the hybrid approach would result in an allocation rate of 32.45%.

Applying the allocation rate and actual number of attachers to the updated Annual Average Common Cost shown in Table 1, Nordicity calculated the updated attachment rates per telecommunication attacher to be $42.19 for equal sharing and $38.70 for the hybrid approach as shown in Table 2 below with no adjustment for inflation taken into account between 2015 and 2018.

[25] The OEB reviewed the data from Toronto Hydro's filing in EB-2014-0116 and determined it would not have made a material impact to the attacher number calculated by Nordicity.

Item	Explanation	2005 OEB Approach (Equal Sharing)	Hybrid Approach (Equal Sharing-Proportional)
Total Annual Common (Indirect) Cost	A	$ 108.06	$ 108.06
Equal Sharing Allocation Ratio per telecommunication attacher	B	35.368%	32.4519%
Annual Common (Indirect) cost per telecom attacher	C = A x B	$ 38.56	$ 35.07
Direct Annual Cost per telecom attacher	D	$ 3.63	$ 3.63
Annual Attachment rate per telecom attacher	**E = C + D**	**$42.19**	**$38.70**
Note: the above rates per attacher exclude loss of productivity, to avoid double counting and inherently include vegetation management.			

Table 2: Updated Pole Attachment Rate per Telecommunication Attacher

F. Nordicity Conclusions and Recommendations

Using the OEB's current (2005) equal sharing methodology to allocate indirect costs, Nordicity calculated the pole attachment rate to be $42.19 per attacher. Simply adjusting for inflation to 2015 and reflecting the actual number of attachers (rather than utilizing a presumptive number) would have resulted in a projected rate of $41.20. The difference between the current rate of $22.35 and Nordicity's proposed rate of $42.19 is a result of:

- Inflationary increases in the cost per pole, including (a) a 15.8% increase in the indirect cost per pole from $93.31 in 2005 to $108.06 in 2015, and (b) an increase in the direct (administration) costs from $0.69 in 2005 to $3.63 in 2015.
- A decrease in the average number of telecommunication attachers per pole from 2.5 in 2005 to the current average of 1.3.

Using Nordicity's proposed hybrid equal sharing approach, Nordicity projects an updated pole attachment rate of $38.70 per attacher which represents an increase of 73.2% from the $22.35 attacher rate determined in the 2005 Decision.

Both the $42.19 and $38.70 rates are based on Nordicity's proposed Pole Attachment Rate Framework with no adjustment for inflation between 2015 and 2018.

As part of establishing a pole attachment rate, consideration needs to be given to whether there should be a single pole attachment rate for the entire province or if it should vary according to geographic location. Based on the data submitted by participating PAWG LDCs, Nordicity stated that it was not possible to accurately determine the cost-per-pole according to different geographic locations, such as rural

versus urban, without making assumptions about the data, or identifying cost differences. The examination of data submitted by LDCs did not reveal major systemic cost differences. On this basis, a single province-wide rate is recommended by Nordicity. Consistent with the process currently in place, Nordicity recommends that LDCs should be able to apply to the OEB to vary the rate if they believe that the provincial rate does not represent their cost structure, which they would demonstrate through submission of a detailed cost study.

Nordicity believes that an effective framework is required to implement updates to the rate on a going-forward basis. As noted in their report, a factor that can cause major year-to-year fluctuations in the rate is the number of pole replacements vis-à-vis the declining net book value (net embedded cost) balance due to depreciation expense. Other factors include inflation, higher cost due to increases in the labour rate and productivity improvements resulting from operational efficiencies. Nordicity believes these factors can be accounted for if the rate model and input data is periodically updated (every three to five years), using LDCs' annual USoA general submission data to the OEB along with attacher data as described above.

As described above, indirect costs were calculated using pertinent LDC account data for capital costs and maintenance and repair expenses, annually submitted by LDCs to the OEB, for the period 2005-2015. The main issue with this approach is that the accounts also include costs strictly associated with the power assets installed on the poles. Although an adjustment factor was utilized to remove power-related costs from the calculations, Nordicity believes that costing information would be improved if all LDCs maintained sub-accounts for the main categories of the various pole-related cost elements. The adjustment factor utilized can have a significant impact on the overall pole attachment rate and thus can be the subject of major disagreement between LDCs and third party attachers. To avoid this situation in the future, Nordicity recommends that LDCs be required to set up appropriate sub-accounts and to submit details regarding the accounts as part of their annual general data filing to the OEB. The implementation of sub-accounts would allow the cost inputs to be updated automatically and efficiently, helping to accurately project pole attachment rates going forward either through a generic provincial rate or through LDC-specific rates.

To ensure transparency and reliability of the pole attachment rate, Nordicity also recommends that LDCs be required to enhance the attacher tracking system – linked to the invoicing system – so that they can not only track the number of attachers, but also the number of attachments in the future. Nordicity recommends including the number of attachments in LDCs' annual general data submission to the OEB.

Finally, in its report, Nordicity provided comments on the reasons why certain elements that underpin pole attachment charges differ across jurisdictions in Canada. They state that the dollar value of the cost estimates typically varies across different jurisdictions for common reasons such as:

- Differences in embedded (historical) cost per pole due to the relative age-mix and installation cost of poles in each jurisdiction;
- Differences in annual depreciation rate due to different average useful life assumed in the rate calculation; and,
- Differences in capital carrying cost due to different cost of capital rates (weighted average cost of capital) applicable to a specific utility or a province.[26]

[26] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 17.

3. OVERVIEW OF KEY POLICY ISSUES

This chapter is divided into sections that address the following key issues identified during the policy consultation meetings and set out in the Nordicity Report:

- Number of Attachers
- Allocation Methodology – "Principles for Allocating Common Costs"
- LDC-Specific or Province-Wide Rate
- Inflationary Adjustments
- LDC Collection of Cost Data
- Separation Space
- Allocation of Vegetation Management Costs
- Allocation of Neutral Power Wire Costs
- Overlashing Revenues
- Bell Canada Agreement with LDCs

All comments from PAWG members on the key issues discussed during the consultation and comments from all stakeholders on the draft report can be found on the policy consultation page on the OEB's website.[27] Nordicity's views and the views of the various parties, including recent stakeholder comments on the draft report, are discussed for each issue, and then the OEB's final approach is explained.

Aside from certain key issues discussed below, the OEB agrees with much of what is proposed in the Nordicity report as summarized in Chapter 2.

The principle differences between the OEB's proposed policy approach and that outlined in the methodology proposed in the Nordicity report are:

- The OEB has used six years of historical cost data provided by the participating LDCs as opposed to the 10 years of data used by Nordicity. The OEB considers the six most recent years of data (2010 to 2015) to be more reflective of current LDC pole costs.

[27] PAWG comments found on the OEB website.

- Nordicity's models included vegetation management costs in the calculation of the pole attachment charge, whereas the OEB has removed this cost and deferred consideration of this cost input until Part II of the Pole Attachment Review.
- The OEB included a LOP in the calculation of the pole attachment rate, consistent with its recent evidence based determinations in the Hydro One, Hydro Ottawa and Toronto Hydro applications.
- The OEB has included an inflationary adjustment to escalate costs from 2015 dollars to 2018 dollars.
- The OEB used the data submitted in the Three Applications to derive an Administration cost, whereas Nordicity based its Administration cost on only the data submitted by Toronto Hydro in its 2014 application.[28]

These differences in costing inputs result in an OEB-approved annual provincial wireline pole attachment charge of $43.63, including inflation to 2018. Appendix B provides a summary of all the costing inputs used. The costing inputs are discussed within the context of the key issues below and the summary of the Nordicity report presented in Chapter 2.

A. Number of Attachers

Description of the Issue

As the OEB observed in its decision on Hydro One's pole attachment charge, "The number of attachers using a distributor's poles is an important factor in the calculation of the pole attachment charge. The more attachers there are to split the pole costs, the lower the rate."[29]

[28] EB-2014-0116.

[29] EB-2015-0141, Decision and Order, August 4, 2016, p. 12.

Nordicity Comments and Recommendations

Nordicity noted in its report that when the OEB established the pole attachment charge of $22.35 in 2005, it assumed there was an average of 2.5 third party attachers per pole.30 Nordicity suggested that it is preferable to use actual attachment data, where available and reliable.

Nordicity calculated the average number of third party attachers per joint use pole to be 1.3 based on the data submitted by four participating LDCs (Hydro One, Hydro Ottawa, London Hydro and Horizon Utilities).[31] The analysis used by Nordicity to derive the average number of attachers was presented at the second and third meetings of the PAWG.

Stakeholder Comments

In their submissions on the draft OEB and Nordicity reports, Rogers Communications (Rogers) engaged a consultant, Andrew Briggs of AGBriggs Consulting Inc., who prepared a report (the Briggs Report) critiquing the Nordicity report and the draft OEB report. The Briggs report took issue with Nordicity's calculation of 1.3, and provided an alterative analysis in support of a range of 1.38 to 1.44.

The PAWG LDCs indicated that the data submitted through the LDC-specific charge applications, as well as during the consultation, provides a more accurate number of telecom attachers than previous presumptive values. Ratepayer groups indicated that because Nordicity's calculation includes non-communication attachers such as street lights which may not be in the communication space, the number of attachers sharing the communication space may be far less than 1.3.

OEB's Approach

The OEB agrees with Nordicity that it is preferable to use actual data on the number of attachers than to rely on assumptions. That was one of the reasons the LDC members of the PAWG were asked to provide such data.

In the context of this review, all attachers, including non-carrier attachers (for example street lighting), have been taken into account for the purpose of calculating a province-

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[30] RP-2003-0249, Decision and Order, March 7, 2005, p. 7.

[31] Toronto Hydro did not provide any data on the number of attachments and thus none was included in the calculation of the provincial average.

wide charge for wireline attachments. This has the effect of lowering the share of the costs allocated to carriers (and therefore lowering the province-wide charge for wireline telecommunications attachments). Non-carrier attachments represent a much smaller proportion of overall attachments than wireline telecommunications attachments. LDCs are required as a licence condition to provide access to carrier attachments.

The OEB has reviewed the Briggs Report and is not persuaded that an adjustment to Nordicity's calculation of 1.3 attachers per pole is warranted. The upper bound number of 1.44 is based on an assumed number of attachers of 2.51 for Toronto Hydro and not actual data. The 1.38 number was derived by including the data from the Toronto Hydro application in EB-2014-0116 (which resulted in a settlement agreement, and is of a different year than the PAWG data). Moreover, by the OEB's calculations, including the Toronto Hydro data but not accepting certain other adjustments made in the Briggs Report to the data for London Hydro and Hydro Ottawa, with which the OEB does not agree, would result in an average of only 1.34 attachers.[32] In any case, even if the Briggs Report figure of 1.38 were preferred, the impact on the pole attachment charge would be small (a reduction of roughly 5%). The OEB also notes that the 1.3 number underpinning the new pole attachment charge includes non-carrier attachments, which benefits carriers.

The data provided by LDCs as part of this consultation is not perfect. However, in the OEB's view, it is a significant improvement over the quality and vintage of the data that underpins the current $22.35 charge. As more data becomes available through Part II of this review, the OEB may re-visit the number of attachers.

B. Allocation Methodology – "Principles for Allocating Common Costs"

Description of the Issue

Indirect costs account for more than 90% of total annual costs for pole infrastructure, and thus the allocation rate to be applied against common (indirect) costs is critical in setting the pole attachment charge. Multiple users of an existing pole network create economies of scale and prevent wasteful duplication of rights-of-way and network hardware. As a result, many regulators, including the OEB, have considered pole

[32] And if the same number of significant digits were used as in the 2005 calculation, the 1.34 would be rounded down to 1.3.

networks to be essential facilities where access must be allowed by the owners on a non-discriminatory basis.

There are a number of options for allocating the costs and providing access in the "subsidy-free range", where one group is not subsidizing the other and it is economically efficient for the carriers and utilities to share infrastructure.

The lowest price for access that is consistent with economic efficiency is the incremental cost (also referred to as "direct cost") that the attacher imposes on the incumbent power utility owner of the pole network. These incremental costs are composed of the administration costs of the attachment and the loss of productivity cost.[33] At an attachment price set to cover these incremental costs, the incumbent network owner is held whole against the imposed costs of attachment. There is no subsidy going from the incumbent owner to the attacher(s) at this price. However, the attachers are also not bearing any of the burden of the common (or "indirect") cost of the pole network. This incremental cost price is the lower bound of the "subsidy-free range."

At the other extreme is the "stand-alone cost" of the attacher. This is the cost per pole that an attacher would pay to build its own duplicate network of poles. Any price for attaching to the existing pole network greater than this cost risks inducing the attacher to leave the arrangement and build its own poles – an outcome that is not desirable. At any price above the stand-alone cost, the attacher is subsidizing the incumbent pole network owner. Thus the stand-alone cost represents the upper bound of the subsidy-free range.

Figure 3 below gives an illustrative conceptual view of the subsidy-free range and how the other methodologies identified by Nordicity – Proportional Use, Equal Sharing, and Hybrid Equal Sharing – relate to it.

[33] These costs are discussed in more detail in section 2. D.

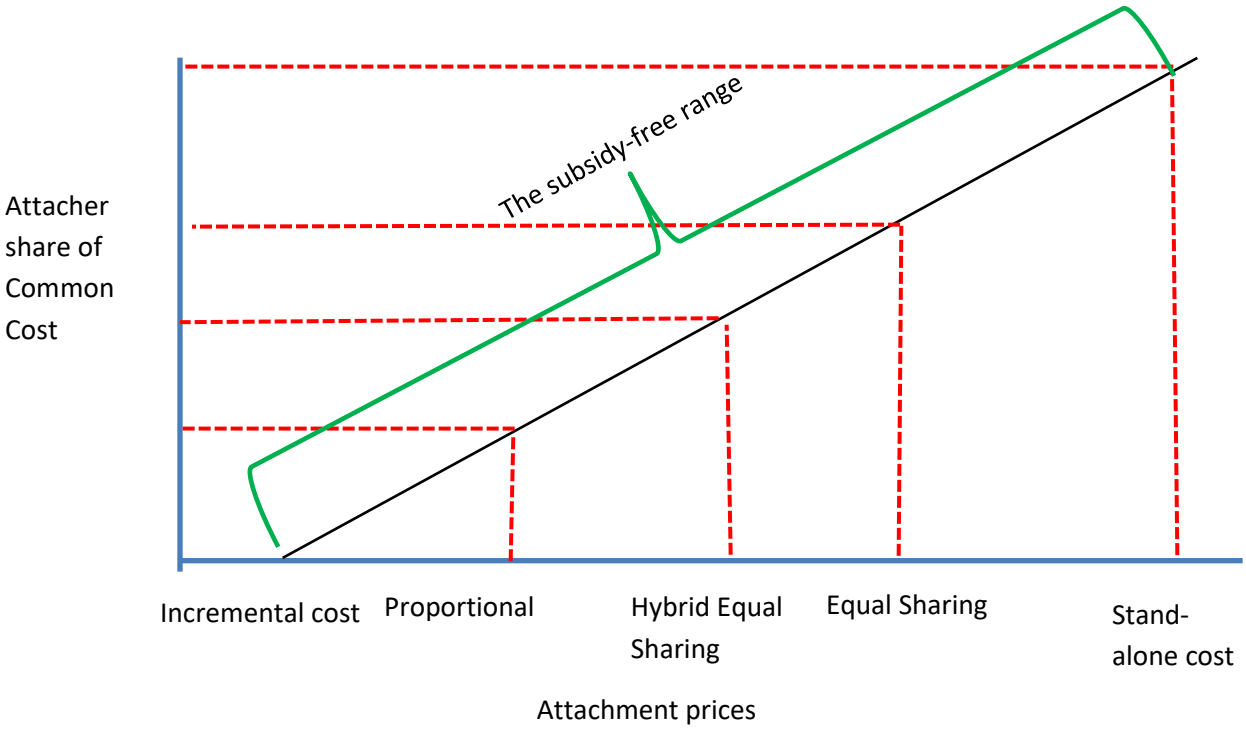

Figure 3: The Subsidy-Free Range

Any price for access within the subsidy-free range can be considered to be economically efficient. There is no inducement towards the construction of an inefficient duplicate network, nor are third party attachers subsidized into an inefficiently high degree of attachments on the pole network.

Economic theory does not provide firm guidance as to the best price to charge within the subsidy free range.

In regulatory economics and practice in most jurisdictions, it is uncontroversial that each attacher to the network will be responsible for the direct or incremental costs that the attachment drives.[34] The question that the OEB must answer is how much of the common costs of the pole network will be assigned to the incumbent power utility owners and each party wishing to attach to ensure that a reasonable charge is established. In addition, one must also consider the value that third party attachers obtain from leveraging an established network that spans the entire province.

[34] This approach regarding the treatment of direct costs was also accepted in the 2005 Decision.

Nordicity Comments and Recommendations

Two approaches have been identified by Nordicity through its literature review as being currently used by utilities to allocate the common cost of poles: Proportional Use and Equal Sharing. Both methodologies conform to the principle of economic efficiency and avoid any potential issue of cross-subsidization. Both also lie between the minimum incremental cost and maximum standalone cost range of economic efficiency.

Figure 4 below illustrates the differences between each method for a 40-foot joint-use pole.

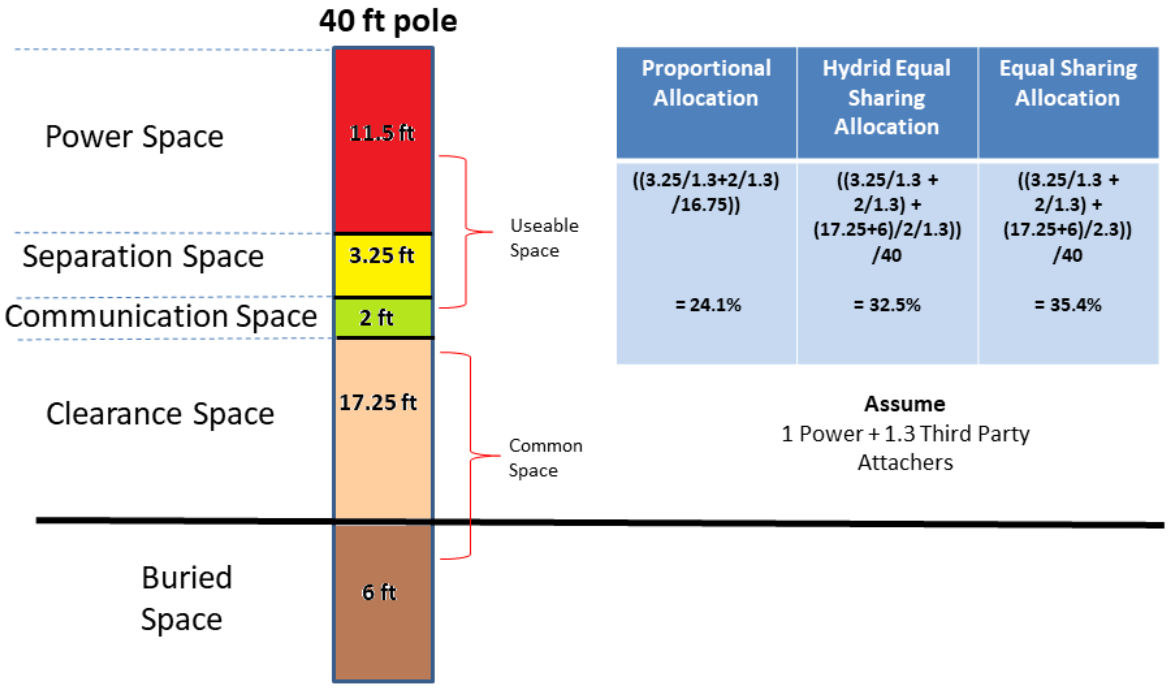

Figure 4: Comparison of Allocation Methodologies

As illustrated in Figure 4, the proportional use methodology allocates the common cost to third party attachers in proportion to the third party attacher space that makes up the useable space on the pole. For a typical 40-foot pole, communication space (separation + communication) makes up 31.3% of useable space [(3.25 ft. + 2 ft.)/16.75 ft. = 31.3%)]. Assuming 1.3 attachers, the allocation then becomes 24.1% of the common costs per attacher.

Equal sharing is consistent with the 2005 Decision. Under this approach, common costs are allocated equally between attachers. The common cost allocation is calculated by adding the total third party attacher space (3.25 + 2 feet) divided by the number of third party attachers (5.25/1.3 = 4.04), plus the common space (buried + clearance space = 23.25 feet) divided by the total number of attachers, counting the host LDC as one attacher (23.25/2.3=10.11). This establishes a proportion of space used by each attacher. This is then divided by the total pole length of 40 feet to determine the percentage of pole used by each attacher (4.04+10.11)/40=35.4%). Third party attacher space therefore makes up 46% of useable space under the equal sharing methodology (35.4% x 1.3 third party attachers).

With 1.3 third party attachers, each attacher would pay 24.1% of common costs under the proportional use methodology and 35.4% under the equal sharing methodology.

Nordicity recommends that the OEB consider a third methodology that is a hybrid between proportional use and equal sharing. This methodology assumes common space is allocated equally to power and third party attachers, and then the third party attacher portion of the costs is divided by the number of third party attachers. This methodology results in a slightly lower allocation rate of 32.5% to third party attachers. It should be noted that the application of this methodology has not been applied in any Canadian jurisdiction to the best of Nordicity's knowledge.

In its report, Nordicity discusses two other approaches: another variation of equal sharing adopted by TransAlta in the Alberta Energy and Utilities Board (EUB) Decision 2000-86 (December 27, 2000), as well as an incremental approach that has been discussed in other proceedings but not adopted to Nordicity's knowledge.[35] Nordicity does not recommend either methodology as the first lacks practicability in implementation and the latter results in cross subsidization of pole costs by ratepayers.

Nordicity believes that there is a need to determine a rate that is fair to both power and third party attacher groups. Nordicity recommends the hybrid equal sharing methodology for allocating common cost between power and third party attachers on utility joint-use poles.

[35] Nordicity report, OEB Wireline Pole Attachment Rates and Policy Framework, p. 42.

Stakeholder Comments

LDCs supported the OEB's adoption of the hybrid equal sharing methodology, while Rogers, who submitted comments on behalf of 12 other carriers, stated that the proportionate methodology should be adopted given its use by the Canadian Radio-television and Telecommunications Commission (CRTC) and given that the hybrid equal sharing methodology is novel and untested. Carriers also argue for proportional use over equal sharing due to the greater number of attachments, weight, and stress the LDCs place on the pole, the superior rights of the LDC relative to a third party attacher, and the LDC requirements for bigger and more costly poles. Ratepayers groups did not support the hybrid equal sharing methodology as, in their view, there is no justification for allocating costs from users to user groups. Ratepayer groups continue to support the principle of equal sharing.

OEB's Approach

The OEB is of the view that the hybrid equal sharing methodology is an efficient and fair cost allocation approach to be applied to third party attachers. The OEB will adopt Nordicity's recommendation and move forward with allocating common costs based on the hybrid equal sharing methodology, as set out in the draft report. Consistent with the 2005 Decision, third party attachers will be responsible for their direct costs.

In terms of the equal sharing methodology, where each attacher is allocated an equal share of the cost of the common space, the OEB notes that with more third party attachers, power attachers pay less. For example, if there were one power attacher and two telecommunications attachers, each attacher would pay a 1/3 share of the common costs. The addition of third party attachers, however, does not increase the space these attachers use on the pole – all third party attachers share the same third party attacher space.

Nordicity's hybrid approach first allocates common space equally on a 50/50 basis between power and third party attachers as two groups (rather than the number of total attachers), recognizing that both groups require their facilities to be elevated in accordance with applicable codes and standards and benefit equally from the sharing of costs and infrastructure.

For these reasons, the OEB is of the view that the hybrid equal sharing methodology is an efficient and fair cost allocation to be applied to third party attachers. As noted previously, given that Ontario's vast network of more than 200,000 km of low voltage distribution lines provide tremendous value to third party attachers through an existing

network, readily available for expansion, the OEB will consider moving from a cost-based approach to a value-based approach as part of the Part II review.

C. LDC-Specific or Province-Wide Charge

Description of the Issue

The issue of whether a provincial-wide charge should be established rather than an individual LDC specific charge is one of the original issues that the OEB evaluated as part of its 2005 Decision. In that Decision the OEB stated that "a province-wide rate has the advantage that it is simple to administer. This is certainly one of the goals the Board hopes to achieve in this decision."[36]

The OEB noted in the 2005 Decision that cost data at the individual LDC level was incomplete and therefore calculating costs for the 90 utilities in Ontario at that time would pose a challenge.[37]

The OEB proceeded to order a single province-wide charge because it believed it was in the public interest. In the 2005 Decision, the OEB decided to allow LDCs to seek relief through an application to have charges modified based on its own costs if it felt the province-wide charge was not appropriate.

Nordicity Comments and Recommendations

Nordicity recommends a single province-wide charge with the same provision as in the 2005 Decision. This would allow LDCs to apply to vary the charge if they believe the province-wide rate would not recover their costs. Nordicity also considered the data collected from the participating PAWG LDCs during the consultation in making this recommendation: in their view, the data collected did not reveal any major systemic cost differences for such matters as rural versus urban geographical locations.

Stakeholder Comments

LDCs supported a single province-wide pole attachment rate with inflationary adjustments, with the understanding that LDCs can apply for specific rates with inputs

[36] RP-2003-0249.

[37] RP-2003-0249, p. 8.

adjusted to reflect the utilities' operations and demographics at the time of rebasing. Ratepayer groups supported setting a province-wide rate for 2018, but suggested that the OEB should move to a true cost-based charge on rebasing that would reflect utility-specific costs. Ratepayer groups also identified a number of suggested changes, including using forecasted rather than historical costs and use of the 2005 equal sharing methodology as described in the previous section, which would put upward pressure on the $52 charge proposed in the draft report. Rogers indicated that a province-wide charge is only appropriate if LDCs are homogeneous in nature, and carriers were generally concerned with the magnitude of the pole attachment charge increase proposed in the draft report. A majority of the carriers stated that the new rate should be set by simply taking the 2005 charge and increasing it by inflation as an interim step until a full public hearing can take place.

OEB's Approach

The OEB continues to be of the view that the need to ensure that the pole attachment charge is representative of costs on an ongoing basis should be balanced against avoiding an overly administrative and costly process. Ever since the OEB began regulating pole attachment charges in 2005, there has been a province-wide default charge with the ability of LDCs to apply for a variance of that charge based on their own costs.[38] There is no compelling reason to depart from that approach just because the OEB is now adjusting the quantum and the methodology.

Therefore, the OEB will implement a province-wide charge in phases. From September 1, 2018 to December 31, 2018, the pole attachment charge will be $28.09. Commencing on January 1, 2019, the pole attachment charge will be $43.63 per attacher per year per pole.

LDCs may apply for a custom pole attachment charge using the OEB's methodology and their own specific costs where the province-wide rate does not reflect their specific costs.[39]

Escalating the 2005 charge by inflation, as suggested by carriers, would result in a charge of $28.09. If the suggestions of ratepayer groups were adopted, by the OEB's calculation, the pole attachment charge would be roughly $60. The OEB's final generic

[38] The 2005 Decision explained, "Any LDC that believes that the province-wide rate is not appropriate can bring an application to have the rates modified based on its own costing": RP-2003-0249, March 7, 2005, p. 8.

[39] The OEB has posted a workform that utilities must file when seeking a utility-specific charge.

charge of $43.63 is determined by removing vegetation management costs from the methodology outlined in the draft report. That decision was made for the reasons set out further below in this final Report. That said, the OEB notes that the mid-point between the carriers' and ratepayer groups' suggested rates is roughly equivalent to the new province-wide pole attachment charge of $43.63. While the OEB was not striving to achieve the mid-point, the result is, in the OEB's view, an appropriate outcome given the balance that the OEB sought out to achieve during the course of this consultation, as discussed earlier in this Report.

In addition, the new OEB charge is comparable to the average of the three recently approved LDC-specific charges: $41.28 for Hydro One, $53.00 for Hydro Ottawa, and $42 for Toronto Hydro.

The OEB acknowledges the burden that any increase in the pole attachment charge may have on the smaller carriers and their plans to expand their network. The OEB notes that many of the carriers who provided comments are attached to Hydro One, Hydro Ottawa and Toronto Hydro poles and are therefore already paying utility-specific charges that are much higher than the $22.35 rate set by the OEB in 2005. These three LDCs represent approximately 90% of the pole population in the province, and so the updates ($28.09 on September 1, 2018 and $43.63 on January 1, 2019) to the charge will now apply to the balance of the pole population – roughly 10%. In addition, those carriers that are not already paying higher rates through LDC-specific charges have had the benefit of no increase since 2005, despite increasing costs for distributors. To ensure that the public interest is protected, the OEB must update the charge to better reflect current LDC costs and minimize cross subsidization by distribution ratepayers.

D. Inflationary Adjustments

Description of Issue

The 2005 Decision and the Three Applications did not include any mechanism or factor to adjust the approved pole attachment charge annually for inflation. The lack of inflationary adjustment to the pole attachment charge from the 2005 Decision over time led to significant single step charge increases for the Three Applications. During the policy consultation meetings, members agreed that the pole attachment charge requires a mechanism to adjust the charge annually for inflationary factors. At the fourth PAWG meeting, staff proposed the use of the same inflationary adjustment mechanism as is used in the current LDC incentive rate-setting mechanism.

Nordicity Comments and Recommendations

Nordicity did not recommend any type of adjustment mechanism to the single province-wide charge that it calculated from the data collected as part of the consultation. However, Nordicity did recommend the OEB utilize a levelized approach as a means of ensuring rate stability over the long term.[40]

Stakeholder Comments

LDCs support adjusting the province-wide pole attachment charge and LDC-specific charges with annual inflationary adjustments. Ratepayers groups also support adjusting the province-wide charge in accordance with the draft report, however, they further recommend that LDC-specific charges be pursued and adjusted for inflation as part of the OEB's IRM process. Rogers is of the view that cost inputs that go into calculating the pole attachment charge are impacted by productivity improvements, and thus the I-X factor should be included in the adjustment to be consistent with the OEB's incentive based regulation for LDCs.

OEB's Approach

The OEB notes that all parties agree that some form of adjustment factor is needed to minimize the impact of inflation over time. The OEB will implement an annual inflationary adjustment mechanism to the single province-wide charge.

To that end, the OEB will update the generic charge annually and not rely on utilities bringing forth proposals in their annual rate applications. The OEB notes that not all LDCs file applications annually. The OEB will determine the exact approach at a later date but may consider, for example, to update the pole attachment charge by way of a single generic mechanism that will apply to all LDCs that do not have an OEB approved utility-specific charge.[41]

The adjustment will be based on the base IPI with no productivity and stretch factor applied; the OEB does not agree with Rogers' comments and maintains that pole attachment charge components are generally sunk costs and most underlying cost items are not easily impacted by productivity improvements.

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[40] OEB Wireline Pole Attachment Rates and Policy Framework, Nordicity, June 30, 2017, p. 26.

[41] Similar to the annual update for the Rural or Remote Electricity Rate Protection benefit and charge.

The IPI covers inflation in the prices of capital equipment used by the industry, as well as inflation in operating expenses, and thus provides a more accurate measure of inflation for utility pole capital expenditures and operating expenses than the CPI.

To be clear, the charge will be adjusted by inflation commencing on January 1, 2020.

E. LDC Collection of Cost Data

Description of the Issue

This consultation has resulted in a database of cost inputs for pole attachments representative of LDCs that account for roughly 90% of the pole population in the province. To continue to improve the accuracy and ensure that the data remains up to date going forward, LDCs could collect pole attachment specific-cost data in sub-accounts. Currently the OEB's 2012 Accounting Procedures Handbook does not require this level of granularity with respect to costs related to third party attachers. Implementing this further level of granularity will bring more certainty to cost inputs and help facilitate the ongoing determination of appropriate charges for pole attachments.

Nordicity Comments and Recommendations

In its report, Nordicity recommends LDCs be required to set up appropriate sub-accounts and submit details of these sub-accounts as part of their annual reporting to the OEB. Nordicity believes that the implementation of a sub-accounts system will simplify updates to cost inputs in the pole attachment charge model, and that this will also ensure long-term charge stability and predictability and avoid future complex pole attachment-related hearings.

Stakeholder Comments

Most LDCs supported creating sub-accounts that would allow more accurate tracking of costs, however the PAWG LDCs indicated that setting up sub-accounts to track costs attributed to carrier attachments needs further review in order to determine the accounting details required. The PAWG LDCs suggested establishing a working group to discuss the set-up of sub-accounts. Cornerstone Hydro Electric Concepts Association (CHEC) was concerned that there will be a significant administrative burden to capturing this information and that capturing 90% of the pole population is a good enough estimate for all calculations required for pole attachment policy setting purpose.

Ratepayers groups supported the OEB's initiative to collect both attacher and attachment data, as well as the use of sub-accounts, however they did not agree with adding the costs associated with implementing these sub-accounts to administrative costs because they are of the view that the LDCs' current practices would allow the tracking with minimal effort.

Rogers stated that although the collection of sub-account data may improve the quality of data inputs going forward, this will not address cost allocation issues for common costs or current issues around data quality. The carriers did not agree with adding implementation costs to their administrative costs if they were significant.

The OEB's Approach

The OEB considers data quality to be a critical aspect of setting the pole attachment charge. The OEB notes that the PAWG consultation has improved the pole attachment data set significantly. The Nordicity report refers to the new charge calculated in their report as being "based on the most comprehensive data and analysis of pole-related costs and specifications to date." The OEB regards the data collected and analyzed to-date to be the first step in an ongoing process of continuous data improvement.

The OEB will maintain its approach to data collection as outlined in the draft report, requiring the collection of attacher versus attachment data and the implementation of sub account cost centers with data collection to begin in 2019. The OEB, however, accepts the LDCs' recommendation to establish a working group to determine implementation and accounting details. The OEB is cognizant of the additional regulatory burden and will also utilize the working group to streamline data collection for the LDCs as much as possible by focusing collection on the most critical inputs affecting the pole attachment charge and developing typical cost allocations to the extent possible. The OEB will provide further direction related to the working group in due course.

The costs associated with set-up and maintenance of this system are permitted to be added to direct administrative costs but the OEB does not expect material cost increases will be required. For simplicity, the OEB envisions that one sub-account be set up per USoA account to track all costs dedicated to attachers within that account. The OEB notes that sub-accounts will improve tracking of costs related to pole attachments and assist the OEB in future pole attachment charge applications and policy consultations. It is anticipated that sub-account data would be directly entered into the OEB's work form for those LDCs applying for their own specific charge.

F. Separation Space

Description of the Issue

The 2005 Decision treated separation space as part of the communication space and thus costs are fully allocated to third party attachers. Canadian Standards Association (CSA) C22.3 No.1 relates to minimum clearance from the lowest distribution wire to the highest carrier attachment. An Electrical Safety Authority (ESA) guideline for Third Party Attachments defines the need for separation space for the safety of communication workers as required by Ontario Regulation 22/04 (Electrical Distribution Safety). At the fourth PAWG meeting, it was also identified that this space is needed to ensure clearance between power and communication wires because of line sag during peak summer months and ice loading in the winter. During the consultation, the carriers argued that separation space should be treated as common space and thus allocated equally with power users.

Nordicity's Comments and Recommendations

In its report, Nordicity states "separation space is generally considered as part of communication space since it is required (causal) to provide for communication space in conformance with the safety standards of the province."

Nordicity's rate projection scenarios within their report are all based on treating separation space as part of communication space and not as part of common costs.

Stakeholder Comments

LDCs took the position that separation space should be treated as part of the communication space and be fully allocated to the telecommunication attachers to ensure the safety of the communications workers, as required under Ontario Regulation 22/04 (Electrical Distribution Safety). Ratepayer groups also agreed that separation space continue to be part of communication space because the separation is needed to accommodate carriers attaching to a pole. Carriers took the position that the separation space provides benefits to all users and thus should be part of common space with the costs shared equally.

OEB's Approach

Consistent with the 2005 Decision, separation space will be included as part of communication space. ESA and CSA standards are clear that separation space is needed to ensure the safety of communication workers who need access to communication attachments on joint use poles. All pole costs related to the construction and maintenance of separation space on joint use poles will be allocated to carriers as part of the overall costs in the pole attachment charge calculation.

G. Allocation of Vegetation Management Costs

Description of the Issue

Vegetation management costs were not included in the calculation of the annual pole attachment charge approved in the 2005 Decision.

However, other regulators have also considered this issue. The NBEUB in a 2015 Decision included planned and storm-related vegetation costs of approximately $13/pole.[42] A 2002 decision of the Nova Scotia Utility and Review Board (NSURB) also accepted inclusion of vegetation management costs, as it was considered an essential part of maintaining the integrity of LDCs' overhead distribution system infrastructure.[43] The NSURB concluded that all pole tenants benefit from tree trimming, along with inspection surveys and audits, emergency repairs and pole tests. In the NSURB's view, vegetation management benefits all users of the overhead distribution system throughout the province.

During the PAWG meetings, carriers indicated that many of their joint use agreements with LDCs contain provisions for vegetation management. It was also noted that many LDCs do not charge carriers at all for vegetation management and thus provision of the service in these cases is borne by ratepayer groups.

Vegetation management is a significant cost to the LDC and a fair allocation is important in determining an appropriate pole attachment charge that is reflective of costs and benefits to the attacher.

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[42] Page 4 of New Brunswick Energy and Utilities Board Matter No. 272.

[43] Nova Scotia Utility and Review Board, January 24, 2002 Decision (NSUARB-P-873).

Nordicity's Comments and Recommendations

Nordicity noted in its report that vegetation management has been a major topic of discussion in recent pole attachment rate proceedings across Canada, including the 2015 NBEUB[44] and two of the applications heard by the OEB (Hydro Ottawa and Hydro One). Nordicity believes vegetation management costs are implicitly included in account #5135 based on the account description in the OEB Accounting Procedures Handbook, and are therefore fully accounted for in the cost per pole that they calculated. Nordicity does not believe additional costs should be included in the charge. The data provided by the participating PAWG LDCs did not allow for apportioning of these costs within account #5135 and thus is one of the reasons for Nordicity's recommending the establishment of sub-accounts.

Stakeholder Comments

Ratepayer groups supported including vegetation management in the pole attachment charge because it benefits all users and beneficiaries should be charged based on the benefits they receive. They are of the view that including vegetation management in the pole attachment charge will allow for OEB oversight of how these costs are being appropriated and ensure that pole attachers are paying their fair share. Ratepayer groups recommend that costs related to vegetation management be included in the derivation of an LDC-specific pole attachment charge at the time of rebasing. Carriers and small LDCs did not support including vegetation management costs into the charge, but rather that that these costs should be negotiated outside the pole attachment charge. Larger LDCs suggested that the OEB could institute two province-wide charges that would allow LDCs to opt in or out of providing vegetation management services on behalf of carriers. Rogers stated that it is premature to include vegetation management costs in the charge given that the vegetation management practices relative to telecom attachers vary significantly across LDCs.

OEB's Approach

Given the varying opinions as to what constitutes a reasonable allocation to carriers and the fact that there is no standard across the province for how vegetation management is implemented or paid for, the OEB has removed vegetation management costs from the provincial charge at this time. The reduction in the charge from that proposed in the

[44] 2015 NBEUB (matter # 272).

draft report ($52 per attacher/year/pole) to $43.63 per attacher/year/pole, reflects the OEB's decision to remove vegetation management from the charge at this time.

The OEB is aware that vegetation management has a significant impact on the overall charge, and where these costs are not being recovered, ratepayers are currently subsidizing these costs. Therefore, the OEB will address this aspect of the charge in its Part II review, when more data has been collected and analyzed. In the meantime, the OEB expects that LDCs will not be providing an extra level of vegetation management service to carriers without compensation; the OEB expects that LDCs will continue to conduct vegetation management that they would otherwise need to do as part of the normal maintenance of their own assets.

H. Allocation of Neutral Power Wire Costs

Description of the Issue

The neutral wire on a distribution system is a conductor that carries current back to the source. It ensures a return path for any unbalances in the system. CSA Standards require communication facilities to be bonded to the neutral at a minimum of every 300 metres. The ESA guideline for Third Party Attachments requires no undue hazards.[45] A 2016 Kinetrics study indicates carrier bonding to LDCs' neutral within 300 metres can keep induced voltages on communication cables under acceptable limits.[46] Without this bonding, there would be considerable risks to worker/public safety and equipment damage. Bonding typically occurs every third distribution pole. Currently, carriers are not allocated any costs related to an LDC neutral wire.

Nordicity's Comments and Recommendations

Nordicity does not recommend including the cost of an LDC distribution pole's neutral wire into the common cost of the poles because it is not aware of any regulatory precedent that exists to support it.

[45] Guideline for Third Party Attachments, Electrical Safety Authority, October 5, 2005.

[46] Bonding of the Telecommunications Sheath/Messenger to Power Neutral, Kinetrics Inc., CEATI Report No. T144700-50/121, June 2016.

Stakeholder Comments

Most PAWG LDCs and the Canadian Electricity Association both strongly recommend inclusion of the neutral costs into the pole attachment charge. They believe that carriers receive a benefit from bonding to LDCs' neutral distribution wires in terms of worker/public safety and prevention of equipment damage, and therefore support carriers having to bear a portion of the costs. CHEC supported the OEB's position in the draft report of not including these costs in the pole attachment charge, and ratepayer groups supported the OEB's position in the near term, however, recommended that further data collection and analysis on these costs be completed in Part II. Carriers are of the opinion that the neutral wire is only required because there are power-specific assets on a distribution pole. Carriers stated that "telecom do not require a neutral and a telecommunication-only pole does not have a neutral."[47]

OEB's Approach

The OEB will not allocate the costs associated with an LDC distribution pole's neutral wire into the common cost of the poles at this time. The OEB finds that this is a requirement of power utilities and the costs should not be shared by carriers. The OEB notes, however, that the costs of carriers bonding to the neutral should continue to be paid for by carriers, separate from the wireline pole attachment charge. The OEB will consider as part of the data collection exercise whether the tracking of more detailed information related to neutral costs by LDCs is warranted for future discussion and analysis.

I. Overlashing Revenues

Description of the Issue

One of the objectives of this consultation was to determine how to treat and allocate any revenues that wireline carriers may receive from third parties with respect to wireline pole attachments.

The initial concern was that overlashers were not paying any of the costs associated with the joint use poles they were attaching to, however, through the consultation it was determined that LDCs receive the wireline pole attachment charge for any overlasher

[47] OEB Pole Attachment Working Group – Key Issues Comments of the Carriers, p. 7, March 3, 2017.

the carriers host on their attachments. In other words, all third party wireline telecommunications attachers, whether the initial attacher or the overlasher, pay the wireline pole attachment charge.

Figure 5 below illustrates overlashing in the communication space on a distribution pole.[48]

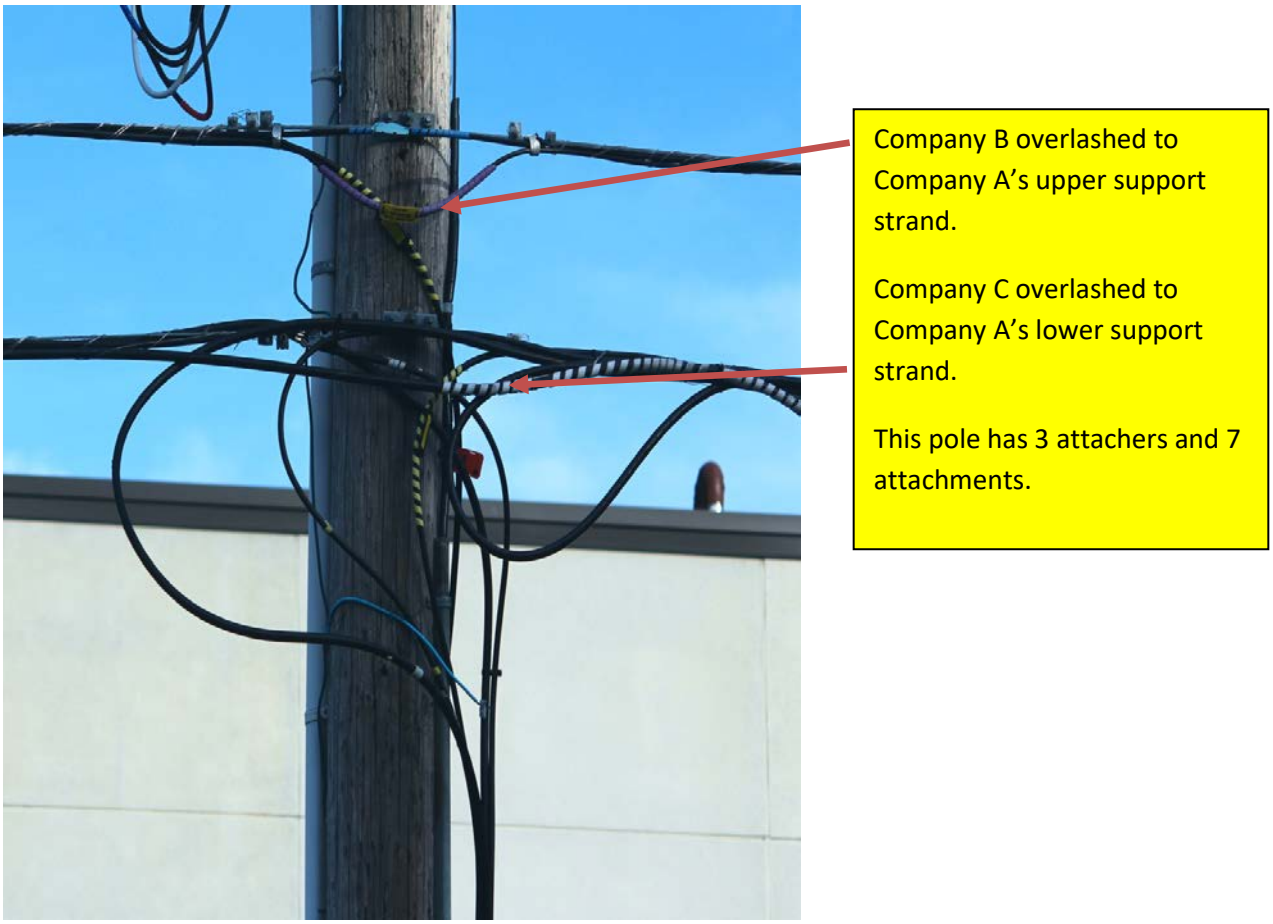

Figure 5: Overlashing on a Distribution Pole

Although it was confirmed that each overlasher pays the pole attachment charge, the OEB became aware that Carrier A, who owns the strand, also charges each overlasher a second charge through a commercial arrangement to recoup the costs of their strand. The value of this overlashing charge is not known, and so it is unclear whether there is a significant commercial benefit to carriers that is not being captured and shared with ratepayers through this arrangement.

[48] Photo taken from Hydro Ottawa evidence in EB-2015-0004.

Nordicity's Comments and Recommendations

In its report, Nordicity determined the issue of overlashing is not relevant for establishing a pole attachment charge because telecommunication providers indicated during the third PAWG meeting that LDCs receive $22.35 for any overlasher they host on their attachments. LDCs confirmed that the attacher data they provided is based on their invoicing data, and is therefore reflective of the overlashers. Nordicity indicated that the issue had not been raised in any other Canadian jurisdiction, to the best of their knowledge. Nordicity does not recommend including consideration of overlashing as it will increase the complexity of the charge calculation framework.

Stakeholder Comments

Ratepayer groups indicated that this issue was linked to whether the pole access charge should be on a per attacher or attachment basis. Currently, LDCs track the number of attachers, or entities, and not the number of attachments on the pole. Ratepayer groups recommended that the OEB require LDCs to begin tracking the number of attachments to get more accurate data related to costs.

The PAWG LDCs stated that they support greater transparency with regards to the revenues that strand owners receive through commercial agreements with overlashers, and so they recommended further collection of data and then consideration of the information as part of the Part II of the Pole Attachment Review. LDCs noted that if overlashers are included in the charge calculation, the number of attachers on a pole would be higher.

CHEC was concerned about the collecting and tracking of attachment/attacher data to better understand the number of overlashers/carriers who own strand, due to the significant costs and resources it will require on an ongoing basis.

Eastlink (Bragg Communications) thought that the OEB had overstepped its mandate as in its view, overlashing has no impact on LDCs or their rates. Rogers took a similar position in its comments, stating that the overlashing charges by a strand owner are set by the CRTC to allow the strand owner to recover its cost of the strand. In Rogers' view, the overlashing charges do not recover, and have no correlation to, pole attachment costs. Rogers does not believe that any amount of attachment and overlasher data is going to provide clarity on this issue.

OEB's Approach

The OEB is of the view that any physical connections and commercial activities related to distribution pole assets owned by LDCs are within the OEB's mandate. The OEB continues to believe that overlashing revenues received by the strand owner are relevant to the pole attachment charge and that examination of overlashing as part of the Part II review is warranted. Consistent with the draft report, the OEB will require that LDCs collect and track carrier attachment data in accordance with guidelines to be developed in due course.

One of the OEB's objectives in reviewing this issue is to confirm that overlashers pay the pole attachment charge to the host LDC. Based on the evidence supplied by the participating carriers and LDCs, the OEB is satisfied that overlashers do pay the pole attachment charge. However, the OEB believes that overlashing revenues received by Carrier A (the strand owner) are relevant to the pole attachment charge model that is being adopted as it is clear that overlashers see a value in overlashing existing telecommunication attacher networks, particularly in highly congested and competitive urban markets.

Although LDCs confirmed that each overlasher pays the pole attachment charge, the OEB notes that the second charge for the overlashing carrier means that Carrier A has a distinct commercial advantage over the overlashing carriers. The OEB notes that without a copy of the commercial arrangements, the value of this overlashing charge cannot be verified and the terms of such arrangements cannot be confirmed. It is unclear whether there is a significant commercial benefit to carriers that is not being captured and shared with ratepayers.

Therefore, the OEB will require LDCs to begin collecting and tracking attachment data as per guidelines to be developed (in addition to the current tracking of the number of attachers), so that the number of overlashers, as compared to the number of carriers who own strand, can be better understood in the future. This may help determine the typical number of commercial arrangements per pole, as well as to provide information that may benefit a number of other areas of the charge-setting framework.

The OEB notes that a change to setting a pole attachment charge on a per attachment basis, rather than on a per attacher basis, would require changes to the overall framework. As described earlier, Part II of the Pole Attachment Review will strive to better understand the value of joint-use poles for third party attachers. Part II will consider whether some of the compensation for each commercial arrangement between the carriers should be provided to the LDC, or whether some other arrangement is appropriate. As more data is available through the proposed modifications to LDC data

requirements, the OEB will be able to further understand the value provided to both the strand owner and overlasher.

J. Bell Canada Agreements with LDCs

Description of the Issue

A number of LDCs within the province have reciprocal agreements with Bell Canada (Bell) where no monies are exchanged for access to each other's poles.

During the PAWG meetings, carriers expressed concern regarding Bell's reciprocal arrangement with LDCs to use each other's poles at no cost, specifically whether there should be a deduction for the effective recovery of pole costs from Bell so that carriers do not over-contribute to the costs of a pole. Carriers were also concerned with how the agreements impact the number of attachers used in determining the allocation of costs to carriers.

Nordicity's Comments and Recommendations

Nordicity concluded that if they took the position of the carriers in determining the average number of third party attachers, that is, only counting poles that have attachers excluding Bell rather than all poles, the result would be a number of third party attachers per pole of 2 or more. This number is greater than the overall average number of third party attachers of 1.3 determined by Nordicity as it would use a smaller subset of all the data submitted by LDCs.

The carriers' proposed approach is not, however, consistent with the cost per pole, which is based on the overall pole population – all poles, including those that have only one third party attacher. In order to implement the carriers' proposed approach, the cost per pole would need to be determined for the subpopulation of poles with telecommunication attachers less Bell poles. Nordicity concluded that given the limitations of the group asset accounting system used by LDCs, it is not practical to isolate those poles used by third party attachers and objectively determine the cost per pole. In addition, Nordicity concluded that Bell's arrangement with LDCs does not provide Bell any competitive advantage and thus is not a factor that should be considered in the pole attachment charge methodology.

Stakeholder Comments

LDCs are of the view that the Bell and LDC reciprocal agreements should not be considered as part of the pole attachment charge methodology because no monies are exchanged in lieu of access to each other's poles. In addition, LDCs commented that removing the Bell attachments from the total count in the province would cause the number of attachers to decrease, forcing the pole attachment charge to increase. LPMA also agreed that the Bell agreements with LDCs should not be considered as part of the pole attachment charge methodology, but believes that utility poles with Bell attachments should continue to be counted as part of the number of poles in the new charge methodology the OEB will approve.

The carriers' position is that these agreements need to be considered by the OEB in the new charge methodology as they are just as important as the allocation methodology, vegetation management and neutral costs. According to the carriers, only poles that have third party attachers excluding Bell should be counted in determining the average number of telecommunication attachers. Rogers stated that other regulators, such as the CRTC, have taken into account the impact of joint use agreements in establishing pole attachment rates. Rogers, through their consultant, argued that capital costing inputs should be adjusted in the pole attachment model to reflect the Bell agreement. In the case of the Bell/Hydro One agreement, they argue that an adjustment of approximately 25% is necessary. In Rogers' view, absent a deduction for the effective recovery of pole costs from Bell, the charge causes telecom attachers to over-contribute to the costs of a pole.

OEB's Approach

The OEB will not consider the Bell and LDC reciprocal agreements as part of the new pole attachment rate methodology.

Bell and the LDC are implicitly charging each other for use of each other's poles through their agreement. Put another way, they are exchanging pole access "in kind" between themselves or engaging in a direct barter transaction. They are not getting free rides on each other's pole networks.

The OEB is therefore satisfied that Bell is effectively paying the charge in kind where there are these reciprocal agreements. Where there is no reciprocal agreement, Bell pays the OEB approved pole attachment charge. Whether Bell pays the charge in kind or in cash does not affect the calculation of the charge. This treatment means that each party is paying its fair share of the costs. The OEB is not persuaded by the argument in the Briggs Report that the LDC is over-recovering the common costs of the pole – once

from Bell and again through the pole attachment charge from other attachers. This argument ignores that there is an offsetting cost to the LDC – the LDC's costs would be higher in the absence of an agreement.

The OEB is of the opinion that the total number of third party attachers should be taken into account when determining how the costs should be split to ensure that other carriers are not overpaying.

This view is consistent with the OEB's decision on Hydro One's pole attachment charge:

> The OEB finds that Hydro One's reciprocal arrangement with Bell has no impact on the pole attachment charge. Bell "pays" for its attachments to Hydro One's poles by allowing free access for Hydro One to Bell's poles. No money changes hands. Contrary to the Carriers' repeated statements, Bell does not pay for 40% of Hydro One's pole costs.
>
> If money were changing hands and the pole attachment charge went up, Bell would presumably have to raise the (unregulated) charge it would collect from Hydro One. Assume a hypothetical scenario where there are 1,000 poles with Hydro One and Bell attachments, 600 owned by Hydro One and 400 owned by Bell. If Bell were paying the pole attachment charge of $22.35 per pole, then Hydro One would be paying about $33.53 for it to be a wash. If Hydro One's charge increased to, say, $42.00, and were applied to Bell, then Bell would have to raise its charge for Hydro One to $63.00 to stay even. This process would not affect the Carriers or any other attacher in any way.[49]

The OEB has concluded that under the new pole attachment policy, this sort of reciprocal arrangement, where no money actually changes hands, is acceptable. However, the OEB may consider the issue of the Bell agreements in Part II of the Pole Attachment Review to determine if any data collection and tracking would provide further clarity and insight.

[49] EB-2015-0141.

4. THE OEB'S NEW WIRELINE POLE ATTACHMENT FRAMEWORK

A. Updated Single Provincial Pole Attachment Charge

The OEB has determined that it is in the public interest to set a province-wide wireline pole attachment charge of $43.63. However, the charge will not be effective the first of the month following the issuance of this Report (as proposed in the draft report). As a transitional measure, to mitigate the impact of the increase from the current $22.35 to the new $43.63, LDCs without an LDC-specific charge will charge a province-wide pole attachment charge of $28.09 from September 1, 2018 to December 31, 2018. The $28.09 was calculated by escalating the current $22.35 by the OEB's annual inflation factor to cover the period 2005 to 2018. The charge will increase to $43.63 effective January 1, 2019.

The charge will apply to all LDCs that do not have a specifically approved OEB charge in place. The wireline pole attachment charge will be adjusted annually based on the OEB's inflation factor beginning in 2020 (although the $43.63 represents 2018 dollars, there will be no inflationary adjustment for 2019).

Many carriers argued that the OEB should update the charge only to reflect the impacts of inflation dating back to 2005. In the OEB's view, this would not allow it to meet its statutory obligation of protecting the interests of electricity ratepayers. A more holistic update – including using updated costs and actual data on the number of attachers per pole – would keep the charge in line with other distribution service costs and rates.

As it happens, simply adjusting for inflation and reflecting the actual number of attachers (rather than using the presumptive 2.5 attachers from the 2005 Decision) would result in a similar projected charge of approximately $43.21 for 2018.

The OEB's updated charge is different from the charge proposed in the Nordicity report because the OEB has not accepted all of Nordicity's costing inputs or its approach on several of the key issues. Appendix B provides a breakdown of all the input values that were used in deriving this charge, as well as a comparison to previously approved specific charges.

Elements of the underlying methodology as well as certain costs were updated in favour of electricity ratepayers, while other elements were updated in favour of carriers. In the OEB's view, the increase in the charge is reasonable given the benefit that carriers

have received over the last 13 years. Unlike the majority of electricity distribution customers, carriers enjoyed the benefit of what was essentially a rate freeze.

B. LDC-Specific Charge

At the time of rebasing, LDCs may choose to select the provincially approved charge or to use utility specific costs and pursue an LDC-specific pole attachment charge that better reflects their cost structures, using the OEB's updated methodology. LDCs that choose to apply for a custom charge will be required to submit specific inputs from sub-accounts and file the OEB workform. The OEB's filing requirements and guidelines will provide additional details.

C. Implementation

Since 2005, LDC licences have included the condition that:

> The Licensee shall provide access to its distribution poles to all Canadian carriers, as defined by the Telecommunications Act, and to all cable companies that operate in the Province of Ontario. For each attachment, with the exception of wireless attachments, the Licensee shall charge the rate approved by the Board and included in the Licensee's tariff.[50]

The OEB has approved the new pole attachment charge pursuant to this licence condition, in accordance with section 70(1.1) of the *Ontario Energy Board Act, 1998*.

In addition to the cover letter and final report, the OEB has issued a letter today notifying all LDCs without a specifically approved OEB pole attachment charge of the change to the province-wide pole attachment charge.

For those LDCs that the new charge applies to, the increase in the pole attachment charge in the midst of an incentive rate-setting term will result in revenues earned being greater than amounts previously approved in an LDC's distribution rates. The excess incremental revenues will need to be accumulated by LDCs in a new variance account, with the closing balance ultimately refunded to ratepayers in the LDC's next cost-based rate application. The OEB will issue accounting details in the spring of 2018 to address the establishment of the variance account.

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[50] The exemption for wireless attachments was added through EB-2016-0015, Decision and Order, January 28, 2016.

D. New Data Requirements

The OEB will require all LDCs to begin collecting and tracking the number of attachments on each pole, in accordance with guidance that will be forthcoming from the data collection working group.

In addition, LDCs will be required to track the number of attachers (parties) on each joint-use pole, including the number of overlashers and strand owners. This may help determine the typical number of commercial arrangements per pole, as well as to provide information that may benefit a number of other areas of the charge-setting framework.

Finally, the OEB will require all LDCs to set up sub-accounts to track pole attachment costs directly attributed to carrier attachments, including vegetation management costs.

Further directions will be provided to LDCs on the implementation and accounting details regarding these new data requirements in due course.

APPENDIX A

Pole Attachment Working Group Composition by Organization

Organization	Primary Representative(s)
LDCs and Associations	
1) Hydro One Networks Inc.	John Boldt
2) CHEC - Cornerstone Hydro Electric Concepts Association Inc. Representing a group of fifteen (15) distributors: • Centre Wellington Hydro • InnPower Corporation • Orangeville Hydro • Rideau St. Lawrence Distribution • Wellington North Power • COLLUS PowerStream • Lakefront Utilities • Midland Power Utility • Lakeland Power • Wasaga Distribution • Orillia Power • Renfrew Hydro • Ottawa River Power • Niagara-on-the-Lake Hydro • West Coast Huron Energy	Roy Rogers (Midland Power)
3) Hydro Ottawa Limited	Casey Malone
4) London Hydro	Jagoda Borovickic
5) Horizon Utilities	David Haddock
6) Canadian Electricity Association	Arjun Devdas (Toronto Hydro)
Ratepayer Groups	
7) School Energy Coalition	Mark Rubenstein
8) Vulnerable Energy Consumers Coalition	William Harper
Carrier Companies	
9) BH Telecom	Kris Eby
10) The Carriers Representing a group of twelve (12) carriers: • Bragg Communications Inc. • Canadian Cable Systems Alliance Inc. • Cogeco Cable Canada LP • Independent Telecommunications Providers Association • Allstream Inc. • Niagara Regional Broadband Network • Packet-tel Corp. (o/a Packetworks) • Québecor Média Inc. • Rogers Communications Partnership • Shaw Communications Inc. • Tbaytel • TELUS Communications Company	Michael Piaskoski (Rogers) Tim Brown (Cogeco) David Willkie (Tbaytel)

APPENDIX B

Calculation of Province-wide Charge

	Input Costs	RP-2003-0249 Decision	EB-2015-0141 Decision	EB-2015-0004 Decision	New Provincial Charge
	DIRECT COST				
A	Administration	$0.69	$0.90	$2.28	$2.85
B	Loss in Productivity	$1.23	$3.09	$1.96	$3.30
C	TOTAL DIRECT COST (A+B)	$1.92	$3.99	$4.23	$6.15
	INDIRECT COST				
D	Net Embedded Cost per pole	$478.00	$944.49	$1,479.02	$916.24
E	Depreciation Expense	$31.11	$23.83	$38.39	$26.40
F	Pole Maintenance Expense	$7.61	$4.69	$11.89	$6.77
G	Capital Carrying Cost	$54.59	$80.19	$118.91	$75.57
H	TOTAL INDIRECT COST (E+F+G)	$93.31	$108.71	$169.69	$108.75
	No. Telecom Attachers	2.5	1.3	1.74	1.3
I	Allocation Factor	21.9%	34.3%	28.8%	32.45%
J	Indirect Costs Allocated (HxI)	$20.43	$37.29	$48.80	$41.44
	ANNUAL POLE ATTACHMENT CHARGE (C+J)	$22.35	$41.28	$53.03	$43.63 (Effective Jan. 1, 2019)

Note: EB-2014-0116 Toronto Hydro Charge set at $42.00 through settlement. $43.63 charge does not include neutral or vegetation management in the 2018 charge. EB-2015-0141 – Hydro One Decision, EB-2015-0004 – Hydro Ottawa, rounded to $53.00.